FINDING OF NO SIGNIFICANT IMPACT FOR THE WIND TURBINE PROJECT AT FAIRMONT RESERVOIR, LANCASTER, CALIFORNIA

DOE/EA 1400

AGENCY: U.S. Department of Energy, Golden Field Office, Golden, Colorado

SUMMARY: The U.S. Department of Energy (DOE), through the National Renewable Energy Laboratory (NREL), proposes to authorize funding to enable Phase 3 of The Advanced Wind Turbine Program, which consists of the installation and testing of a prototype wind turbine at the Los Angeles Department of Water and Power (LADWP) property located adjacent to Fairmont Reservoir in Los Angeles County, California. The site is located north of Los Angeles approximately 15 miles west of Lancaster, California.

This project is a cooperative venture with the LADWP, the California Energy Commission, and The Wind Turbine Company of Bellevue, Washington. The LADWP performed an environmental review of the proposed project and in compliance with the California Environmental Quality Act (CEQA), released a Negative Declaration/Initial Study (ND/IS) dated March 8, 2001, for public comment. LADWP adopted a Negative Declaration, a finding of no significant environmental impact for the project, on April 17, 2001. In accordance with National Environmental Policy Act (NEPA) regulations (Sections 40 CFR 1506.2 and 1506.4), DOE analyzed the CEQA documentation and issued a Notice of Intent to Adopt the LADWP Initial Study as a DOE Environmental Assessment on June 6, 2001 for public review and comment.

ACTION: Finding of No Significant Impact (FONSI)

COPIES OF THE ENVIRONMENTAL ASSESSMENT ARE AVAILABLE FROM:

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PROJECT SUMMARY:

The Wind Turbine Company of Bellevue, Washington (WTC) has a contract with the California Energy Commission and DOE/NREL to develop and test a prototype low-cost wind turbine capable of producing unsubsidized electricity for as little as $.025 per kilowatt-hour. WTC's first prototype turbine, rated at

250 kilowatts, is currently installed at NREL's National Wind Technology Center near Boulder, Colorado. The proposed action consists of DOE providing funding for the installation and testing of a single second-generation turbine on a site owned by LADWP approximately 15 miles west of Lancaster, California. The proposed turbine would initially be rated at 500 kilowatts, and after about 1.5 years of operation would be retrofitted to 750 kilowatt rated capacity. The total combined height of the tower, turbine, and blades would be 305 feet.

PURPOSE AND NEED:

The Purpose and Need for this project is to encourage the design and application of state-of-the-art technology for utility grade wind turbines, in support of DOE's mission to research and develop renewable energy technologies as established by the Energy Reorganization Act of 1974 (42 U.S.C. 5801).

PROPOSED ACTION AND ALTERNATIVE:

The Proposed Action is to authorize funding to enable Phase 3 of the Advanced Wind Turbine Program, which consists of the installation and testing of a prototype wind turbine at the Los Angeles Department of Water and Power (LADWP) property, located adjacent to Fairmont Reservoir in Los Angeles County, California. A prototype turbine was installed during Phase 2 of the program at NREL's National Wind Technology Center near Boulder, Colorado. The proposed action represents the next phase of the program to evaluate a utility grade wind turbine.

The turbine will be a 2-bladed, downwind horizontal-axis design, installed on a tubular-shaped tower supported by 3 guy wires. Meteorological towers and other supporting equipment also will be installed, and the turbine will be instrumented for data collection purposes. An access road will be graded from the site entrance to the turbine. Electrical cables will connect the turbine to Southern California Edison's electrical grid.

Consistent with the federal Council on Environmental Quality and DOE's implementing regulations, the No Action Alternative has been considered along with the Proposed Action. Under the No Action Alternative DOE would take no action to authorize funding for the Proposed Action. While DOE adoption of the No Action Alternative would likely result in project delays unless the proponent could find immediate alternative financing, it would not necessarily result in termination of the project. The No Action Alternative would impair DOE's evaluation of a utility grade wind turbine, which negatively affects DOE's ability to research and develop renewable energy technologies. Other alternatives were not considered and are therefore not discussed in this FONSI. The Proposed Action, authorizing funding to enable Phase 3 of the Advanced Wind Turbine Program, will meet both the purpose and need without posing significant adverse impact to the environment

ENVIRONMENTAL IMPACT ANALYSIS:

To evaluate a decision to provide federal funding for this project and in compliance with NEPA requirements, DOE reviewed all technical and environmental information and the ND/IS prepared by LADWP. The ND/IS is a CEQA document that is similar in scope to a NEPA Environmental Assessment. DOE may utilize the CEQA ND/IS pursuant to 40 CFR § 1506.4. DOE conducted an independent review of potential environmental impacts resulting from the construction and operation of

the proposed Wind Turbine Project. No significant impacts to these resources were identified, as summarized below.

Land Use: The proposed project site is owned by the LADWP Los Angeles Aqueduct System and is currently vacant. The proposed project would not affect any local community ordinances or plans. Locating a wind project at this site is consistent with the current zoning (A-2-5 Heavy Agricultural) which allows for electric transmission substations and power generating plant operations.

Socioeconomics: The proposed project site is currently vacant and consists of open space. There are no agricultural or other industrial activities ongoing in the area.

Traffic: Traffic volumes would increase moderately during construction activities as a result of the transportation of equipment and construction components to the site. Project operation would not generate any increase in traffic or change in traffic patterns.

Air Quality: Air pollutant emissions from construction and operational activities would be produced mainly by equipment and motor vehicles. Activities would comply with Federal, state, or local emission thresholds, as appropriate.

Noise: Noise levels would be monitored and maintained below the Noise Control Ordinance of the County of Los Angeles.

Aesthetics: The proposed project would not create a significant obstruction in the existing visual environment. Although the wind turbine would be visible to homes located within a 3-mile radius to the east and west of the site, the project would not obstruct any scenic vistas or public views. The visual characteristics of the turbine would be similar to that of an existing transmission line located east of the proposed project site. No other visual resources such as trees or rock outcroppings exist at the project site.

Water Resources: The proposed project would not impact water resource quantity or quality through water usage or discharge during construction or operations. In addition, the project is not anticipated to have any impact on surface drainage.

Geology: The project site is located within the Alquist-Priolo Earthquake Fault Zones as determined by the State of California, and is near the San Andreas Earthquake Fault Zone. The geotechnical report provided an analysis of site seismic and project design issues. The foundation pad would be designed to withstand potential earthquake activity. Although it is possible that an earthquake may affect the turbine, the turbine would not cause any harm to inhabited buildings or other structures. There are no existing structures in the immediate vicinity, and safety setbacks would protect surrounding properties, infrastructure, and the public.

Biological Resources: Based on the California Natural Diversity Database (CNDDB, January 4, 2001) no rare, endangered, or threatened plant or animal species were found to exist on the proposed project site. The Significant Ecological Area Portal Ridge/Liebre Mountain Area (SEA No. 58) is an area with potential ecological resources located west of the proposed project area. Construction activities would be managed to minimize any disturbance to this area. Design and operation of the proposed project would incorporate U.S. Fish and Wildlife Service (USFWS) guidelines for wind turbine siting, as recommended in the biological assessment, and reviewed by the California Department of Fish and Game (CDFG).

Cultural Resources: No known historic resources have been identified at the proposed project site.

Public Facilities, Services and Utilities: A peak workforce of 9 workers would be needed during construction of the proposed project. Therefore, construction and operations would not induce population growth and would not impact local services and utilities.

Energy: The proposed project would utilize the existing grid for power requirements for construction and research operations. It is anticipated that when the wind turbine is fully operational it would produce a positive power flow into the grid system.

PUBLIC INVOLVEMENT:

The LADWP performed an environmental review of the proposed project and in compliance with the CEQA, released a ND/IS dated March 8, 2001, for public comment. LADWP held a public comment hearing and adopted a Negative Declaration for the project on April 17, 2001. On June 6, 2001, DOE issued a Notice of Intent to Adopt the ND/IS. In compliance with NEPA regulations at 40 CFR Part 1503, a public comment period was held until June 22, 2001, to allow public review and comment on the Notice of Intent to Adopt the Negative Declaration. DOE received five comment letters that are included in Attachment 1. DOE reviewed, considered and responded to the substantive comments that had not been previously addressed by LADWP. A brief summary of the substantive comments and DOE responses is also included in Attachment 1.

DETERMINATION:

Based upon an independent review of all technical and environmental information and the ND/IS prepared by LADWP, as summarized here, and after analysis and review of public comments, DOE has determined that the proposed action is not a major federal action significantly affecting the quality of the human environment within the meaning of NEPA (42 U.S.C. 4321 et seq.) Therefore, an EIS will not be prepared and DOE is issuing this FONSI.

Issued in Golden, Colorado on July 19, 2001.

Frank Stewart
Manager

Concur: _____, RDC _____, JMB _____, DP