PMC-EF2a
(2.0402)

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

RECIPIENT: City of Milwaukee **STATE:** WI

PROJECT TITLE : EECBG - Port of Milwaukee Wind Turbine

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000013	EE0000844	GFO-0000844-001	0

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:

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

The City of Milwaukee is proposing to use $935,074 in EECBG funding to purchase and install a 100kW Northwind 100 wind turbine at the Port of Milwaukee adjacent to the Port Administration Building.

•Ground disturbance - A standard 15 ft. deep tensionless foundation is the most likely scenario (Design documentation attached). An independent engineering firm will do soil borings on 3/29/2011 of the exact location to confirm whether this foundation is sufficient. The area of disturbance is expected to be approximately 700 square feet. The installation site is a vacant area north of the Port Administration building and east of the I-794 Lake Freeway. The area north of the site across Lincoln Avenue is used for staging and salt storage by the Port of Milwaukee. To the northeast across Lincoln Memorial Drive is the Milwaukee Area Confined Disposal Facility/Coast Guard Impoundment owned by the Port of Milwaukee and operated by the Army Corp of Engineers. Immediately east and southeast across Lincoln Memorial Drive is the Lake Express ferry terminal and US Coast Guard Station. South of the site across Carferry Drive is the US Naval Reserves Center. Current land use of the proposed installation site includes offices serving the Port of Milwaukee administration and a utility antenna in the vacant field to the north. The administration building has a paved parking lot south of the building and circular driveway to the east fronting Lincoln Memorial Drive. Land immediately surrounding the building and parking lot is landscaped with grass and trees. Typical urban street-scaping trees are planted along Lincoln Memorial Drive and Carferry Drive to the south. The project will have an erosion control plan during construction, including silt fencing. For grid connection, the local utility requires a secondary meter to be installed which allows the City to sell extra electricity back to the grid. That new meter would be installed next to the existing meter at the Port Administration building. The current meter is located in the rear of the Port Administration building. Electricity from the turbine will be run underground a few hundred feet to the meter.

•Visual impacts – The proposed wind turbine will have an installed height of 154ft with blade tip extended. The wind turbine will be visible from the I-794 Lake Freeway south of the Hoan Bridge and most areas surrounding the Port of Milwaukee. The wind turbine will also be visible along the skyline when viewed from the lake. However, the turbine will not be noticeable when viewed from South Shore Park or the Bayview Terrace Condominiums. The proposed installation site is owned by the City of Milwaukee and operated by the Port of Milwaukee. The site is currently zoned Heavy Industrial and is occupied only by the Port Administration building. Areas surrounding the site to the north, south and east are also zoned Heavy Industrial. These areas include buildings serving Lake Express Ferry, Naval Reserves, Coast Guard and Marine Corp. Areas to the west and southwest across I-794 zoned Residential and Local Business Districts are occupied by residential housing, restaurants and mercantile stores. The SHPO has been consulted and determined that the proposed project will not have adverse effects to historic resources (Documentation attached).

Public Concern - The Office of Environmental Sustainability and Alderman Tony Zielinski have hosted two well-

attended public meetings on the turbine, and OES also developed a webpage to educate the public on the project (http://city.milwaukee.gov/sustainability/WindProject.) The proposal was covered by a variety of media outlets. After receiving public feedback, OES and Alderman Zielinski have agreed to a compromise position that would locate the turbine directly next to the Port Administration building, rather than on the Confined Disposal Facility (CDF). By not locating on the CDF, public concerns about aesthetics, bird safety, & the Public Trust Doctrine are addressed.

•Threatened and Endangered Species/Migratory Birds - According to the US Fish & Wildlife Service, there are no federally-listed threatened or endangered species known to be resident in Milwaukee County. The City of Milwaukee has consulted with USFWS and determined that there is no record of federally-listed threatened or endangered species or critical habitat at the proposed project site. USFWS has recommended that a monopole be used for the turbine to comply with the Migratory Bird Treaty Act (Documentation attached to project file). DOE understands that the applicant would use best management practices to minimize potential impacts to migratory birds under the guidelines outlined in the coordination letter dated May 23, 2011.

The recipient would follow this recommendation as well as other best practices as referenced in the USFWS guide "Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines".

•Permits/Clearances – The City of Milwaukee has since consulted with the FAA with case # 2011-WTE-4590-OE, and has received the determination of "No Hazard to Air Navigation," on 4-14-2011. The documentation is attached and entitled "Milwaukee Wind Turbine_FAA Clearance 4-14-2011."
The State Historic Preservation Office has been consulted and stated that the proposed project will not have any impact to properties either on or eligible for the National Historic Register. SHPO Approval Letter has been uploaded to the PMC on 4/5/2011.

The City consulted with Wisconsin Coastal Management Program (WCMP) because of the proposed site location being within close proximity of the coastal area. WCMP stated that they do not have any comments on the project and will not conduct a federal consistency review. This documentation has been uploaded and is entitled "Port of Milwaukee Wind Turbine_Coastal Zone Management Determination 4-19-2011." Adverse effects to the coastal zone are not expected as a result of the proposed project.

The City of Milwaukee submitted a Floodplain map from the National Flood Insurance Program to display that the project location is not located in the 100 year flood plain. It is located west of the area subject to inundation. The recipient uploaded two documents on 3/31/2011 to reflect the location of the turbine on the Flood Plain Map. The documents are entitled, "Port of Milwaukee Flood Plan Map1_with_turbine_marked.jpg," and 'Port of Milwaukee Wind Turbine Flood Plan Map legend.pdf."

The City of Milwaukee does not require permits or approvals 'specific' to wind turbines. Under the Zoning Code, the proposed wind turbine falls under the definition of "Power Generation Plant", which is a permitted use within the zoning district. General construction permits and electrical permits will be required and obtained prior to installation.

•Other analyses – A noise analysis has been completed. The turbine will be approximately 54 dB(A) at the Port Admin Building and will fall to 40dB(A) at the nearest residence, quiet enough to be lost in the ambient noise of the Port. A shadow flicker analysis has been completed. The analysis concluded that "No buildings or residences will be impacted by shadow flicker by the proposed turbine. There are some hours of shadow flicker on the nearby roadways, but these are limited to less than 30 theoretical maximum hours per year and likely less than 16 hours per year. A microwave link analysis has been conducted. The analysis concluded that the wind turbine is clear of the microwave link second Fresnel zones. No interference is to be expected with the current layout.

After a thorough review of the information submitted for the proposed project, it has been determined that the actions involved will not have a significant impact to human health and /or the environment. The proposed project will result in a reduction in the use of conventional fossil fuels; therefore it is hereby Categorically Excluded B5.1 "actions to conserve energy," from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

EF2a completed by Logan Sholar and Cristina Tyler

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 6/17/11

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