PMC-EF2a
(2.04.02)

U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION

RECIPIENT: Baryonyx Corporation **STATE:** TX

PROJECT TITLE : Gulf Offshore Wind (GOWind) Project

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000410	DE-EE0006103	GFO-0006103-001	GO6103

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), 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.)
B3.1 Site characterization and environmental monitoring	Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.
B3.2 Aviation activities	Aviation activities for survey, monitoring, or security purposes that comply with Federal Aviation Administration regulations.
B3.3 Research related to conservation of fish, wildlife, and cultural resources	Field and laboratory research, inventory, and information collection activities that are directly related to the conservation of fish and wildlife resources or to the protection of cultural resources, provided that such activities would not have the potential to cause significant impacts on fish and wildlife habitat or populations or to cultural resources.
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.
B3.16 Research activities in aquatic environments	Small-scale, temporary surveying, site characterization, and research activities in aquatic environments, limited to: (a) Acquisition of rights-of-way, easements, and temporary use permits; (b) Installation, operation, and removal of passive scientific measurement devices, including, but not limited to, antennae, tide gauges, flow testing equipment for existing wells, weighted hydrophones, salinity measurement devices, and water quality measurement devices; (c) Natural resource inventories, data

and sample collection, environmental monitoring, and basic and applied research, excluding (1) large-scale vibratory coring techniques and (2) seismic activities other than passive techniques; and (d) Surveying and mapping. These activities would be conducted in accordance with, where applicable, an approved spill prevention, control, and response plan and would incorporate appropriate control technologies and best management practices. None of the activities listed above would occur within the boundary of an established marine sanctuary or wildlife refuge, a governmentally proposed marine sanctuary or wildlife refuge, or a governmentally recognized area of high biological sensitivity, unless authorized by the agency responsible for such refuge, sanctuary, or area (or after consultation with the responsible agency, if no authorization is required). If the proposed activities would occur outside such refuge, sanctuary, or area and if the activities would have the potential to cause impacts within such refuge, sanctuary, or area, then the responsible agency shall be consulted in order to determine whether authorization is required and whether such activities would have the potential to cause significant impacts on such refuge, sanctuary, or area. Areas of high biological sensitivity include, but are not limited to, areas of known ecological importance, whale and marine mammal mating and calving/pupping areas, and fish and invertebrate spawning and nursery areas recognized as being limited or unique and vulnerable to perturbation; these areas can occur in bays, estuaries, near shore, and far offshore, and may vary seasonally. No permanent facilities or devices would be constructed or installed. Covered actions do not include drilling of resource exploration or extraction wells.

Rational for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Baryonyx Corporation to prepare for and facilitate the deployment of their proposed 18 megawatt offshore wind demonstration, Gulf Offshore Wind (GOWind) Project (Project), off the coast of Port Isabel, Texas.

This NEPA determination applies to Budget Period 1 (BP1) which would include preliminary activities such as information gathering, site analysis, design simulations, permitting and environmental surveys. This determination does not apply to Budget Periods 2-5. DOE will carry out further NEPA review for Budget Periods 2 -5 if the Recipient's project is selected to proceed beyond BP 1.

BP1 tasks are as follows:

1.0 Design & FEED
1.1 Integrated FEED, EHS and O&M (planning, preliminary design)
1.2 Geotechnical Investigation (planning and field studies)
1.3 Wind Resource Analysis (planning and field studies)
1.4 Design Report (reporting)

2.0 Innovation
2.1 Texas A&M (laboratory R&D)
2.2 Texas Tech (modeling)
2.3 UT Austin (desktop research)
2.4 Texas A&M University Corpus Christi (metocean data collection/analysis)
2.5 UT Brownsville/Socio-economic study (desktop research/GIS)
2.6 Siemens AG (modeling)
2.7 Texas A&M University College Station (research/reporting)

3.0 Permitting and Environmental Investigation
3.1 Advisors/consultant work scope definition under USACE (planning/preliminary design)
3.2 Definition of EIS data acquisition program under USACE (planning)
3.3 Data Acquisition Program Planning
3.4 Data Acquisition Program
3.4.1 Avian Radar Studies
3.4.2 Avian Boat Surveys
3.4.3 Avian Airborne Surveys
3.4.4 Bat Studies
3.5 GIS Database (research/GIS)
3.6 Stakeholder liaison – outreach activity (outreach)
3.7 Environmental Legal Resource (desktop research)
3.8 Permits/Approvals/Consultation (planning, document dissemination)
3.9 Environmental and Permitting Report (reporting)

4.0 Grid Integration
4.1 Technical Specification (planning)
4.2 Connection Agreement and Securitization (preliminary application planning)
4.3 Power Purchase Agreement (preliminary application planning)
4.4 Grid Interconnection Report (reporting)

5.0 Levelized Cost of Energy and Economic Analysis (data analysis and reporting)

6.0 Reports to Submit for Down Select and Presentation

Activities proposed under Task 1.0 would include planning and front end engineering design work proposed by Baryonyx. Task 1.1 would involve planning, research, and preliminary design activities that are consistent with DOE CX A9. Tasks 1.2-1.4 would involve geophysical and wind resource planning and field work. The proposed field work would conclude with a report under Task 1.4. Tasks 1.2 would focus on acquisition and analysis of existing geotechnical data to assist in the subsurface analysis relevant to the engineering of turbine substructures. This task would involve primarily research and planning activities and is consistent with DOE CX A9, however if Baryonyx finds a vessel with equipment suitable to conduct site surveys during BP1, then geophysical environmental surveying would occur. These geophysical surveys are consistent with DOE B3.16. DOE is required to comply with Section 7 of the Endangered Species Act prior to authorizing the expenditure of project funds for geophysical environmental surveys.

Task 2.0 would be undertaken by a consortium of five Texas Universities under the coordination of Texas A&M University. Tasks 2.2, 2.3, 2.5, 2.6 and 2.7 would involve computer modeling and desktop research activities that are consistent with DOE CX A9. Task 2.1 would involve laboratory operations to test blade component materials under stress levels that mimic effects of a hurricane. This work would take place at Texas A&M University's Oran W. Nicks Low-Speed Wind Tunnel in College Station, Texas. The University has provided a R&D questionnaire for this facility that describes their safety and compliance measures established for all students and personnel working at the site. Task 2.1 activities are consistent with DOE CX B3.6.

During Task 2.4, the Texas A&M University Corpus Christi would deploy an offshore metocean monitoring station within the proposed project's site. This task is consistent with DOE CX B3.16. DOE is required to comply with Section 7 of the Endangered Species Act prior to authorizing the expenditure of project funds for deployment of the metocean monitoring station.

Task 3.0 activities would focus on defining the environmental characteristics at the proposed project site. This would involve coordinating with the US Army Corps of Engineers (Army Corps) in the development of an Army Corps environmental impact statement (EIS). Tasks 3.1 – 3.3 would involve planning and designing the required studies and securing contractors to conduct the environmental monitoring work and lead the Army Corps EIS process. Activities proposed under Task 3 include administrative activities and planning processes and are consistent with DOE CX A9.

Task 3.4 would involve the implementation of and the field work associated with the planning proposed in Tasks 3.1 – 3.3. Field studies would focus on understanding avian and bat resources in the area of the proposed project. These studies would include conducting avian radar land based, boat, and aircraft studies, in addition to land based and boat and studies around the proposed site. These site activities are consistent with DOE CX B3.2, B3.3 and B3.16. DOE is required to comply with Section 7 of the Endangered Species Act prior to authorizing the expenditure of project funds for the completion of all proposed field and site surveys, monitoring and data collection.

Tasks 3.5 – 3.9 would involve stakeholder engagement, hiring legal representation and developing a GIS mapping database. These activities include information gathering, computer research and administrative work and are consistent with DOE CX A9.

Task 4.0 would build upon the preliminary wind resource, energy conversion and electrical design proposed in Task 1.0. This information would provide the baseline data necessary for Baryonyx to prepare for the grid connection requirements and preliminary application activities for the power production agreement (PPA) proposed for this task. Activities conducted during this task include desktop research, planning and document preparation and are consistent with DOE CX A9.

Task 5.0 involves desktop research and computer modeling focused on the economic analysis and levelized cost of energy calculations for the proposed project. Task 6.0 focuses on the reporting requirements established by DOE to assist during the down select process. Both Tasks 5.0 and 6.0 include research, documentation, and information dissemination activities and are consistent with DOE CX A9.

A discussed above, DOE has determined that all proposed project tasks and activities proposed for BP1 are consistent with actions defined in DOE CX A9 (information gathering, computer modeling, data analysis, data dissemination), B3.1b (site characterization involving geophysical exploration tools), B3.3 (research related to conservation of wildlife), B3.2 (aviation activities for surveys), B3.6 (conventional laboratory operations), and B3.16c (natural resource inventories in aquatic environments) and are categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Insert the following language in the award:

You are required to:
Field studies taking place in sub-tasks 1.2, 1.3, 2.4, and 3.4 would be designed in conformance with applicable requirements and best management practices to limit the potential environmental impacts. To avoid harassment to marine mammals during boat based passive visual observations, Baryonyx is required to follow best management practices for boating under NOAA regulations Texas Gulf Region.

All required federal consultations, including but not limited to Section 7 of the Endangered Species Act and Section 106 of the National Historic Preservation Act, must be completed prior to DOE authorizing funds for all geophysical and environmental survey activities under tasks 1.2, 1.3, 2.4, and 3.4.

The recipient is restricted from initiating geophysical and environmental survey activities for subtasks 1.2, 1.3, 2.4, and 3.4 until all consultations are complete and notification has been received from DOE. The DOE Contracting Officer will notify the recipient, in writing, when the consultations have been completed and of any conservation or mitigation measures that must be implemented for all activities listed in above.

Note to Specialist :

NEPA review completed by Laura Margason on February 9, 2013

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Kristin Kerwin _____ Date: 2/6/2013
NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

☐ Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

☐ Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
☐ Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____ Date: _____
Field Office Manager