



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov

Bruce Rauner, Governor

Wayne A. Rosenthal, Director

Authorization for Incidental Take and Implementing Agreement

Pursuant to the Illinois Endangered Species Protection Act (Act) (520 ILCS 10/5.5) and the regulations adopted to implement the Act (17 Ill. Adm. Code 1080), authorization is hereby granted to California Ridge Wind Energy, LLC (hereinafter referred to as California Ridge) for the incidental take of the State-threatened black-billed cuckoo (*Coccyzus erythrophthalmus*). The Illinois Department of Natural Resources (hereinafter referred to as the Department) has determined that the taking is incidental to activities associated with the operation of the California Ridge Wind Energy Project in Champaign and Vermilion Counties, Illinois.

Procedural History

The Department received a conservation plan prepared by Western Ecosystems Technology, Inc., on behalf of California Ridge on May 29, 2015, then owned by Invenegy LLC, as a request for authorization for the incidental take of black-billed cuckoos. The Department requested additional information on June 26, 2015, to make the conservation plan complete as prescribed by Ill. Adm. Code 1080.10. That additional information was received by the Department on May 5, 2016, from new owner Sun Edison. The Department requested additional information on June 2, and August 2, 2016. The final complete conservation plan was accepted by the Department on August 10, 2016. The public notice period will be detailed under #6 of the Compliance section below.

Compliance with the Illinois Endangered Species Protection Act

The Act includes six criteria that must be satisfied for the authorization of incidental take of an endangered or threatened species. These criteria and the Department's determination for each are listed below.

1. The taking will not be the purpose of, but will only be incidental to, the carrying out of an otherwise lawful activity:

The stated and apparent purpose of this proposed action is the **continued operation** of 134 1.6 megawatt (MW) wind turbines with a total nameplate capacity of 214.4 MW. Operations include an operations and maintenance facility, a 34.5-kilovolt (kV)/138-kV substation, access roads, underground communications and power collection systems, and a 138 kV overhead transmission line. The project has been operational since December 2012. California Ridge estimates that there are approximately 635 acres of potential black-billed cuckoo foraging and nesting habitat within the 33,524 acre project boundary. California Ridge anticipates that the continued operation of this project

will not directly impact any black-billed cuckoo breeding habitat. Take of the black-billed cuckoo could occur as a result of collisions with active wind turbines, particularly during spring and fall migration seasons. The take of black-billed cuckoos that could result from this project is not the purpose of California Ridge's activities, but is incidental to the carrying out of an otherwise lawful activity.

2. The parties to the conservation plan will, to the maximum extent practicable, minimize and mitigate the impact caused by the taking:

Proposed minimization and mitigation measures were included in California Ridge's conservation plan. Minimization measures previously implemented by California Ridge during the initial construction of the wind energy facility included the following:

- a. During siting of the project, all turbines were placed in cultivated areas to avoid forested or non-cultivated avian habitat.
- b. Project facilities were located to avoid: (1) documented locations of any federal or State-listed species; (2) known local bird migration pathways and daily movement flyways; and (3) areas where birds are highly concentrated.
- c. Fragmentation of wildlife habitat was avoided through use, where practical, of lands already disturbed, including existing roadways.
- d. All native habitats directly impacted by construction activities during the breeding season were surveyed for nests by a trained biologist prior to construction.
- e. Removal or disturbance of vegetation was minimized through site management and reclaiming all disturbed areas not required for operations.
- f. All personnel were advised regarding speed limits on roads (25 mph) and travel was restricted to designated roads to minimize wildlife mortality due to vehicle collisions.
- g. Turbines employ ungued, tubular towers and slow-rotating, upwind rotors, minimizing the risk of bird collision.
- h. Avian Power Line Interaction Committee-suggested practices were used to ensure that the transmission line was designed and constructed in a manner to minimize bird collision and electrocution risk.
- i. Collection and communication lines are buried, avoiding the potential for bird collision.
- j. Lighting is minimized to that which is required by the Federal Aviation Administration. To avoid disorienting or attracting birds, lighting on turbines employs strobed, minimum-intensity lights as recommended by US Fish and Wildlife Service.
- k. All applicable hazardous material laws and regulations existing or hereafter enacted are complied with and a Spill Prevention, Control, and Countermeasure Plan has been implemented. Hazardous chemicals are not stored near any stream, nor does any vehicle refueling or routine maintenance occur in or near streams. When work is conducted in or adjacent to streams,

fuels and coolants are contained in fuel tanks and radiators of vehicles or other equipment.

1. A Fire Protection and Prevention Plan has been implemented to prevent adverse effects to potential avian habitat.

To meet the “maximum extent practicable” standard, additional minimization and/or mitigation measures may be required beyond those proposed by California Ridge, based on the life history needs of the black-billed cuckoo. **Those minimization and mitigation measures are presented under the Authorization section below.**

3. The parties to the conservation plan will ensure that adequate funding for the conservation plan will be provided:

California Ridge verified adequate funding exists to carry out all aspects of the conservation plan. California Ridge understands that if any additional activities are planned at the facility that may affect black-billed cuckoos or other endangered or threatened species, coordination with the Department will be required.

4. Based on the best available scientific data, the Department has determined that the taking will not reduce the likelihood of survival or recovery of the endangered species or threatened species in the wild within the State of Illinois, the biotic community of which the species is a part, or the habitat essential to the species’ existence in Illinois:

The **black-billed cuckoo** is an Illinois State-threatened migratory bird species. It is typically found in extensive tracts of deciduous forest. Black-billed cuckoos are migratory, spending the breeding season in the northern United States and southern Canada (east of the Rocky Mountains), and the winter months in South America.

Black-billed cuckoos nest in deciduous trees, shrubs, or brambles, and occasionally coniferous trees such as hemlock. Nests are flimsy, shallow cups constructed of twigs and grasses and lined with dead or green leaves, pine needles, stalks, plant fibers, rootlets, mosses, and spider webs. Both adults help build the nest, and the female may start laying eggs in it before the nest is completed. They lay clutches of 2-5 greenish blue eggs. The incubation period of black-billed cuckoo eggs is 10-11 days. Nestlings are helpless after hatching, fledge the nest within 6-7 days, but are unable to fly until about 3 weeks of age. The period between egg laying to fledging of young is among the shortest for any bird species. Like Old World cuckoos, the black-billed cuckoo is known to occasionally lay its eggs in other birds’ nests.

Black-billed cuckoo populations are threatened by habitat loss and fragmentation. Their main prey of caterpillars makes them also susceptible to pesticide use. Black-billed cuckoos are frequently felled by collisions with TV towers, tall buildings, and other structures during migration. Populations tend to fluctuate

considerably from year to year as the individuals follow outbreaks of prey, making it difficult to accurately estimate population numbers. Regional estimates indicate that populations are currently declining and have been since before the introduction of the North American Breeding Bird Survey in 1966.

Black-billed cuckoos, a common migrant but uncommon breeding resident of Illinois, can be found in areas throughout the State from late April to early October, after which they migrate to South America for the winter. Black-billed cuckoos have been observed breeding in 9 of 102 Illinois counties. There are currently 14 extant Element Occurrence Records for black-billed cuckoo in the Illinois Natural Heritage Database. The Department has issued one previous Incidental Take Authorization for black-billed cuckoo for the installation of an electrical transmission line. This is the first authorization to be granted for black-billed cuckoo in either Champaign or Vermilion County. The previous authorization required the applicant to minimize construction impacts in work areas and maintain woody vegetation.

The California Ridge Wind Energy Project was monitored by WEST, Inc. for collision fatalities of birds and bats for three years after construction of the facility was complete. Three black-billed cuckoo carcasses have been found and documented as fatalities potentially caused by turbine collision. Pre-construction fixed-point bird use surveys and avian nesting surveys were conducted by WEST, Inc. in the project area between March 2009 and February 2010. No black-billed cuckoos or black-billed cuckoo nests were detected during the pre-construction avian surveys. California Ridge estimates that the continued operation of this project for the next 25 years will result in the take of up to 50 black-billed cuckoos, or up to two cuckoos per year of operation.

Based on the amount of habitat impacted by this project, the number of known occurrences of black-billed cuckoos in Illinois, an assessment of the potential effect of this project on black-billed cuckoos in the project footprint, the conservation measures included in this authorization for incidental take, and the understanding that vulnerability and recovery information on the species remains limited; the Department has concluded that the taking proposed herein will not reduce the likelihood of survival or recovery of the black-billed cuckoo in the wild within the State of Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois.

5. Any measures required under Section 5.5(b)(6) of the Act will be performed:

These measures are listed below under "Authorization." This authorization is, by definition, subject to those terms and conditions and the signature of a representative of California Ridge indicates their commitment to performing those measures.

6. The public has received notice of the application and has had the opportunity to comment before the Department made any decision regarding the application:

Public notice of California Ridge's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on August 31, 2016, and in *The News-Gazette* (Georgetown) on August 31, September 7, and 14, 2016. A copy of the conservation plan was deposited at The St. Joseph Township – Swearingen Memorial Library and posted on the Department's website, where it was available for public review. The deadline for public comment was October 14, 2016. One comment was received from the public. The applicant evaluated the comment and provided analysis.

Authorization

It is the determination of the Department that the measures that will be implemented by California Ridge will adequately minimize and mitigate the anticipated taking of black-billed cuckoo incidental to activities associated the operation of California Ridge Wind Energy Project in Champaign and Vermilion Counties, Illinois. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the black-billed cuckoo in the wild within the State of Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois. **This agreement does not authorize take of any species except the black-billed cuckoo.**

All terms and conditions included in the aforementioned conservation plan submitted by California Ridge to the Department are incorporated into this agreement by reference and are made a part thereof.

Pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5] and the Administrative Rules for the Incidental Taking of Endangered and Threatened Species [Ill. Adm. Code 1080.40(b)], this authorization is issued subject to the following terms and conditions, which may include additions or modifications to the minimization and mitigation measures proposed by California Ridge in the conservation plan:

1. This authorization is effective upon the signature of the Department and shall remain in effect for a period of **twenty-five (25) years** from the date of the Department signature, unless terminated by written agreement of both parties. It is the understanding of the Department, based on the estimated lifespan of wind energy installations, that this project may extend beyond the 25-year agreement term. The term of the permit may be reviewed and extended by the Department in accordance with Authorization condition #2 below upon written request by California Ridge no less than three months prior to expiration. Review and analysis of California Ridge's Conservation Plan took into consideration this potential infrastructure lifespan; mitigation was calculated accordingly. See Authorization condition #11 below for the Department's position on future review and analysis with regard to mitigation.

This authorization may be revoked pursuant to the Act and Ill. Adm. Code 1080.80(b) if the Department finds that California Ridge has failed to comply with any of these terms and conditions or has been responsible for the taking of black-billed cuckoos beyond that

which is incidental to activities associated with the operation of California Ridge Wind Energy Project in Champaign and Vermilion Counties, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between California Ridge and the Department. The Illinois Endangered Species Protection Board shall be notified of any such alteration.

Any substantive changes, including but not limited to a change in the project footprint or a change in the State-listed species which could potentially be affected, will require that a new conservation plan be submitted to the Department to initiate the review and public notice process as required by the Act.

3. This authorization is non-transferable.
4. The Department reserves the right of entry by its staff or representatives to inspect species, potential habitat, and species management practices.
5. On-site personnel shall be educated on the sensitive biological resources in the area, the identification of the listed species, regulations protecting the species, where the species might be found, avoidance areas, travel restrictions for equipment and vehicles, how to report sightings or incidents that may involve take, and the importance of avoiding take of the species. California Ridge shall submit a copy of the education materials to the Department.
6. Biological consultants employed by California Ridge shall hold the necessary permits for work with non-listed and listed species; these include an Illinois Department of Natural Resources Scientific Collection Permit and an Illinois Department of Natural Resources Endangered Species Permit.
7. California Ridge shall notify the Department of the discontinuation of the operation of California Ridge Wind Energy Project in Champaign and Vermilion Counties, Illinois, if it should occur during the term of this agreement.
8. California Ridge shall conduct, or cause to be conducted, the following minimization measures throughout the duration of operation of the wind energy facility:
 - a. Hunting, fishing, dogs, or possession of firearms by California Ridge employees and designated contractors in the project area shall be prohibited during operation and maintenance of the facility to minimize the potential for injury to wildlife.
 - b. Turbine blades shall remain fully feathered so that rotors move very slowly prior to reaching the turbine cut-in speed. This measure reduces the amount of time that blades are actively spinning and reduces the risk of bird collision.
9. California Ridge shall continue to conduct, or cause to be conducted, bird and bat fatality monitoring around turbines. The monitoring includes standardized carcass searches, searcher efficiency trials, and carcass removal trials. Monitoring shall continue to follow

the protocol that has been used since construction of the facility was complete. Monitoring shall take place every three (3) years during the late summer and fall season (July 15 to September 30). The dates of this monitoring period are not to be adjusted in later surveys even if no black-billed cuckoos are found. If identification of a carcass is uncertain, the carcass shall be collected and frozen for later identification by an IDNR biologist. **All carcasses of State-endangered or threatened species found during standardized searches or incidentally shall be photographed, collected, frozen for identification or study, and reported to the Department within 48 hours.** A report including, but not limited to, the survey methodology utilized, maps of areas searched, and all fatalities observed, shall be submitted to the Department within 90 days of field season completion. For each fatality of a State-listed species, the following data shall be included: the potential date of fatality, turbine location, wind speed profile, air temperature profile, and power production profile for the responsible turbine on estimated date of fatality, along with photographs of the carcass(es).

10. If, over a three-year period, five (5) or more black-billed cuckoo carcasses are detected (an average of 1.67 detected per year), the following adaptive management measures shall be taken:
 - a. If a particular cause for the carcasses can be identified, California Ridge shall develop specific additional on-site and/or operational mitigation measures in consultation with the Department to address those causes. California Ridge shall conduct follow-up post-construction monitoring during the subsequent year during the season(s) in which the carcasses were found to assess whether on-site mitigation measures were successful at reducing mortality.
 - b. If there continues to be no spatial, weather, or temporal pattern to when and where black-billed cuckoo carcasses are found, no mitigation measures will be taken based on one three-year period of exceeding the anticipated take levels. However, if two consecutive three-year periods occur where five (5) or more black-billed cuckoo carcasses are detected and no spatial or temporal pattern is detected, California Ridge will work with the Department to determine the need to pursue an amendment to this Authorization and the potential for additional mitigation.
11. California Ridge shall mitigate for the potential taking of black-billed cuckoo to the maximum extent practicable by bringing conservation benefit to the species potentially impacted. Compensatory mitigation in the amount of \$75,000 shall be provided to the University of Illinois – Illinois Natural History Survey within 90 days of execution of this agreement to support research efforts to provide a better understanding of the black-billed cuckoo's habitat requirements informing management decisions to help conserve, protect, and enhance black-billed cuckoo habitat and populations within the State of Illinois.

At this time, the Department believes that the specified mitigation sufficiently meets the “maximum extent practicable” as defined by the Act for the term of this Authorization. Future reviewers will make a determination as to whether the mitigation standard met herein is sufficient for any potential term extensions based on the known life history information of the covered species at that time and on the accumulated understanding of the interface between wind energy development and the covered species.

Mitigation valuations are based on the Department's best current understanding of the species life history needs and impact analysis relevant to the project site's design elements available at the time of review.

12. All reports, notifications, and other project documentation shall be submitted to:

Illinois Department of Natural Resources
Office of Resource Conservation
Endangered Species Program – Incidental Take Authorization Coordinator
One Natural Resource Way
Springfield, IL 62702-1271

(217)557-8243
DNR.ITAcoordinator@illinois.gov

The Department's Endangered Species Program shall provide all reports required under this agreement to the Illinois Endangered Species Protection Board and to the Department's Natural Heritage Database.

13. The California Ridge official identified below is authorized to execute this agreement. Execution by California Ridge indicates acceptance of all terms and conditions described in this authorization.

14. The execution of this agreement does not waive or excuse the responsibilities of California Ridge to comply with other Federal, State, or local regulations, including but not limited to obtaining any required permits for the execution of this project.

For the Illinois Department of Natural Resources:




Christopher L. Young, Director
Office of Resource Conservation

4/20/17

Date

For California Ridge Wind Energy:



Marc Fioravanti
Authorized Representative

7 April 2017

Date