# Incidental Take Permit and Draft Habitat Conservation Plan for Beech Ridge Energy

***Questions and Answers***

*Habitat Conservation Plan and Incidental Take Permit*

1. **Why does Beech Ridge Energy need a permit under the Endangered Species Act (ESA)?**
   Beech Ridge Energy needs a permit to address the anticipated impacts of its wind turbines on endangered Indiana bats and Virginia big-eared bats during the 25-year operating life of the project.

   The ESA protects all species listed as threatened and endangered wildlife from "take," which is broadly defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect or attempt to do those actions." In 2009, the U.S. District Court of Maryland ruled that Beech Ridge Energy was in violation of the ESA for not obtaining an incidental take permit for the project's potential to kill endangered Indiana bats. The company then began working with the Service to apply for this permit.

   Any person, tribe, business, or state agency that believes its activity may result in take of federally protected species should consider obtaining an incidental take permit.

2. **What is the purpose of an incidental take permit (ITP) and habitat conservation plan (HCP)?**
   An ITP is required for actions that may take species protected under the ESA. The permit allows projects with those risks to continue while taking actions to minimize, mitigate, and monitor impacts to those protected species.

   A HCP is required in the ITP application. The plan must ensure that the applicant takes steps to avoid and minimize take to listed species and then mitigates the impacts of take that is unavoidable.

3. **What lands and activities will the permit cover?**
   The incidental take permit will cover operations of 67 wind turbines, construction and operations of an additional 33 turbines, and decommissioning of the turbines at the end of the 25-year permit period. The permit will cover activities occurring on less than 200 acres of a privately owned parcel of 6,860 acres leased for the project. This land is managed primarily for timber production in Greenbrier and Nicholas counties, West Virginia.

4. **What is required to obtain an ITP under the ESA?**
   Section 10 of the ESA and implementing regulations define components that must be included in a HCP:
   - An assessment of impacts likely to result from the proposed taking of any listed species;
   - Measures the permit applicant will conduct to monitor, minimize and mitigate for such impacts; the funding that will be made available to implement the measures; and

the procedures to deal with unforeseen or extraordinary circumstances;
- Alternative actions to the take of species that the applicant analyzed, and the reasons why the applicant did not adopt such alternatives; and
- Additional measures the Service may require as necessary or appropriate.

The Service has a HCP manual at:
http://www.fws.gov/midwest/endangered/permits/hcp/hcp_readings.html.

**5. Is the Beech Ridge Energy project operating?**

After the U.S. District Court of Maryland ruling in 2009, Beech Ridge Energy entered into a settlement agreement with plaintiffs that allowed the company to add 27 turbines to its existing 40, reaching a total of 67 turbines, and operate them during times of the day and year when bats do not normally fly and would not be at risk of being killed by the turbines. These restrictions allowed operations of the turbines all day from November 16 through March 31 and during daylight (sunrise to sunset) from April 1 through November 15.

In February 2012, following the Service's review, the court approved the company's request to operate under limited nighttime conditions, pending permit issuance. These interim measures were designed to not take endangered bats. These specific measures apply from April 1 through Nov. 15, 2012.

**6. Has take occurred already, and how much take is expected to occur?**

Beech Ridge Energy has not reported any take of Indiana or Virginia big-eared bats.

Even with minimization practices, some level of take is possible. The company has requested take of up to 70 Indiana bats and 14 Virginia big-eared bats during the 25-year project duration. This is estimated mortality from collision with turbines or from barotrauma, an internal hemorrhaging from sudden drops in air pressure at moving turbine blades. A model was used to calculate the expected level of take.

**7. Are other wind projects seeking an ITP?**

The Service is working with Criterion Power Partners on a HCP to receive an ITP for its 28-turbine wind farm in Garrett County, Maryland. The agency is also developing plans for projects in New York, Pennsylvania and in other states.

**8. How will take be mitigated?**

The company is pursuing an off-site project to protect important Indiana bat hibernating, swarming and foraging habitat. A cave-gating project will also help protect Virginia big-eared bat hibernacula. The projects will be implemented within two years of permit issuance. Should Beech Ridge Energy not be able to implement these projects, then alternative projects will be implemented (cave gating or protection of hibernacula or maternity areas).

**9. How will compliance with the plan be monitored?**

Beech Ridge Energy will annually monitor, report and assess the impacts of take that results from activities covered by the permit.

**10. Why was a draft environmental impact statement (EIS) prepared?**

The National Environmental Policy Act (NEPA) requires that federal agencies evaluate the environmental impacts of their proposed actions and reasonable alternatives. To meet NEPA requirements, the Service prepared a draft environmental impact statement.

NEPA requires that the Service thoroughly examine the impacts of issuing an incidental take permit to Beech Ridge Energy for incidental take of Indiana and Virginia big-eared bats. An EIS must use the best science to analyze and describe the direct, indirect and cumulative effects that the proposed federal action and alternatives to that action may have on the quality of the human environment.

**11. How does this ESA permit relate to other federal laws that protect bats and birds?**

In addition to the ESA, the Service is responsible for implementing and enforcing a number of other federal wildlife laws. The Service must comply with these laws when issuing an ITP.

Two particularly relevant laws are the Migratory Bird Treaty (MBTA) and the Bald and Golden Eagle Protection acts (BGEPA). To demonstrate the company's intent to comply with MBTA and BGEPA, Beech Ridge Energy developed a voluntary Avian Protection Plan, which is included as an appendix to the Service's EIS. The avian plan analyzes the impacts of wind turbines to migratory birds and eagles and describes the measures the company will implement to avoid, minimize and mitigate adverse impacts. See question 15 for more information on this plan.

Non-listed bats do not have specific federal regulatory protections, though they may be protected under individual state wildlife laws. As analyzed and described in the Service's EIS, some non-listed bats will benefit from measures under the habitat conservation plan.

Visit http://www.fws.gov/migratorybirds/mbpermits.html for specific information regarding these laws.

*Indiana Bat, Virginia Big-Eared Bat and Other Wildlife*

**12. Why might the Indiana or Virginia big-eared bats be affected?**

Bats may be injured by impact with turbines as they travel across the ridge tops and high plateaus where wind farms are placed. Bat mortalities are most common during late summer and early fall migration.

The rare Virginia big-eared bat shares its range with the Indiana bat, whose range covers much of the eastern U.S. Recent incidences have shown that wind turbines can affect the more numerous and more widely distributed Indiana bat. A dead Indiana bat was confirmed in 2011 at the North Allegheny Wind facility in Pennsylvania, and two were previously confirmed in 2009 at the Fowler Ridge wind farm in Benton County, Indiana.

**13. What actions will Beech Ridge Energy take to avoid and minimize harming these bats?**

Companies can reduce the risk of harm by modifying operations when bats are more active. Beech Ridge Energy will adjust its turbines when wind speeds are low (below 4.8 meters per

second) for 5 hours per night between sunset and sunrise during late summer and early fall (July 15 to October 15), when bats are likeliest to encounter the turbines. During those times, turbine blades will make less than 2 revolutions per minute.

Based on studies conducted at other wind power projects, it is anticipated that this will reduce overall bat mortality by at least 50 percent with fairly small losses of power generation. Monitoring and research will help determine the effectiveness of this measure.

**14. Will the project affect other bats?**

Other bats that are not protected by the Endangered Species Act have been documented at the project site through capture. They include eastern red bats, hoary bats, little brown bats, big brown bats, tri-colored bats, eastern small-footed bats, silver-haired bats and northern long-eared bats. Minimization measures for the Indiana and Virginia big-eared bats may also benefit these other species. The Service evaluated impacts to these species in its draft EIS.

The Service is also evaluating the status of the little brown bat, northern long-eared bat and eastern small-footed bat.

**15. Will the project affect birds?**

Bald and golden eagles migrate through the project area, and golden eagles spend the winter in and near the project area. Golden-winged warblers also nest in the project area.

Beech Ridge Energy has voluntarily developed an Avian Protection Plan that includes best management practices to minimize take of birds. Here are some examples:

- Building any new meteorological towers without guy wires to avoid bird collisions with wires;
- Implementing a lighting plan to avoid and minimize the risk of large-scale bird mortality events, which are more likely in foggy weather;
- Educating hunters and removing carrion carcasses that attract eagles;
- Minimizing new road construction and forest fragmentation;
- Avoiding tree-cutting during summer when birds are nesting; and
- Evaluating the effectiveness of turbine curtailment in reducing bird mortality.

Beech Ridge Energy will monitor bird fatality every year of the project. In the instance of unusual bird mortality, the company will consult with the Service to determine appropriate measures.

**16. What is the status of the Indiana bat?**

The Indiana bat was protected in 1967 under the Endangered Species Preservation Act (later the Endangered Species Act). Human disturbance during hibernation was resulting in the death of large numbers of bats. These small bats weigh as much as three pennies and have a wingspan of 9 to 11 inches. They are extremely vulnerable to disturbance because they hibernate in large numbers in only a few caves.

Other threats that have contributed to the species' decline include commercialization of

caves, loss of summer habitat, pesticides and other contaminants, and most recently, white-nose syndrome disease.

The most recent population estimate for the Appalachian Recovery Unit, which includes the Beech Ridge project area, suggests there may be 32,529 Indiana bats across portions of Maryland and eastern Tennessee, North Carolina, Pennsylvania, Virginia and West Virginia. The overall 2011 population, across 17 eastern U.S. states, was estimated to be 424,708. Learn more at: http://www.fws.gov/midwest/Endangered/mammals/inba/index.html.

**17. What is the status of the Virginia big-eared bat?**

The Virginia big-eared bat was listed as endangered in 1979 due to small population size, limited distribution and threats of human disturbance and vandalism at caves.

This bat occurs in small isolated populations within Virginia, West Virginia, Kentucky and North Carolina. White-nose syndrome has not been detected in Virginia big-eared bats, even in caves where the fungus has affected other species of bats.

Winter counts show that the range-wide population of Virginia big-eared bats has increased from 1,300 to more than 13,000 since 1979. Virginia big-eared bat winter hibernacula are known from only nine caves in four 4 West Virginia counties. The estimated number of hibernating Virginia big-eared bats in West Virginia in 2010 was at least 11,000, which is about 85 percent of the known range-wide population. Steady increases in numbers over the last few years for both summer and winter colonies have been observed at most West Virginia caves. Learn more at:
http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A080

**18. What if new species are listed as threatened or endangered after the permit is issued?**

If a species not covered by the permit is listed after issuance, Beech Ridge Energy will need to avoid take of the species unless it seeks a permit amendment to cover the newly listed species.

**19. How is the Service helping reduce wildlife impact from wind turbines?**

The Service is committed to facilitating the development of wind energy while protecting our nation's treasured landscapes and wildlife. However, if wind energy facilities are designed and constructed in the wrong locations, they can have significant negative impacts to fish, wildlife, plants and their habitats.

The Service finalized its draft, voluntary guidelines for land-based wind energy projects in March 2012. The guidelines are intended to address potential negative effects from utility-scale and community-scale projects. They describe the information needed to identify sites with low risk to wildlife and to assess, mitigate, and monitor any adverse effects on fish, wildlife, plants and their habitats. Learn more at http://www.fws.gov/windenergy/

*Permitting Process*

**20. What's happened so far?**

The Service published a notice in the Federal Register on July 22, 2010, to announce intent to prepare a draft EIS and to open a 30-day comment period.

As part of this scoping process, the Service held an open-house public meeting on Aug. 9, 2010, and later reopened and extended the comment period through Sept. 23, 2010. About 75 comment letters were received from individuals, organizations, businesses and governmental agencies. The scoping report and related information are available at http://www.fws.gov/westvirginiafieldoffice/beech_ridge_wind_power.html.

**21. What's next?**

The Service and Beech Ridge Energy encourage public comments on both the HCP and EIS draft documents. Comments will be accepted for 60 days from the date the Notice of Availability is published in the Federal Register.

The Service will then review public comments on the draft plan and EIS, and appropriate changes will be incorporated into the documents. In making a decision on whether or not to issue the permit, the Service will also prepare the following additional documents:

- An evaluation of whether the final EIS adequately documents the impacts to the environment;
- An analysis of whether the final permit meets the legal requirements; and
- A biological opinion considering whether the issuance of the permit is likely to jeopardize the continued existence of the Indiana bat and Virginia big-eared bat or result in the destruction or adverse modification of critical habitat.

Once these documents are completed, the Service will make a decision on permit issuance.

**22. Where do I get copies of the draft plan and EIS?**

The documents are available online at http://www.fws.gov/westvirginiafieldoffice/beech_ridge_wind_power.html, and http://www/regulations.gov (Search docket number FWS-R5-ES-2012-0059).

**23. How do I comment on the draft plan and EIS?**

Written comments may be submitted electronically via the Federal eRulemaking Portal by searching for docket # FWS-R5-ES-2012-0059 at http://www.regulations.gov, or by hard copy to: Public Comments Processing, Attn: FWS-R5-ES-2012-0059, Division of Policy and Directives Management, U.S. Fish and Wildlife Service, 4401 N. Fairfax Drive, MS 2042–PDM, Arlington, VA 22203.