BEECH RIDGE ENERGY WIND PROJECT

HABITAT CONSERVATION PLAN – INCIDENTAL TAKE PERMIT – DRAFT ENVIRONMENTAL IMPACT STATEMENT

SCOPING REPORT

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1.0 INTRODUCTION
The U.S. Department of the Interior, Fish and Wildlife Service (the Service) is preparing an Environmental Impact Statement (EIS) in compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.) to evaluate the environmental impacts associated with a Habitat Conservation Plan (HCP) and the issuance of an associated Incidental Take Permit (ITP). The applicant, Beech Ridge Energy, LLC (BRE), is developing the HCP and ITP application to comply with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.). The HCP will address construction, operation, maintenance, and decommissioning activities associated with Phase I and Phase II of the Beech Ridge Wind Energy Project (the Project). Section 10(a)(1)(B) of the ESA authorizes the Service to issue ITPs to non-Federal land owners for the take of endangered and threatened species. Stantec Consulting Services Inc. (Stantec) is acting as third-party contractor to assist the Service in the preparation of an EIS for the Project to comply with NEPA.

Phase I of the Project includes 67-turbines already constructed and currently operating according to the stipulation in the January 26, 2010 court order and settlement agreement described in more detail below. BRE will request approval from the Service to authorize take of Indiana bat (Myotis sodalis) and Virginia big-eared bat (Corynorhinus townsendii virginianus) associated with operation of these 67 turbines in accordance with the HCP and any terms and conditions specified in the ITP.

Phase II of the Project includes 33-turbines that would be constructed upon approval of the HCP and receipt of the ITP. The proposed federal action would authorize take of Indiana and Virginia big-eared bats associated with the construction and operation of up to 33 additional turbines in accordance with the HCP and any terms and conditions specified in the ITP.

As part of the NEPA EIS process, the Service conducted a public scoping meeting, and consulted with various Federal and state agencies. The scoping meeting and consultations with the general public, government agencies, and non-governmental organizations (NGOs) helped the Service to identify issues to be addressed in the EIS, as well as to develop a reasonable range of alternatives to be analyzed in the EIS. This report documents the scoping process and summarized the comments received. This report includes the following:

- Background information on the regulatory framework relative to the issuance of an ITP to BRE;
- Definition, and Purpose and Need for the Proposed Agency Action;
- Description of the proposed alternatives, including the no-action alternative;
- Summary of the scoping process and comments received; and,
- Summary of impact areas and issues to be addressed in the EIS.

2.0 BACKGROUND
BRE, a wholly owned subsidiary of Invenergy Wind, LLC, owns and operates the Project. The Project is located in Greenbrier and Nicholas counties, West Virginia (Figure 2.1), approximately five miles (8 km) northwest of the town of Trout, approximately seven miles (11 km) north-northwest of Williamsburg, and approximately nine miles (14.5 km) northeast of downtown Rupert, West Virginia.

The Project consists of several primary components, including wind turbines, access roads, transmission and communication equipment, storage areas, and control facilities. Construction and
operation of 100 turbines on the Project site have been divided into two distinct Phases described above.

The Project is located on a 63,000-acre tract owned by MeadWestvaco. BRE will lease approximately 6,860 acres and additional road rights-of-way from this landowner. Of these 6,860 acres, a total of 491 acres has been or will be temporarily or permanently disturbed for construction and operation of the entire project (both phases, including the transmission line). Only a small portion of the Project area will host wind farm facilities. It is anticipated that the area of direct (life of project) land use for the 100 turbines, access roads, substation and Operation and Maintenance (O&M) facility will be approximately 59 acres. A total of 432 acres that have been or will be temporarily disturbed by construction activities will undergo reclamation. BRE has acquired the necessary land rights to construct and operate the Project and its associated facilities from MeadWestvaco.

In August 2006, the West Virginia Public Service Commission (WVPSC) granted BRE a siting certificate to construct up to 124 1.5-megawatt (MW) turbines with 186 MW of nameplate generating capacity. BRE began project construction on April 15, 2009.

On June 10, 2009, Animal Welfare Institute (AWI), Mountain Communities for Responsible Energy (MCRE), and David G. Cowan brought an action seeking declaratory and injunctive relief against BRE and Invenergy LLC alleging the Project would “take” endangered Indiana bats in violation of ESA.

The Court held a trial on October 21-23 and 29, 2009 (U.S. District Court, District of Maryland, Case No. RWT 09cv1519, Animal Welfare Institute, et al, plaintiffs v. Beech Ridge Energy LLC, et al, defendants). At the time of the trial, foundations for 67 turbines had been poured, turbine deliveries had commenced, and transmission lines were being strung in agreed upon areas.

In December 2009, the District Court ruled that BRE’s construction and operation of 124 wind turbines (40 in construction and 84 planned by the end of 2010) would violate Section 9 of the ESA unless and until Defendants obtain an ITP. The Court enjoined Defendants from building additional turbines beyond the 40 already under construction and restricted turbine operation to the bat hibernation season (November 15 – March 31) until such time as BRE obtains an ITP.

The Court also invited the parties to confer on whether they could agree on terms for further turbine operation while Defendants pursue an ITP. Under the terms of a settlement agreement reached between BRE and the Plaintiffs, the District Court stipulated on January 26, 2010 that BRE will not build 24 of the original 124 turbines that are closest to known bat hibernacula; limiting the Project to 100 turbines totaling up to 186 MW of generating capacity. While the HCP is under development, the two parties agreed that BRE may construct an additional 27 turbines in Phase I and operate all 67 turbines 24 hours per day from November 16 through March 31 and from one-quarter hour after sunrise to one-half hour before sunset (daylight hours) from April 1 through November 15). Phase I turbines would continue to operate on this schedule and Phase II turbines would not be constructed unless and until the Service issues an ITP. Any additional land clearing for construction of the remaining Phase I turbines must occur during the Indiana bat hibernation period unless otherwise approved by the Service.

On September 28, 2010, BRE announced the completion of Phase I; the 67 turbines currently provide up to 100.5 MW of wind-generated electricity. Phase II of the Project, the remaining 33 turbines yet to be constructed, is located in an expansion area currently under review by the
WVPSC and a host of other agencies to ensure compliance with the existing certificates, regulations, and permits. Consistent with the court order and settlement agreement, BRE intends to pursue an ITP.

3.0 PURPOSE AND NEED FOR AGENCY ACTION

This environmental Impact Statement (DEIS) evaluates an application for an Incidental Take Permit (ITP) submitted by Beech Ridge Energy LLC (BRE). The ITP application was submitted pursuant to §10(a)(1)(b) of the Endangered Species Act (ESA) (87 Stat. 844), 1973 as amended (16 U.S.C. 1531 et. seq.) for incidental take of federally listed species which may result from construction, operation, maintenance, and decommissioning of the BRE Generation Facility. BRE has submitted a Habitat Conservation Plan (HCP) as part of its permit application package.

The purposes for which the federal action is being considered and this DEIS is being prepared are to:

- Respond to an application from BRE for an ITP for the endangered Indiana bat and Virginia big-eared bat related to activities that have potential to result in take, pursuant to the provisions of section 10(a)(1)(b) of the ESA of 1973, as amended, and its implementing regulations (50 C.F.R. part 17) and policies.
- Protect, conserve, and enhance the Indiana bat and Virginia big-eared bat and their habitat in the project area for the continuing benefit of the people of the United States.
- Provide a means and take steps to conserve the ecosystems depended on by the Indiana bat and Virginia big-eared bat within the context of this project.
- Ensure the long-term survival of the Indiana bat and Virginia big-eared bat through protection and management of the species and their habitat within the context of this project.
- Ensure compliance with the ESA, National Environmental Policy Act, and other applicable Federal laws and regulations.

The need for the federal action is based on the likelihood that activities proposed by BRE on property they lease could result in take of the Indiana bat and Virginia big-eared bat. Commercial wind projects have been shown to cause high numbers of bat fatalities, particularly during the fall migration season. Impacts to Indiana bats and Virginia big-eared bats need to be avoided and minimized to the maximum extent practicable. Additionally, any unavoidable take of Indiana bats and Virginia big-eared needs to be mitigated. Furthermore, summer roost habitat of Indiana bats needs to be protected to ensure successful bat productivity.

The mechanisms behind bat fatalities at wind projects are not fully understood. Post-construction monitoring is necessary to increase the knowledge base on bat and wind project interactions, particularly within the range of Indiana bats. Conservation measures implemented to protect Indiana and Virginia big-eared bats may need to be modified based on the results of post-construction monitoring. This is facilitated through an Adaptive Management Plan.

Implementation of renewable energy would help to reduce emissions of greenhouse gases and other air pollutants pursuant to the Energy Policy Act of 2005 (P.L. 109-58), as amended, and meet the State of West Virginia’s Alternative Energy Portfolio Standard (AEPS). West Virginia’s Alternative Renewable Energy Portfolio Act (House Bill 103) was approved in June 2009 and mandates that electric utilities obtain 25% of their electricity from alternative or renewable energy by 2025. Eligible renewable technologies include wind power.
Wind energy projects need to be sited where adequate wind is available to ensure economic viability. Wind projects also need to produce a certain amount of power to be economically viable. Adequate power production is provided via an adequate number of appropriately sized turbines operating at a minimum length of time.
Figure 2.1. Location of the Beech Ridge Wind Energy Project, West Virginia.
3.1 Decisions to be Made

The Service must decide whether to issue or deny the proposed ITP. Section 10(a)(2) of the ESA requires the following criteria be met before the Service may issue an ITP:

- The taking will be incidental;
- The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking;
- The applicant will ensure that adequate funding for the HCP and procedures to deal with unforeseen circumstances will be provided;
- The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild;
- The applicant will ensure that other measures that the Service may require as being necessary or appropriate will be provided; and
- The Service has received such other assurances as may be required that the HCP will be implemented.

If the permit issuance criteria contained in Section 10(a)(2)(b) of the ESA are not satisfied, the Service is required to deny the permit. Alternatively, if the permit issuance criteria are satisfied, the Service is required to issue the permit to the applicant. The Service may decide to issue the permit conditioned upon implementation of the HCP as submitted by the applicant, or to issue the permit conditioned upon implementation of the HCP as submitted plus additional measures specified by the Service.

3.2 Legal Authorities and Policy Direction

Section 9 of the ESA (87 Stat. 884, as amended; 16 U.S.C. 1531 et. seq.) prohibits the take of federally listed species unless authorized under the provisions of Section 7, Section 10(a), or Section 4(d) of the ESA. Section 3 of the ESA defines take as “to harass, harm, pursue, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Federal regulation defines the terms “harass” and “harm” as follows. Harass means, “an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioural patterns which include, but are not limited to, breeding, feeding, or sheltering” (50 C.F.R. 17.3(c)). Harm means “an act which actually kills or injures wildlife and may include, significant habitat modifications or degradation where it actually kills or injures wildlife by significantly impairing essential behavioural patterns, including breeding, feeding, or sheltering” (50 C.F.R. 17.3(c)). Section 10(a)(1)(B) of the ESA defines “incidental take” as take that is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. A Section 10 permit constitutes an exception to the taking prohibition of Section 9 and is considered a federal action. As with any federal activity, the issuance of a Section 10 permit requires that intra-agency consultation under Section 7(a)(2) occur prior to finalization of the Section 10 permit process. Section 7 consultations insure that the agency action is not likely to jeopardize the continued existence of any federally listed species or result in destructive or adverse modification of designated critical habitat.
4.0 SUMMARY OF SCOPING PROCESS

This section summarizes the scoping process the Service conducted for the draft EIS. Through the scoping process, the Service solicited input from other federal, state, and local agencies, as well as from other interested parties (e.g., general public, NGOs) regarding the scope of the EIS and the range of reasonable alternatives.

4.1 Public and Agency Outreach and Notification

The Service used several media to notify the public and potentially interested parties to provide them with the opportunity to participate in the scoping process.

4.1.1 Federal Register – Notice of Intent

The Service’s formal scoping process began on 22 July 2010, with the publication in the Federal Register of a Notice of Intent for preparation of an Environmental Impact Statement for Issuance of an Incidental Take Permit and Associated Habitat Conservation Plan for the Beech Ridge Wind Energy Project, Greenbrier and Nicholas Counties, WV (Federal Register, Vol. 75, No. 140 [July 22, 2010/Notices]). Appendix A contains a copy of the Notice of Intent (NOI).

The notice provided information about:
- The Project and the EIS;
- Species proposed for inclusion in the BRE HCP; and,
- The specific location, date, and time of the public scoping meeting; how comments could be mailed, faxed, or e-mailed to the Service until 23 August 2010; and contact information for the key Service representative to request further information from (their name, address, and telephone number).

The Service received requests from 15 interested parties to extend the comment period. An additional Federal Register Notice was published on 27 August 2010 to notify the public of the Service’s intent to reopen and extend the scoping comment period until 23 September 2010 (Preparation of an Environmental Impact Statement for Issuance of an Incidental Take Permit Associated With a Habitat Conservation Plan for the Beech Ridge Wind Energy Project, Greenbrier and Nicholas Counties, West Virginia; Re-opening and Extension of Comment Period; Federal Register, Vol. 75, No. 166 [August 27, 2010/Notices]).

Persons needing reasonable accommodations in order to attend and participate in the scoping meetings were asked to contact the Service a minimum of one week in advance of the meeting such that appropriate arrangements could be made. The Service received no requests for reasonable accommodations.

4.1.2 Press Releases for Scoping and Public Meeting

Press releases announcing the scoping periods and open house/public scoping meeting were issued to multiple media outlets one to two weeks prior to the publication of the Federal Register notices and the public scoping meeting
- Charleston Gazette (Charleston, WV);
- Charleston Daily Mail (published in Charleston, WV and distributed statewide)
- West Virginia Daily News (Lewisburg, WV);
- Nicholas County Chronicle (Summersville, WV);
- Beckley Register-Herald (Beckley, WV);
- Bluefield Daily Telegraph (Bluefield, WV);
The announcements were picked up by the Associated Press, National Public Radio, multiple newspapers, business groups, and several NGO’s which distributed the announcements throughout the region in press media, television news media, and via the internet. A reporter from local television channel 59 (WVNS-TV) attended and filmed portions of the public meeting, including presentations, and the comment, question and answer session.

Appendix B contains a copy of the Notices of Intent and press releases for the original and extended commenting periods.

4.1.3 Known Interested Party Scoping Letter

On 26 July 2010, a public scoping/Dear Interested Party letter was sent to 32 known interested parties (see Appendices C and D for the letter and list of interested parties). The letter provided information on the project and the EIS, and included the date, time, and location of the scoping meeting with copies of the Federal Register Notice. On August 27, 2010, an additional Dear Interested Party letter went out to the same parties to notify them of the extended scoping comment period.

4.1.4 Website

To support distribution of the Notice of Intent (NOI) and notice of the public meeting, these documents, and meeting information were posted on the Service’s – Region 5 (West Virginia Field Office) website at the following link:
http://www.fws.gov/westvirginiafieldoffice/beech_ridge_wind_power.html

This site is also used to facilitate public knowledge and participation through the dissemination of information regarding the Project’s status, history, and planned future activities.

4.2 Public Scoping Meeting – 9 August 2010

The Service conducted an “Open House” style public scoping meeting to solicit input on the scope of the EIS associated with the issuance of an ITP to BRE and approval of the associated HCP. The meeting took place at the Community Center in Rupert, WV (the town closest to the project), from 6:00 to 9:00 p.m. (local time) on 9 August 2010. The Service, Invenergy, and Stantec all had personnel on hand to facilitate the meeting.

4.2.1 Scoping Meeting Facilitation

At the public scoping meeting, there were four information stations arranged around the periphery of the room. Tables and easels at each station were used to display project information. Sixteen posters with Project information were set up throughout the Center (in a manner to facilitate
movement through each station). Information on the posters included: Project definitions, detailed Project map, information on the Indiana and Virginia big-eared bats, benefits of wind energy, Project history, Phase I and Phase II descriptions, information on the NEPA process (e.g., HCP, ITP, EIS), tentative Project schedule, information on the scoping process, and how to provide comments.

Each station was attended by one or two project team members (see below). Attendees were given the opportunity to visit and review information from each station prior to a presentation on the Project. Light refreshments were also available at the scoping meeting.

### 4.2.1.1 Scoping Information Stations

Upon entering the Community Center, attendees were met at a Welcome and Registration desk. The information provided at each station is summarized below:

**4.2.1.1.1 Station One – Welcome and Registration**

Stantec biologist Wes Cunningham welcomed each attendee as they entered the Community Center. Each attendee was asked to register (providing their name, mailing address, email address) and asked whether they would like to be added to the mailing list. Each attendee was given a colored brochure explaining the permitting process and a copy of the Federal Register NOI. Attendees were then informed on how best to utilize meeting resources (e.g., stations, resources available, personnel on hand, comments, and presentation).

**4.2.1.1.2 Station Two – Beech Ridge Energy Project Information – Invenergy**

Invenergy’s Ms. Karyn Coppinger (Senior Manager of Development), Mr. Erik Duncan (Development Manager), and Mr. Dave Groberg (Vice President of Development) staffed this station and provided information on the Project’s history, current status, future plans, and BRE’s HCP and ITP application.

**4.2.1.1.3 Station Three – HCP, ITP, and NEPA Processes – USFWS**

Ms. Laura Hill, Assistant Field Supervisor for the Service’s West Virginia Field Office, provided information and answered attendee’s questions at this station regarding Service procedures as they pertained to the NEPA process.

**4.2.1.1.4 Station Four – Scoping Issues and Comment Solicitation – Stantec**

Ms. Joanna Morsicato (Senior Planning and Environmental Manager), Mr. Jeff Schwierjohann (Project Manager/Senior Environmental Scientist), and Mr. Steve Hall (Senior Associate) of Stantec staffed this station. Attendees were given information on the nature of comments being solicited by the Service and encouraged to complete and return the provided comment form; but were also presented the options of mailing, e-mailing, or faxing comments to the Service.

### 4.2.1.2 Scoping Presentation

A 60-minute slide presentation was given to approximately 42 attendees. Ms. Hill began the presentation by introducing the interdisciplinary team working on the NEPA aspect of the project (i.e., Invenergy and Stantec personnel identified above), delineating the meeting’s agenda, providing background on information on the Project, and then discussing potential issues the Project may have with the Indiana and Virginia big-eared bats. Mr. Erik Duncan then discussed the Project’s history, current status, and future plans (i.e., Phase II) in more detail. Mr. Steve Hall then presented information on Stantec’s role in the process by describing what was necessary for the Project to successfully navigate the NEPA process (e.g., scoping, HCP, ITP, EIS). Ms. Hill then
finished the presentation by defining the Service’s mission and goals for this project and how the public can best support the scoping process by providing comments.

The meeting was then opened up to the attendees for asking questions and making comments. Interdisciplinary team members not directly involved with the questions or comments took notes to ensure all were recorded to the best of their abilities. However, attendees were reminded on several occasions that verbal comments may not be adequately addressed by the process as a stenographer was not present and that written comments were necessary.

All scoping meeting materials can be found in Appendix E.

4.3 Agency Communication

4.3.1 Federal Agency Communication

Written letters soliciting comments were sent to the following Federal agencies and Office holders:

- U.S. Army Corps of Engineers (Huntington District, Regulatory Branch);
- Federal Aviation Administration (Southern Regional Office);
- U.S. Department of Energy (Office of NEPA Policy and Compliance [GC-54]);
- USDA Forest Service, Monongahela National Forest;
- U.S. Congressman Nick Rahall;
- U.S. Congressman Alan Mollohan; and
- U.S. Senator Jay Rockefeller.

4.3.2 State Agency Communication

Written letters soliciting comments were sent to the following State agencies and Office holders:

- West Virginia Division of Natural Resources;
- West Virginia Department of Environmental Protection;
- West Virginia Public Service Commission;
- West Virginia Division of Culture and History;
- West Virginia Governor Joe Manchin III;
- West Virginia Senator William Laird IV;
- West Virginia Senator Randy White;
- West Virginia Congressman Thomas Campbell;
- West Virginia Congressman Ray Canterbury; and
- West Virginia Congressman Sam Argento.

4.3.3 Local Government Organizations

Written letters soliciting comments were sent to the following local governments and Office holders:

- Nicholas County Commission;
- Greenbrier County Commission;
- Mayor, Town of Rupert;
- Mayor, Town of Rainelle;
- Mayor, Town of Richwood; and
- Mayor, Town of Renick.

4.3.4 Non-Governmental Organization/Private Sector/Academia

Written letters soliciting comments were sent to the following NGOs, citizens, and academicians:
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- Friends of Blackwater;
- Allegheny Front Alliance;
- American Bird Conservancy;
- Brooks Bird Club;
- Sierra Club;
- Bill Eubanks (Plaintiff Counsel);
- Mark Kauffelt (Concerned Citizen; Potential Counsel for Interested Party);
- Larry Thomas (Concerned Citizen); and
- Dr. Ross Conover (Glenville College, WV)
- Dr. Paul Friesma (Northwestern University, IL)

4.3.5 Technical Advisory Committee

As a part of its siting certificate, BRE is also required to consult with a Technical Advisory Committee (TAC) whose membership shall be open to the WVPSC, West Virginia Department of Natural Resources (WVDNR), the Bat and Wind Energy Cooperative (BWEC), a state-wide environmental organization, a state-wide bird group, and a private or academic institution with experience in avian issues. The WVPSC siting certificate requires BRE to consult with the TAC regarding post-contraction monitoring and adaptive management studies to reduce bat and bird mortality. This organization was also included in the scoping outreach effort. It should be noted, the Service has opted to not participate on the TAC due to their independent regulatory oversight of the Project.

5.0 PUBLIC SCOPING RESULTS

Forty-two attendees registered at the public meeting. Various head counts during the meeting did not yield any higher numbers. Only three written comments were submitted at the meeting. However, most comment cards (100+) were taken by attendees upon departure.

Written comments were officially accepted through 23 September 2010. However, comments received later have been and will continue to be reviewed. All comments received up to the date of this report are included in this analysis. A total of 69 written comments were submitted. Some commenter’s commented more than once, or provided supplemental information to support their earlier comments. As such, each individual commenter was only counted once, with the additional information being considered a part of the original comment. Most submissions contained comments on multiple issues.

In the analysis of comments provided on this project, it is important to restate the purpose for soliciting those comments. The Federal Register notice stated: “We provide this notice to: (1) Describe the proposed action and possible alternatives; (2) advise other Federal and State agencies, affected tribes, and the public of our intent to prepare an EIS; (3) announce the initiation of a 30-day public scoping period; and (4) obtain suggestions and information on the scope of issues and alternatives to be included in the EIS.” Scoping is not intended to be a polling process to gauge public opinion on support of a Project; again, it is conducted to “… obtain suggestions and information on the scope of issues and alternatives to be included in the EIS.” As such, letters were not grouped by support for, or opposition to, the Project as many did not specifically state their position in this regard and only provided comments as per the Service’s request. Comment tone and content often relayed the commenter’s position, but such assumptions could not be made by the reviewers without introducing bias into the process. All comments received listed issues of concern (pro and con). The percentage of comments providing information on specific issues was
used to assist in determining the importance and relevance of that specific issue, however, support or opposition to the overall Project did not influence its inclusion in this analysis.

Sixteen percent (16%) of all comments were from various NGO’s and organizations (i.e., on official letterhead with signature of elected officials). Thirty-two percent (32%) of all comments were form letters containing the exact same verbiage. The fact that form letters were used did not benefit or detract from the individual commenter. They were assessed as individual comments. Their inclusion here merely demonstrates a specific, concerted effort by individuals to ensure various issues were considered. Some form letters included individual comments aside from the form letter. These were also reviewed and considered in the analysis. Between 10%-15% of all comments (depending on issue addressed) supplied or cited supporting documentation for issues they noted. The relevance or credibility of those documents is not analyzed in this report. However, issues addressed by the EIS will analyze all relevant and credible supporting documentation in its analysis. Between 7%-10% of all comments (depending on issue addressed) cited the past litigation associated with this Project. Issues addressed by the litigation of this Project will be addressed in the EIS as they pertain to the HCP, ITP, and EIS.

Based on the input received during the scoping process, the comments were categorized as follows (in descending order of percent commented):

A) Environment Issues
   a. Bats
   b. Overall Environment (e.g., watersheds, habitats, aquatics)
   c. Birds
   d. Other flora and fauna
   e. Alternatives & Cumulative Effects
   f. Pre and post construction research (conducted by BRE or third-party), monitoring, and adaptive management
   g. Research available to support inclusion into the EIS (again, relevance or credibility of this research is not analyzed for this report)
   h. Climate (both local and global)

B) Socioeconomic Issues
   a. Human Health
   b. Cultural (to include view-shed and public lands)
   c. Economic Costs (to include taxes, jobs, overall costs)
   d. Tourism
   e. Property Values
   f. Research available to support inclusion into the EIS (again, relevance or credibility of this research is not analyzed for this report)

C) Energy Issues
   a. Quality and Quantity (i.e., Clean, renewable)
   b. Security (e.g., local availability, decreases foreign dependence)
   c. Reliability

5.1 Environment Issues

5.1.1 Bats

Eighty-four percent (84%) of comments received discussed bat issues, which was to be expected since the Federal Register Notice stated: “Beech Ridge Energy LLC is preparing an HCP in support
of an application for a permit from the Service to incidentally take endangered Indiana bats (Myotis sodalis) and Virginia big-eared bats (Corynorhinus townsendii virginianus)." Primary issues included:

- Habitat for maternity colonies and hibernacula may or may not currently exist within the Project site;
- Detections of endangered bat species within the Project site;
- Credibility of surveys completed for bats on Project site;
- Use of Project site as a migratory pathway;
- Location of two known Indiana bat hibernacula within 12 and 9 miles of Project site;
- Data from other regional wind facilities indicating high kill rates;
- Disruption of essential biological behaviours due to habitat modification;
- Current understanding and knowledge of bat/wind turbine interactions;
- Current understanding and knowledge of bat populations, distributions, and migratory habits;
- This Project’s role in conducting research to supplement current understanding and knowledge of above issues; and
- Current ability to avoid, minimize, or mitigate for turbine associated bat mortality.

5.1.2 Overall Environment

Seventy-three percent (73%) of comments received discussed general, primarily non-specific issues related to the overall environment and/or general “watershed,” “habitat,” and/or “aquatic issues.” Primary issues included:

- Impacts associated with forest fragmentation;
- Impacts to springs and headwater streams, and cascading effects on watersheds;
- Impacts to caves;
- Impacts to unique high elevation habitats; and
- Impacts to wetlands within the Project site.
- Impacts to environment within the proclamation boundary of the Monongahela National Forest

5.1.3 Birds

Sixty-seven percent (67%) of comments received discussed bird issues. Primary issues included:

- Neotropical migrant and resident bird species currently utilizing the project site for breeding or migration;
- Credibility of surveys completed for birds on Project site;
- Data from other regional wind facilities indicating high kill rates;
- Current understanding and knowledge of bird/wind turbine interactions;
- Current understanding and knowledge of bird populations, distributions, and migratory habits;
- This Project’s role in conducting research to supplement current understanding and knowledge of above issues; and
- Current ability to avoid, minimize, or mitigate for turbine associated bird mortality.

5.1.4 Other flora and fauna

Sixty-four percent (64%) of comments received discussed issues relating to flora and fauna aside from bats and birds. Primary issues included:

- Current understanding and knowledge of other flora and fauna taxa within the Project site;
• Current understanding and knowledge of wind facility impacts on other flora and fauna taxa;
• Disruption of essential biological behaviours due to habitat modification; and
• Creation of habitat for other flora and fauna species.

5.1.5 Alternatives and Cumulative Effects
Fifty-five percent (55%) of comments received discussed Alternatives and Cumulative Effects. Primary issues included:
• A complete acknowledgement and assessment of all viable alternatives;
• Project impacts on bats, birds, and habitats when viewed in conjunction with all other existing and planned wind projects in the eastern United States, and particularly in the Appalachian corridor;
• Cumulative impacts of non-wind energy projects (e.g., timber projects, strip mines, residential or commercial development, etc.) in the region; and
• The effects of White Nose Syndrome on bats and other pathogens (e.g., the effects of West Nile Virus on birds) in conjunction with aforementioned impacts.

5.1.6 Pre- and Post-construction Research, Monitoring, and Adaptive Management
Forty-eight percent (48%) of comments received discussed pre- and post-construction research (conducted by BRE or third-party), monitoring, and adaptive management. Primary issues addressed by received comments included:
• Quantity and quality of preconstruction surveys;
• Quantity and quality of post construction surveys;
• Quantity and quality of monitoring programs; and
• Quality of adaptive management plan.

5.1.7 Research Available to Support Inclusion into the EIS
Depending on the issue discussed, up to 64% of commenters believed there was research available to support analysis of particular environmental issues they had identified or inclusion in the EIS. However, only 14% provided and/or cited any specific research.

5.1.8 Climate (both local and global)
Ten (10%) of comments received discussed climate issues. Primary issues included:
• Impact of facility on global warming (pro and con); and
• Impact of facility on local climate and cascading effects on wind, humidity, and soils.
• Impact of climate change on timing of bird and bat migration seasons and how that may influence turbine operational measures to reduce bird and bat mortality.

5.2 Socio-Economic Issues

5.2.1 Human Health
Forty-seven percent (47%) of comments received discussed human health issues. Primary issues included:
• Disease spread due to decrease in bat populations and resulting increase in mosquito populations;
• Noise, light, and flicker impacts to surrounding residents;
• Blade and ice throws associated with turbines (i.e., safe setbacks); and
• Quantity and quality of recreational activities.
5.2.2 Cultural

Forty-three percent (43%) of comments received discussed cultural issues, including issues related to the view-shed and surrounding public lands. Primary issues included:

- Impacts to communal resources of nature, wildlife, scenic views, quality of life and human health;
- The role of Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may among other things, preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice; and
- Current understanding of “cultural attachment** within the surrounding area of the project.

*Cultural Attachment - the cumulative effect over time of a collection of traditions, attitudes, practices, and stories that tie a person to the land, to physical place, and to kinship patterns.

5.2.3 Economic Costs

Forty percent (40%) of comments received discussed economic costs associated with the project. Primary issues included:

- Creation of construction jobs initially, but limited long-term employment;
- Contribution to tax base;
- True cost of wind generated electricity vs. electricity produced through traditional sources;
- Assessment of grants, subsidies, and tax breaks allotted to this project and impact to consumers; and
- Assessment of costs to tie into the electric grid vs. production provided by the facility.

5.2.4 Tourism

Fourteen percent (14%) of comments received discussed tourism issues. The primary issue was:

- Positive and negative effects of the facility on tourism.

5.2.5 Property Values

Ten percent (10%) of comments received discussed property value issues. The primary issue was:

- Negative effects of facility on property values.

5.2.6 Research Available to Support Inclusion into the EIS

Depending on the issue discussed, up to 10% of commenters on socioeconomic issues believed there was research available to support analysis of a particular socioeconomic issue they had indentified for inclusion in the EIS. Of those commenters, 14% provided and/or cited specific research.

5.3 Energy Issues

5.3.1 Quality and Quantity of Wind Resources

Thirty-two percent (32%) of comments received discussed the quality and quantity of wind resources. Primary issues included:

- Clean renewable energy source;
- Installed generation capacity vs. actual generation in the Mid-Atlantic Highlands; and
- Tracking of wind-generated electricity vs. electricity produced through traditional sources.
5.3.2 Reliability
Thirteen percent (13%) of comments received described, sometimes in depth with documentation, the unreliability of wind energy. Primary issues included:
- Consistent lack of production by wind facilities during peak hours of demand;
- Intermittent, volatile, and unreliable output from wind facilities; and
- Ability of grid managers to efficiently manage grids with wind facility tie-ins.

5.3.3 Energy Independence
Six percent (6%) of comments received discussed energy independence involving wind energy. Primary issues addressed by received comments included:
- Energy produced and utilized locally; and
- Decrease foreign energy dependency.

5.3.4 Research Available to Support Inclusion into the EIS
Depending on the issue discussed, up to 12% of commenters believed there was research available to support analysis of particular energy issues they had identified for inclusion in the EIS. These commenters provided and/or cited specific research.

5.4 Other
There was one request for the entire BRE project, including portions already built, to be reviewed under NEPA and another request for the EIS to be peer reviewed.

Three commenters questioned Stantec’s credibility to conduct a thorough examination of the data, issues, and research, and to compile into an unbiased, Service-approved EIS. Comments included:
- In examining the studies for AES New Creek, AES Laurel Mountain, Pinnacle Knob, Mountaineer Project, Dan’s Mountain, and Liberty Gap, there are wide study variations between projects. Between and within projects, the Stantec studies offer conflicting study protocols, data, conclusions and recommendations. One commenter recommended the complete review of all wind project studies conducted by Stantec or Woodlot Alternatives;
- Stantec provided inadequate and misrepresentative bat data for the AES Laurel Mountain wind project and should not write the Beech Ridge EIS; and
- Stantec has prepared bat impact studies for past wind projects, the methodologies and conclusions for which have been highly questionable.

6.0 PRELIMINARY PROPOSED ALTERNATIVES
Many commenters proposed specific alternatives. Based on comments received during the scoping period, several preliminary alternatives are currently being considered for inclusion in the EIS in addition to the No Action Alternative and the Proposed Action. All proposed alternative comments are listed under the following categories:

- Variations in the scope of covered activities;
  - Study all alternatives.

- Variations in curtailment and operation of wind turbines;
  - Curtail turbines during entire bat migration seasons.
  - Implement time of year restrictions in spring, summer, and fall during night time hours to minimize bat mortalities.
- Require operational restrictions similar to those imposed by Judge Titus.
- Allow full operation of turbines year-round.
- Use higher cut-in speeds, especially those 5 m/sec or higher.

Variations in the location, amount, and type of conservation;
- Turn the project site into a national wildlife refuge if it is important for bats.
- Protect important off-site bat habitat in perpetuity (or for the life of the project) through conservations easements or fee-title purchase.
- Lease or purchase property near bat hibernacula, and plant potential roost trees to provide alternate habitat that reduces the potential for use of roost trees on the project site and nearer the turbines.
- Fully reclaim disturbed areas to the same wildlife habitat functions that existed before disturbance.

Variations in the scope of the permit;
- Issue the Incidental Take Permit as soon as possible and allow the project to operate at full capacity (no operational restrictions).
- Issue a permit with a shorter duration than the life of the project.
- Issue a permit for zero take. If the projects kills a threatened or endangered species, shut it down and dismantle it.
- Deny the permit and fully terminate the project (i.e., a No Build Alternative that removes the 67 turbines already built and cancels future construction).

Variations in monitoring the effectiveness of permit conditions;
- Require a minimum of 3-years post-construction monitoring.
- Require scientific studies (post-construction monitoring) for the life of the project. Include unannounced site inspections during monitoring.
- Require effective mortality studies over multiple years with adaptive management to reduce bird and bat mortality.
- Search at least 50% of operating turbines during post-construction monitoring for adequate sample sizes.
- Search selected turbines at least every 4 days (except during fall migration when they should be searched at least every 2 days).
- Plant areas immediately adjacent to the turbines in short grass, or cover with gravel, to improve searcher efficiency for wildlife mortality monitoring.

Alternate project locations;
- Build the project in a different location.
- Identify alternate turbine locations within the project’s boundaries.

Alternate forms of energy production and use;
- Look at alternative types of energy production.
- Save energy: focus efforts to curb the over-indulgent use of electricity by Americans.
- No energy production (more energy is not needed).
• Additional research;
  - Require that studies be conducted by qualified professionals without a vested interest in the outcome of the studies (not paid by the applicants).
  - Require additional bat studies: extensive on-site and off-site mist netting, acoustic monitoring, spring emergence studies, and additional cave searches offsite.
  - Study the effectiveness of bat deterrents in reducing bat mortality.
  - Fund research to study how White Nose Syndrome, in combination with wind turbine mortalities, impacts bat population health, viability, dynamics, survival, and recovery potential.
  - Maintain and share data through formal agreements that that make the data available to qualified institutions, researchers, graduate students, and community members.

• Regulatory changes;
  - Issue a Federal executive order imposing an immediate 5-year moratorium on construction and operation of giant wind turbines.
  - Enact legislation so that state agencies have full regulatory authority to mandate environmental studies, permits, and pre- and post-construction monitoring for wind power projects.
  - Require each state to adopt guidelines or regulations to assure the prevention or minimization of avian impacts from new wind turbine construction and operation.

Analysis during the development of the EIS will determine which of these preliminary alternatives and ideas will be subject to detailed analysis and which, if any, may be dropped from further consideration in the EIS based on relevance to, or compatibility with, the Purpose of and Need for the Federal Action and/or the Proposed Action.

7.0 SUMMARY OF FUTURE ACTIONS

The Service will accept public input during development of the HCP and EIS. All written public comments will become part of the administrative record.

The next formal comment period will open when the Notice of Receipt of Application and Notice of Availability of the draft EIS and draft HCP is published. The Service and any formal cooperating agencies will issue press releases and circulate a notice of the draft EIS and draft HCP to interested parties. The draft documents will be available to the public on the Service’s website, at local libraries, and by request from the Service. Availability of the draft EIS will be announced by publication of a notice in the Federal Register. Following the release of the drafts, there will be a minimum 60-day public comment period.

At the conclusion of this second public comment period, the Draft EIS and Draft HCP will be revised, and the Final EIS and Final HCP will be prepared. Availability of the Final EIS will be announced by publication of a notice in the Federal Register, at which time a 30-day waiting period will commence prior to the Agency action of issuing or denying the permit. Notification will also be sent to all persons who provided comments during any phase of the public comment process.
The Service will engage in necessary agency consultation and coordination regarding potential effects to resources during this process. The Service will also continue to review and respond to substantive comments provided to them. A Record of Decision is anticipated in 2011 or 2012.