

Proposed Habitat Conservation Plan and Incidental Take Permit for the Indiana Bat (*Myotis sodalis*) for the Buckeye Wind Power Project Champaign County, Ohio

Final Environmental Impact Statement
DES# 12-25

Volume I

Prepared by

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COVER SHEET

- a. Title: Proposed Habitat Conservation Plan and Incidental Take Permit for the Indiana Bat (*Myotis sodalis*) for the Buckeye Wind Power Project Champaign County, Ohio
- b. Subject: Final Environmental Impact Statement
- c. Lead Agency: United States Fish and Wildlife Service
- d. Cooperating Agency: U.S. Army Corps of Engineers
- d. Abstract: The permit applicant, Buckeye Wind LLC, a wholly owned subsidiary of EverPower Wind Holdings, Inc., proposes to construct a commercial wind energy facility in Champaign County, Ohio (Project). The Project would occur within an approximately 32,395 ha (80,051 ac) area, consist of 100 turbines and associated access roads and infrastructure, and would generate up to 250 MW of electricity.

The Project has the potential to generate about 657,000 MWh of electricity annually with zero emissions. The energy generated by the Project would collect to an electric substation in Union Township in Champaign County.

The Project would be constructed in a location that supports the federally endangered Indiana bat (*Myotis sodalis*). Buckeye Wind has developed a Habitat Conservation Plan (HCP) to ensure that impacts to the federally listed Indiana bat are adequately minimized and mitigated in accordance with the requirements of Section 10 of the ESA. The USFWS received an application for an Incidental Take Permit (ITP) from Buckeye Wind for the Project on February 23, 2012.

On June 29, 2012, USFWS published a notice in the Federal Register stating the availability of the Draft Environmental Impact Statement (DEIS), Draft Habitat Conservation Plan (DHCP), and Draft Implementing Agreement (DIA). The public comment period for the abovementioned documents expired on September 27, 2012. Comments received during the public comment period and USFWS responses to those comments are included in Appendix K of this FEIS.

Key issues associated with construction of this Project include impacts to water resources; removal of native vegetation; impacts to wildlife (including migratory birds and bats); impacts to rare,

threatened, or endangered species; preservation of cultural resources; and impacts to visual resources.

The USFWS has selected the Proposed Action – Modified Operations and Habitat Conservation Plan as the preferred alternative. Of the alternatives evaluated in this FEIS, this alternative best fulfills the agency’s statutory mission and responsibilities while meeting the purpose and need.

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f. Transmittal:

This Final Environmental Impact Statement prepared by the USFWS staff in cooperation with the U.S. Army Corps of Engineers on the proposed Habitat Conservation Plan and Incidental Take Permit for Permit for the Indiana Bat (*Myotis sodalis*) for the Buckeye Wind Power Project Champaign County, Ohio is being made available to the public in April 2013.

We request comments from the public on the FEIS and related documents, which are available at the locations specified below. We will accept comments received or postmarked within 30 days of the Environmental Protection Agency notice of the FEIS in the Federal Register. Comments submitted electronically using the Federal eRulemaking Portal must be received by 11:59 p.m. Eastern Time on the closing date. The Service’s decision on issuance of the permit will occur no sooner than 30 days after the publication of the Environmental Protection Agency notice of the FEIS in the Federal Register and will be documented in a Record of Decision.

You may obtain copies of the FEIS and related documents on the Internet at <http://www.regulations.gov> (**Docket Number FWS–R3–ES–2012–0036**) or <http://www.fws.gov/midwest/endangered/permits/hcp/r3hcps.html>.

You may obtain the documents by mail from the Ecological Services Office in the Midwest Regional Office (see contact information above).

To view hard copies of the documents in person, go to the Ecological Services Office (8 a.m. to 4 p.m.) listed in the contact section above or to one of the following libraries during normal business hours: Champaign County Library, 1060 Scioto Street, Urbana, OH 43078-2228; or North Lewisburg Branch, 161 Winder Street, North Lewisburg, OH 43060.

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Acronyms and Abbreviations

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AADT	Average Annual Daily Traffic
ABPP	Avian and Bat Protection Plan
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO ₂	Carbon dioxide
dB	Decibel
dBA	A-weighted decibel
DEIS	Draft Environmental Impact Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
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FEIS	Final Environmental Impact Statement
ft	Feet
HCP	Habitat Conservation Plan
hp	Horse power
Hz	Hertz
IEC	International Electrotechnical Commission
IRAC	Interdepartment Radio Advisory Committee (IRAC)
ITP	Incidental Take Permit
ITP	Incidental Take Permit
kV	Kilovolts
kW	Kilowatts
L ₉₀	Residual Sound Level
L _{eq}	Equivalent Energy Sound Level
m	Meters
m/s	Meters per second
MMT	Million Metric Tons
MW	Megawatt
MW	Megawatt
MWh	Megawatt hour
NAAQS	National Ambient Air Quality Standards
NO ₂	Nitrogen dioxide
NOCO	North Country National Scenic Trail
NPS	National Park Service
NSPS	New Source Performance Standards
NTIA	National Telecommunications and Information Administration of the U.S. Department of Commerce
O&M	Operations and Maintenance
O ₃	Ozone
OAC	Ohio Administrative Code
ODNR	Ohio Department of Natural Resources
ODOT	Ohio Department of Transportation
OEPA	The State of Ohio Environmental Protection Agency
OPSB	Ohio Power Siting Board

Pb	Lead
PCS	Personal Communication System
PM ₁₀	Particulate Matter with less than 10 microns in diameter
PM _{2.5}	Particulate Matter with less than 2.5 microns in diameter
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTI	Permit to Install
PTIO	Permit to Install and Operate
pW	Picowatt
SO ₂	Sulfur dioxide
SR	State Road
SR	State Road
USACE	United States Army Corps of Engineers
USDOE	United States Department of Energy
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WCFZ	Worse Case Fresnel Zone

Executive Summary

This *Proposed Habitat Conservation Plan and Incidental Take Permit for the Indiana Bat (Myotis sodalis) for the Buckeye Wind Power Project Champaign County, Ohio* Final Environmental Impact Statement (FEIS) evaluates the effects of issuing an Incidental Take Permit (ITP) for activities associated with the proposed Buckeye Wind Power Project (Project). This FEIS describes the components and potential impacts of three construction and operational alternatives for the proposed wind power facility. The Project would occupy approximately 32,395 hectares (ha; 80,051 acres [ac]) in portions of Union, Wayne, Urbana, Salem, Rush, and Goshen Townships in Champaign County in west central Ohio (Action Area). The Project would consist of up to 100 wind turbines, each with a nameplate capacity rating of 1.6 to 2.5 MW, resulting in a total generating capacity of up to 250 megawatts (MW) for the facility.

This FEIS evaluates the effects of issuing an ITP pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. § 1531 *et seq.*). The Proposed Action is USFWS' issuance of a Section 10(a)(1)(B) ITP for the Covered Activities proposed in the Habitat Conservation Plan (HCP). The HCP (Section 2.3 and Appendix B) describes what are considered Covered Activities, including construction, operation, maintenance, decommissioning, and mitigation. The HCP outlines specific measures to avoid and minimize impacts to the Indiana bat as well as mitigation to offset the impacts of take that cannot be avoided or minimized. The HCP describes the monitoring and adaptive management that will occur to ensure that permitted take is not exceeded and mitigation is successful. The proposed permit duration is 30 years. Accordingly, this FEIS analyzes the direct, indirect, and cumulative impacts of approving the HCP and issuing an ITP, including impacts of the Covered Activities and measures proposed to avoid, minimize, or mitigate potential impacts on the Indiana bat as well as the effects of the activities on the human environment.

The purposes for the proposed action and preparing this FEIS are to respond to Buckeye Wind's application for an ITP for the Indiana bat; protect, conserve and enhance the Indiana bat and its habitat for the continuing benefit of the people of the United States (U.S.); provide a means and take steps to conserve the ecosystems depended on by the Indiana bat; ensure the long-term survival of the Indiana bat through protection and management of the species and their habitat; and ensure compliance with the ESA, NEPA, and other applicable Federal laws and regulations.

Under the Proposed Action, up to 100 turbines and associated access roads, crane paths, electrical interconnection lines, staging areas, a substation, permanent meteorological towers, temporary concrete batch plants, and an operations and maintenance (O&M) facility would be constructed. Operational restrictions would include modifying cut-in speeds and feathering based on the location of each turbine in relationship to the season and suitability as Indiana bat habitat. Operation of the Proposed Action would result in the incidental take of approximately 130 Indiana bats over the life of the Project. Additionally up to 18,375 migratory birds and 32,200 bats (species other than Indiana bat) may be incidentally taken during the life of the Project. Under the Proposed Action, the Project would provide a clean source of energy for the region, as well as generate income for the local communities. The Project would implement avoidance, minimization, mitigation, and conservation measures including but not limited to implementation of the HCP to ensure protection and enhancement of natural resources.

Alternative A, the maximally restricted operations alternative, would consist of the same build-out as the Proposed Action; however, all 100 turbines would be non-operational during the period when Indiana bats could be present in the Action Area (sunset to sunrise from April 1 through October 31). This Alternative would have substantially lower migratory tree bat mortality than the Proposed Action, if not zero, and would reduce the collision risk to night-flying birds during this period. Thus, there would be negligible effects on Indiana bats under this alternative, and no mitigation would occur, including any research conducted on bat-turbine interactions, and no HCP would be implemented. Since under this Alternative all turbine activity would be curtailed from sunset to sunrise, a monitoring program for bat mortality would not be needed. This alternative would result in take of approximately 14,200 migratory birds over the life of the Project. A modified post-construction avian mortality monitoring program would be implemented for Alternative A to address bird mortality. Given the reduced operation time, this Alternative would generate 22.7 percent less energy than the Proposed Action.

Alternative B, the minimally restricted alternative, would consist of the same build-out as the Proposed Action; however, all 100 turbines would be feathered until a cut-in speed of 5.0 m/s (11 mph) during the first one to six hours after sunset from August 1 through October 31. This alternative would include the HCP. Operations under this Alternative would have greater adverse effects on spring/summer populations of Indiana bats than the Proposed Action. Additional mitigation for take of additional Indiana bats would be necessary to offset the impacts. The effects of feathering on birds are not well known, and reduced cut-in speeds have not been clearly shown to reduce bird deaths. Given the increased operation time, this Alternative would generate 1.8 percent more energy than the Proposed Action. However, given the minimal operational restrictions, this alternative would result in higher levels of bird and all bat mortality than under the Proposed Action or Alternative A. Specifically, operation of the Project under Alternative B would result in take of approximately 300 Indiana bats over the life of the Project. Additionally, up to 18,850 migratory birds and 65,000 non-listed bats may be incidentally taken during the life of the Project.

Under Alternative C, the no action alternative, the Project would not be built, and no Project-related activities (construction, operation, or decommissioning) would occur. Alternative C would have no effect on resources within the Action Area; however, Alternative C would not achieve the socioeconomic and environmental benefits including generation of clean energy, offset of emissions from existing power plants, generation of income from construction jobs, generation of tax revenues for municipalities and school districts, and generation of lease revenues for landowners. Implementation of this alternative would avoid direct and indirect impacts to Indiana bats from operation of the Project, including take of Indiana bats and Indiana bat habitat, but would not result in benefits derived from implementation of the mitigation and conservation measures proposed under the HCP.

See Chapter 5 for a full description of the effects of the Proposed Action and the three alternatives on resources within the Action Area.

In accordance with NEPA (40 CFR §1502.14(e)) and based on consideration of agency and public comments on the DEIS, the USFWS has selected the Proposed Action – Modified Operations and Habitat Conservation Plan as the preferred alternative. Of the alternatives evaluated in this FEIS, this alternative best fulfills the agency's statutory mission and

responsibilities while meeting the purpose and need. The selection of the Proposed Action as the preferred alternative is based on the following:

- 1) The issuance of the ITP by the USFWS under the Proposed Action would result in protections (via mitigation and conservation measures) to the Indiana bat, as well as other bat species, not offered in the other action alternatives due to implementation of the HCP. The Avian and Bat Protection Plan (ABPP) that would be implemented under this and the other action alternatives would minimize impacts to migratory birds.
- 2) The 250 MW of power generated by the Project would provide a dependable source of electrical energy and eliminate the need for an equivalent amount of fossil-fueled derived energy and capacity, which reduces use of nonrenewable resources and limits atmospheric pollution.