

Programmatic Biological Assessment Species Consistency Evaluation Form
Upper Great Plains Region Wind Energy Development Program
Impact Information and Consistency Determination

Indiana bat (*Myotis sodalis*)

Project Name: _____

Company: _____

Best Management Practices

- All general BMPs, as stated in the final *Programmatic Environmental Impact Statement for the Upper Great Plains Region Wind Energy Program* and table 4.5-1 of the final *Programmatic Biological Assessment for the Upper Great Plains Region Wind Energy Program*, will be implemented where appropriate, during each phase of the project (i.e., site characterization, construction, operations, and decommissioning). Although not all-inclusive, several of the more important BMPs for the conservation of this species follow.
- Activities with continuous periods (i.e., longer than 24 hours) of noise disturbances greater than 75 db measured on the A scale (e.g., loud machinery) should be avoided within a 1-mi (1.6-km) radius of known or assumed Indiana bat hibernacula.
- Restrict use of herbicides for vegetation management near known or assumed Indiana bat hibernacula to those specifically approved for use in karst (e.g., sinkholes) and water (e.g., streams, ponds, lakes, wetlands).
- Avoid clearing of suitable habitat (spring staging, fall swarming, summer roosting) within a 5-mi (8.0-km) radius of known or assumed Indiana bat hibernacula. Retain snags, dead/dying trees, and trees with exfoliating (loose) bark ≥ 3 -in. (7.6-cm) diameter at breast height (dbh) in areas ≤ 1 mi (1.6 km) from water.
- Develop and implement a Bird and Bat Conservation Strategy (BBCS) as described in the *Land-Based Wind Energy Guidelines* that includes survey protocols acceptable to the USFWS in the project area during the spring and fall bird and bat migration seasons. Mortality monitoring will help to identify individual turbines that contribute to avian and bat mortality. This information could be used to provide design layout information for future wind development projects and to reduce the potential for future avian and bat mortality.

Species-Specific Avoidance Measures

- Throughout the range of the Indiana bat within the UGP Region (southern Iowa), conduct preconstruction evaluations and/or surveys in areas of potential occurrence to identify suitable foraging and roosting habitat within project boundaries and to identify the distance from project boundaries to hibernacula used by Indiana bats. Disturbance of hibernacula is prohibited throughout the year
- Do not site turbines in areas within 20 mi (32 km) of hibernacula used by Indiana bats or within 1000 ft (300 m) of known or presumed occupied foraging and roosting habitat (edges along forested areas with dense forest canopy, riparian areas and small wetlands). Habitat evaluations should be coordinated with the local USFWS Ecological Services Office prior to or during turbine site planning.

Species-Specific Minimization Measures

- A robust survey developed and implemented as part of the BBCS program, consistent with the Wind Energy Guidelines and approved by the USFWS during the preconstruction evaluation and survey stage, will be implemented for a minimum of 1 yr preconstruction.
- Increase turbine cut-in speeds to 22.6 ft/sec (6.9 m/sec) or greater from 0.5 hour before sunset to 0.5 hour after sunrise during the fall migration period (generally August 15–October 15, but consult with the USFWS for the established migration dates) to avoid mortality to the Indiana bat. Use of feathering below the cut-in speed of 22.6 ft/sec (6.9 m/sec) will also be implemented at night during the fall migration season to eliminate turbine rotation and avoid mortality of migrating Indiana bats. Increased cut-in speed and feathering can be suspended between 0.5 hour after sunrise and 0.5 hour before sunset.
- In the event that preconstruction surveys or post-construction monitoring indicate species occurrence or occupancy of habitat adjacent to the project area, the higher turbine cut-in speeds described above will be required during the spring bat migration season to offset the increased risk for injury or mortality. The monitoring must be rigorous enough to meet standards acceptable to the local USFWS State office.
- Immediately report observations of Indiana bat mortality to the appropriate USFWS office.

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Impact Information

Project within county with recorded Indiana bat?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	
Preconstruction evaluations conducted with USFWS?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	Dates: _____
Parties involved: _____					
Suitable foraging or roosting habitat in or near project footprint?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	
Distance from suitable habitat:	_____			Miles	
Distance from hibernacula:	_____			Miles	
Has habitat been surveyed to protocol?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	Dates of survey: _____
Result of survey:	<input type="checkbox"/>	Occupied (species detected)		<input type="checkbox"/>	Not occupied (species not detected)
Turbine cut-in speed:	_____			m/sec	
Map of project footprint and species habitat attached?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	

Effects—Explanation of consistency determination with programmatic effects determination of "may affect, not likely to adversely affect" or "no effect":