



## Department of Energy

Golden Field Office  
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DOE/EA-1923

### MITIGATED FINDING OF NO SIGNIFICANT IMPACT FOR THE GREEN ENERGY SCHOOL WIND PROJECT SAIPAN, COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

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

**ACTION:** Mitigated Finding of No Significant Impact (FONSI)

**SUMMARY:** The U.S. Department of Energy (DOE) has provided Federal funding to the Commonwealth of the Northern Mariana Islands (CNMI) through the State Energy Program (SEP) under the American Recovery and Reinvestment Act of 2009 (Recovery Act). The Recovery Act appropriated \$3.1 billion to the SEP. States are allocated funding via formula grants. CNMI was allocated approximately \$18.6 million. The Department of Public Works (DPW) administers SEP funds for CNMI. DPW is seeking to provide approximately \$1.5 million of its SEP funds to the CNMI Department of Education and Public School System (PSS) for its Green Energy School Project. Part of Green Energy School Project includes installing six, 20 kW and six, 2.4 kW unit wind turbines at five public schools on the island of Saipan. The proposed wind turbines would consist of two sizes: Jacobs 20 kW and Skystream 2.4 kW. These wind turbines would be installed at the following locations: between Saipan Southern High School and Koblerville Elementary School (one 2.4 kW wind turbine and six 20 kW wind turbines); Kagman High School (one 2.4 kW wind turbine); Cha Cha Oceanview Junior High School (one 2.4 kW wind turbine); Gregorio T. Camacho Elementary School (one 2.4 kW wind turbine); and Garapan Elementary School (two 2.4 kW wind turbines).

Before DOE decides whether to authorize DPW to provide SEP funds to the CNMI Green Energy School Project, DOE must first complete review under the *National Environmental Policy Act* (NEPA). All discussion, analysis, and findings related to the potential impacts of construction, operation, and eventual decommissioning of the Green Energy School Wind Project are contained in the *Final Environmental Assessment for the Green Energy School Wind Project, Saipan, Commonwealth of the Northern Mariana Islands* (Final EA; DOE/EA-1923). The Final EA is hereby incorporated by reference.

DOE prepared this FONSI in accordance with National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing NEPA, as amended (40 CFR Parts 1500 to 1508), and DOE NEPA regulations (10 CFR Part 1021).

**ENVIRONMENTAL IMPACTS:** The wind turbines located at Kagman High School, Cha Cha Oceanview Junior High School, Gregorio T. Camacho Elementary and Garapan Elementary School were categorically excluded from further NEPA review by the DOE. Therefore, the Final EA examined the potential environmental impacts of the proposed construction, operation, and decommissioning of the one



2.4 kW wind turbine and six 20 kW wind turbines between Saipan Southern High School and Koblerville Elementary School; the cumulative impacts of installed and proposed wind turbines, and the alternative of not implementing this project (the No-Action Alternative). Under the No-Action Alternative, DOE would not authorize the use of SEP funds for the Green Energy School Wind Project. DOE assumes for purposes of the Final EA, the Green Energy School Wind Project would not proceed without SEP funding. Additionally, the Final EA evaluated the cumulative impacts of the proposed project and other past, present, and reasonably foreseeable projects in the area, DOE concluded the Green Energy School Wind Project, in conjunction with other activities considered, would have no or minimal cumulative impacts on the environmental resources considered.

DPW is proposing to install one 2.4 kW wind turbine and six 20 kW wind turbines between Saipan Southern High School and Koblerville Elementary to provide power to Saipan Southern High School and Koblerville Elementary School (proposed project).

Based on the information in the Final EA and using the sliding-scale approach, DOE concludes the proposed project would not impact the following resources: geology and soils, water resources, waste management, transportation, floodplains, and air quality.

DOE considered the following resources in more detail as part of its analysis: land use, visual quality, shadow flicker, noise, cultural and historic preservation, biological resources, human health and safety, socioeconomics and environmental justice, and infrastructure and energy.

With regard to land use, the project area is currently a vacant field, located between Saipan Southern High and Koblerville Elementary School. Approximately 1 acre would be temporarily disturbed during construction. Once constructed, the land will be restored to existing conditions. The wind turbine foundations are the only long-term commitment of ground (165 square feet). The general land use of the area is and would continue to be used as it currently is (i.e. soccer fields) since it is part of the school's property. The area surrounding the proposed wind turbine location would continue to be used for a variety of purposes, primarily residential. Based on the above and the analysis contained in the Final EA, DOE has determined that long-term impacts to land use would be minor.

With regard to visual quality, the project area consists of a school campus, residential neighborhoods, and a golf course located approximately 2 miles away. The proposed project would create new and dominant visual features in the project vicinity. The rotors would be 95.5 feet for the Jacobs 20 kW wind turbines and 39 feet for the Skystream 2.4 kW turbine from base to the tip of the rotor blade at its highest point. Visual impacts also include short-term direct effects due to construction of the proposed project and would be minor because construction is projected to last no longer than 2 months. DOE has determined the visual impacts associated with this project would be minor and is consistent with future development in this area.

With regard to shadow flicker, because of the small scale of the turbines, the shadows only extend slightly outside the area of blade rotation. There would only be one building at Koblerville Elementary that would potentially be impacted by shadow flicker. However, the closest building's windows are blocked against the sun because that area faces west; in the event the windows were exposed, there would be no impact to students or to school personnel from shadow flicker as flicker on that building would not occur until after 4:45 PM. Based on the above and the analysis in the Final EA, DOE has determined impacts related to shadow flicker would be minimal.

With regard to noise, the proposed project area is along with school's soccer fields between the high school and elementary school and already experiences ambient noise related to games and other school activities. The closest facility to the turbines is Koblerville Elementary School directly to the west. The closest off-campus buildings are the residential areas to the north. Sound levels from typical construction equipment (for example, bulldozers, rollers, or other heavy equipment with diesel engines and limited movement) are generally in the 80 to 90 dBA range at a distance of 50 feet. This noise would be reduced by attenuation factors and by limiting construction to 7:00 AM to 7:00PM (generally in the 80 to 90 dBA range at a distance of 50 feet). In addition, the sounds would be relatively short term. During operation of the proposed project, and when rotating, the turbines would produce noise. Predicted sound levels at nearby residences range from about 43 to 47 dBA. Within the campus, Koblerville Elementary, which is located 490 feet from the closest turbine, would experience sound levels of less than 50 to 55 dBA. The noise level related to operation of the proposed turbines at any of these closest receptors ranges from 43-55 dBA – the sound of a quiet home at night to quiet speech. DOE has concluded impacts related to noise are minor.

With regard to cultural and historic preservation, because the site of the proposed project is located on highly disturbed land, the presence of unknown archaeological sites is unlikely. If the School encounters archaeological resources during construction, ground-disturbing activities would immediately cease, and the School will contact the CNMI Division of Historic Preservation for resolution and further instruction. Once in operation, the proposed project would be a vertical visual presence in the vicinity and would be visible from multiple locations surrounding the site. However there are noproperties that are listed in or eligible for listing in the National Register of Historic Properties in the project area of potential affects; therefore, DOE concluded that adverse visual impacts related to the proposed project are minimal. Based on the above, and the analysis in the Final EA, DOE has determined that impacts to historic and cultural resources would be negligible.

With regard to biological resources, the project area contains several Federally-listed endangered bird species. During consultation with the U.S. Fish and Wildlife Service (USFWS), it was determined the proposed *project may adversely affect* the Mariana Swiftlet and the Nightingale Reed Warbler. The DOE initiated formal consultation with the USFWS and submitted a Biological Assessment to the USFWS and the USFWS issued its Biological Opinion and Incidental Take Statement to DOE on February 1, 2012. USWFS Biological opinion stated that the level of anticipated take is not likely to jeopardize the continued existence of the Mariana swiftlet or the survival or recovery of the nightingale reed warbler. To minimize harm to the endangered Mariana Swiftlet and the Nightingale Reed Warbler the Biological Opinion contains Conservation Measures and Incidental Take Statement Terms and Conditions.<sup>1</sup> DOE has determined that compliance with the Conservation Measures and the Incidental Take Statement Terms and Conditions in the Biological Opinion would ensure that impacts to these species would not become significant and take would be less than four species per year.

With regard to human health and safety, the proposed project would be located on the School campus. Wind turbines have minimal risk related to fire or explosions. All transformers employed at the turbine sites and the electrical substation will incorporate fire protection elements into their design. All wind turbines, blades, and towers will be fully grounded for lightning strikes. DOE has determined that there would be minimal impact to public health and safety as a result of the construction and operation of the proposed project.

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<sup>1</sup> The Conservation Measures and Incidental Take Statement Terms and Conditions are contained in the Final EA and the Biological Opinion, and will be incorporated into the Terms and Conditions of this award and will be monitored by DOE.

With regard to socioeconomic and environmental justice, there would be a short-term and a minor long-term economic benefit to the area. Operation of the proposed project would require a few full-time personnel for the life of the project. Most construction workers are expected to be from the surrounding communities. DOE has determined the added employment and associated revenue represents a minor, beneficial impact to the local community. No racial minority nor ethnic minority persons would experience adverse socioeconomic impacts from the proposed Wind Turbine Project.

With regard to infrastructure and energy, electricity at the School and the proposed project site is provided by Commonwealth Utility Corporation CUC. CUC's electricity generating capacity relies on imported diesel. The proposed project would involve a peak electrical power production capability of 576 kWh per day. All of the electricity would be used by the school and the proposed project would provide approximately 70-80% of the School's power. Based on the above and the analysis contained in the Final EA, DOE has determined the proposed project would have minor, but positive, impacts to infrastructure and energy.

**PUBLIC PARTICIPATION IN THE EA PROCESS:** In accordance with applicable regulations and policies, DOE sent scoping letters to potentially interested local, State, and Federal agencies, including the Governor of CNMI, the State Historic Preservation Office (SHPO), U.S. Fish and Wildlife Service (USFWS), and the Environmental Protection Agency (EPA). DOE also sent scoping letters to other potentially interested individuals and organizations to solicit public comment and published the scoping letter on DOE's Golden Field Office's Public Reading Room. The scoping letter described DOE's Proposed Action and requested assistance in identifying potential issues to be evaluated in the EA.

In response to the scoping letter, DOE received one comment from the Division of Fish and Wildlife. The comment, is included in Appendix A of the Final EA and DOE and PSS have agreed to follow the construction and operation guidance provided.

A Notice of Availability for the Draft EA was placed in the *Saipan Tribune* on October 12 and 15, 2012. A postcard of the Notice of Availability was also mailed to Federal, State, tribal, and local agencies, as well as to other potentially interested individuals and organizations. The Notice informed recipients that the Draft EA was available on the DOE Golden Field Office Reading Room Website at [http://www.eere.energy.gov/golden/Reading\\_Room.aspx](http://www.eere.energy.gov/golden/Reading_Room.aspx) and that DOE would accept comments until October 29, 2012. DOE received no substantive comments on the Draft EA.

**DETERMINATION:** Based on the information DOE presented in the Final EA (DOE/EA-1923), DOE determined that providing Federal funding to the Green Energy School Wind Project for the design, permitting, and construction of the small-scale wind turbines on the island of Saipan does not constitute a major Federal action that significantly affects the quality of the human environment in the context of NEPA. Therefore, preparation of an environmental impact statement is not required, and DOE is issuing this mitigated FONSI.

PSS's commitment to obtain and comply with all appropriate Federal, State, and local permits necessary for construction and operation of the project, and to avoid or minimize potential impacts through the implementation of the applicant-committed measures, conservation measures, and Incidental Take Statement Terms and Conditions outlined in the Biological Opinion, detailed in the EA, shall be incorporated and enforceable through DOE's financial assistance agreement.

The Final EA is available at [http://www.eere.energy.gov/golden/Reading\\_Room.aspx](http://www.eere.energy.gov/golden/Reading_Room.aspx).

For questions about this FONSI, contact:

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