Section E. Existing Permits, Phase I

West Virginia Public Service Commission Approvals and Orders for Beech Ridge Wind Energy Project

PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

At a session of the Public Service Commission of West Virginia, in the City of Charleston, on the 28th day of August, 2006.

CASE NO. 05-1590-E-CS

BEECH RIDGE ENERGY LLC, a limited liability company,
Olney, Maryland.
Application for a Siting Certificate to Authorize the Construction and Operation of a Wholesale Electric Generating Facility and Related Transmission Support Line of Less than 200 kV and Associated Interconnection Facilities in Greenbrier County and Nicholas County, West Virginia.

COMMISSION ORDER

When deciding whether to grant or deny an application for a siting certificate, either in whole or in part, this Commission has a statutory obligation to "appraise and balance the interests of the public, the general interests of the state and local economy and the interests of the applicant. . ." As set forth in the Findings of Fact and Conclusions of Law, the preponderance of the evidence is supportive of the application. Therefore, this Commission is required to fulfill its statutory duty by granting, conditioned upon several specific requirements, as specified herein, a siting certificate for this wind project and the related transmission line.

BACKGROUND

Application

On November 1, 2005, Beech Ridge Energy, LLC applied for a siting certificate, pursuant to W. Va. Code §§ 24-2-1(c) and 24-2-11c, for a 186 megawatt (MW) wind-powered generating facility, to be located nine miles northeast of Rupert in Greenbrier County, and for a 13.8-mile 138 kV transmission line to connect the generating facility to Allegheny Power's Grassy Falls substation near Nettie in Nicholas County. Beech Ridge

proposed to construct 124 1.5 MW wind turbines, mounted on 262-foot tubular steel towers, and 150 pole structures for the transmission line, with a total project cost of $300 million. Application pp. 1-3 & attachments (Ex. Beech Ridge No. 1); Form No. 2 p. 2 (Notice of Filing order); *Proposed Generating Facility* (Siting Rule 3.1.c.3); *Financial & Economic Data* (Siting Rule 3.1.1.1.A), all attached to Application.

The transmission line will be built entirely within new rights-of-way from private landowners.[1] The transmission line footprint will be 100 acres, more or less. The generating facility footprint will be 300 acres, more or less. The turbines are planned along 23 miles of rural ridgetops. There will be no air or water emissions from the project. David Groberg Direct p. 21 (Tr. May 17, 2006). Beech Ridge does not require fuel to produce wind energy. *Description of Generating Facility* (Siting Rule 3.1.c.1); *Total Land Required* (Siting Rule 3.1.c.2); *Emissions List* (Siting Rule 3.1.c.3); *Technical Data* (Siting Rule 3.1.g.1); all attached to Application.

The wind turbines will be located on a 100,000-acre tract owned by MeadWestvaco. Tr. p. 14 (May 17, 2006) (David Groberg). The tract previously has been timbered, and coal has been surface mined from several parts of it. MeadWestvaco expects these uses to continue. Beech Ridge proposed to locate many of the turbines, as well as parts of the transmission line, on land reclaimed from old strip mining sites. *Site Selection* (Siting Rule 3.1.a.2), attached to Application.

Beech Ridge selected this location because of its wind energy development potential, including terrain, geography and above-ground wind speeds, its substantial distance from environmentally or culturally significant areas, its location near major electricity transmission facilities, the availability of privately-owned land with concurrent uses and the absence of known critical habitat for any threatened or endangered species. *Reasons for Site* (Siting Rule 3.1.a.2), attached to Application. Beech Ridge looked for areas more than 10 miles away from National Parks, Wilderness Areas and other environmentally or culturally sensitive areas. *Siting Criteria* (Siting Rule 3.1.g.1.A), attached to Application.

Beech Ridge will offer the power for sale in the wholesale market, and its rates will be regulated by the Federal Energy Regulatory Commission (FERC). Form No. 2 p. 2 (Notice of Filing order), attached to Application. Beech Ridge will request Exempt Wholesale Generator (EWG) status from the FERC. Application p. 2.

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[1] The right-of-way route was preliminary at filing. Beech Ridge advised it would notify the Commission if the route changed. *Generating Facility Description* (Siting Rule 3.1.c.1), attached to Application.

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Beech Ridge is owned by Invenergy Wind LLC, which has financed the development, construction and operation of more than 10 major power generation facilities around the world, totaling more than $1.5 billion. While it may elect to sell partial ownership shares to separate passive ownership investors, Beech Ridge said it intends to maintain its ownership throughout this project's development, construction and operation. Application p. 2.

Beech Ridge said it expected to acquire all of the land rights, as well as most permits and approvals, by the end of 2005 or early in 2006. *Project Schedule* (Siting Rule 3.1.a.6), attached to Application. Final construction design would begin in spring 2006, and construction and installation would occur in summer and fall 2006. Id. Beech Ridge hoped to have the project in service by year end 2006, and asked for a Commission decision no later than July 2006. Application p. 3.

Beech Ridge said that the project will create more than 200 temporary construction jobs and 15-20 permanent jobs with a $35,000 average annual salary. Further, the project will result in $400,000 yearly in tax revenue to Greenbrier County for 20 years and $200,000 yearly in tax revenue to the state, as well as contribute to a growth in tourism. *Local & State Economic Impact* (Siting Rule 3.1.l.3), attached to Application.

Studies attached to Beech Ridge's application included bats, birds, sound and visual effects. Beech Ridge's bat studies were conducted at the generating facility, and Beech Ridge said it also would conduct bat studies on the transmission line corridor. David Groberg Direct p. 14 (Tr. May 17, 2006).

Beech Ridge asked for expedited treatment. It asserted that a siting certificate should be issued because 1) Beech Ridge has the expertise to construct and operate the facility, and the project will benefit the local and state economy and employment, 2) the eastern United States needs additional electricity, and 3) Greenbrier and Nicholas Counties and the entire state will benefit from the project. Application p. 3.

By December 6, 2005, more than 1,400 letters of protest had been filed, citing lower property values, negative impact on tourism, noise, bat and bird kills, negative impact on hunting and fishing, disturbing cemeteries, disrupting scenic views, risk of forest fires, pesticide run off from the brush clearing, night time light pollution, little energy production, limited benefit to West Virginia citizens, disruption of emergency services radio traffic, significant nearby Civil War sites, and negative impact on local fundraisers. Initial Joint Staff Memorandum p. 6.

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During that time, support letters also were filed. Initial Joint Staff Memorandum p. 6. Many requested a hearing in Greenbrier County. Many opposed the project, because they believe the turbines will marr the pastoral setting, which attracts tourists. Many surrounding landowners value the scenic views from their own properties and want to preserve them.

Also in December, Utilities Staff advised that funding was not yet committed and Beech Ridge's application did not reflect financial viability. Initial Joint Staff Memorandum p. 7. The Commission's August 27, 2004, order in Longview Power, LLC, Case No. 03-1860-E-CS, establishes that economic viability is important for the review of wholesale generating facility siting cases, Staff said. Id.

Pursuant to W. Va. Code § 24-2-11c(b), the Commission must issue its decision within 300 days of the application's filing, or by August 28, 2006.

Procedural matters

On November 3, 2005, the Commission required Beech Ridge to publish notice of its application one time in Greenbrier, Nicholas and Kanawha counties. Notice of Filing Order pp. 2-3. Beech Ridge published notice of its application in *The West Virginia Daily News* in Greenbrier County on November 9 and 21, 2005; *The Nicholas Chronicle* in Nicholas County on November 10, 2005; and the *Charleston Gazette* in Kanawha County on November 12, 2005. See Affidavits of Publication (Nov. 23, 2005).

The Commission granted these petitions to intervene:[2]

Stephanie Mendelson	February 6, 2006
West Virginia State Building and Construction Trades Council, AFL-CIO (Building Trades)	February 6, 2006
Michael A. Woelfel	February 6, 2006
Mountain Communities for Responsible Energy (Mountain Communities or MCRE)	February 6, 2006
John Walkup	February 6, 2006
Jeffrey and Alicia Eisenbeiss	February 6, 2006
Frank Young	February 6, 2006
Citizens for Responsible Wind Power, Inc.	February 6, 2006

[2] The petitions granted on February 6, 2006, are set forth on page 24 of the Commission order. Mr. Lakiotes' petition was granted at the Lewisburg public comment hearing (Tr. p. 36, April 25, 2006, evening hearing). Friends of Greenbrier County's petition was granted on the first day of the evidentiary hearing. Tr. p. 14 (May 10, 2006).

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West Virginia Highlands Conservancy	February 6, 2006
Cleve Benedict	February 6, 2006
Jim Lakiotes	April 25, 2006
Friends of Greenbrier County	May 10, 2006

And, on February 6, 2006, the Commission established the procedural schedule and advised that it would accept public comment at the beginning of the May 10, 2006, evidentiary hearing in Charleston. Comm'n Order pp. 24-25.

On February 6, 2006, the Commission also found that the map Beech Ridge published in the Notice of Filing Order was very difficult to review, due, in part, to its size, inadequate reference markers and the inclusion of topographical lines. The Commission ordered Beech Ridge to publish the Notice of Filing again, one time in Nicholas, Greenbrier and Kanawha counties, with a different map, taking into account the Commission's concerns. Comm'n Order p. 25. Beech Ridge published notice of its application, with a revised map, in the *Charleston Gazette* in Kanawha County on February 24, 2006; *The West Virginia Daily News* in Greenbrier County on February 27, 2006; and *The Nicholas Chronicle* in Nicholas County on March 2, 2006. See Affidavits of Publication (Mar. 17, 2006).

Beech Ridge placed a copy of the case file, including color maps, at these locations, to facilitate public access and review:

Rupert City Hall	Greenbrier County Courthouse, Lewisburg
Rainelle City Hall	Renick City Hall, later moved to Renick Post Office
Richwood City Hall	Nicholas Court Courthouse, Summerville
Williamsburg Post Office	

Beech Ridge ltr. pp. 1-2 (Feb. 16, 2006); Beech Ridge ltr. p. 1 (Feb. 27, 2006).

On April 25, 2006, the Commission conducted two hearings in Lewisburg, to receive public comment on the application. Several hundred attended each hearing. Since there was not sufficient time for everyone to speak, Commission advised that it would continue to receive and consider written public comment, until the case was decided.

On May 1, 2006, the Commission required Beech Ridge to publish notice of the evidentiary hearing one time in Greenbrier, Nicholas and Kanawha Counties. Comm'n Order p. 2. Beech Ridge published notice of the evidentiary hearing in *The Nicholas Chronicle*, *The West Virginia Daily News* in Greenbrier County, and *The Charleston Gazette*, all on May 4, 2006. See Affidavits of Publication (May 8, 10 & 11, 2006).

The Commission conducted evidentiary hearings on May 10, 11, 12, 16, 17, and 18, 2006, at the Commission's office in Charleston. Some of them extended into the evening.

At the beginning of the May 10, 2006, hearing, the Commission received public comment from people who were not able to participate in the Lewisburg hearings. Again, more people wanted to comment than could be heard. Tr. pp. 27-54 (May 10, 2006).

Also at the May 10, 2006, hearing, the Commission granted Beech Ridge's amended motion for protective treatment, to keep confidential sensitive biological information, being the locations not known to the general public where certain endangered species have previously been found, because pursuant to W. Va. Code § 20-2-1, it is the declared public policy of West Virginia to protect wildlife resources; pursuant to W. Va. Code § 20-2-3, the ownership of all wildlife is declared to be in the state; pursuant to W. Va. Code § 20-7A-2, it is unlawful to disturb the natural condition of any cave; pursuant to W. Va. Code § 20-7A-4, it is unlawful to disturb any plant or animal life within a cave; and pursuant to the federal Endangered Species Act, 16 U.S.C.A. § 1538, it is unlawful to take[3] any endangered or threatened animals. In light of these clear and consistent directives, it would be against the public interest to make public through this proceeding the location of caves in which federally-protected species of bats have been known to exist. Tr. p. 157 (May 10, 2006).

Beech Ridge presented the following witnesses:

Ronald A. Canterbury – bird (avian) studies, Tr. pp. 61-101 (May 10, 2006)
Laidley Eli McCoy – water (hydrology) study, Tr. pp. 105-134 (May 10, 2006)
Mark Kizer – traffic study, Tr. pp. 133-150 (May 10, 2006)
Russ Romme – bat (chiropteran) studies, Tr. pp. 153-55 (May 10, 2006); Tr. pp. 13-92 (May 11, 2006); Tr. Pp. 72-96 (May 12, 2006)
John Guariglia – view shed analysis, Tr. pp. 209-346 (May 11, 2006); Tr. pp. 118-127 (May 18, 2006).
James Barnes – sound (acoustical) study, Tr. pp. 139-195 (May 1, 2006); Tr. pp. 85-96 (May 18, 2006)
John Marczewski – interconnection to power grid, Tr. pp. 110-114 (May 12, 2006)
Dr. Robert Patton – cultural resources, Tr. pp. 115-155 (May 12, 2006)
Timothy Sedosky – wetlands assessment, Tr. pp. 10-14 (May 16, 2006)

[3] To take is to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct. "Harm" includes significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding and sheltering.

Deborah F. Phillips-Weikle – tourism, Tr. pp. 14-52 (May 16, 2006)
Jay C. Goldman – property values, Tr. pp. 54-193 (May 16, 2006)
David Groberg – project manager, sponsor of Beech Ridge's application, Tr. pp. 11-181 (May 17, 2006); Tr. pp. 129-144 (May 18, 2006)
Paul Miller – MeadWestvaco's support, Tr. pp. 97-106 (May 18, 2006)
Erik Duncan – turbine locations, Tr. pp. 115-116 (May 18, 2006)
Jessica L. Yeager – wildlife issues, US Fish and Wildlife recommendation, Tr. p. 81 (May 18, 2006).

Stephanie Mendelson presented Caroline Rudley as a witness. Ms. Rudley testified regarding the historic surveys of the Williamsburg and Falling Springs districts that she conducted several years ago to document historic sites. Tr. pp. 96-112 (May 11, 2006).

The Building Trades Council presented the following witnesses:

Dr. Christopher Thompson – project's economic impact using IMPLAN model, Tr. pp. 112-138 (May 11, 2006)
Mike Matthews – Beech Ridge's agreement to use local labor, Tr. pp. 194-198 (May 16, 2006)

Mountain Communities presented the following witnesses:

Robert Lee Lively – owns a second/seasonal home on Beech Ridge, Tr. pp. 200-208 (May 11, 2006)
Dr. Michael Gannon – bat (chiropteran) study, Tr. pp. 40-70 (May 12, 2006)
S. Kendall Anderson – draft view shed analysis, Tr. pp. 97-109 (May 12, 2006)
Van C. Anderson – MCRE's five-mile map, view shed analysis using Navigator, Tr. pp. 158-221 (May 12, 2006)
Carroll C. Bassett – day/night photographs of ridges where turbines are proposed, Tr. pp. 201-203 (May 16, 2006)
Jeffrey C. Eisenbeiss – MCRE's five-mile map, Tr. pp. 213-217 (May 16, 2006)
D. Daniel Boone – efficiency of wind turbines, Tr. pp. 188-204 (May 17, 2006)
Deborah Sizemore – MCRE's five-mile map, Tr. pp. 240-245 (May 17, 2006)
David Buhrman – view shed study, dark skies, Tr. pp. 247-267 (May 17, 2006)
B.J. Gudmundsson – Duo video, Tr. p. 76 (May 18, 2006)
Josh Lipton – wildlife mortality, Tr. p. 76 (May 18, 2006)
John Walkup – photo essay of Williamsburg, Friars Hill and Leonard-Cordova Road, Tr. pp. 70-74 (May 18, 2006)

Jeffrey and Alicia Eisenbeiss presented the testimony of Mr. Eisenbeiss regarding turbine location, noise, health, and property values. Tr. pp. 217-240 (May 16, 2006).

Mr. Woelfel testified on his own behalf. He addressed the project's potential effect on historic sites, as well as property values. Tr. pp. 206-219 (May 17, 2006).

Staff presented the following testimony:

Dixie Kellmeyer – financial analysis, Tr. pp. 10-20 (May 18, 2006)
Wayne M. Perdue – engineering analysis, Tr. pp. 21-66 (May 18, 2006)

Further public comment

On May 10, 2006, the three full-time residents of Beech Knob, as well as 10 other residents,[4] filed letters in support of the project. Also on May 10, 2006, Barry Glick of Sunshine Farm and Gardens filed comments in opposition.

On May 12, 2006, the Town of Rainelle filed a letter in support of the project. In a resolution adopted on April 10, 2006, Rainelle stated

> [W]e believe [the project] is a good fit for Greenbrier County. We are working to improve our economy from the loss of coal mining jobs and the redirection of traffic from Route 60 to Interstate 64. The Beech Ridge Wind Farm will not have any adverse impact on hunting, fishing, air quality, water quality, and tourism of property values. In fact, we are working on a plan to bring travelers off of Interstate 64 to view the wind farm on Cold Knob and hope to eventually work with the Greenbrier Convention and Visitors Bureau and the Midland Trails Historic Highway Association to promote this type of tourism in our region . . . Please help us to improve our business and tax base by saying yes to Beech Ridge Energy's request.

On May 12, 2006, the Town Council of Rupert filed comments in support, writing, "We believe this project will increase job opportunities and economic development for our community and area. We would recommend that Midland Trail Scenic Highway Association support this project as well." Rupert passed a resolution in support of the project on March 15, 2006.

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[4] There are several thousand letters of public comment. To provide a flavor of these remarks, the Commission refers to several of them in this order. The Commission very much appreciates the public participation in this matter.

Also on May 12, 2006, the Midland Trail Scenic Highway Association filed comments in support. Geoffrey Skaggs, the Association's president and former mayor on Ansted, attended the May 10, 2006, hearing but was not able to present comments. He wrote,

> Our Association's work is to promote economic development and tourism along Midland Trail (US Route 60) from White Sulphur Springs to Kenova. I believe it is in the best interests of our business partners along the Trail to support the Beech Ridge Wind Farm project. As requested by the Towns of Rainelle and Rupert, our Association plans to promote the wind farm as a tourist attraction – if and when – it is built. The temporary and permanent jobs the project brings, the taxes expected, and a twenty-year dismantle clause in the contract, tip the scales in favor of the wind farm.

He attached tourism documents from Tucker County which referred to the wind farm there.

And, on May 12, 2006, Mr. and Mrs. Eisenbeiss filed 84 documents in opposition to the project. These materials were not admitted as evidence at the hearing, because the documents are the work of others. Among other issues, Mr. and Mrs. Eisenbeiss objected to the project due to health concerns. In support of the health concerns, they provided documents by Dr. Nina Pierpont.

On May 16, 2006, the Pocahontas County Convention & Visitors Bureau filed comments of concern, writing, "[W]e respectfully request that accurate interpretations of the viewshed analysis and aesthetic impacts of the proposed Beech Ridge Wind Farm be a part of your decision making process. We are concerned about possible impacts on Pocahontas County tourism, which according to a recent study, impacts the local economy more than any other county in West Virginia."

On May 20, 2006, E. Waddell filed these comments:

> I'm in favor of the wind farms on some of these ugly mountains here in W.V. I think they're neat and show that there's some kind of progress here in W.V. My only negative thought is that it seems we should be getting the benefit of cheaper electricity here locally, instead of sending it out of state.

On May 23, 2006, Ken Bryan filed comments in support of Beech Ridge. He advised that the closest home to the project is about a mile away, not as close as protestors suggest. Mr. Bryan characterized the opposition as selfish and said that the project is a fantastic undertaking for economic development. "It will probably draw more people than anything

has in this area for a century," he wrote. His son visited a wind farm in California, and there was a traffic jam of tourists there.

On May 23, 2006, Dr. Rhonda Hamm, a Greenbrier County doctor, filed comments in opposition. She has treated encephalitis patients in Greenbrier County, and she is concerned because mosquitoes carry LaCrosse encephalitis, bats eat mosquitoes and wind turbines kill bats.

Also on May 23, 2006, Ms. Doshia Webb, a naturalist, filed comments in opposition. She believes that Beech Ridge's bat study is insufficient, because it is based upon statistics from two other sites, which she believes are not similar. Thus, she advised that the Commission cannot extrapolate the projected bat kill at Beech Ridge from the data from those other sites. Ms. Webb also is concerned that post-construction bird studies have never been completed at other sites.

On May 24, 2006, David Buhrman filed comments in opposition. He also provided a 20-minute video disk about the largest operating turbine installation east of the Mississippi River, located at Tugg Hill Plateau, New York. That facility has 120 turbines. The majority of the commentors in the video disk expressed concerns about the New York wind facility.

On May 24, 2006, William M. Balfour, a professional geologist, filed comments in opposition. While cheap wind energy would be good, "It will come with a price that most people in the area are not willing to pay, the loss of an idyllic way of life. Within a few short years technology will no doubt makes these huge turbines obsolete, along with cell phone towers and many other eyesores that dot the landscape," he wrote.

On May 26, 2006, B.J. Sharp-Gudmundsson filed comments in opposition. She is producing a documentary on Duo, regarding the life and history of the Greenbrier coal field. In her film, she plans to ask Duo families, "Why are you still here?" "If windmills are built on Beech Ridge the people will be driven away and all of our work will have been for nothing," she wrote. She also provided a video disk, narrated by Robert Taylor, which documents the history of Duo and its miners.

On June 21, 2006, Mr. Walkup filed several comments in opposition. He provided newspaper stories from Virginia and England to support his property value concerns; an article from *West Virginia Wildlife* regarding the importance of the Cold Knob area as a migratory bird corridor and a public wildlife viewing area; and a study by Frits G.P. van den Berg, University of Groningen in the Netherlands, and Dr. Nina Pierpont's testimony before the New York Legislature's Energy Committee regarding health concerns. Dr. Pierpoint is a pediatrician.

On June 27, 2006, Lesli R. Forbes filed comments in support, writing

> As a West Virginian, I welcome any company who wants to build and grow in the Mountain State. [I moved to NC after college] in search of more professional opportunity. But after many months, I realized that there is something special about our great state and our community atmosphere. . .Time and time again I hear my fellow West Virginians talk about the lack of opportunity here in our state. Please don't close the door on the prospect of good jobs and clean energy.

She provided two videos – in one, a wind energy trade group speaks broadly of wind power, and in the other, persons involved with wind farms around New York are interviewed. Both videos presented positive viewpoints regarding wind power and wind farms.

On July 10, 2006, Holly Katchuk filed comments in opposition. She wrote that West Virginia portrays itself as a state of great beauty, and the turbines will destroy that beauty. She attached a map of other proposed wind project locations, and from that map argued that the cumulative effect of several projects increases the blight exponentially.

On July 10, 2006, Josh Lipton provided a June 2005 United States Forest Service Technical Guide that "supports the position that the current best methodology for surveys of bats in the field is a combination of mist-netting and acoustic monitoring."

On July 26, 2006, United States Congressman Alan B. Mollohan filed comments in opposition. He said that the issues are applicable statewide, and he noted that the PSC has approved three wind projects in his district. One is operating, the two others soon will be built. P. 1. "It is evident that wind-energy developers have targeted this state, and that if they are allowed to have their way, thousands of industrial wind turbines will be erected across the mountain ridges of West Virginia," he wrote.

Since April 2003, when the PSC last considered such an application, "we now know much more about the serious damage that wind-turbine projects can cause to wildlife and to the environment generally." P. 2. Further, now there is massive public outcry about these projects, he wrote. P. 2.

Congressman Mollohan said that Beech Ridge ignored the U.S. Fish and Wildlife Service recommendation to conduct multi-year pre-construction studies regarding the impact of the project on migratory birds and on bats. "This conduct in itself warrants denying the application," he wrote. P. 3. Fish and Wildlife, not the PSC and certainly not Beech Ridge, has the expertise to determine the steps that must be taken, he argued. P. 5. He said it was

not necessary for Fish and Wildlife to lodge a protest in this case file because its recommendation was spelled out to Beech Ridge in a letter. Pp. 5-6.

He argued that the project would result in environmental and economic costs, "from erecting a series of huge wind turbines on the ridges of mountains that are prized for their natural beauty." P. 6. Because of the project's size, "an overwhelmingly visual impact is inevitable," Congressman Mollohan wrote. Tourism and second homes are substantially based on the state's natural beauty, he said. P. 7.

To protect the long-term interests, he urged the Commission not to approve this project "unless it is absolutely clear from the case record that the project will not have such negative impacts." That has not been shown in this case, as is underscored by the thousands of protests, he said. P. 7.

Congressman Mollohan said the project would enjoy huge tax subsidies under the state laws, and he argued that the tax treatment should be considered public funding. Pp. 8-9.

On July 31, 2006, Staff advised that Fish and Wildlife was preparing a response to the bat study prepared by Beech Ridge's BHE.

On August 9, 2006, Mr. Walkup urged the Commission to consider additional information from Fish and Wildlife and he asked for an opportunity to respond to any such filing.

On August 14, 2006, the Sierra Club, West Virginia Chapter, advised the Commission that it supported Beech Ridge's project, writing as follows:

> The Sierra Club supports renewable energy nationally, and in West Virginia. Due to the controversy over the siting of commercial wind farms in West Virginia, we have engaged in a lengthy and careful review of the available information regarding their impacts, as well as the impacts of alternative energy sources. At the Executive Committee meeting of August 5, 2006, a motion to support the application of Beech Ridge Energy LLC for a Certificate of Site Approval from the PSC was adopted unanimously, with conditions.
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> Wind energy has substantially fewer environmental impacts than fossil fuel or nuclear energy and has the potential to provide a significant proportion of America's electricity needs at competitive prices. Compared to coal-fired plants, wind creates no pollution, does not contribute to global warming,

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> produces no acid mine drainage, does not require mountaintop removal mining, and is substantially less noisy than either coal-fired power plants, or coal surface mines. We recognize that all energy sources have some environmental impacts, and that the impacts to viewsheds are perceived negatively by some, but the Club believes that this is a reasonable trade-off for clean renewable energy-generating facilities that are appropriately sized.

Ltr. pp. 1-2.

These are the Sierra Club's conditions:

1. Beech Ridge must conduct pre-construction surveys for threatened and endangered species, using protocols approved by the U.S. Fish and Wildlife Service.

2. If listed species are found, construction in such habitat must be prohibited. In addition, a Habitat Conservation Plan must be approved by the U.S. Fish and Wildlife Service before construction begins.

3. Post-construction surveys for bird and bat impacts must be conducted for three years, as recommended by U.S. Fish and Wildlife Service.

4. If post construction surveys identify adverse impacts, wind farm operations must be curtailed during periods of peak activity (bird migrations, bat maternity seasons, etc.).

5. Limits to land surface disturbance should be established to minimize visual and habitat impacts.

6. Posting of a bond sufficient to enforce the above conditions should be required.

7. Posting of an additional bond sufficient to cover expenses of land reclamation if and when the facility ceases operation.

Ltr. p. 1. The Sierra Club recognized that "past wind farms have produced some adverse impacts, and believe that the above conditions are necessary, reasonable, and consistent with past PSC Orders." P. 2. The surveys and operational limits will protect bats and birds. Limits on land disturbances will prevent clearing more land than is needed for construction, and bonding is essential to insure compliance.

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On August 15, 2006, Mountain Communities asked the Commission to accept, consider and give substantial weight to any Fish and Wildlife response which may be filed. "MCRE is concerned and confused as to the USFW comments about not receiving certain BHE studies until June 21, 2006, and requests that the Commission inquire into whether Beech Ridge fully cooperated with USFW in order to fully involve that agency in this proceeding." P. 1.

On August 17, 2006, U.S. Fish and Wildlife Service (hereafter the Service, or Fish and Wildlife) filed a copy of a letter it sent to Beech Ridge's Mr. Romme, in which it wrote as follows:

> [The Service] remains concerned that the proposed Beech Ridge wind power project may harm or kill federally-listed Indiana bats (*Myotis sodalis*) and/or Virginia big-eared bats (*Corynorhinus townsendii virginianus*). We also remain concerned that without 3 years of pre-construction surveys, as described in the Service's interim guidance (2003), decisions will be made that will negatively impact federally-listed bats.

Ltr. p. 1. The Service recited that in July 2005 BHE conducted a mist net survey at 15 sites, following the procedures described in the Services' 1999 Indiana Bat Recovery Plan, and that no federally-listed species were captured.

Fish and Wildlife wrote that pre-construction surveys can provide baseline information on bat presence in the project area, but that one year of data "may not be sufficient to determine bat presence as weather patterns change from year to year." Weather patterns, or other local regional elements, may affect bat behavior from year to year, causing a skewed survey if there is only one year of data. Further, mist net surveys should be conducted during fall and spring migration to understand the number and diversity of bats in the area, the Service wrote. P. 1.

The Service estimated an annual facility-wide bat mortality of 6,746 common, not federally-listed, bats. P. 2. "However, the Service is concerned about the cumulative impact of multiple wind power facilities on common bat species, especially given the mortality estimate provided above and the fact that the anticipated project life for each facility is 25 to 30 years." P. 2.

The Service recognized that the project would result in the removal of only 0.08% of forests in Greenbrier County, but it expressed concern about the cumulative impact, including habitat fragmentation. P. 2. However, the Service also recognized that openings can provide

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suitable habitat for insects and thus create better foraging for bats than dense forest. Having attracted bats, though, the likelihood of bat mortality from turbines is increased.

Based on BHE's Risk Assessment, and the current information on mortality associated with wind turbines, Fish and Wildlife Service recommended the following conditions on the project's construction and operating conditions:

1. Three years of pre-construction surveys to determine bat presence and use of the project area.

2. Invenergy, its consultants, or an interagency team should develop an adaptive management plan immediately upon operation of the turbines. "It has been demonstrated that turbines cause bat mortality, therefore, it is unnecessary to allow 'normal' turbine operation for the first year."

3. The adaptive management plan should describe the actions to be taken should a federally-listed species be killed at the facility, including notification to the Service and to the state, feathering of blades until a specified time, and analysis of the events that may have caused the mortality.

4. Turbine blades should be feathered at wind speeds of less than 3.5 meters per second and from July 15 to September 15 for five hours after sunset. Five hours is consistent with the Services' 1999 draft Indiana bat recovery plan protocols.

5. Environmental conditions, bat mortality and associated scavenger/searcher efficiency studies should be monitored, from the start of operations and continuing for at least five years. Data should be made available annually to the Service and WV DNR.

6. The adaptive management plan should be in place during the life of the project.

7. Should additional measures become known to reduce bat mortality, the operating company should agree to implement those measures at Beech Ridge.

8. The Beech Ridge facility should participate in research studies to document the effects of wind turbines on three migratory bat populations – red bats, hoary bats, and silver haired bats, using molecular genetic data (stable isotope study), or other research efforts that may be initiated during the project life.

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Pending Motions

Motion for a view

On March 22, 2006, Mountain Communities asked the Commission to conduct a view of the area. On March 31, 2006, Mr. Woelfel adopted MCRE's motion, as did Mr. and Mrs. Eisenbeiss on April 6 , 2006.

Motion for bond regarding turbine removal

On March 30, 2006, Ms. Mendelson asked the Commission to require Beech Ridge to post a bond with the Nicholas and Greenbrier County Commissions to cover at least 25% of the removal costs, which she suggests could be based on 25% of construction costs. Interest from the bond would be devoted to future removal costs, or present infrastructure, such as fire trucks with ladders sufficiently high to extinguish turbine fires, she said. Ms. Mendelson asserted that 262-foot towers will make great lightning rods. She is concerned that Beech Ridge will not own the property in perpetuity, and argued that Mr. Groberg has introduced in his pre-filed testimony the likelihood that Beech Ridge Energy might not be prepared to do future site removal.

Motion for bond regarding property damages

On March 31, 2006, and May 17, 2006, Mr. Woelfel asked the Commission to require Beech Ridge to post an indemnity bond. Mr. Woelfel requested a bond to secure any judgment he might receive due to Beech Ridge's negligence during application, construction or operation. Mr. and Mrs. Eisenbeiss filed a similar motion on April 6, 2006.

On April 3, 2006, Staff responded to Mr. Woelfel's motion, expressing concern that Mr. Woelfel expects that the Commission will be able to award him damages in this proceeding. However, Staff noted, the Commission's role is limited to balancing the interests of the public, the general interests of the state and local economy, and the interests of the applicant.

Motion to dismiss regarding map inadequacies

On May 17, 2006, Mr. Woelfel asked the Commission to dismiss Beech Ridge's application because the maps supporting the application were inadequate. Mountain Communities made a similar motion on May 18, 2006, and renewed this motion during the evidentiary hearing and in its June 26, 2006, Initial Brief.

Mr. Woelfel and Mountain Communities stated that Siting Rule 3.1.h.1 requires Beech Ridge to file a five-mile radius map with sufficient information to allow the Commission to assess whether cultural and historical landmarks will be adversely affected. Mountain Communities argued that the scale of Beech Ridge's map was incorrect, because the rule requires a 1":4,800' scale or larger, but Beech Ridge provided 1":5,416.89'. As a result, Beech Ridge's map provides less detail than is required, Mountain Communities argued. Mountain Communities also argued that the map did not identify enough roads; did not provide readable or useful topographic contours; and did not provide sufficient community information or land uses. Although Beech Ridge tried to rehabilitate its map at the hearing by showing all of the data on two maps instead of one to improve readability, MCRE argued that this attempt established that Beech Ridge's initial map was insufficient. Mountain Communities also argued that it was too late for Beech Ridge to rehabilitate its map.

Mountain Communities also argued that the Commission dismissed a previous certificate application due to map inadequacies, and the Commission should likewise dismiss Beech Ridge's application. In 1993, in American Electric Power Company, Case Number 93-0123-E-CN, the Commission dismissed AEP's application for a 765 kV line. In that case, Rule 9.2(1)(a) required a map showing incorporated communities, recreation areas, parks, forests, hunting/fishing areas, historic areas, and lakes/rivers/streams within five miles of the proposed right of way. AEP did not identify any waterway, political boundary or highway, and without those features it was impossible to exactly locate the transmission line. Since the rule requires these features to be identified "in detail," the Commission concluded that AEP's map was insufficient.

On May 26, 2006, and in its Reply Brief filed July 10, 2006, Beech Ridge responded to the motions to dismiss based upon its map, writing that W. Va. Code § 24-2-11c governs this proceeding and requires the Commission to appraise and balance several listed interests. P. 1. Beech Ridge argued that its map provided sufficient information to assess the proposed project, and "A hyper-technical did not dot all the 'i's' and cross all the 't's' should not overrule the statute's mandate." Beech Ridge noted that the statute is permissive, expressly providing that the Commission may require . . . such documents as the Commission deems necessary for its consideration of the application (emphasis in original). Beech Ridge also noted that Commission discretion is the touchstone of this relatively new statute. P. 1.

Beech Ridge distinguished the AEP case, arguing that it involved a public utility with eminent domain powers, and a long-existing rule. In contrast, Beech Ridge's application is the first under the new rules which govern EWG's without eminent domain powers. P. 1. Even if the case applies, AEP's deficiencies were so substantial to impede the Commission's and the parties' understanding of the complaint, and no one can seriously argue the same for Beech Ridge's application.

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Beech Ridge explained that it needed the different scale to comply with the ANSI D requirement[5] and still show the entire project. "The difference between the scale called for and the scale used is incredibly small," Beech Ridge wrote. P. 2.

Beech Ridge said its map showed County Route 10/1 and County Route 1, which are the major transportation routes through the project. "Other roads are shown and easily identifiable given town names," Beech Ridge wrote. P. 2.

Beech Ridge also said that topographic contours can be seen, but, as it explained at the hearing, "land use and other requirements placed on the same map tended to mask certain features, including contours." P. 2.

Beech Ridge wrote that it placed historical and cultural sites on its maps. Beech Ridge acknowledged that its interpretation of historical and cultural sites is different than Mountain Communities' interpretation. Beech Ridge believed it complied with the rule by checking with the State Historic Preservation Office (SHPO) of the West Virginia Division of Culture and History and known tourist brochures. P. 3.

The Commission should discount Mountain Communities' motion to dismiss, because Mountain Communities conducted discovery and put on its case, without filing the motion until the case was nearly complete, Beech Ridge argued. P. 3. Months earlier, the Commission may have determined that a different map was necessary, if Mountain Communities' understanding was impeded. Id.

Mr. Woelfel concentrates on cultural resources, and Beech Ridge believes it complied by working with SHPO. Further, Staff conditioned its recommendation upon SHPO approval and Beech Ridge has agreed to Staff's condition. P. 3.

In its Initial Brief filed June 26, 2006, Mountain Communities supplemented its argument to dismiss the application due to the inadequacies in Beech Ridge's map. Initial Brief pp. 5-10.

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[5] Siting Rule 3.1.h.1 requires applicants to provide an ANSI size D map of 1 inch to 4800 foot scale or larger. An ANSI size D map is 22" x 34". For facilities covering as many acres as Beech Ridge's, a project is too large to fit on a 22" x 34" map at a 1":4,800' scale. Beech Ridge, then, provided an ANSI size D map showing the entire project at a 1":5,416.89' scale. Upon these facts, the Commission accepts Beech Ridge's revised scale, finding it preferable to have the entire project depicted on a single map, instead of two maps.

Motion to eliminate certain towers

On May 17, 2006, Mr. Lakiotes advised the Commission that he had been negotiating with Beech Ridge to move or delete certain towers to "eliminate the proposed turbines that appear to me to pose the greatest threat to the pristine quality of life on my farm." Turbines D3 through D6 are most intrusive; he will have an unobstructed view of them, he wrote. Beech Ridge offered to move D3, D4, and D19-22, but not D5 and D6. Lakiotes asked the Commission to eliminate D3 through D6 from any permit.

Motion to dismiss regarding transmission line location

On May 18, 2006, Mountain Communities moved to dismiss the application because during the May 17, 2006, hearing, Beech Ridge proposed to modify the location of the transmission line. MCRE said that the change was known prior to the hearing, but Beech Ridge did not inform any of the parties or the Commission. "Beech Ridge has therefore failed to move to amend its application and failed to give proper notice to the parties of such change. The application should therefore be dismissed," Mountain Communities wrote. Further, Mountain Communities argued that the route was speculative because Beech Ridge had not yet acquired the rights of way.

On May 26, 2006, and in its Reply Brief filed July 10, 2006, Beech Ridge responded to the motion to dismiss based upon the transmission line location, arguing that W. Va. Code § 24-2-11c requires the Commission to balance several interests, that the transmission line rerouting was very minimal, and that it was done recently "due to a particular landowner's desire to have the line cross the owner's property in a different location than previously desired." Response to MCRE Motion pp. 1-3.

Beech Ridge explained that the line was adjusted between the project substation and Allegheny Power's Grassy Falls substation. Reply Brief p. 44. The two-mile change runs parallel to the initial proposal, about a quarter of a mile to the north. The route continues to cross the same three landowners – MeadWestvaco, slightly more; Plum Creek Timber Company, slightly less; and an individual, about the same. The change moved the line farther from lands owned by other entities, and the revised location avoids seven stream crossings, Beech Ridge advised. Id. See also Tr. pp. 13, 26-28 (David Groberg).

The decision to move the line north could not be made until the U.S. Army Corps of Engineers concurred with Potesta & Associates, Inc.'s wetlands assessment, which occurred April 18, 2006. Reply Brief p. 45. "[T]he necessary engineering and, ultimately mapping, occurred after the receipt of the written report," Beech Ridge wrote. "This was not completed until shortly before the hearing." Id. p. 45. To rigidly require an amendment

earlier in the case, as MCRE would do, is to turn away from the benefits of such discretion as the Commission holds, Beech Ridge argued.

In its Initial Brief filed June 26, 2006, Mountain Communities supplemented its argument to dismiss the application due to the relocation of the transmission line. Initial Brief pp. 11-20.

Weight of Dr. Pierpont's letter

Mr. and Mrs. Eisenbeiss attached to their Reply Brief a recent letter from Dr. Pierpont. On July 20, 2006, Beech Ridge noted that Dr. Pierpont did not appear as a witness, and thus her positions have not been subject to cross-examination. "Like many other documents in this case, [her position] should not be considered 'of evidentiary quality.'" P. 1.

On July 27, 2006, MCRE asked the Commission to strike Beech Ridge's response to Mr. and Mrs. Eisenbeiss's Reply Brief, unless the Commission wants to keep the record open for all parties. P. 1.

On August 1, 2006, Mr. and Mrs. Eisenbeiss moved to strike Beech Ridge's response to their Reply Brief.

Protective treatment, upon Commission's own motion

On the first day of the evidentiary hearing, May 10, 2006, the Commission granted Beech Ridge's motion for protective treatment of part of the bat evidence. On August 17, 2006, Fish and Wildlife filed with the PSC a copy of a letter it sent to Beech Ridge's Mr. Romme, in which sensitive bat data was discussed. Fish and Wildlife did not redact the protected information, nor did the Service request a protective order.

Upon its own motion, the Commission has redacted the protected information from Fish and Wildlife's August 17, 2006, filing.

Briefs

Stephanie Mendelson's Initial Brief, May 31, 2006

Ms. Mendelson noted that post-construction studies have not been completed at other wind sites "to determine the ecological effect of bat kill caused by wind turbines." Initial Brief p. 1. Further, Doshia Webb advised at the public comment hearing that several federally listed species may occur in the project area and be killed by the turbines. And,

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because of the amount of mosquitoes that bats eat each night, "there could possibly be an increase in encephalitis." Id. She also referred to Dr. Hamm's public comment about encephalitis at the Lewisburg public comment hearings. Id. pp. 2-3.

Although Mr. Romme testified for Beech Ridge that mosquitoes are not a large portion of bats' diets, Ms. Mendelson wrote that "it is generally understood that at least 30% of what they eat in a night is mosquitoes." Initial Brief p. 1. To resolve the conflict in Mr. Romme's testimony and Ms. Webb's public comments, Ms. Mendelson said she would rely on Ms. Webb's masters degree in biology over Mr. Romme's bachelor's degree.

Ms. Mendelson argued that Beech Ridge has minimized the Fish and Wildlife recommendations, by characterizing them only as guidelines. Initial Brief pp. 1-2. Since 2003, Fish and Wildlife has recommended three years of bat and bird studies prior to wind construction, Ms. Mendelson said. Id. p. 2.

She urged the PSC not to accept extrapolated data from the Mountaineer wind turbine site in Tucker County. Initial Brief p. 2. Beech Ridge's project is located on karst lands, and karst, due to its porous substrata, "provides many mini-cavelike areas that are used by bats," which would likely make extrapolation erroneous, she said. And, Mr. Romme's estimate of 6,746 bat kills per year considers only the mortality from operating turbines. The Commission should also consider the number lost "from disturbance and destruction of the hibernacula." Id. p. 2. Ms. Mendelson also alleged that the number of bats killed should be considered to increase exponentially because every bat death means the loss of the particular bat as well as its potential offspring.

She challenged the proposed economic benefits discussed by Dr. Thompson, a witness for Building Trades, because he testified "without ever seeing or visiting this area." Initial Brief p. 3.

She urged the Commission to discount Mr. McCoy's testimony for Beech Ridge that there would be no impact on water, because Mr. McCoy also testified that West Virginia's aquifers have not been studied a great deal. Initial Brief p. 3. "He just gives an opinion based upon no data," she wrote. Id. p. 3.

She asked the Commission to deny Beech Ridge's application because Beech Ridge's testimony contained grave errors, its studies and assessments were incomplete and erroneous, and the project poses a risk to the area's cultural heritage and residents' physical health. Initial Brief p. 4. "If they cannot comply with the regulations regarding the application what does this mean for their future accountability if the project does effect negative effects?" she wrote. Id. p. 4.

"Following extensive public hearing, six days of evidentiary hearing and extensive input from experts and lay people it is clear that the proposed facility will clearly meet the requirements of the law," Building Trades wrote. P. 2. "It is also evident that after the Commission appraises and balances the interests of the public, the general interests of the state and local economy, and the interests of the Applicant, that the benefits of the proposed facility are more than sufficient to support a decision by this Commission to issue the siting certificate in this matter."

The only credible evidence is that construction will positively impact the local economy and employment, the Council said, citing Dr. Thompson's testimony. P. 4. This project will require 215 construction workers during the 215-day construction period. P. 5. These jobs will generate $16 million in additional output and $6.2 million of additional value-added within the construction industry, Dr. Thompson said. P. 5. See also Dr. Thompson's Direct pp. 9-10 (Tr. May 11, 2006).

The local unions entered into a Memorandum Agreement with Beech Ridge in May 2006 which requires that the construction jobs will be filled by local individuals. The agreement applies to any entity that may purchase the facility. P. 5. See also David Matthews' Direct p. 2 (Tr. May 11, 2006).

"There simply is no other evidence in the record other than the fact that the construction of the facility will result in a substantial positive impact on the local economy and local employment," Building Trades wrote. P. 6.

Building Trades described Dr. Thompson's testimony using the IMPLAN software, as follows:

> In sum, based on the low and high scenarios, the Beech Ridge Project is likely to generate the following impacts on the state of West Virginia (with the Project construction activity included in the figures):
> - 265 to 1,089 jobs in total (direct, indirect, and induced), with each 100 Beech Ridge Project construction jobs associated with another 64 jobs in other sectors of the West Virginia economy.
> - $25.3 million to $104 million of additional private sector output
> - $11.3 million to $46.4 million of value added, including $7.3 million to $30 million of additional employee compensation
> - $528,000 to $2.2 million of additional indirect business taxes.

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> Dr. Thompson's study, at pages 8-9, also provides a high and low estimate for increased state tax revenues ($817,000 to $3.4 million) and federal tax revenues ($1.9 million to $7.9 million). It is worth noting that Dr. Thompson states, at page ii, that in that the effects of the permanent employment were not modeled in the study and that to the extent therefore that indirect and induced impacts in reality are maintained in years beyond the construction period, "the eventual total impacts of the Project on the state's economy will be even *higher* than estimated here." (Emphasis original).

Pp. 6-7, citing Dr. Thompson's Direct pp. 9-10 & Ex. 2 (Tr. May 11, 2006). Nothing in the record contradicts this conclusion, Building Trades wrote. P. 7.

The Council urged the Commission to grant Beech Ridge's application, and noted that Building Trades does not always take such a position. P. 9. In The Affiliated Construction Trades Foundation v. Public Service Commission, 211 W. Va. 315, 565 S.E.2d 778 (2002), for instance, the Council contended that the applicant misrepresented certain facts and that the facility would not significantly benefit the local economy or employment.

The siting certificate should be contingent on factors raised by the parties, including 1) protecting and further study of the impact of the facility on bird and bat populations, 2) obtaining all applicable state and federal permits (including cultural issues raised by Mr. Woelfel), and 3) maintaining all commitments made with the parties and other entities, Building Trades said. P. 10.

John Walkup's Initial Brief, June 26, 2006

West Virginia exports 70% of its electricity production, so it is Pittsburgh, not Greenbrier County, which needs another source of power, Mr. Walkup argued. P. 1. "Indeed, the **last** thing that Greenbrier County ($232,000,000 annual tourism revenue) needs is to tamper with the scenic beauty that draws industrial weary tourists from surrounding states to vacation or even build a home here. Forcing this project on Greenbrier County against its will does not serve the public interest in any shape or form," he wrote. P. 1 (emphasis in original).

Mountain Communities' witness, Dr. Gannon, testified that the bat losses will be exponentially greater than Beech Ridge estimates, due to bat's longevity and low reproductive rate. P. 2. Also, Fish and Wildlife reports that bat kills at the Meyersdale facility in Pennsylvania and at the Mountaineer in Tucker County "are among the highest ever reported in the world." Further, the major risk to bats is the destruction of habitat – ridge top forests, and Beech Ridge's project not only kills bats, but destroys their habitat. P.

2. According to Fish and Wildlife, Indiana bats are attracted to partially cleared forested ridges as presented by wind facilities, and Mr. Romme, a witness for Beech Ridge, testified that Indiana bats live within 6.5 miles of the site. P. 3.

Dr. Gannon, a witness for Mountain Communities, testified that bats are a keystone species and that if bat populations are significantly diminished, imbalances in insect populations would likely occur. "These imbalances often impact human health and resource base industries such as forestry and agriculture," Mr. Walkup wrote. Dr. Hamm has commented that there has been a recent increase in encephalitis cases in western Greenbrier County, and a decrease in bats would likely impact this, and other, health issues. P. 3.

The March 7, 2006, Fish and Wildlife request for three years of pre-construction monitoring and life-of-the-project post-construction monitoring clearly indicate that Beech Ridge's monitoring plans are not adequate, Mr. Walkup argued. P. 3.

Dr. Gannon testified that the five-mile zone around this project has 140 known caves, and many ridges, and thus Beech Ridge's site may affect more bats than wind projects at other locations, Mr. Walkup said. While Fish and Wildlife numbers reflect declining numbers for Indiana bats nationally and regionally, in West Virginia the numbers have more than doubled since 1980, he said. Pp. 3-4.

By December 2006, the Bat and Wind Energy Cooperative plans to have completed a two-year study of interactions between bats and wind turbines, and this study will serve as a basis to develop methods to prevent bat mortality at wind sites, Mr. Walkup said. P. 4. Fish and Wildlife encouraged Beech Ridge to incorporate as many design and operational recommendations from this study as possible. "I urge the commission to mandate full cooperation and compliance with the [completed study's] recommendations," Mr. Walkup wrote. P. 4.

Federal and state regulatory agencies must mandate cooperation by the wind industry at the level requested by Fish and Wildlife, the Bat and Wind Energy Cooperative, and the West Virginia Division of Natural Resources, he urged. Pp. 4-5.

The project will be located among the state's highest ridges, which produce 80-mile views, he said. P. 5. "The natural amenities associated with the area include nesting eagles, dozens of native trout streams, a WVDNR recognized migration corridor for many birds of prey, an excellent hunting area and wildlife refuge, and one of the darkest night skies in the eastern US. In short, it is an area of great restorative value," he wrote. P. 5.

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Beech Ridge's application fails to address the area's cultural wonderland, including the Town of Duo. Instead, Beech Ridge describes it as overwhelmingly forested, with active timbering in several directions from the project, he said. P. 6.

Mr. Walkup noted that all members of the Greenbrier County Convention and Visitors Bureau oppose the project, and that the board represents a diverse cross-section of the county's tourism interests. P. 6

The region, beyond the five-mile zone, is "experiencing a phenomenal pace of second home development, with pristine mountain views as a key marketing point," he wrote and noted that the Greenbrier Sporting Club is opposed to the project. Pp. 6-7. "Most county residents place a high value on their community setting, their sense of place, and the natural amenities that we now thoroughly enjoy," he said. P. 7.

Although Beech Ridge reports that the overall visibility impact would be minor, Beech Ridge's visibility map became controversial "when many residents discovered that visibility of the project area did exist where the maps indicated that it did not," Mr. Walkup wrote. P. 7. Although Beech Ridge revealed at the hearing that its map incorporated vegetative screening programs, Beech Ridge should have made this public when the maps were first made available, he said.

Mr. Walkup argued that incorporating vegetative screening is not an accurate approach to portraying present or long-term analysis, because it assumes that every tree is 40 feet tall, that all screening has the same density, and that all vegetation will not change during the life of the project." P. 7. Paul Miller, a Westvaco employee, testified that the entire tract has been harvested at some time during Westvaco's ownership. P. 8.

More particularly, Beech Ridge's program renders an entire 30-meter cell vegetated, if there is any vegetation within it, Mr. Walkup said. P. 8. Thus, a single tree at the cross hairs of 4-grid cells would portray the entire 4-grid area vegetated. P. 8. "Mysteriously, many areas of the Beech Ridge analysis, which are quite open to the view of proposed turbines, are designated as screened," Mr. Walkup wrote. P. 8. This indicates a technical error, misleading the public. Thus, the application is insufficient under Siting Rule 3.1.m.3.A and should be dismissed, he argued.

Mountain Communities' map, which does not include vegetation, "incorporates topographical analysis and offers a baseline for a more absolute visual assessment," he argued P. 8.

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Although Beech Ridge contends that tourism will increase, due to its project. The *Country Guardian*, an English newspaper, reports that wind farms have adverse effects on the area economy related to tourism, Mr. Walkup said. P. 9. In addition to the Greenbrier Convention Bureau's opposition, Dr. Thomas Aker, executive director of Forward Southern West Virginia, an organization fostering economic development, addressed several concerns of economic decline in this letter, Mr. Walkup said. P. 9.

Property owners are concerned about devaluation, and Beech Ridge does not address this in its comments for Siting Rule 3.1.1.3, Mr. Walkup said. In Denmark, most agents estimate a 25-30% decrease in property values when turbines are put nearby. P. 9. In neighboring Highland County, Virginia, the Highland Chamber of Commerce president reported that real estate transaction revenues decreased more than 50%, when data for the six months before and after a wind project approval were compared, Mr. Walkup said. P. 10.

Beech Ridge has not addressed the hidden costs to West Virginians who must assume the burden of upgrading the grid infrastructure necessary to carry away the full output of wind facilities even during hours when there is no demand for the energy they are producing, Mr. Walkup argued. Pp. 2, 10. At the public hearing, Delegate Ray Canterbury spoke to intermittency costs – the necessary costs for electric utility providers to purchase power when wind-generated electricity does not supply the grid. P. 10. "The demand for this energy comes at peak demand periods and is very expensive," Mr. Walkup said.

Mr. Walkup also is concerned about underutilization costs, which he said result from the over-investment in the grid to carry the full wind output, where there is no demand for it. P. 10. "Every wind facility connected to the grid will require regional upgrades to the grid. Inevitably, the consumer will pay for these costs in utility rate increases. These are real costs to West Virginia that benefit out of state consumers," he argued. Pp. 10-11.

He asked the Commission to recognize the significant negative public response to this project, noting that letters in opposition dominated letters in support by a 4:1 margin. P. 11.

Frank Young's Initial Brief, June 26, 2006

Mr. Young's concern was how to merge the benefits of wind power with protection of birds and bats. While other concerns have been raised in this case, he does not address them. P. 1.

Beech Ridge's bird witness, Mr. Canterbury, advised that post-construction studies were needed. P. 2. He testified that data often have yearly variation and so more than one

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year of studies will be more precise. It is difficult to predict how many years of studies, but he agreed that three years would tell "a heck of a lot more than we know now." P. 2.

Beech Ridge's bat witness, Mr. Romme, agreed that several years of post-construction studies, including tests for adaptive management strategies, "would add significantly to the volume of knowledge and interactions between bat and wind turbines on Appalachian ridges," Mr. Young also noted. P. 2.

Mr. Romme is unconvinced of the value of pre-construction studies in effecting wind farm design, Mr. Young wrote. "You can generate a mountain of data that's not very useful . . . The post-construction studies, contrary to that, I think can generate some very good data because you can correlate mortality, bat mortality, to whatever you're studying."

Mountain Communities' bat witness, Dr. Gannon, also conceded a void of information exits about long-term interactions between bats and turbines, Mr. Young said. P. 2.

Staff recommends post-construction studies and said it was not unreasonable to condition a certificate upon the conduct of post-construction studies, Mr. Young wrote. Pp. 2-3.

Beech Ridge's Mr. Groberg testified that Beech Ridge agreed to do post-construction studies, Mr. Young wrote. P. 3. At the public hearings, he said Beech Ridge was willing to test adaptive management on subsets of turbines, including raising the cut-in speed, so that the turbines are not running when they otherwise would be. Tr. p. 11 (David Groberg) (April 25, 2006 afternoon).

In view of the testimony of these five witnesses – Canterbury, Romme, Gannon, Staff, Groberg – Mr. Young supports the application, so long as the certificate requires Beech Ridge and/or its successors to perform bird and bat mortality studies, including turbine tests, which are consistent with these witnesses' testimony.

Mr. Young also notes that the Commission required Backbone Mountain Windpower, LLC,[6] to perform pre-and post-construction studies, but the Commission learned that assurances offered by Backbone, but not required by the certificate, were not accepted by the successor owner, FP&L Energy. P. 3. Beech Ridge has assured Mr. Young that it is willing to accept the studies as a condition of the certificate. P. 4.

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[6] Case No. 00-1209-E-CN.

Specifically, Mr. Young asks the Commission to condition the siting certificate as follows:

1. At least three years of post-construction bat mortality and adaptive management studies, after operations commence, to assess 1) the project's impact, if any, upon bat life, 2) the potential for adaptive management techniques to mitigate such impacts, and 3) the expected costs over a range of mitigation effectiveness levels. Beech Ridge's bat consultant would design the study, in cooperation with the Technical Committee (see #4).

2. If, after the third year, the project causes significant levels of bat mortality and the adaptive management techniques are proven effective and economically feasible, Beech Ridge and its successors will make a good faith effort to work with the Technical Committee to apply parameters to implement facility-wide adaptive management strategies on an on-going basis.

3. Three years of post-construction bird studies, after operations commence, to assess the impact, if any, on birds. Beech Ridge's bird consultant would design the study, in cooperation with the Technical Committee (see #4).

4. Beech Ridge will cooperate to form a Technical Committee to approve and guide the bat and bird studies, developed by Beech Ridge's consultants, and to review the ongoing results. Membership shall be open to a representative of each of the following:

   Beech Ridge/successor
   PSC
   US Fish and Wildlife Service
   WV DNR
   Bat and Wind Energy Cooperative
   A statewide environmental organization with 500+ members and in existence for at least 10 years.
   A statewide bird group.
   A private or academic institution with a background in avian issues.

5. Beech Ridge's consultants will report to the Technical Committee with "continuing disclosure, quarterly briefings, an Annual Plan at the beginning of each year, and an Annual Report at the end of the year."

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6. There are indications at Backbone, under certain atmospheric conditions, that unnecessary lighting can contribute to additional bird mortality. Thus, Beech Ridge will work with its employees and the FAA to minimize the impact that lighting will have upon the project's visibility.

7. These terms apply to Beech Ridge, and to any subsequent owners/operators.

Pp. 4-5.

Staff's Initial Brief

View shed is the most hotly contested issue in this case, and was one of Mountain Communities' main issues, Staff said. "This is a difficult issue for Staff because view shed is subjective. What one person finds offensive, another may find beautiful," Staff wrote. P. 2. "Making the issue more difficult . . . is the fact . . . the potential negative impacts will mainly effect private landowners, and not areas of public interest. Staff is unsure a sufficient enough reason in and of itself to deny a certificate is the potential harm to the viewshed of another private landowner.". P. 2.

Mountain Communities' map did not include vegetation, and Mountain Communities objected to Beech Ridge's map which included vegetation, Staff noted. P. 2. However, Mountain Communities' witness said its map was a draft and that more steps needed to be taken to complete the analysis. "Mr. Ken Anderson went on to say the addition of vegetation would possibly be part of the additional steps and the addition of vegetation would more accurately reflect visibility." P. 2. Mountain Communities' Van Anderson also testified that vegetation can screen things and he would have preferred using vegetation in his analysis. P. 3. Both Mountain Communities' witnesses admitted that Beech Ridge's view shed analysis was more accurate, because of the use of vegetation, Staff wrote. Pp. 3-4.

Most of the project visibility is to the southeast, Staff said. Staff suggested that removing A1-18, B1-7, B10-12, B16, C1-6 and D3-6, or moving them to the E, F, G, H or K lines would greatly limit the visibility of this project. P. 4.

Noise potential was also a major concern, and there is no doubt that noise will impact people's property and homes, Staff advised. P. 4. Beech Ridge's expert, James Barnes, testified the project will be heard at times from 4,000 feet, but he expects that impact to be minimal. P. 4. While most homes are more than 4,000 feet from the project, there may be 50-60 structures within a mile. Mr. and Mrs. Eisenbeisses were particularly concerned about noise, Staff said. "They believe their home is close to a mile from some of the turbines, with their property line significantly closer," Staff wrote. P. 4.

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Mr. and Mrs. Eisenbeiss submitted several studies indicating that turbines could negatively affect the health of those who live close. P. 5. While none of these studies was properly authenticated, Staff said it was particularly interested in Dr. Nina Pierpont's report. Dr. Pierpont states she is one of the very few physicians studying Wind Turbine Syndrome, which she believes is caused, in part, by low frequency noise and vibration from the turbines. P. 5. She recommends a 1.5-mile set back.

Beech Ridge's witness said that newer wind turbines, which Beech Ridge proposes to use, do not create as much low frequency noise as older turbines, Staff wrote. P. 5.

Testimony shows that ambient noise in the project area is generally greater than the noise predicted to be generated by the project, Staff said. P. 5. "The result of the ambient noise is the project will not be heard the majority of the time by the majority of the people," Staff wrote. "That is not to say, however, that the project will not be heard and will not impact people in any way." However, the projected impact from noise is not significant enough to deny the certificate, Staff advised. P. 5.

Several turbines – the same ones Staff listed for view shed (A1-18, B1-7, B10-12, B16, C1-6, D-63), plus D7-8, D19-22, H1-2 and I1-5 – have a greater chance to create a noise problem, Staff said. Moving or removing these turbines would "greatly diminish the potential negative impact of noise from this project, as it would remove most turbines within one mile. Staff feels one mile is a good compromise between the 4,000 feet mentioned by Mr. Barnes and the mile and half of Dr. Pierpont." Pp. 5-6. Staff continues to believe the proper evaluation of noise impact is at the property boundaries. P. 6 n. 4.

The I line will be built only if Robert Lively participates in the project, Staff said.

While lack of greenhouse gas emissions and other pollutants would seem to make wind power environmentally friendly, turbines may be a danger to wildlife, particularly birds and bats, Staff wrote. Beech Ridge's Mr. Canterbury testified that this project has a low chance of killing a migratory bird, due to the lack of a major flyway. He believes this project will average two to 10 birds killed per turbine per year, about the same as at other projects. P. 6. He recommended a three-year post-construction study. Suburban sprawl, loss of habitat and cats are the main threats to birds, Mr. Canterbury testified. P. 7.

Bat mortality issues range from simple killing of bats to killing endangered bats, to health concerns from declining bat populations, Staff said. P. 7. "[B]at mortality is of greater concern to Staff in this case because it appears bat mortality is higher at Appalachian wind farms as compared to other areas." P. 7. The experts cannot explain this, Staff noted.

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Beech Ridge's Mr. Romme predicts 6,700 bats will be killed per year, based on numbers from other Appalachian wind projects. "In Staff's opinion, that is a significant number of bats." P. 7.

Beech Ridge's Mr. Romme and Mountain Communities' Dr. Gannon agree that bats are not the control on mosquitoes that the general public believes them to be, Staff said.

To mitigate these impacts, Beech Ridge proposes to conduct post-construction studies to monitor and develop mitigation techniques, Staff said. P. 7. First, Beech Ridge will have a 3.5-meters-per-second cut-in speed. Below that speed, the turbine's main brake will prevent it from turning, or it will turn very slowly. P. 7. Mr. Romme testified that some believe a majority of the bat kills at Mountaineer and Meyersdale occurred at slow wind speeds, even before the cut-in speed, and this Beech Ridge change would greatly reduce mortality, Staff wrote. P. 8. Beech Ridge will also raise the cut-in speed on some turbines to see if it reduces mortality. Thus, Beech Ridge will forego some production and profitability to experiment with mortality reducing measures, Staff said. P. 8.

Another issue is whether this project will take any endangered bats – Virginia big-eared or Indiana bats, Staff wrote. P. 8. Beech Ridge's Mr. Romme believes the potential is low for an endangered bat to be killed because these bats do not occur very frequently within a close enough range of the project. Mountain Communities' Mr. Gannon, though, believes there is a good chance of a take because there is a cave close to the project "that is known to house Indiana bats in the past." Pp. 8-9. That cave entrance is 6.5 miles from the nearest turbine, Staff said. Mr. Romme says bats typically only swarm five miles from the home cave, and he says Fish and Wildlife agrees with the five-mile limit. P. 9. Staff said that Fish and Wildlife's letter appears to support Mr. Romme, as Fish and Wildlife did not protest this application. P. 9.

Economic impact "is a very interesting subject," Staff says. P. 9. Construction will greatly impact the local economy. However, there is debate as to long-term impact. Beech Ridge says it will employ 15-20 people at $35,000 per year and will annually pay at least $400,000 in taxes to Greenbrier County and $200,000 to the state. Opponents point to tourism and the second-home industry, as those activities are related to outdoor activities and scenic beauty, Staff said. They also believe there will be a negative impact on property values. Pp. 9-10.

Building Trades' Chris Thompson testified that the project will be economically beneficial. Using West Virginia numbers, not numbers specific to Greenbrier County, in the IMPLAN model, he shows a positive impact of $25 to $104 million in private sector output and $11-46 million of added value during the nine to ten months of construction, with about

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215 workers. P. 10. IMPLAN is a widely used model that can be employed for a multitude of activities, Staff wrote.

Although the Greenbrier Hotel and the Greenbrier Sporting Club filed letters in opposition, neither produced a study or any other evidence to support these opinions, Staff said. P. 10. Thus, Staff viewed these arguments as conjecture of the part of the advocates.

"However, it does stand to reason that there could be some damage to a rich tourism economy based upon outdoor activities by a project such as this . . . There just is no definitive evidence one way or the other," Staff wrote. P. 10.

Beech Ridge's Jay Goldman submitted a report on the impact of turbines in Tucker County. While this study is in no way definitive, it shows property values increasing, which is expected since property values across the country have increased, Staff said. P. 11.

At the hearing, Friends of Greenbrier County attempted to show Tucker County tax assessments have decreased. However, Mr. Goldman disagreed with those positions, and materials submitted post-hearing reflect that Tucker County tax assessments have continued to increase, Staff said. Mr. Goldman also testified that the second-home industry may have reached its saturation point in Greenbrier County, and that recent interest rate increases will put a damper on that industry. P. 11.

Mr. Eisenbeiss, a real estate appraiser, believes property values are tied to the non-industrialized nature of the surroundings, and Beech Ridge's project will make the properties less desirable. Staff again notes that this is an opinion and not based on any study. P. 11.

"Overall, Staff would have to say the evidence shows a positive impact on the economy. The tax revenue from the project could be better, but the Commission has no control over the tax credits that State and Federal Governments want to give this type of project. The project does not produce many jobs, but the ones it does produce will be relatively good-paying jobs. Further there is no evidence supporting the projected negative impacts of the project. Therefore, Staff cannot say the project should be denied on economic grounds." Pp. 11-12.

The Commission considers the State's and the region's need for new electrical generating plants, Staff said. P. 12. Beech Ridge's project is not needed to produce electricity for West Virginians, and West Virginia does not require its utilities to have a certain percentage of generation from renewable sources. However, Beech Ridge's project fills the region's needs for new generation. Many region facilities are nearing the end of

their useful life, Staff said. This project will also fill the region's need for renewable energy sources.

Beech Ridge's Mr. Groberg testified that WV has the best wind for wind production in the PJM[7] area and Beech Ridge is one of the three best sites in West Virginia, Staff said.

Staff believes Beech Ridge demonstrated this area as an appropriate site for wind power production, as well as the need for more power, particularly renewable power. Pp. 12-13.

The impact on culture and history is another concern, Staff said. P. 13. Initially, Beech Ridge identified only two areas of historical significance and noted few churches, cemeteries, schools and recreational areas on the five-mile map. P. 13. However, at the hearing, it was learned that many of the omitted cemeteries were private ones, and many of the items on Mountain Communities' map were not required by Siting Rule 3.1.h.1.F, Staff said.

While the Beech Ridge map was not perfect, it showed the majority of the cultural and historical interests, Staff wrote. Mountain Communities' map "covered those few holes and then some." P. 13. "The result being, the Commission has a pretty good idea of the happenings in the area," said Staff. The small population means the project will have a fairly limited impact on these types of activities. P. 13. Thus, Staff does not believe the five-mile map is so deficient to deny the certificate.

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[7] PJM Interconnection Association is a regional transmission organization (RTO), and it

Coordinates the movement of electricity through all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia

Ensures the reliability of the largest centrally dispatched electric grid in the world

Operates the largest competitive wholesale electricity market in the world

Plans generation and transmission expansion to ensure reliability

Operates independently and neutrally

Provides real-time information to its members/customers to support their decision-making

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The removal or movement of A1-18, B1-7, B10-12, B16, C1-6, D3-6 and H1-2 would limit the cultural and historic impacts, because they are the ones most visible from the most densely populated areas, Staff said. Pp. 13-14.

Staff found that Mr. Woelfel's historical evidence was more significant, noting that West Virginia's Division of Culture and History appears to have determined that the Skirmish at Lewis' Mill on Sinking Creek is significant. SHPO indicates that the battle should be made eligible for the Register of Historical Places. However, Mr. Woelfel and SHPO need to determine the specific area of the battlefield. P. 14. If Mr. Woelfel is correct, it will be between the A and B lines. P. 14. Staff is unsure if the complete removal of both lines would be necessary.

The impact to long-term traffic is slight, while there will be some impact during construction, Staff said. The only public road is Route 10/1, with 30 cars per day. In comparison, Route 219 close to Backbone has 1,800 cars per day.

Water in the project area will not be affected, Staff said. Mr. McCoy, the only water expert, said the project would have no impact on springs because it is not an intrusive activity, the project is spread over a large area, and there are not that many springs in the area. Pp. 14-15.

The project is close to an area of astronomical significance because of dark skies, Staff said. However, the project will use only red lights, which are not as big a threat to dark skies as are white lights. P. 15.

Under the test for siting certificates set forth in Longview, Case Number 03-1860-E-CS, the Commission performs a two-part analysis, Staff said. First, the Commission balances a) Beech Ridge's interest to construct a new generating facility, b) the state's and region's need for new plants, and c) the economic gain to the state and local economies, against A) community residents' interest in living apart from a facility, B) the community's interest that negative impacts be as minimal as possible to existing uses, and C) the social and environmental impacts of the facility on the local vicinity, region and state. Pp. 15-16. If the Commission decides the positives outweigh the negatives, then the Commission considers any public funding and any property tax abatement.

There is no public funding or tax abatement in this case, Staff said. Thus, if the positives outweigh the negatives, i.e., part one is satisfied, the certificate should be granted, Staff said. For every negative about this project, there is a positive, Staff wrote. While there is strong opposition, the project does have local support.

"[W]ith the removal/movement of some or all of the turbines mentioned above . . . , the balancing becomes even stronger in favor of granting the certificate because that would eliminate most of the potential negative impacts of this project," Staff wrote. P. 17.

"[T]he evidence as presented supports the granting of this certificate under the balancing of the interests of the public, the interests of the applicants and the interests of the State and local economy as directed by West Virginia Code § 24-2-11c. However, the Staff only supports the granting of the certificate subject to certain conditions:"

Staff proposed these pre-construction conditions:

1. Before starting construction, Beech Ridge must file a verified statement that all pre-construction conditions have been met.

2. Contractors must use standard noise buffers on all equipment and trucks.

3. Pile driving equipment must have the least noise impact, and pile driving must occur from 7 a.m. to 7 p.m. on weekdays.

4. Construction must occur mostly during daylight.

5. Construction should be limited during church hours.

6. Dynamiting, if necessary, should be limited to daylight and follow all state and federal rules.

7. Contaminated soil and construction debris must be properly disposed in approved landfills.

8. Install a fire protection system, pursuant to national standards.

9. Coordinate with local fire, safety and emergency personnel during all stages, for efficient and timely emergency preparedness and response.

10. Begin construction within five years of a final order, and complete construction by the tenth year, or the siting and transmission certificates become invalid.

11. File with the PSC all required permits/certificates before starting construction, including letters from US Fish and Wildlife, WV DNR, WV Culture and

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History and WV SHPO that Beech Ridge does not need to take further action, or outlining what else Beech Ridge must do.

12. File approval of the wetlands delineation, final endangered species study with any mitigation plans, and historical/archeological study with mitigation plans, before starting construction.

13. File the final Interconnection Agreements with PJM, before operating.

14. Comply with the Endangered Species Act, the Migratory Bird Treaty Act and the National Environmental Policy Act in both construction and operation. If any agency or court declares otherwise, Beech Ridge must advise the PSC in writing within 10 days, and the Commission may seek any legal remedies to address such findings.

15. File FERC's EWG determination, before operating.

16. Have a decommissioning fund in place before operating.[8] The fund should be an escrow account, or a bond/surety held by an independent party, such as the County Commission. The fund is not part of Beech Ridge's assets. Beech Ridge must hire an expert to assess the needed fund size.

17. Beech Ridge may not construct the I line unless all property owners agree to participate.

18. File a copy of the tax agreement with Greenbrier County, whereby Beech Ridge agrees to pay at least $400,000 per year to the county.

19. The Commission should approve the Memorandum Agreement with Building Trades, with language similar to that in the Marshall Power and Mt. Storm orders that requires all commitments to be kept. Note that the Commission is not the proper forum to resolve any disputes under that contract. Pp. 17-21.

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[8] Staff uses "decommissioning fund," where Ms. Mendelson on March 30, 2006, requested a "removal bond." The Commission considers these two requests to seek the same relief.

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Staff also proposed these operational conditions:

1. At any time, not just during operations, if Beech Ridge transfers its siting certificate, it must notify the Commission, pursuant to Siting Rule 7.1, and submit an affidavit that the transferee will abide by the siting certificate conditions.

2. Use licensed certified herbicide applicators.

3. Keep a Material Safety Data Sheet at the plant for all herbicides used on the transmission right-of-way.

4. Do not use aerial spraying or aerial tree trimming on the transmission line right-of-way.

5. File all future interconnection agreements with the PSC.

6. Prohibit any lights, except those required by the FAA.

7. Conduct at least three years of post-construction bat and bird mortality studies, including limiting strategies. File updates with the PSC twice a year. Pp. 22-23.

Eisenbeiss' Initial, June 26, 2006

Mr. and Mrs. Eisenbeiss argue that Beech Ridge's evidence is overwhelmingly incomplete and inadequate. P. 1. There are deliberate deceptions, they write.

At the Lewisburg public hearing, Eddie Fletcher advised that Beech Ridge's noise study was conducted beside a creek in a very turbulent noisy part of the stream. P. 4. "It would have been harder to find a noisier spot," they wrote. Accordingly, they found the study fraudulent. P. 4.

Mr. and Mrs. Eisenbeiss also noted that the surrounding community is basically farmland. Thus, Beech Ridge's conclusions are inconsistent with the area with respect to noise, they argued.

Beech Ridge's conclusion that the project will not negatively impact property values is "without sufficient quantitative data," they wrote. P. 4. Jay Goldman incorrectly assumes that Tucker and Greenbrier Counties are sufficiently similar. "Mr. Goldman's assumptions

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are utterly appalling and misleading to these intervenors and other landowners who value their property," they wrote. P. 5. "The external obsolescence[9] of such a project to adjacent landowners is a critical component that the Goldman report overlooked and completely ignored."

"Beech Ridge view shed maps are completely flawed and lack the expertise of thorough on site research," Mr. and Mrs. Eisenbeiss wrote. P. 5. They agree with Florian Schlieff, who, at the Lewisburg public hearing said, "I personally feel that a company that puts out a map like that either does it according to different regulations, they don't comply with West Virginia regulations, or they are incompetent, or it is fraudulent." P. 5.

Beech Ridge tried to minimize the perceived view shed and cultural impacts, they said. Although Beech Ridge's map does not reflect that turbines are visible from their bases, Beech Ridge's visual expert, Mr. Guariglia, testified, "but with common sense, one would know it is visible standing at the foot." Pp. 5-6.

Beech Ridge's economic impact study is limited, and Christopher Thompson has not been to Greenbrier County, they said. "No negative economic inputs were considered or placed as a variable to estimate the total economic impact on the local and state economy," Mr. and Mrs. Eisenbeiss wrote. P. 6. "A massive industry on the county's most scenic and highest ridges seriously threaten the economics of a community that relies heavily on our pristine views to attract tourists and second home property owners."

They also argued that Beech Ridge provided flawed information to justify need for the project. Beech Ridge claims its 124 turbines will serve 50,000 homes. P. 7. However, according to Mountain Communities' Mr. Boone, based on actual performance, the project could power about 100 less than claimed by Beech Ridge.

They also noted that the turbines will be of less help in the summer when demand is the highest. Mr. Boone estimated that the project would supply only enough power to match the total demands of just 111 households in August. P. 7. Wind facilities supply only 10-15% of the summer capacity factor, when demand is greatest, they wrote. P. 7. Mr. Boone testified that the summer months have very little wind generation. P. 8.

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[9] External obsolescence occurs when, due to events outside of the owner's control, property value is affected. For instance, a successful grocery store, located on a major highway, relies on drive-by traffic. When the highway is re-routed, sales drop sharply. Tr. pp. 112-115 (May 16, 2006) (Jay Goldman).

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Mr. and Mrs. Eisenbeiss also argued that Staff failed to provide independent and unbiased conclusions, and that Staff does not have expertise to address noise and health risks. P. 8. They complained that Staff's Mr. Perdue simply quoted conclusions from the British Wind Energy Association. P. 9. Mr. Eisenbeiss then wrote, "It is overwhelmingly clear that Mr. Perdue, has not provided the Commission with any thorough, independent data and studies with relation to these issues." P. 9. Supporting documents submitted by the Eisenbeisses on May 10, 2006, "have been completely disregarded," they also wrote.

Mountain Communities' Initial Brief, May 26, 2006

This is the first application to come before the Commission under the new Siting Rules, 150 C.S.R. Series 30, Mountain Communities wrote. P. 2.

Beech Ridge failed to disclose or substantially understated the visual impact of the project, Mountain Communities argued. The Siting Rules required Beech Ridge to provide views of the generating facilities that will be most evident to the public, to file a post-construction viewshed analysis at one, five and 20 miles, and a mitigation plan. However, Beech Ridge concluded that the overall visibility would be minor, and Beech Ridge included vegetative screening in its analysis and selected five viewpoints for photo simulations. P. 22. As to mitigation, Beech Ridge said only that there were very few residences within one mile of a turbine and the great majority of residences were five miles away. P. 22.

The disconnect between Beech Ridge's analysis and real-world visibility was stated by Beech Ridge's Mr. Guariglia, when he said that the maps do not reflect turbine visibility, stating, "On paper, not in the real world." P. 23. Under Beech Ridge's computer program, if there was sufficient data in an area, the map portrayed vegetation. That is how the Beech Ridge map shows no visibility right under the turbines. Pp. 24-25.

To rebut this, Mountain Communities filed the testimony of Van Cleve Anderson (MCRE visibility map), Carroll Bassett (day/night ridge photos), David Buhrman (dark sky), John Walkup (photo essay of Williamsburg, Friers Hill and Leonard-Cordova), and Josh Lipton (review of Beech Ridge's simulations, MCRE views from Laurel Hill Baptist, and Andrew Chapel United Methodist). P. 26.

Mountain Communities also supplemented its testimony with computer-generated visibility profiles, using Terrain Navigator Pro software, and its Wind Turbine Visibility Map, as revised (Exs. 12, 15). P. 27. This visibility profile was computed without regard to vegetation, resulting in a "worst case" scenario. P. 28. In comparison, Beech Ridge applied so much vegetative screening that its maps indicated a turbine is not visible from its base, Mountain Communities wrote. P. 28.

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Mountain Communities' visibility profile was the first stage in a more extensive analysis. Pp. 28-29. Beech Ridge and Mountain Communities, then, agree that visibility maps are only the first step in visual impact analysis. P. 29.

Mountain Communities' profile for areas east, north and northeast of the project, including Droop Mountain Battlefield, Watoga and Beartown State Parks, Calvin Price State Forest, and Monongahela National Forest, including the Highland Scenic Highway and Cranberry Wilderness area, shows widespread visibility, while Beech Ridge's profile shows virtually no visibility. P. 29.

Beech Ridge's map suggests no further study is needed, Mountain Communities wrote. P. 30. If the project was approved on Beech Ridge's map, which Mountain Communities characterizes as a "best case" scenario, there could be unanticipated and severe visual impacts on sensitive viewing areas, it argued. P. 30. Beech Ridge's map presents a false sense of security, Mountain Communities wrote. P. 30.

"Neither visibility map reflects reality, but of the two maps MCRE visibility map is more useful to the Commission in determining what the visual impact of the project could be," Mountain Communities argued. P. 32.

Mountain Communities also wrote that Beech Ridge did not present any FAA determination as to the type, character or number of aviation warning lights that would be installed on Beech Ridge wind turbines, nor did it address the visual impact of FAA-required lighting. Pp. 35-36.

There is potential for a severe impact of intrusive lighting on the dark sky environment, Mountain Communities wrote. P. 36. While the record is very limited, it has been established that 1) portions of the view shed are dark sky areas, highly sensitive to light impacts, 2) if constructed, the project will have a substantial number of turbines lighted, and 3) Beech Ridge has done no visual analysis specific to lighting, Mountain Communities argued. Pp. 36-37.

Mountain Communities argued that Beech Ridge's five-mile map is nearly devoid of cultural information. Beech Ridge presented the area as largely "empty" and generally claimed no impacts, MCRE wrote. Beech Ridge's map was ignored during the hearing as not being useful to the Commission, it argued. Cultural resources were addressed by an intervenor, instead of by Beech Ridge as the rule requires. P. 38.

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The superiority of Mountain Communities' map defeats any Beech Ridge contention that it complied with the mapping provisions, MCRE wrote. P. 39. Additional cultural testimony was provided by Debbie Sizemore, John Walkup, B.J. Gudmundsson, Mr. Woelfel, and Mr. Eisenbeiss. P. 39. This is "a historically significant, culturally rich and diverse, rural community with impressive community, religious, and recreational facilities and features, all of which were either in the five-mile viewshed of the project or impacted by the visual impact of the project on the community." P. 40.

Beech Ridge failed to adequately address the interests of Duo, which is within the five-mile radius, Mountain Communities argued. P. 40. The community is a "largely intact former 'coal camp,' as documented by the DVD entitled 'Duo Revisited.'" (Ex. 21.) P. 40. Van Anderson addressed the severe visual impact on Duo and a photographic display was introduced into evidence. Beech Ridge identified the Duo church and selected Duo as an ambient noise monitoring site. P. 41. However, Beech Ridge's land use map shows "mixed forest" with no residences indicated. Mountain Communities noted that two proposed turbines are closer than a mile to the church's "camp meeting site," which Beech Ridge ignored. P. 41.

Beech Ridge's application "did not accurately or adequately assess the risk to bats that will be created if the Beech Ridge facility is constructed," MCRE argued. To rebut Beech Ridge, Mountain Communities provided the testimony of Dr. Gannon and Mr. Lipton.

Beech Ridge's Spring Avian Study, prepared by Mr. Canterbury, is inadequate, Mountain Communities argued. Also, Beech Ridge did not file an adequate avian lighting study. P. 43.

Beech Ridge also substantially understated the noise, Mountain Communities wrote. Beech Ridge's Mr. Barnes prepared the acoustic study in November, 2005, and Mountain Communities rebutted it with testimony by Van Cleve Anderson, Mr. Woelfel, and Mr. Eisenbeiss. P. 44.

At the hearing, Beech Ridge's Mr. Barnes identified a new acoustic study, prepared in May, 2006, which he said was essentially the same as the first study. P. 44. However, the second study is "significantly different" and corrects errors and omissions that caused the first report not to comply with the Siting Rules, Mountain Communities asserted. The changes serve as evidence of the inadequacy of the November report. P. 45.

Based upon the record, Beech Ridge has "overstated the capacity and need for the project . . . , has overstated the economic benefits of the project to the state and the community, and that it has failed to disclose economic determents to the community that

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would result from the construction of the project." P. 45. Beech Ridge's application should be dismissed for failure to comply with the Siting Rules, and if not dismissed should be denied, Mountain Communities wrote. P. 45.

Beech Ridge's Initial Brief, June 26, 2006

Beech Ridge has conclusively demonstrated that a siting certificate for the generating facility and transmission line should be granted, pursuant to W. Va. Code §§ 24-2-1(c) and 24-2-11c. P. 1. Beech Ridge has demonstrated:

1. Its strong interest, desire and overwhelming qualifications and ability to construct and operate the 186 MW generating facility and its related transmission support line and interconnection facilities.

2. Need in the ECAR region and PJM market, including increasing and mandatory demand for renewable generation.

3. Substantial economic gain to state and local economies.

4. Social, environmental and other impacts will be positive or neutral on the surrounding communities.

5. No public funding or tax abatement is involved in construction or operation.

6. Construction will have a substantial positive impact on the local economy and local employment. Pp. 1-2.

The blade pitch system on Beech Ridge's turbines will cease operations if wind speeds exceed 45 mph, it wrote. P. 6. "The blade pitch system reduces the amount of wind that the blade catches by rotating the blades at their bases, thereby stopping the turbine from operating. Additionally, below the cut in wind speed of 3.5 meters per second a primary brake is applied to keep the blades from turning in the wind." P. 6.

The 186 MW facility capacity is the product of 124 turbines multiplied by 1.5 MW per turbine. "If all of the turbines generate electricity at their rated capacity for one continuous hour, the Facility will deliver 186 MW or 186,000 kWh into the electric system for that hour. If the Facility operates at a typical capacity factor of 35 percent, the Facility would produce approximately 47,500,000 kWh during a month and about 570,000,000 kWh each year," Beech Ridge wrote. P. 7; see also *Description of Generating Facility* (Siting Rule 3.1.c.1), attached to Application.

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The project will be located along 23 miles of forested ridge line, over 300 acres. The transmission line corridor is about 100 acres. Most of the 300 acres is owned by MeadWestvaco. Other acreage is owned by Plum Creek Timber Company, Beech Ridge wrote. P. 7.

MeadWestvaco owns more than 100,000 contiguous acres surrounding the project. Presently the area is an actively managed forest. Much of the land was extensively timbered in the 1950s and earlier, and large areas have been surface mined. P. 7; see also David Groberg Direct p. 10 (May 17, 2006). There are more than 30 strip mine sites, including one along Grassy Knob and four along Cold Knob Road, Beech Ridge wrote. Cold Knob was completely strip mined, leaving a knob where a mountain once existed. P. 7. Several mines are now active, and several more continue to be permitted. Most turbines will be located in forested conditions at ridge tops. P. 8. Most of the transmission line is on MeadWestvaco or Plum Creek property. P. 8.

The generating facility site was chosen for several reasons, including the fact that the land is privately owned and has concurrent land uses (forest management, timbering, and coal mining) that are compatible with wind power development, Beech Ridge said. P. 8.

The site for the transmission line is ideal because it provides a direct route to Allegheny Power's Grassy Falls substation and has existing clearings and previously surface mined areas in which to locate many of the transmission line towers. P. 8.

The closest turbine to White Sulphur Springs is 20 miles, to Lewisburg 15 miles. These are the southernmost turbines along any turbine line, Beech Ridge wrote. P. 8. Eight turbines are within five miles of Williamsburg; these same turbines are within 2.5 to 3 miles of Trout. P. 8.

Beech Ridge will bid the services of a construction contractor to build the project.

Allegheny Power will construct and operate the interconnection facilities. Beech Ridge will pay for the cost of these interconnection facilities and upgrades. Pp. 8-9.

Beech Ridge will obtain EWG status from the FERC before starting operations. P. 9. Electric sales will be wholesale only, at negotiated prices, regulated by FERC.

The project will cost more than $300,000,000, and no public funding or financing will be used. P. 9. The project will be entirely privately financed.

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It will take six to eight months and 215 workers to construct the project. P. 9. Beech Ridge will be among the top five property taxpayers in Greenbrier County. P. 10. "Based on Beech Ridge's research and experience with other projects of this magnitude and scope, construction contractors and the various subcontractors purchase most of their goods and services locally," Beech Ridge wrote. "Beech Ridge estimates the Project will spend over $11,000,000 with West Virginia businesses during construction." P. 10.

Upon completion, Beech Ridge will employ 15-20 full-time workers, including the site supervisor(s) and turbine mechanics/technicians. They will have full benefits and average $35,000 per year. P. 10.

Beech Ridge's parent, Invenergy Wind LLC, is executing a large and regionally comprehensive wind energy development program, with active development in 20 states, and programs in Canada and Europe. Pp. 10-11. Invenergy Wind has secured 850 MW of GE turbines for delivery in 2006 and 2007.

In early 2005, Invenergy Wind financed and began construction on two projects, totaling 260 MW. It is building the largest wind facility in Central Europe, near the Baltic Sea in northern Poland. P. 11.

Supporting documents to Beech Ridge's application included:

1. Noise study November 2005, updated May 2006, James Barnes, Acentech Incorporated.
2. View shed analysis, October 2005, John Guariglia, Saratoga Associates.
3. Bat studies – August 2005 mist net surveys, November 2005 risk assessment, April 2006 cave surveys, Russ Romme, BHE Environmental, Inc.
4. Bird studies – Spring 2005 Preliminary Phase I, February 2006 Phase I assessment, Ronald A. Canterbury.
5. Water and Wind study, Traffic study, Eli McCoy, Potesta & Associates, Inc.
6. Property values, Jay C. Goldman, Goldman Associates, Inc. Pp. 11-12.

The Commission established a two-part test to balance the interests in Western Greenbrier Co-Generation, Inc., Case Number 05-0262-E-CS-CN (November 21, 2005); and in Longview Power, LLC, Case Number 03-1860-E-CS (August 27, 2004), Beech Ridge wrote. Initial Brief p. 14. In part 1, the Commission balances

a) the applicant's interests to construct the wholesale generating facility,
b) the State's and region's need for new electrical generating plants, and
c) the economic gain to the State and the local economy,

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against

i) community residents' interest in living separate and apart from a facility,
ii) a community's interest that a facility's negative impacts be as minimally disruptive to existing property uses as is reasonably possible, and
iii) the sound and environmental impacts of the proposed facility on the local vicinity, the surrounding region and the State. P. 13.

In part 2, the Commission decides whether a project's public funding, if any, and property tax abatement, if any, offends the public interest. P. 13; W. Va. Code § 24-2-11c(c). Assuming the public funding and tax abatement mechanisms do not offend the public interest, then the Commission may grant a siting certificate. Id.

No party rebutted Beech Ridge's interest in, or qualifications in, developing, constructing and operating the facility, Beech Ridge wrote. P. 14. Beech Ridge has presented unrefuted evidence that the project is financially viable. Although Staff's Dixie Kellmeyer had reservations in her early review, she testified that additional information from Beech Ridge satisfied her concerns. Pp. 14-15.

The East Central Area Reliability Council (ECAR)[10] estimated a reduction in reserve margin from 18.3% in 2005 to as low as 4.1% in 2014, causing ECAR's loss of load expectations to exceed its reliability design limit, Beech Ridge wrote. P. 15; see also *Justification of Need* (Siting Rule 3.1.b.1), attached to Application. ECAR's generation capacity is aging, with as much as 76% of the generation facilities older than 30 years, and 36% older than 40 years by 2010. Id. Further, Beech Ridge's power will be fueled by a renewable resource. Several PJM states have already developed, and others are in the process, renewable portfolio standards. Id.

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[10] ReliabilityFirst Corporation (RFC) replaced ECAR, effective January 1, 2006.

ReliabilityFirst is a not-for-profit company whose goal is to preserve and enhance electric service reliability and security for the interconnected electric systems within its territory. ReliabilityFirst was approved by the North American Electric Reliability Council (NERC) to become one of eight Regional Reliability Councils in North America and began operations on January 1, 2006.

ReliabilityFirst is the successor organization to three former NERC Regional Reliability Councils: the Mid-Atlantic Area Council, the East Central Area Coordination Agreement, and the Mid-American Interconnected Network organizations.

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Arguments that wind energy does not assist in addressing capacity margin concerns miss several points, Beech Ridge wrote:

1. Even if wind facilities generate less power on average in summer, the turbines are still producing some energy at peak, contributing to reducing capacity margins.

2. The contribution to summer peak debate misses entirely the generation needed from renewable resources. Pp. 15-16.

The project contractor is bound by the Building Trades agreement, Beech Ridge said. P. 16. Building Trades' Mike Matthews testified that a majority of the construction workers should come from Greenbrier County. P. 16.

The average $35,000 per year salary for post-construction employees will carry full benefits, Beech Ridge wrote. "These salaries will be significant, particularly in western Greenbrier County where per capita income is approximately $13,500 and Nicholas County where per capita income is approximately $15,207." P. 16.

Upon operating, Beech Ridge said it expects $1 million in local purchases. "Beech Ridge has already made contributions and commitments to local groups and organizations and will continue to do so." P. 16.

Beech Ridge expects to pay Greenbrier County $500,000 annually in real property taxes for the first four years, it wrote. Pp. 9-10, 17. Beech Ridge has guaranteed to make up the difference if, in any year, taxes fall below $400,000. "Thus, at the very least Greenbrier County is guaranteed $8 million in property taxes over 20 years."

Beech Ridge expects to pay $212,000 in state B&O taxes annually. Pp. 10, 17.

"This gain to the local economy can be readily seen by the support Beech Ridge has received from numerous individuals (through hundreds of letters and signatures on petitions) and communities (including resolutions passed by the towns of Rupert, Rainelle and Quinwood and the Chamber of Commerce of Richwood) who have taken the time to express their support for the project . . . ," Beech Ridge wrote. P. 17. This support is based upon the economic benefits, the need to develop clean, renewable, home-grown sources of power, and their tolerance for and/or rejection of alleged negative impacts, Beech Ridge argued. P. 17.

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Using IMPLAN, Building Trade's Dr. Thompson estimated the following:

1. 265 to 1,089 jobs, in low and high impact scenarios.
2. $25.3 to $104 million of additional private sector output.
3. $11.3 to $46.4 of value added, including $7.3 to $30 million of additional construction and employee compensation.
4. $528,000 to $2.2 million of additional indirect business taxes.
5. $1.9 to $7.9 million in federal tax revenue.
6. $817,000 to $3.4 million in state tax revenues, half of which would be state personal income tax. Pp. 17-18.

"It is important to note that these economic points were never refuted by any witness; nor were they seriously challenged. Although some intervenors questioned whether the employment benefits would be enjoyed by Greenbrier County residents, Mr. Matthew's testimony was otherwise, and unrefuted," Beech Ridge argued. P. 18.

"MCRE and others mounted a highly effective public relations and grass roots organization campaign to cause people to write the Commission protest letters about the Beech Ridge project. The pre-printed letters offered a multitude of reasons for opposing the Project," Beech Ridge wrote. P. 18. Among the reasons listed in MCRE's ads and in the protest letters – loss of hunting and fishing, with resulting loss of state licensing revenue; pollution of local streams/rivers; radio interference; federal tax breaks to wind projects; use of herbicides and pesticides; erosion from clear cutting; loss of tourism dollars; and reduced property values. Pp. 18-19. "None of these allegations were developed in evidence offered by MCRE," it argued P. 19. "[A]bsolutely no proof of these claims was offered. Not one shred of evidence on these topics was demonstrated by MCRE. In anticipation . . . Beech Ridge actually covered several of these topics in its evidence. But MCRE did not even ask cross-examination questions on these issues," Beech Ridge wrote. P. 19.

Beech Ridge's Mr. Groberg and Westvaco's Mr. Miller both testified there would be no impact on hunting, fishing or wildlife. Pp. 19-20. "In fact, improved habitat and food plantings near tower sites will improve conditions for game and non-game wildlife. Moreover, all of the property will continue (as is presently the case) to be open to the public for fishing, hiking, wildlife viewing, berry picking and other non-motorized recreation," Beech Ridge wrote. P. 19.

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Water pollution and erosion are handled by other government agencies, who have the responsibility to review those topics prior to issuing permits, Beech Ridge wrote. P. 20.

"The Project will not utilize herbicides or pesticides,"and Beech Ridge accepts Staff's condition about herbicides, Beech Ridge wrote.

Beech Ridge contacted the Greenbrier County Director of County Emergency Responders who had no concerns about radio transmissions, "especially after contacting his counterpart in Tucker County, site of the Mountaineer Wind Energy Center. Beech Ridge then requested a report from Peters Consulting Engineers, who have been working with Greenbrier County's radio systems for a number of years. According to the Peters report, the proposed Project does not create nor use radio frequencies that can affect radio transmissions and the proposed turbines would need to be within 150 feet of a County radio site to provide some interference (and no turbines are anywhere close)," Beech Ridge wrote. All of this was offered in Mr. Groberg's rebuttal and he was not asked a single question about radio transmissions. P. 20; see also David Groberg Rebuttal pp. 16-17 (Tr. May 17, 2006).

Mountain Communities advertises that bright flashing lights will change the dark starry skies, and Friends of Greenbrier County states there will be hundreds of lights. Pp. 20-21. Mountain Communities' Mr. Buhrman stated this would be "the most dominant lit up industrial project in the State." P. 21. However, Beech Ridge's Mr. Groberg testified that Beech Ridge expects the FAA lighting to be single red, simultaneously flashing lights on one-third of the turbines, based on the most recent FAA technical guidance, which states that obstructions near to each other (such as radio towers or long-span bridges) should be treated as one large obstruction. The FAA guidance suggests red, simultaneously flashing lights placed at the outer perimeter, each spaced no more than one-half mile apart, with only one light per turbine. If the towers are painted white,[11] daytime lights are not required. "This guidance was validated at the Lawton, Oklahoma test site where only 14 out of 45 (31%) turbines included FAA lights," Beech Ridge wrote. P. 21. Mr. Groberg was not cross-examined on this point. P. 21.

Mountain Communities' Mr. Buhrman disagreed with the FAA guidance that only one-third of the turbines needed lit. He also stated that he did not know for sure what the FAA regulations are, Beech Ridge wrote. P. 22.

Mr. Buhrman's claim that he was holding a picture provided by Beech Ridge of sky glow near the turbines "is at best mistakenly false testimony. . . Beech Ridge provided Mr.

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[11] Beech Ridge's towers will be white. *Color of surfaces* (Siting Rule 3.1.g.6.C), attached to Application.

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Buhrman no such picture." P. 22. Beech Ridge provided a day time photo to MCRE, which may have been copied to black and white to create the glow.

Mr. Buhrman, fearful of the ruination of dark skies, testified that he has never seen what the Mountaineer Wind Farm in Tucker County looks like at night with its pattern of one red light every three turbines, Beech Ridge wrote. Pp. 22-23.

The existing historical surveys are 20 years old, and while valuable, provide only the first step in the historical analysis, Beech Ridge said. And, these studies use a "preliminary ranking system" that SHPO no longer uses. P. 23. "[U]nder SHPO guidance, approval and oversight, Beech Ridge's consultant, BHE, is presently conducting an on-the-ground massive and thorough historical survey of the area around the Project. Then BHE will report to SHPO." (emphasis in original). SHPO will decide if any properties are potentially eligible for the National Register of Historic Places, and if so, what mitigation efforts Beech Ridge needs to make, Beech Ridge wrote. P. 23. The Commission customarily grants certificates, subject to completion of SHPO requirements. P. 23. With such understanding, Beech Ridge said it accepts Staff's condition. Pp. 23-24.

Beech Ridge's transformers are reduced-noise versions. P. 24. The turbines have enclosed gearboxes and generators, insulated components, reduced-noise gearboxes, and vibration isolation mounts. Thus, it is not surprising that they have very little impact on ambient noise, Beech Ridge asserted. P. 24.

Ambient noise levels throughout the project are very uniform, averaging 50 Ldn, with a low of 49 and high of 52, Beech Ridge said. P. 24. Estimated facility operation levels ranged from 17 Ldn at Williamsburg to 52 Ldn at the tin shanties. P. 24. "These levels are well below those of average conversation which is about 60 Ldn. At every measurement location except the 'tin shanties' the Facility Ldn was lower than the ambient measured Ldn." Pp. 24-25 (ambient 51compared to operational 52).

To calculate sound levels, Beech Ridge's sound expert conservatively assumed that the 124 turbines were operating at maximum sound output and wind speed. The Ldn was 39 at Duo, 34 at Leonard-Cordova, Beech Ridge wrote. Pp. 24-25.

No intervenor refuted Beech Ridge's Mr. Barnes about his noise survey result, although several complained about the microphone placement, Beech Ridge said. P. 25. Mr. Barnes' explained his placement choices in his rebuttal testimony, and he demonstrated that the project noise levels "will fall well below any U.S. [EPA, FERC] or industry standards high limit Ldn noise level for either A-weighted or C-weighted (low frequency) noise levels." P. 25.

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"Although community residents at 4,000 feet from the Project might sometimes hear noise from the Project, those sound levels will be significantly less than existing ambient levels at that distance," Beech Ridge wrote. P. 25.

Beech Ridge provided 1) a Spring Avian Study and Preliminary Avian Phase I Assessment of Bird Populations, and 2) a Fall and Spring Avian Phase I Assessment, "thereby completing both studies called for by the Siting Regulations," Beech Ridge wrote. P. 25. During the Spring and Fall of 2005, Mr. Canterbury conducted 1) fixed point count surveys to assess species composition, habitat use and flight characteristics, 2) raptor studies to assess migratory patterns, relative abundance and nesting, 3) a nocturnal bird survey, 4) a Golden-winged and Cerulean Warbler study, and 5) mist-netting and bird banding to assess fall migration patterns. P. 26. Weather was also observed to predict impacts of adverse weather on area birds. Mr. Canterbury concluded that the project "did not appear to create unique situations and habitat features that would accelerate avian mortalities."

On several issues, MCRE's Mr. Lipton offered excerpts from other documents. P. 26. Beech Ridge's Jessica Yeager "puts Mr. Lipton's remarks in their proper place." Applying the preliminary avian fatalities from Mountaineer in Tucker County would result in a conservative estimate of 450-550 birds killed each year at Beech Ridge, which is a very low number when compared to the annual mortality figures relating to vehicles, buildings, power lines, and communication towers, she testified. Pp. 26-27.

Beech Ridge has agreed to follow Mr. Canterbury's recommendation for three years of post-construction surveys, and if further data warrants it, a one-year post-construction eagle/osprey survey. P. 27.

"No intervenor offered testimony which supported the claims (in the newspaper advertisements and protests) that tourism would be harmed in Greenbrier County," Beech Ridge wrote. P. 27. To refute these allegations, Mr. Groberg provided five pages about tourism nationally and in West Virginia, including four surveys regarding Mountaineer's Tucker County facility, which conclude that wind towers do not negatively impact tourism and frequently become tourist attractions; Ms. Phillips-Weickle's testified about Greenbrier County tourism, advising that most tourism is at the Greenbrier Hotel and downtown Lewisburg, which are 15-20 miles from the closest turbine; and the Midland Trail Scenic Highways advised it is anxious to promote the Beech Ridge project. Pp. 27-28.

Only Mr. Eisenbeiss attempted to offer any evidence on property values, and that evidence "was only to demonstrate how values have increased substantially in Greenbrier County in the last several years," Beech Ridge wrote. P. 28.

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Beech Ridge's Mr. Groberg and MeadWestvaco's Mr. Miller both referenced "the comprehensive 'Effect of Wind Development on Local Property Values' whose author George Sterzinger and others researched over 25,000 transactions around wind farms throughout the nation and found no evidence whatsoever that property values decreased as a result of wind farms," Beech Ridge wrote. P. 28. The Sterzinger study found that most property values rose more quickly in the view shed than otherwise and rose more quickly after wind projects were completed, Beech Ridge said. Pp. 28-29.

Mr. Miller testified that, as a property owner, MeadWestvaco would be sensitive to declining property values, and following its review of Mr. Sterzinger's report, "we are satisfied that such concerns are unjustified." P. 29.

Beech Ridge also provided Mr. Goldman's study of Tucker County values, where Mountaineer's wind farm is located. Similarly to Mr. Sterzinger, Mr. Goldman found no adverse impact in Tucker County, and because of similarities between the two counties he expects the same for Greenbrier County.

Mr. Goldman has owned land in Greenbrier County for more than 40 years; he built a home on Route 219 north of Lewisburg. He was involved in a similar investigation regarding the effect of the 756 kV line on Putnam County property values in 1992. P. 30.

When the Friends attempted to introduce evidence that Tucker County real property values have fallen, Mr. Goldman returned to Tucker County to examine Friends' data. In his post-hearing exhibit, Mr. Goldman confirmed that the Friends' data was erroneous and that property values have substantially increased, Beech Ridge wrote. P. 31.

Beech Ridge's BHE prepared three studies – 1) a bat risk assessment, 2) a mist-net survey of the project site, and 3) a cave survey near the project site. P. 31. "All three studies supported the conclusion that there was an absence of federally listed species (Indiana Bat and Virginia Big-Eared Bat) in the Project area, both during the summer and winter," Beech Ridge wrote. No Virginia Big-Eared Bats have ever been captured or seen in Greenbrier County.

"With respect to the Indiana Bat there is only one cave within five miles of the Project area that has ever been an Indiana bat hibernaculum. No Indiana Bats were found in the cave in either a 2006 survey or a 2002 survey," Beech Ridge wrote. "The last instance when an Indiana Bat was located in the cave was 1990 when three were observed in the cave. No Indiana bat was recovered in the 2005 mist-netting at the Facility site." Beech Ridge said its study substantially exceeded the Fish and Wildlife guidelines for such a study. P. 31.

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One cave, historically an Indiana Bat hibernaculum, could not be explored. It is within 6-6.5 miles of one turbine. P. 32. Beech Ridge's Mr. Romme testified that typically this would be out of range of swarming for Indiana Bats.

"However, to be clear on this topic, if the proximity of this cave is of consequence in this case, the movement of two turbines from their present locations would cure whatever concern MCRE was expressing," Beech Ridge wrote.

MCRE's Dr. Gannon makes a great deal of peer review, but peer review is an academic scientific standard and is not deemed necessary by Fish and Wildlife, Beech Ridge wrote.

Dr. Gannon also would prefer that his "Anabat" methodology be used to investigate for Indiana bats. P. 32. "However, Anabat's applicability to identifying bat mortality levels or verifying the presence or absence of federally listed species has not been proven. Mr. Romme's methods – mist netting and cave surveys – are the ones regularly used by regulatory agencies and the vast majority of researchers in the field; and the ones with proven reliability," Beech Ridge argued P. 32.

No one knows what will happen as to bat kills, because the only estimate is based on experience at two operating Appalachian ridge line projects, Beech Ridge wrote. Beech Ridge, though, is different from those two facilities because 1) Beech Ridge has increased the cut-in speed to 3.5 meters per second, and bat kills at the other two sites have mostly occurred when the wind speed was low; and 2) Beech Ridge has agreed to three years of post-construction studies of bat kills, including the correlation between bat mortality and weather conditions. P. 33. Further, Beech Ridge has agreed it will test adaptive management strategies, including further increases to the cut-in speed. Pp. 33-34. Both Mr. Romme and Dr. Gannon find this a highly desirable result, Beech Ridge wrote. P. 34.

Beech Ridge's view shed analysis, prepared by Saratoga Associates, has a narrative evaluation, composite view shed maps and photo simulations. P. 36. "Saratoga concluded that overall visibility was minor with a concentration of potential views from the south and southeast of the Project. Both topography and vegetation screen much of the Project from the surrounding area," Beech Ridge wrote. P. 36. With few exceptions, less than 15% of the project will be seen from even the most open views. The vertical form of the turbines is similar to existing landscape elements, such as trees and utility poles, and turbine color and layout also reduce potential visual impact, Beech Ridge said. The optical effects of distance reduce the visibility and dominance of the turbines. P. 36. And, past and on-going logging detract from the aesthetic values of existing views. P. 37.

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Although MCRE believes its view shed map is more accurate, Stewart Anderson testified that he has never done a turbine visibility map before, Beech Ridge noted. Further, the MCRE map was prepared three days before testifying and was, in Mr. Anderson's words, the first step of a more extensive analysis. Pp. 37-38. At some point, Mr. Anderson said he would consider vegetation. P. 38.

Mountain Communities' Van Cleve Anderson also agreed that vegetation is a critical component of any visibility study. P. 39. Mr. Anderson participated in a previous EWG certificate case before the Commission, and in Panda Culloden Power, L.P., Case Number 00-1702-E-CN, he prescribed conifers to screen the power plant from an adjoining landowner's view. P. 40.

The individual intervenors, though, are more concerned about their own properties, Beech Ridge said. "[W]ith all due respect to what is undoubtedly their sincere positions, they simply must not be allowed to let individual preference for view destroy an individual landowner's right to use its property in a lawful, legitimate way, especially when the landowner has been utilizing its land for compatible uses for many years," Beech Ridge argued P. 37.

Considerable public comment was about the area's scenic beauty, Beech Ridge wrote. P. 42. "What is not taken into account by that statement, however, is the land that the residents are looking at and which they want to remain as is, is owned by, and taxes are paid by, MeadWestvaco. MeadWestvaco, through witness Paul Miller, has made it clear that it considers this Project to be an appropriate and proper one on its property. To disallow that landowner's decision to use its land in a lawful way because neighbors will not like the view would be an inappropriate policy," Beech Ridge argued P. 42.

Furthermore, to believe that the property must remain as is, ignores the reality of its coal mining and timbering history, Beech Ridge said. P. 42. There are many strip mine sites, particularly on the eastern side of the project. P. 43.

There will be no public funding, and no tax abatement for this project, Beech Ridge said. P. 43. Some intervenors question the federal tax credits, but "[t]his is clearly not the 'public funding' that the Legislature is referring to in W. Va. Code § 24-2-11c. Moreover, it is quite obvious that the federal government is stating as a portion of our national energy policy that it wants to create incentives for the development of renewable energy technology and advancement," Beech Ridge wrote. P. 43.

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Beech Ridge addressed whether construction of the facility will result in a substantial positive impact on the local economy and local employment in the comparative balancing required in part one of the two-part test.

Building Trades' Reply Brief, July 10, 2006

After considering the initial briefs, it remains evident that after the Commission balances the interests of the public, the project's benefits are more than sufficient to support a siting certificate, Building Trades argued. P. 2.

There is no evidence in the record to support the concerns about declining property values. P. 2. To the contrary, there is evidence that values increased in Tucker County, Building Trades wrote.

Although MCRE argues that the economic benefits were overstated, no evidence was presented of the economic detriments, the Council wrote. P. 3.

The Commission held in Longview that view shed is an important issue and that it is inherently subjective. P. 3, citing Comm'n Order pp. 105, 117, Longview Power, LLP, Case No. 03-1860-E-CS-CN (June 26, 2006). In this case, the balancing can rest only in favor of granting the certificate, Building Trades wrote.

The intervenors brought important concerns to the table, and those concerns will result in important changes to the project. P. 4. The Commission should attach conditions to and grant the certificate, Building Trades argued.

Mountain Communities' Reply Brief, July 10, 2006

MCRE argues that Beech Ridge's brief relies on matters not in the record, such as newspaper articles, and those items should be disregarded. P. 1. Thus, Beech Ridge's argument is based on generalities, and generalities are more appropriate for an advocacy newspaper article, such as that Beech Ridge complains of, Mountain Communities wrote. P. 2.

Mountain Communities continued to assert that Beech Ridge did not submit anything of record as to FAA lighting requirements or determinations. While Beech Ridge cites a November 2005 FAA Technical Note in the Initial Brief, that Technical Note is not of record. On cross, Beech Ridge's Mr. Guariglia said he did not know what the FAA would require. P. 3.

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Further, it was remarkable when Mr. Guariglia testified that there are no dark sky landscapes, and that there would be manmade light somewhere. Pp. 3-4. Thus, he testified that there was no need to protect the Cranberry Wilderness Area from visual intrusion, day or night. P. 4.

MCRE continued to argue that Beech Ridge's failure to timely disclose cultural and historic sites, including sites eligible for the National Register, was fatal to its application. Pp. 5-8.

Mountain Communities agrees with Beech Ridge that there has been considerable misunderstanding of what the rules require, but concludes that Beech Ridge has the misunderstanding. P. 6.

Mountain Communities said that any post-certificate condition, study or SHPO consultation is insufficient. P. 6.

MCRE continued to argue that Beech Ridge's failure to present renderings from scenic overlooks was fatal to the application. P. 9. Beech Ridge should have included "such well-known sites as the Ann Bailey Observation Tower in Watoga State Park as well as the Red Oak Knob Observation Tower in the Cranberry River area, the Cranberry Glades Overlook along the Highlands National Scenic Highway, the Gunpowder Ridge Overlook, and several hiking trails, all in the Monongahela National Forest," Mountain Communities wrote. P. 9.

Mountain Communities continued to argue that accepting Beech Ridge's visibility map bears the risk of the project having "highly unfortunate visual impact on the types of sensitive viewpoints not addressed" by Beech Ridge. P. 10. The more protective course is a worst-case scenario, such as MCRE presented, it argued. P. 10.

Beech Ridge relies on the "time-worn extractive-industry bold assertion that it will do with 'its property' what 'it wants to do,' regardless of the public interest," Beech Ridge argued. P. 12. Intervenors are not asserting mere private interests when they seek to preserve the area's scenic beauty. P. 12.

MeadWestvaco already can do on its property whatever is lawful, MCRE said. "It may not permit construction of a wind turbine project on its property because such act is not lawful without a permit from this Commission. . . It is then the legislative, executive, regulatory and administrative acts and powers of the State of West Virginia, and not some private action of the intervenors, that then 'interferes' with MeadWestvaco's self-claimed 'right' to use its property as it wishes, regardless of the public interest." Pp. 12-13.

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Visual impacts, noise and property values could be generally described as life style-cultural impacts, Mountain Communities said. P. 14. Beech Ridge has attempted to marginalize these interests, yet W. Va. Code § 24-2-11c(c) provides for the appropriate consideration of these, in balance with other interests. P. 14.

There is no long-standing interpretation of the Siting Rules, but there is instructive precedent in AEP, Case Number 93-0123-E-CN. P. 15. "MCRE asserts that given the pervasive failures, inadequacies, incompleteness and inaccuracy of the Beech Ridge application . . . , it is not possible within the law to reasonably construe or interpret the clear and unambiguous language of the Siting Regulations in such a manner as to find Beech Ridge in substantial compliance with those regulations." P. 15.

Mountain Communities is concerned about Mr. Young's conditional support. P. 16. "MCRE rejects any suggestion that a wind turbine project should be built to kill bats in order to provide a site for the study of bat mortality." P. 16. MCRE's Dr. Gannon suggested instead that extensive pre-construction studies be conducted. P. 17.

The driving need for this project is peak summer load, and since wind turbines are least productive during this period, "it has not been established that the energy produced by this project will lessen the need for other, less weather-dependent, generating plants," Mountain Communities wrote. P. 17.

To the extent that wind generation ties up transmission line capacity, this project could overload the system and cause rate-payer expenditures on upgraded lines, Mountain Communities. P. 17.

The local economic gain will be temporary, MCRE said. Wind project expenses are heavily equipment oriented. P. 18. The turbines will not be produced in West Virginia. There will be limited long-term employment. On balance, any economic gains are outweighed by the numerous negative impacts. P. 18.

John Walkup's Reply Brief, July 10, 2006

Mr. Walkup continued to argue that Beech Ridge failed to provide that federally-listed bat species are not at risk. Pp. 2-3. He said the mist-net survey was a small sampling over a short time (summer) for a large project area and cannot be said to be conclusive. P. 3. Seasonal variations are why Fish and Wildlife recommends multi-year studies, he said. Pp. 3-4. This project covers 24 miles of ridge top. P. 4.

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The winter cave study also is flawed, Mr. Walkup said, because not all caves meeting the criteria as possible hibernacula were surveyed. P. 4. He also argued that Beech Ridge should have subjected its study to peer review. Pp. 5-6.

Mr. Walkup also said that Beech Ridge has not followed Fish and Wildlife suggestions. Pp. 5-6.

The requirement to conduct post-construction studies should not expire after a time certain, but should be assessed periodically, considering the results to date, Mr. Walkup suggested. P. 14.

Mr. Walkup supports Mr. Young's suggestion for an advisory panel. P. 14.

Beech Ridge's proposal to mitigate bat mortality by changing the turbine cut-in speeds holds little promise because bats do not fly around turbines operating a high speed, and that most deaths occur at low speeds, Mr. Walkup said. P. 15. The Mountaineer/Meyersdale study suggested several options to consider: 1) full curtailment when winds are below 6 meters per second, 2) nighttime curtailment (when bats are most active) when winds are below 6 meters per second, and 3) changing the cut-in speed from 4 to 6 meters per second. P. 16. This reflects that the normal cut in speed is 4 meters per second, and Beech Ridge would have 3.5 meters per second, he said. Of eight bat kills in the Mountaineer/Meyersdale report, six occurred at speeds from 6.1-10.2 meters per second; the other two were below 3.5 meters per second. P. 17. Fish and Wildlife has already advised that, due to these kills, it seems a 6 meter per second cut-in speed may be necessary for an appreciable difference, Mr. Walkup said. P. 17.

Beech Ridge's bird study is misleading and incomplete because it does not reveal how birds use the air space. P. 18. According to the National Wind Coordinating Committee fact sheet, the mortality range for this region is 4.0 to 7.7 per turbine per year. P. 19. This would result in 496-955 birds killed annually, Mr. Walkup said.

The comparison to bird mortality caused by vehicles, buildings and such does not state if those numbers are in Greenbrier County, the state, nation or world. P. 19. Mr. Walkup said it is false and misleading to compare mortality at one location to kills around the entire nation or globe. P. 19.

Mr. Walkup is concerned that no nighttime surveys of flight patterns or altitudes of migrants using radar was included in the study. P. 20.

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In closing, he notes that the association of bat kills and wind farms has been substantially established, but science has not yet solved this problem. P. 21. "Given that bat populations are slow to rebound from losses, due to extremely slow reproductive rates, and given the prospect of hundreds of turbines coming into our region, scientists anticipate a dilemma," Mr. Walkup wrote. P. 22.

Staff's Reply Brief, July 10, 2006

"While the map submitted by Beech Ridge is not perfect, it is apparent they tried to comply with the requirements. A map that is not perfect is not grounds for dismissal... The adequacy of the map goes to the weight that particular piece of evidence should be given," Staff wrote. P. 1. Once the filing threshold is met, it is proper for the Commission to use all evidence of record, including items filed by other parties. W. Va. Code § 24-1-7 provides that the Commission is not bound by the technical rules of evidence, but may exercise such discretion as will facilitate its efforts to understand. P. 1. "So, with the inclusion of all evidence submitted, the Commission has a good understanding of the nature of the activities in the area and can make a fully informed decision on that issue," Staff argued. P. 2.

Beech Ridge's Reply Brief, July 10, 2006

Beech Ridge noted that its application was supported by Staff and Building Trades, and conditionally supported by Mr. Young, who has participated in previous wind cases. Pp. 1-2.

Many of the intervenors are appearing *pro se*, and it is important to characterize their purported evidence, Beech Ridge wrote. P. 4. The Mendelson, Walkup and Eisenbeiss Briefs do not contain any citations to the evidence.

Beech Ridge provided 15 witnesses under oath "on every single possible topic including some that were responsive to obviously inaccurate public statements of intervenors and protestants." P. 4. The intervenors rely upon public comment, which was not tested by cross-examination; personal observations not supported by evidence; and publications offered as "evidence to the contrary."

Mountain Communities writes that Beech Ridge has overstated need, without a citation to even its own witness, Beech Ridge wrote. P. 7. Mr. and Mrs. Eisenbeiss, apparently relying upon Mr. Boone's graph, write that only 40% of the homes Beech Ridge claims could be served, will actually be served in August. Pp. 7-8. However, it is unrefuted that new generation is needed in ECAR and PJM, Beech Ridge writes. P. 8. Similarly, it is unrefuted that there is increased demand for power from renewable sources. Even if you

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accept that wind will not help as much at peak, Mr. Boone's graph shows that wind does contribute at peak, Beech Ridge argued. P. 8.

MCRE claims Beech Ridge has overstated the economic impact, but offers no transcript cite or evidence to the contrary. Mr. Thompson's testimony is unrefuted, as is Mr. Matthews' testimony, Beech Ridge wrote. Pp. 9-10.

Although Ms. Mendelson is concerned because the construction jobs are temporary, Building Trades' witness, Mr. Matthews, stated at the public hearings that a construction worker's life is just a long series of temporary jobs. P. 10. He also, in his direct testimony and on cross, unequivocally stated that local workers would be employed. Pp. 10-11.

IMPLAN is an economic model, and Dr. Thompson is an expert in its use. Dr. Thompson need not travel to Greenbrier County to input economic figures into the IMPLAN model, Beech Ridge argued. P. 11.

The intervenors' loss of tourism and second home property value claims would be offset against the substantial positive impacts. And, they offer no credible evidentiary support for their positions, Beech Ridge wrote. P. 11.

Regarding property values, Mr. Walkup relies upon a magazine, the *Country Guardian*, which speaks of turbines in Denmark, and an English study. Pp. 11-12. On the other hand, Beech Ridge offered the testimony of Jay Goldman, which was tested on cross examination. P. 12.

MCRE misrepresents what Beech Ridge offered as to the FAA lighting standards, Beech Ridge wrote. P. 23. The FAA light discussion is found in Mr. Groberg's rebuttal testimony, in which he cited the FAA Technical Note. Mr. Groberg was not cross-examined by Mountain Communities on this. P. 24.

MCRE's dark sky locations will not have views of the project and "MCRE's belief otherwise is grounded in a false visual impact approach ignoring vegetation which its own experts disavow," Beech Ridge wrote. P. 24.

MCRE's Mr. Buhrman admitted that red light is far less intrusive than white light. P. 24.

It is grossly misleading for Mountain Communities to state that Beech Ridge did not perform a visual analysis on lighting. P. 25. Beech Ridge performed the most conservative possible approach by doing the entire view shed analysis using the 'FAA light height' of 275

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feet (in addition to the maximum height of the towers) as its turbine marker, and assumed that every turbine would be lit, Beech Ridge argued. P. 25.

Any property older than 50 years is not necessarily a historic site, under SHPO guidelines, Beech Ridge said. P. 36. Beech Ridge's Dr. Patton testified that Beech Ridge will review the 20-year-old surveys, but is also conducting a comprehensive study, and the results will be submitted to SHPO for review and comment. Further, Staff has proposed conditioning the certificate on SHPO, and Beech Ridge accepts that condition. P. 37.

Mr. and Mrs. Eisenbeiss complain about the location of ambient noise monitoring devices. P. 26. Beech Ridge's witness explained he placed the devices based upon his professional judgment and experience, and a lay witness with no skill in this area disagrees with those locations. P. 28.

Mr. and Mrs. Eisenbeiss say no evidence was presented relating to the health risk and state that "it is proven" that there are health risks. P. 26. However, Beech Ridge's Mr. Barnes testified that the turbines, being of modern technology, will not cause undue low frequency noise. P. 28.

It is no wonder Mr. Eisenbeiss has been misled because he relies upon the work of Dr. Nina Pierpoint, Beech Ridge argued. P. 30. She has no qualifications as a sound expert. One of her "expert sources" on how far away you can hear turbine noise is Linda Cooper, of Citizens for Responsible Windpower, an avowed wind power critic. Pp. 30-31.

MCRE offers no substantive disagreement with Beech Ridge's sound report, but complains about Beech Ridge filing second study. Beech Ridge filed the second study after Staff noted a discrepancy in the mapped location and the GPS reference for one monitoring device. P. 27. "Nothing changed about the noise contours either during construction, during operation or ambient," Beech Ridge wrote. "The only change was that the receptor of the second study was far closer to wind turbines in actuality than had been shown on the Acoustical Study." P. 27. While Beech Ridge could have just explained the mistake in hearing testimony, it chose to provide a corrected study for the record, it said.

MCRE claims that Beech Ridge's Phase I risk assessment was inadequate, but does not say why. Beech Ridge said it filed a spring avian study with the application and advised that it would file a complete study when the fall survey was conducted. P. 31.

Mountain Communities provided a small amount of bird testimony through Mr. Lipton. P. 32. Beech Ridge's Ms. Yeager showed that his testimony was simply excerpts from documents. P. 32.

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As to MCRE's claim of failing to file an adequate bird lighting study, MCRE offers no explanation. "MCRE has never filed one piece of testimony or asked any cross-examination question about this topic," Beech Ridge wrote. P. 32.

Mr. and Mrs. Eisenbeiss addressed property values, but Mountain Communities did not. Mr. Walkup relied on publications from Denmark and Virginia, Beech Ridge said. Mr. and Mrs. Eisenbeiss complain that Mr. Goldman's evidence is not sufficient and that Tucker and Greenbrier Counties are not similar, yet they do nothing to refute Mr. Goldman, Beech Ridge argued. P. 25. The only intervenor testimony at the hearing regarding property values was Mr. Eisenbeiss saying that Greenbrier County property values have increased. In sum, the intervenors argue that Beech Ridge didn't satisfy them, but they offer nothing of their own, Beech Ridge wrote. P. 26.

Regarding bats, MCRE states that its witness, Dr. Gannon, said Beech Ridge's study was inadequate. P. 32. Beech Ridge continues to argue that Dr. Gannon's "peer review" is used in scientific journals, while Beech Ridge's Mr. Romme's approach "is driven by his vast experience in the real world working on U.S. Fish and Wildlife ('USFWS') studies and private industry work." P. 33. Beech Ridge said it provided three studies, and all confirmed that endangered bat species are not at risk.

Mr. Walkup suggests endangered Indiana bats could be near the project, that there will be significant bat mortality, and that Beech Ridge should not be trusted to do post-construction studies. P. 33. However, Beech Ridge's Mr. Romme did not testify that Indiana bats are in a cave 6.5 miles away. He said he was not able to go into a cave system 6.5 miles away "that at one time had contained Indiana bats." The accepted range of travel for Indiana bats is 5 miles, and at most, two turbines are within 6.5 miles of that cave, Beech Ridge continued to argue. Pp. 33-34.

No one knows what will happen at Beech Ridge on bat mortality, Beech Ridge wrote. Extrapolating worst case from the Mountaineer and Meyersdale data would produce 6,700 kills annually, but this should be reduced because Beech Ridge's turbines will be braked at low speeds below electricity generation and Beech Ridge will voluntarily test adaptive management strategies. P. 34. Mr. Young highly endorses this, as did Mr. Gannon.

And, while Beech Ridge can appreciate Mr. Walkup's concerns about follow through, "that really is what a condition to a Siting Certificate is all about," Beech Ridge wrote. P. 34. Mr. Young and Staff have recommended a condition, and Beech Ridge has agreed to it.

Ms. Mendelson's testimony is a rehashing of public comment, and, Dr. Hamm's statements are not in evidence and were not tested through cross-examination. Pp. 34-35.

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As to view, there primarily are three concerns – individuals do not want to see the turbines from their property, MCRE's sensitive areas will/may have a view of the project, and Beech Ridge's analysis is understated, Beech Ridge wrote. P. 13.

The objections from individuals are sincere, and Beech Ridge respects their positions. P. 13. "But, like the Staff's comments in its Initial Brief, a worthy project with so many positive benefits, should not be stopped because somebody believes that they should be able to dictate to another landowner what must be done to preserve somebody's view." P. 13.

No more than six or seven dwellings are within one mile of the closest turbine; the other 123 turbines are farther. P. 14. MeadWestvaco considers the project appropriate and proper for its forested tract. P. 14. "To disallow a landowner's desire to use its land in a lawful way because neighbors want to preserve their view is not an appropriate policy," Beech Ridge wrote.

Greenbrier County Commissioner Brad Tuckwiller visited a wind farm in Tennessee, which had towers slightly smaller than Beech Ridge's. He found the main presence was the tower, not the blades; wildlife was near; conversation could be conducted when the turbines were spinning; and he did not see dead birds. Pp. 14-15. He also noted that county commissioners have twice been asked to oppose the project, and he said,

> But I suggest to them that if we would be on a dual action tract for opposing the windmills while proposing regulated land use countrywide, we could recognize that citizens are willing to unite for a common vision. Or at least a vision held by the majority of the current citizens that would enable future citizens to know what the rules are prior to their arriving. However, it appears that these folks prefer to complain about the neighbor's choices one by one. My term for this is perverse imminent domain, whereby citizens attempt to control their neighbor's property are unwilling to relinquish any of their own property rights or pay for the privilege. This unilateral attempt to gain control is not equitable. It's change the rules after getting started.

Pp. 15-16.

MCRE complains that Beech Ridge did not do a perfect visual assessment, and urges that Mountain Communities' view shed analysis is correct. P. 16. However, Beech Ridge's testimony specifically rebutted the 63 points noted on MCRE's view shed maps, Beech Ridge wrote. P. 17. For instance, at the Beartown site, Beech Ridge determined that the project view is blocked by large rocks. P. 18. The photo alleged to be from Beartown was taken from a private field on an access road more than a mile away. And, the "observation tower"

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at Red Oak Knob is actually a ranger fire tower, the observation deck is locked, and the area is behind two locked gates. P. 18. Also, several MCRE vantage points are more than 20 miles away, Beech Ridge wrote. See also David Groberg Rebuttal pp. 23-30 (Tr. May 17, 2006). Two of them are on MeadWestvaco property. David Groberg Rebuttal pp. 29-30 (Tr. May 17, 2006).

Mountain Communities asserts in its Initial Brief that Beech Ridge did no further study of MCRE's locations. However, many pages of Mr. Groberg's, Mr. Duncan's and Mr. Guariglia's rebuttal testimony were dedicated to this topic. Pp. 18-19. Moreover, MCRE did not cross-examine any of these witnesses on their rebuttal, Beech Ridge wrote. P. 19.

"Since MCRE's evidence on view from 'sensitive' areas is unreliable and incredible, what is left? The answer is that Beech Ridge's Visual Analysis is," Beech Ridge argued. P. 22.

Ms. Mendelson wants the project on hold until an aquifer study is performed, and she criticizes Beech Ridge's Dr. McCoy. P. 37. However, Dr. McCoy was head of West Virginia's Water Resources Division of the Division of Natural Resources for 17 years, and his expert opinion was that the project construction would not impact area water resources. Beech Ridge can completely avoid surface water in construction, Beech Ridge wrote.

Ms. Mendelson also asks, how can clearing 250 acres and blasting 30 feet deep not impact water? "Not all excavations will be required to be blasted; the excavation will be at most 15 feet and 250 acres will not need to be cleared," Beech Ridge wrote. P. 38.

Mr. Walkup writes of 45 dwellings within a mile, and MCRE makes similar statements, Beech Ridge said. However, structures are depicted on the one-mile map, not the five-mile map, and no intervenor has objected to Beech Ridge's one-mile map. P. 40. The "structures" MCRE places on its five-mile map are not required by Siting Rule 3.1.h.1, and are grossly exaggerated in size, Beech Ridge argued. The blocks drawn on MCRE's map, labeled seasonal house, would be 650 feet x 800 feet, or the size of a major league baseball stadium including the seating capacity, Beech Ridge said. P. 40. Similarly, the turbines are shown as 500 feet in diameter, or about 40 times larger than actual size. P. 41. The one-mile setback Beech Ridge is using is entirely voluntary. "There are no setbacks of that distance required anywhere in the United States," Beech Ridge wrote.

Mountain Communities complains about how close turbine E15 is to the "tin shanties" – 15 hunting cabins southwest of Route 10/1, Beech Ridge wrote. P. 41. "These cabins are on MeadWestvaco land and are leased to a hunting association. . .[T]here has been no formal or informal protest . . . from the association. . . Beech Ridge and MeadWestvaco have never

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considered these seasonal shanties dwellings of any sort," Beech Ridge wrote. "They are shown on the pre-construction map because they are 'structures.'" P. 41.

Mr. Lively's seasonal home is located on Little Beech Knob. P. 1. There are six dwellings along the road near the I-line of turbines, and most are within a mile of at least several turbines. Two are occupied year round, "and those individuals are fully supportive of the Project. Only Mr. Lively has objected," Beech Ridge wrote. If he does not consent, Beech Ridge will not construct a turbine within one mile of his cabin. Pp. 41-42. Beech Ridge requests that the I-line be approved conditionally.

There are six structures within one mile of the closest turbine on the eastern side of the project, Beech Ridge wrote. Beech Ridge does not agree that any structure is closer than 4,000 feet. P. 42.

Beech Ridge's map lists 21 structures for Duo, and the intervenors want to call them all dwellings. P. 42. However, the county assessor does not show 21 occupied homes. Several are burned out or off foundations. MCRE's Van Anderson confirmed there are burned houses and "had to acknowledge that he did not do a thorough review of the structures in Duo." Turbines H1 and H2 are within one mile of Duo, although only H1 is within 4,000 feet of some of the dwellings. One person from Duo has protested the project. Whenever Beech Ridge is in Duo, the question is, 'can we get a job from you?,' Beech Ridge wrote. P. 42.

The remnants of at least two strip mines, a tipple and a slag dump are closer to Duo than the H1 and H2 turbines. Pp. 42-43. Western Greenbrier County residents are nearly unanimous in their support for the project, Beech Ridge wrote.

Beech Ridge does not accept that Duo residents will move away if the wind turbines are built. P. 43. Beech Ridge believes the real picture of Duo is that residents are concerned with economic opportunity and jobs, and are not worried about wind turbines around old strip mining sites and a slag dump. Beech Ridge asserts that it is far more likely that the film maker is worried about her purported documentary. "What continues to be amazing is the MCRE view that it can tell the western part of Greenbrier county what is good for those residents," Beech Ridge wrote. P. 43.

Beech Ridge repeated that there will be no public funding, and no tax abatement for this project and that the impact on the local economy and local employment are positive, as is set forth above. Pp. 43-44.

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Beech Ridge asked for clarification of Staff's pre-construction condition 8, which provides as follows:

> The Applicant must design and install a fire protection system in accordance with the National Fire Protection Association standards.

Beech Ridge said it does not object to take reasonable and customary fire safety measures, but it is not aware of any National Fire Protection Association Standards for wind turbines. P. 51. Thus, it asks the Commission to require adherence to "all applicable fire safety codes" and to use "industry best practices" in designing, installing and implementing its fire safety system.

Beech Ridge asked for clarification of Staff's pre-construction condition 11, which provides as follows:

> The Applicant must file with the Commission evidence of all necessary environmental permits and/or certifications prior to commencing construction (including letters from US Fish &Wildlife, WVDNR, W.Va. Division of Cultural and History and West Virginia State Historic Preservation Office indicating either that the Applicant does not need to take further action or outlining what action the Applicant needs to take to be in compliance with that agencies rules/laws).

Beech Ridge agrees to acquire "any necessary" letters from other agencies. It wants those words added, so it will not be delayed by seeking letters from agencies which have no statutory or regulatory duty. Pp. 51-52.

Beech Ridge asked for clarification of Staff's pre-construction condition 12, which provides as follows:

> The Applicant must file evidence of approval and/or acceptance of the wetlands delineation (the Applicant needs to file written evidence of the Wetlands survey being completed and approved with the Commission), final endangered species study with any mitigation plans, and historical/archeological significance study with mitigation plans prior to commencing construction.

Beech Ridge asks "required" to precede "mitigation" to insure that someone cannot argue that mitigation must occur, even if an agency thinks it unnecessary. P. 52.

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Beech Ridge asked for clarification of Staff's pre-construction condition 14, which provides as follows:

> The Applicant must comply with the Endangered Species Act (16 USC § 1531 *et seq.*), the Migratory Bird Treaty Act (16 USC § 701 *et seq.*), and the National Environmental Policy Act of 1969 (42 USC § 4321 *et seq.*) in both the construction and operation of the Project. Should any authorized governmental agency or court with competent jurisdiction find that the Applicant is not complying with any one of the above three acts in either the construction or the operation of the Project, then the Applicant must notify the Commission in writing in this case of any such finding within ten (10) days of any such finding being made. Furthermore, the Commission may seek any legal remedies it has authority to seek, including injunctive relief, to address any such findings.

Beech Ridge asks that "if applicable" precede the National Environmental Policy Act. Beech Ridge said that NEPA does not apply to this project and Beech Ridge "does not want an interested party to believe that Beech Ridge should have to comply with something with which it does not need to comply." P. 52.

Beech Ridge asked for clarification of Staff's pre-construction condition 16, which provides as follows:

> The Applicant should have a decommissioning fund in place prior to commencement of operation. The find should be an escrow account, or a bond or a surety that is held by an independent party, such as the County Commission. This fund should not be a part of the Applicant's assets. The Applicant should be required to hire an expert to assess the size of the fund that would be needed.

Beech Ridge asks that "from time to time, taking into consideration resale or salvage value" follow "needed."

Beech Ridge asked for clarification of Staff's pre-construction condition 18, which provides as follows:

> The Applicant should provide, if it has not already, a copy of the tax agreement between the Applicant and the Greenbrier County Commission whereby the Applicant agrees to pay at least $400,000 a year to the County.

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Beech Ridge asked that the tax agreement be referred to as a "guaranty" and asks for language that allows the Greenbrier County Commission to designate a fund for the promised minimum payment. P. 52.

Beech Ridge asked for clarification of Staff's operational condition 6, which provides as follows:

> The Applicant should prohibit the use of any lighting in the project area except for the required FAA lighting.

Beech Ridge believes that additional lighting is required for parts of the project other than turbines. Thus, it seeks language to allow "lighting required by any applicable fire or safety code, regulation or accepted good utility practice." P. 53.

Staff identified 51 particular turbines, to which objections were made. P. 53. "[B]ecause of its leasehold rights and the actual physical topography and wind conditions, [Beech Ridge] would at best be able to move 10 turbines to the western side of the Project," Beech Ridge wrote. If movement of 51 were required, it would be a net loss of at least 41 turbines from the project. "The loss of one-third of the Project would cause it to fail economically with the resulting lost jobs, lost economic benefits and lost tax and other revenues," Beech Ridge wrote. "This would be a particularly unfortunate result in light of the fact that the Staff has, in essence, agreed that the Siting Certificate, as applied for, should be granted for all 124 turbines." P. 54.

The Commission recognized at the hearing that Beech Ridge has struggled to move some turbines west to respond to citizens to the east of the project. P. 54. Before submitting its application, in response to community concerns, Beech Ridge reduced the project size from 133 to 124 turbines, by removing nine from the eastern side. P. 54.

If the Commission wishes some turbines to be moved, these are the turbines which Beech Ridge believes are most reasonable to move:

D19-D22 – the only dwelling near them becomes more than one mile from the nearest turbine.

D3-D4 – the three nearby dwellings become more than one mile from the nearest turbine.

B10-B12 – the three nearby dwellings become more than one mile from the nearest turbine.

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A1, A8, B7, B16, C1-C6 – no turbine will be within 6.5 miles of a cave that formerly contained an endangered species, moving eight of these means no turbine will be within five miles of Williamsburg.

Beech Ridge has factored in that the five I-line turbines may not be built and repeated that no more than 10 can be moved. "Beech Ridge has chosen the designated turbines to assure that the seven houses in the east which are less than one mile from the closest turbine will be more than one mile away. Beech Ridge does not, however, agree that sound should be measured at a person's boundary line." Pp. 55-56.

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Beech Ridge and Staff did not adequately address the health risks for this project which is close to their business, farm and home. Pp. 1-2. Similarly, Beech Ridge and Staff have downplayed the other negative impacts. "Corporate profit by an out of state corporation should not take priority over the health, environment, the pursuit of happiness, and the quality of life of the public of the State of West Virginia," they wrote. P. 2.

Mr. Goldman does not provide "first hand documentary proof" of what will happen in Greenbrier County, Mr. and Mrs. Eisenbeiss wrote. P. 2. If he had polled Greenbrier County residents, as he did Tucker County residents, "the results would be overwhelmingly the opposite."

All West Virginia counties adjoining Virginia have seen substantial property value increases since September 11, 2001, they wrote. P. 2. Urban dwellers desire a "safe, peaceful and quiet place to surrender to," they asserted. Pp. 2-3.

Although Beech Ridge suggests that the noise impact will be minimal, Dr. Pierpont believes otherwise, Mr. and Mrs. Eisenbeiss wrote. P. 3. "Dr. Pierpont has been investigating the effect of Wind Turbines on the health of the public located in close proximity. The Tugg Hill Wind Turbine Facility in New York, one of the largest in the east, became operational in 2006 and the public in close proximity to this project is already experiencing the adverse health effects, Dr. Pierpont refers to and explains to clearly." P. 3. They refer the Commission to the Tugg Hill video submitted as public comment and argue that Staff does not have the expertise to recommend any noise-related conditions, such as a one-mile setback Pp. 3-4. Dr. Pierpont strongly advises a three-mile setback for mountain topography, they write, because sound reverberates and resonates incredibly in a mountain valley. P. 4. Dr. Pierpont does not work for any wind industry developer, and her opinions "are credible, unbiased and easily understood," Mr. and Mrs. Eisenbeiss argued. P. 4.

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They assert that a property owner, such as Beech Ridge, must be held accountable when its activities severely affect the adjoining landowner's rights, the ecology, and local communities. Pp. 4-5.

Regarding the weight of their evidence, Mr. and Mrs. Eisenbeiss wrote that they have not just surfed the web for information. "We have had direct correspondence with credible sources for several months in an effort to seek the truth," they said. P. 5. Their individual financial capacity did not allow them to present experts in person.

Mr. and Mrs. Eisenbeiss acknowledge that the nation and world need alternate energy sources. P. 6. They have lived on their farm, off the grid, since 1996, and they use a micro hydroelectric system. "It is not convenient to live where we have chosen to. And many who visit our home do not understand this choice. We have chosen this beautiful area for the quality of life that is so rare in our modern world," they write. P. 6. Massive industrial wind turbines in this area are not the answer, and the negative impacts are irreversible, they argue.

They attached a July 3, 2006, letter from Dr. Pierpont, which responds to Staff's Initial Brief. In Appalachian, she recommends a three-mile setback. P. 3.

FINDINGS OF FACT

1. On November 1, 2005, Beech Ridge Energy, LLC applied for a siting certificate for a 186 megawatt (MW) wind-powered generating facility, to be located nine miles northeast of Rupert in Greenbrier County, and for a 13.8-mile 138 kV transmission line to connect the generating facility to Allegheny Power's Grassy Falls substation near Nettie in Nicholas County. Beech Ridge proposed to construct 124 1.5 MW wind turbines, mounted on 262-foot tubular steel towers, and 150 pole structures for the transmission line, with a total project cost of $300 million. Application pp. 1-3 & attachments (Ex. Beech Ridge No. 1); Form No. 2 p. 2 (Notice of Filing order); *Proposed Generating Facility* (Siting Rule 3.1.c.3); *Financial & Economic Data* (Siting Rule 3.1.1.1.A), all attached to Application.

2. The transmission line will be built entirely within rights-of-way from private landowners. The transmission line footprint will be 100 acres, more or less. The generating facility will be located among 300 acres, more or less. The turbines are planned along 23 miles of rural ridgetops. There will be no air or water emissions from the project. David Groberg Direct p. 21 (Tr. May 17, 2006). Beech Ridge does not require fuel to produce wind energy. *Description of Generating Facility* (Siting Rule 3.1.c.1); *Total Land Required*

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(Siting Rule 3.1.c.2); *Emissions List* (Siting Rule 3.1.c.3); *Technical Data* (Siting Rule 3.1.g.1); all attached to Application.

3. The wind turbines will be located on a 100,000-acre tract owned and actively managed by MeadWestvaco. Much of the land was extensively timbered in the 1950s and earlier, and large areas have been surface mined. Tr. p. 14 (May 17, 2006) (David Groberg). There are more than 30 strip mine sites, including one along Grassy Knob and four along Cold Knob Road. Cold Knob was completely strip mined, leaving a knob where a mountain once existed. Several mines are now active, and several more continue to be permitted. MeadWestvaco expects these timbering and mining uses to continue. Beech Ridge will locate many of the turbines on land reclaimed from old strip mining sites. *Site Selection* (Siting Rule 3.1.a.2), attached to Application.

4. Beech Ridge selected this location because of its wind energy development potential, including terrain, geography and above-ground wind speeds, its substantial distance from environmentally or culturally significant areas, its location near major electricity transmission facilities, the availability of privately-owned land with concurrent uses and the absence of known critical habitat for any threatened or endangered species. *Reasons for Site* (Siting Rule 3.1.a.2), attached to Application. Beech Ridge looked for areas more than 10 miles away from National Parks, Wilderness Areas and other environmentally or culturally sensitive areas. *Siting Criteria* (Siting Rule 3.1.g.1.A), attached to Application.

5. MeadWestvaco allows public access on the tract for activities such as hunting, berry picking, and picnicking. If the wind project is built, this public access will continue. Miller Rebuttal pp. 3-4 (Tr. May 18, 2006).

6. Beech Ridge will offer the power for sale in the wholesale market, and its rates will be regulated by the Federal Energy Regulatory Commission (FERC). Form No. 2 p. 2 (Notice of Filing order), attached to Application. Beech Ridge will request Exempt Wholesale Generator (EWG) status from the FERC. Application p. 2.

7. Beech Ridge is owned by Invenergy Wind LLC, which has financed the development, construction and operation of more than 10 major power generation facilities around the world, totaling more than $1.5 billion. It has active development in 20 states, and programs in Canada and Europe. Invenergy has secured 850 MW of GE turbines for delivery in 2006 and 2007. Beech Ridge will maintain its ownership throughout this project's development, construction and operation, although it may elect to sell partial ownership shares to separate passive ownership investors. Application p. 2.

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8. Beech Ridge expected to acquire all of the land rights, as well as most permits and approvals, by the end of 2005 or early in 2006. *Project Schedule* (Siting Rule 3.1.a.6), attached to Application. Final construction design would begin in spring 2006, and construction and installation would occur in summer and fall 2006. Id. Beech Ridge hoped to have the project in service by year end 2006. Application p. 3.

9. The project will create more than 200 temporary construction jobs and 15-20 permanent jobs with a $35,000 average annual salary. Further, the project will result in $400,000 yearly in tax revenue to Greenbrier County for 20 years and $200,000 yearly in tax revenue to the state, as well as contribute to a growth in tourism. *Local & State Economic Impact* (Siting Rule 3.1.l.3), attached to Application; David Groberg Direct p. 30 (Tr. May 17, 2006).

10. Studies attached to Beech Ridge's application included bats, birds, sound and visual effects. Beech Ridge's bat studies were conducted at the generating facility, and Beech Ridge said it also would conduct bat studies on the transmission line corridor. David Groberg Direct p. 14 (Tr. May 17, 2006).

11. Building Trades expanded upon Beech Ridge's economic assessment, using the IMPLAN model. We agree with Building Trades that this evidence was unrefuted.

12. Utility lines and communication towers exist where the project is planned. Tr. p. 107 (May 12, 2006) (Jay Goldman).

13. Allegheny Power will construct and operate the interconnection facilities. Beech Ridge will pay for the cost of these interconnection facilities and upgrades. West Virginia's electric utility customers will not pay any of these costs. David Groberg Direct p. 19 (Tr. May 17, 2006); see also Beech Ridge's Initial Brief pp. 8-9; John Marczewski Rebuttal p. 10 (Tr. May 12, 2006).

14. Neither public funding, nor property tax abatements will be involved with this project. David Groberg Direct pp. 27-28 (May 17, 2006).

15. Mr. Groberg testified that, to his knowledge, wind projects nationally are not required to perform three years of pre-construction studies. David Groberg Rebuttal, Ex. DG2 p. 1 (May 16, 2006). This statement also appears in Beech Ridge's Response to Fish and Wildlife's letter p. 1 (Apr. 3, 2006). These statements were not refuted. Accordingly, the Commission finds that operators of wind projects nationally are not performing three-years of pre-construction studies.

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16. Mr. Groberg testified that some states have setback requirements, and those generally require turbines to be located at least 750 to 1,000 feet from structures. David Groberg Direct p. 17 (Tr. May 17, 2006). This testimony was not refuted.

17. For the Beech Ridge project, Beech Ridge has established a voluntary set-back of one mile. More than 90% of the turbines are located at least a mile away from homes. Id.

18. It is reasonable to establish a decommissioning fund once the turbines are erected. David Groberg Direct p. 23 (Tr. May 17, 2006); David Groberg Rebuttal Testimony pp. 7-8 (Tr. May 17, 2006).

19. It is reasonable to perform three years of post-construction bird and bat studies. David Groberg Rebuttal pp. 12-13 (Tr. May 17, 2006). It also is reasonable to perform a one-year eagle/osprey migration study post-construction at Cold Kob and Grassy Knob. Id. p. 13. See also David Groberg Direct pp. 13-15 (Tr. May 17, 2006).

20. Beech Ridge has agreed to increase the cut-in speed to 3.5 meters per second, and also agreed to test adaptive management strategies, including further increases to the cut-in speed. Tr. p. 11 (David Groberg) (April 25, 2006 afternoon). Mr. Romme, Mr. Young and Dr. Gannon support this.

21. Beech Ridge will install single red simultaneously flashing lights on about one-third of the turbine towers, subject to FAA approval. David Groberg Rebuttal p. 16 (Tr. May 17, 2006); see also John Guariglia Rebuttal pp. 9-11 (May 12, 2006).

22. The local unions entered into a Memorandum Agreement with Beech Ridge in May 2006 which requires that the construction jobs will be filled by local individuals. The agreement applies to any entity that may purchase the facility. David Matthews' Direct p. 2 (Tr. May 11, 2006).

23. The remnants of at least two strip mines, a tipple and a slag dump are closer to Duo than the H1 and H2 turbines. See Beech Ridge's five-mile map.

24. Beech Ridge published the Notice of Filing in *The West Virginia Daily News* in Greenbrier County on November 9 and 21, 2005; *The Nicholas Chronicle* in Nicholas County on November 10, 2005; and the *Charleston Gazette* in Kanawha County on November 12, 2005.

25. Beech Ridge published the revised Notice of Filing in the *Charleston Gazette* in Kanawha County on February 24, 2006; *The West Virginia Daily News* in Greenbrier

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County on February 27, 2006; and *The Nicholas Chronicle* in Nicholas County on March 2, 2006.

26. Beech Ridge published the notice of the evidentiary hearing in *The Nicholas Chronicle*, *The West Virginia Daily News* in Greenbrier County, and *The Charleston Gazette*, all on May 4, 2006.

CONCLUSIONS OF LAW

Publication requirements

1. Beech Ridge has satisfied the Commission's public notice requirements by publishing its revised Notice of Filing and the notice of the evidentiary hearing in newspapers in Greenbrier, Nicholas and Kanawha Counties.

Motion for a view

2. Whether to conduct a view lies within the Commission's discretion. There are numerous maps, photographs and view simulations in evidence and in the public comment materials. Under these circumstances, there is sufficient data upon which to base a decision, and it is not necessary to conduct a view.

Motion for bond regarding property damages

3. Mr. Woelfel and Mr. and Mrs. Eisenbeiss asked the Commission to require Beech Ridge to post a bond, in case their properties are damaged by Beech Ridge's construction or operations. Staff correctly points out that the Commission's role in this proceeding is to apply the statute, which requires that the PSC balance various interests. A bond to indemnify a damages award is intricately linked to a damages action, and it is well settled that the Commission does not have jurisdiction to award damages. Therefore, this motion should be denied.

Motion to dismiss regarding map inadequacies

4. Mountain Communities and Mr. Woelfel urge the Commission to dismiss Beech Ridge's application because they believe that Beech Ridge's five-mile map was inadequate. The Commission agrees with Staff that Beech Ridge's map was sufficient to allow the application to be fully debated. Therefore, we conclude that Beech Ridge has substantially complied with the rule and the Commission should not dismiss Beech Ridge's application.

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Motion to dismiss regarding transmission line location

5. Mountain Communities urges the Commission to dismiss the application because Beech Ridge announced a change in the transmission line location during the evidentiary hearing. In response, Beech Ridge advises that the transmission line was moved at a landowner's request. The revised location crosses the same landowner, but in a different location; seven stream crossings are avoided; and the line is moved farther away from any other properties. Beech Ridge could not disclose the change until after a wetlands assessment was complete, and the U.S. Army Corps of Engineers provided its wetlands approval on April 18, 2006. Under these circumstances, it was not unreasonable for Beech Ridge to request a minor route modification during the hearing. Therefore, the Commission should not dismiss Beech Ridge's application.

Weight of Dr. Pierpont letter

6. Mr. and Mrs. Eisenbeiss are participating in this case without the assistance of an attorney. They attached to their Reply Brief a letter from Dr. Nina Pierpont, which contained, among other things, a set-back recommendation specific for the Appalachian region. In response, Beech Ridge reminded the Commission that Dr. Pierpont is not a witness, and her opinion has not been tested under cross-examination. Beech Ridge did not ask the Commission to strike Dr. Pierpont's letter. Thereafter, Mountain Communities and the Eisenbeisses urged the Commission to strike Beech Ridge's response, unless the Commission was willing to keep the record open for all. Had Mr. and Mrs. Eisenbeiss' Reply Brief been filed by an attorney, the Commission would have entertained a motion to strike Dr. Pierpont's letter as late-filed evidence. However, in this instance, there was no harm in Beech Ridge clarifying the record to reflect that Dr. Pierpont's letter was not in evidence, where Beech Ridge could have been tested the positions in it through cross-examination. Accordingly, the Commission will deny the motions to strike Beech Ridge's response.

7. The Commission should accept Mr. and Mrs. Eisenbeiss' Reply Brief as filed, that is, containing Dr. Pierpont's letter, because the Commission ruled at the Lewisburg public comment hearings that it would continue to accept public comments, until the case was decided. Dr. Pierpont's August letter is received as public comment, just as the Commission previously accepted her studies and recommendations as public comment.

Protective treatment, upon Commission's own motion

8. On May 10, 2006, the Commission granted Beech Ridge's motion for protective treatment of part of the bat evidence, yet on August 17, 2006, Fish and Wildlife

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filed with the PSC a copy of a letter in which sensitive bat data was discussed. Fish and Wildlife did not redact the protected information. Therefore, it is reasonable for the Commission to redact the sensitive information in U.S. Fish and Wildlife's August 17, 2006, filing, upon its own motion.

Statute & balancing test

9. W. Va. Code § 24-2-11(c)c provides as follows:

> In deciding whether to issue, refuse to issue, or issue in part or refuse to issue in part a siting certificate, the commission shall appraise and balance the interests of the public, the general interests of the state and local economy, and the interests of the applicant. The commission may issue a siting certificate only of it determines that the terms and conditions of any public funding or any agreement relating to the abatement of property taxes do not offend the public interest, and the construction of the facility or material modification of the facility will result in a substantial positive impact on the local economy and local employment. The commission shall issue an order that includes appropriate findings of fact and conclusions of law that address each factor specified in this subsection. All material terms, conditions and limitations applicable to the construction and operation of the proposed facility or material modification of the facility shall be specifically set forth in the commission order.

10. If the benefits outweigh the detriments, the Commission considers whether a project's public funding, if any, and property tax abatement, if any, offends the public interest.

11. This case has been very difficult. Many people and organizations have objected to this project. Their concerns have been sincere, eloquently presented, and have been brought before us in public comment throughout the entirety of this proceeding. A peaceful home, attractive surroundings, steady or increasing property values, and so forth, are universal goals. The Commission must, though, balance these ideals against other common objectives, such as to increase the proportion of power generated by renewable resources, to provide power without generating harmful emissions, and to advance the state and local economies. The law also requires the Commission to consider Beech Ridge's interests.

12. The Commission agrees with Beech Ridge that there has been no challenge to Beech Ridge's ability to construct and operate the facility. Beech Ridge's parent has financed the development, construction and operation of more than 10 major power

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generation facilities around the world, totaling more than $1.5 billion. There are active developments in 20 states, and programs in Canada and Europe. Invenergy has secured 850 MW of GE turbines for delivery in 2006 and 2007. And, this project will be entirely financed with private monies. Therefore, the Commission concludes that Beech Ridge has the expertise to construct and operate the facility.

13. The reserve margin is the difference between existing capacity to generate power and demand for electric power. No one has disputed that energy is needed in the east coast region, where it is estimated that the reserve margin will be reduced from 18.3% in 2005 to as low as 4.1% in 2014, causing the region to exceed its reliability design limit. Further, generating capacity for this region is aging, with as much as 76% of the generating facilities older than 30 years, and 36% older than 40 years by 2010. Moreover, several states in the region are requiring utilities to add generation fueled by a renewable resource.

14. Several intervenors urge the Commission to reject the project because West Virginia does not need more power. They correctly note that much of the power generated here is sold outside this state's borders, and they argue that new generation facilities should be located outside of this state's borders to meet the region's needs. However, it is not in the public interest for this Commission to isolate West Virginia from the region. The power grid is interconnected, and to safeguard the availability of productive, well-maintained grid resources to our state's residents, West Virginia must participate in the interconnected electric system.

15. Several disagree with Beech Ridge's estimates of how many homes its turbines can power. They also point out that Beech Ridge's power output will not be at its maximum during the summer, when the need for energy peaks. However, the Commission agrees with Beech Ridge that these concerns do not change the fact that Beech Ridge's project will power hundreds of homes, even at its lowest productivity. Nor do these concerns change the fact that the project's output will assist in meeting the peak summertime demands.

16. For these reasons, the Commission should conclude that the eastern United States needs additional electricity generally, and in particular electricity generated from renewable resources.

17. Residents and local governments in western Greenbrier County urge the Commission to grant the siting certificate, because they welcome the jobs and economic development. Beech Ridge advises that the project will a) create 200+ temporary construction jobs, b) create 15-20 permanent jobs with a $35,000 average annual salary with full benefits, c) result in $400,000 yearly in tax revenue to Greenbrier County for 20 years, d) result in $200,000 yearly in tax revenue to the state, and e) contribute to a growth in

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tourism, which is a major factor in the local economy. *Local & State Economic Impact* (Siting Rule 3.1.1.3), attached to Application; David Groberg Direct pp. 29-30 (May 17, 2006). We agree with Staff that this project will not produce very many permanent jobs, but those that are produced will be very welcome in western Greenbrier County.

18. For 20 years, Beech Ridge will annually contribute $400,000 to Greenbrier County, if its property assessments would not generate taxes in that amount.

19. The Commission agrees with Staff that IMPLAN is a widely used economic model that can be employed for a multitude of activities. Using IMPLAN, Dr. Christopher Thompson of Johns Hopkins University estimated that Beech Ridge's project will have these effects:

1. 265 to 1,089 jobs, in low and high impact scenarios.
2. $25.3 to $104 million of additional private sector output.
3. $11.3 to $46.4 of value added, including $7.3 to $30 million of additional construction and employee compensation.
4. $528,000 to $2.2 million of additional indirect business taxes.
5. $1.9 to $7.9 million in federal tax revenue.
6. $817,000 to $3.4 million in state tax revenues, half of which would be state personal income tax.

Mr. and Mrs. Eisenbeiss complain about Dr. Thompson's study, but they did not offer any evidence to refute Dr. Thompson's testimony. Accordingly, the Commission should accept Dr. Thompson's testimony as the best indicator of economic effect.

20. Ms. Mendelson and Mr. and Mrs. Eisenbeiss criticized Dr. Thompson's economic projection because Dr. Thompson did not visit Greenbrier County. Beech Ridge argued that it is not necessary for an economist to visit a location prior to developing an economic model. We agree and, therefore, accept Dr. Thompson's projection.

21. Several argued that Beech Ridge's project will negatively impact the economy, because the visual impact of the turbines will decrease area tourism, on which the region relies economically. However, the only testimony to support this position was the opinion of several intervenors who oppose the project. While the Commission accepts that this opinion as sincere, no studies or expert testimony were offered to support it. Thus, the Commission finds that such testimony is based on speculation or conjecture.

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22. In contrast, Jay Goldman, a real estate appraiser who has owned property in Greenbrier County for decades, spoke with businesses in Tucker County and was told that the wind turbines attracted tourists. Deborah Phillips-Weikle researched the basis for tourism in Greenbrier County and found that the vast majority of tourism dollars were connected with the Greenbrier Hotel and the City of Lewisburg, which are 15-20 miles from the nearest proposed turbine. And, MeadWestvaco's Mr. Miller testified that MeadWestvaco reviewed studies concerning property values when wind farms are constructed, and MeadWestvaco concluded that concerns about property values declining were not justified. Miller Rebuttal pp. 5-6 (Tr. May 18, 2006). For all these reasons, the Commission should accept Mr. Goldman's study as the best prediction of property values.

23. Mr. and Mrs. Eisenbeiss and Mountain Communities assert that West Virginia electric ratepayers will have to bear the costs to upgrade the grid to carry away Beech Ridge's electrical output. Those statements, though, are erroneous. Beech Ridge will pay for the necessary upgrades and those upgrades and costs are part of this proceeding.

24. It is reasonable and appropriate to approve the Memorandum Agreement dated February 13, 2006, between Beech Ridge and Building Trades. The Commission anticipates that all representations and commitments made by the parties therein shall be kept by the parties. The Commission's approval of the Memorandum Agreement does not mean the Commission is the proper forum to resolve any disputes that may arise from operating under such Agreement.

25. The economic evidence of Beech Ridge and Building Trades was tested by virtue of cross examination. The Commission is persuaded, then, to conclude that this project is likely to contribute economic gains to the state and region and to benefit employment.

26. Mountain Communities asserted that Beech Ridge's analysis did not accurately reflect that towers would be visible from 63 named sites. Beech Ridge, though, reviewed the 63 locations that Beech Ridge suggested and found that the majority of the locations were properly reflected on Beech Ridge's map. In other instances, alleged views were blocked by rocks, or views were to be had from atop locked towers. Still other views were more than 20 miles away, and two were on MeadWestvaco property. Comparing these two positions, the Commission concludes that Beech Ridge's visual analysis was sufficient as to views at scenic sites.

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27. Mr. Buhrman asserted that the region would be subject to considerable light pollution from the project. However, Mr. Buhrman was unfamiliar with FAA lighting requirements, and he had not observed the night-time red lights at the wind project in Tucker County, even though he stated that red lights are less intrusive than white lights. The Commission is persuaded by Beech Ridge that white or daytime lights are not necessary and that only the minimum number of towers will be lighted at night with red lights.

28. The landowner, on whose land the project will be located, does not object to the project. This landowner owns more than 100,000 acres and finds that the turbines will be an appropriate concurrent use for the property, which has been dedicated to timbering and mining for decades.

29. Before this application was filed, Beech Ridge deleted nine towers on the eastern side of the project, to accommodate visual concerns of area landowners. Beech Ridge has offered to further modify its project, to take more such concerns into account. Beech Ridge has voluntarily chosen to locate its turbines a mile away from residences. On balance, then, the Commission concludes that Beech Ridge has reasonably accommodated the interests of area residents.

30. Beech Ridge studied the area's traffic patterns and established that there would be some additional traffic during the nine-month construction period, but that upon operation there would be very little additional traffic generated by the project.

31. MeadWestvaco's tract will remain open to the public for picnicking, hiking, hunting, and such, if the turbines are built. Beech Ridge project will not affect local waters

32. On balance, then, the Commission concludes that the facility's negative impacts will be minimally disruptive.

33. Beech Ridge's transformers are reduced-noise versions. The turbines have enclosed gearboxes and generators, insulated components, reduced-noise gearboxes, and vibration isolation mounts.

34. Ambient noise levels throughout the project are very uniform, averaging 50 Ldn, with a low of 49 and high of 52. Estimated facility operation levels ranged from 17 Ldn at Williamsburg to 52 Ldn at the hunting cabins, referred to as the tin shanties. These levels are well below those of average conversation which is about 60 Ldn. And, at every measurement location except the 'tin shanties' the Facility Ldn was lower than the ambient measured Ldn. Moreover, to calculate sound levels, Beech Ridge's sound expert

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conservatively assumed that the 124 turbines were operating at maximum sound output and wind speed. The intervenors did not present evidence to refute Beech Ridge in this regard.

35. An intervenor objected to the location of one of the sound monitoring devices, arguing that a location near a creek would be unnecessarily noisy. However, Beech Ridge adequately responded that the location was selected by an acoustics expert, based upon his professional experience.

36. Beech Ridge's witness testified that there would be no effect on water in the project area, but Ms. Mendelson urged the Commission to reject his testimony because West Virginia's aquifers have not been studied in great detail. The Commission recognizes Mr. McCoy's many years of experience in state natural resources and finds his testimony to be credible.

37. The visual analysis provided by Beech Ridge differed significantly from Mountain Communities' visual analysis. MCRE provided a worst-case scenario, which assumed no vegetation. Yet, on the stand, two of its witnesses testified that Mountain Communities' visual analysis was a first-step, and that vegetation should be included, because vegetation definitely could screen some views. Beech Ridge's analysis, on the other hand, was criticized because its program showed that towers would not be visible from their base, when there was nearby vegetation. Of these two approaches, the Commission concludes that Beech Ridge's is more helpful because map readers can generally assume that the towers are visible from their base, and map readers cannot assume the parameters of the view shed on MCRE's map, which is entirely devoid of any vegetation.

38. Beech Ridge conducted studies of birds and bats in the area. Many intervenors urged the Commission to require several years of pre-construction studies. The case file also contains a letter from Fish and Wildlife which recommends multi-year pre-construction studies. Beech Ridge and Staff argued against such studies, because they do not provide sufficient information to guide the project. Mr. Romme testified, for instance, that pre-construction studies can generate a lot of data that is not particularly useful to studying bat mortality. Frank Young intervened in the case, specifically because of the bird and bat issues, and he does not recommend multi-year pre-construction studies. Mr. Young has effectively participated in several wind project cases at the Commission. Upon consideration, the Commission is not persuaded to require pre-construction studies. The Commission agrees with Mr. Romme that the pre-construction data is not particularly helpful in studying bat mortality.

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39. Congressman Mollohan and others urge the Commission to require the pre-construction studies because they have been recommended by Fish and Wildlife. However, this Fish and Wildlife recommendation is not in evidence in this proceeding, instead it is part of the public comments. Matters in evidence are provided under oath, tested via cross-examination, and are subject to rebuttal testimony. Thus, when issues are debated, such as this one, the Commission is inclined to rely more heavily on matters in evidence, than matters in public comment.

40. Mr. Young suggested that an advisory group be formed, that Beech Ridge be required to consider modifications to its operations, that the advisory group report regularly to the Commission, and that multi-year post-construction studies be conducted. Staff and Beech Ridge support this proposal. In several respects, as are set forth below, the will adopt Mr. Young's proposal.

41. The Commission notes though that the Advisory Committee recommended by Mr. Young includes a representative from Fish and Wildlife, and the Commission welcomes this participation.

42. Fish and Wildlife and Mr. Walkup also asked that Beech Ridge be required to implement any recommendations from the Bat and Wind Energy Cooperative study which is due in December. Since the recommendations are not known, and indeed the study report could be delayed, the Commission declines to do so. However, the Commission will require the Advisory Committee to consider those requirements, whenever they are issued.

43. The intervenors are concerned about a cave about six miles from the closest turbine, where Indiana bats have previously been found. However, no Indiana Bats were found in the cave in either a 2006 survey or a 2002 survey, and the last instance when an Indiana Bat was located in the cave was 1990. Further, no Indiana bat was recovered in Beech Ridge's 2005 mist-netting. Moreover, Beech Ridge's witness testified that Indiana bats generally do not swarm more than five miles from their home cave. He also testified that Fish and Wildlife accepts the general standard that Indiana bats typically do not swarm more than five miles away, and this was not refuted. Under these circumstances, the Commission is persuaded that the evidence does not support a conclusion that Indiana bats live near the project.

44. Another endangered species, Virginia long-eared bats, also was considered, but there was no evidence whatsoever that Virginia long-eared bats live near the project.

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45. Several intervenors noted that bird and bat kills have been higher than expected at two wind farms operating in Appalachia, the majority of them occurring at slow wind speed. Beech Ridge has worked to minimize any bird and bat mortality by increasing the cut-in speed of all of its turbines. Beech Ridge will further raise the cut-in speed on several of its turbines, to see if that would reduce the bird and bat mortality. And, Beech Ridge has agreed to consider other mitigation techniques. Mr. Young and Staff support these techniques. So does Mountain Communities' expert, even though he believes more should be done. The Commission should require these adaptive management actions by Beech Ridge.

46. Mountain Communities asks the Commission to reject Mr. Romme's bat study, arguing that Mr. Romme should have subjected his study to peer review. Beech Ridge argues that the peer review standard is appropriate for academic publications, but is not appropriate for technical studies, such as this. The Commission agrees with Beech Ridge and shall not require technical studies to be subjected to peer review.

47. Neither public funding nor property tax abatement are at issue here. Beech Ridge will finance the project entirely with private monies.

48. Some have urged the Commission to conclude that federal and state tax treatment of this project amounts to public funding. The Commission, though, declines to do so because no legal citations have been provided to support this position. Moreover, the statutory test requires the Commission to consider whether any public funding offends the public interest. It would be illogical to conclude that compliance with tax statutes offends the public interest. Furthermore, the Legislature enacts tax statutes and presumably considers public interest when enacting legislation.

Conditions

49. On balance, in its application, as well as in its direct and rebuttal evidence, Beech Ridge has provided the necessary information to be awarded a siting certificate. The Commission will, however, condition the certificate in several respects.

50. Ms. Mendelson has asked the Commission to require Beech Ridge to post a bond to cover at least 25% of the turbine removal costs. She suggests that this could be based on 25% of the construction costs. Staff, too, suggests, a mechanism to insure funds are available to dismantle the towers and turbines. In Staff's approach, Beech Ridge would hire an expert to assess how large the fund should be. Beech Ridge accepts Staff's approach and asks that the amount be reassessed from time to time, and that the salvage or resale value be considered. There has been substantial public concern about the visual impact of Beech

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Ridge's towers and turbines. Thus, it would be in the public interest to require a bond or fund to insure that the towers and turbines are dismantled when the project ceases operations and that the land is reclaimed. The Commission shall require Staff's approach and shall grant the modifications that Beech Ridge requests. Furthermore, the Commission will require Beech Ridge to obtain the Commission's approval of the evaluative expert, as well as the periodic reports. The Commission reserves the right to also hire its own evaluative expert to evaluate any of the periodic reports.

51. In pre-construction condition 8, Staff asked Beech Ridge to design and install a fire protection system in accordance with the National Fire Protection Association standards. Staff's Initial Brief pp. 17-21. Beech Ridge, though, is not aware of any National Fire Protection Association Standards for wind turbines. Beech Ridge does not object to taking reasonable and customary fire safety measures and it will to adhere to "all applicable fire safety codes" and to use "industry best practices" in designing, installing and implementing its fire safety system. Beech Ridge Reply Brief pp. 51-54. Staff did not object to Beech Ridge's request. The Commission concludes that Beech Ridge's request for clarification is reasonable and it should be granted.

52. In pre-construction condition 11, Staff wants Beech Ridge to file evidence of all necessary environmental permits and/or certifications, including letters from other agencies. Staff's Initial Brief pp. 17-21. Beech Ridge is willing to acquire "any necessary" letters from the other agencies. It wants those words added, so it will not be delayed by seeking letters from agencies which have no statutory or regulatory duty. Beech Ridge Reply Brief pp. 51-54. Staff did not object to Beech Ridge's request. The Commission concludes that Beech Ridge's request for clarification is reasonable and it should be granted.

53. In pre-construction condition 12, Staff wants Beech Ridge to file evidence of approval and/or acceptance of the wetlands delineation, final endangered species study with any mitigation plans, and historical/archeological significance study with mitigation plans prior to pior to commencing construction. Staff's Initial Brief pp. 17-21. Beech Ridge asks to insert "required" before "mitigation," so someone cannot argue that mitigation must occur, even if an agency thinks it unnecessary. Beech Ridge Reply Brief pp. 51-54. Staff did not object to Beech Ridge's request. The Commission concludes that Beech Ridge's request for clarification is reasonable and it should be granted.

54. In pre-construction condition 14, Staff wants Beech Ridge to comply with the Endangered Species Act, the Migratory Bird Treaty Act, and the National Environmental Policy Act in both the construction and operation of the Project. Should a court or agency find that Beech Ridge is not complying with any of these statutes, Staff asks Beech Ridge to notify the Commission in writing within ten (10) days. Staff's Initial Brief pp. 17-21. Beech

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Ridge asks to insert "if applicable" before "National Environmental Policy Act" because NEPA does not apply to this project "and Beech Ridge said it does not want an interested party to believe that Beech Ridge should have to comply with something with which it does not need to comply." Beech Ridge Reply Brief pp. 51-54. Staff did not object to Beech Ridge's request. The Commission concludes that Beech Ridge's request for clarification is reasonable and it should be granted.

55. In pre-construction condition 16, Staff wants Beech Ridge to have a decommissioning fund in place prior to starting operations. Staff also wants an expert to assess the size of the fund that would be needed. Staff's Initial Brief pp. 17-21. Beech Ridge asks to add "from time to time, taking into consideration resale or salvage value" after "needed." Beech Ridge Reply Brief pp. 51-54. Staff did not object to Beech Ridge's request. The Commission concludes that Beech Ridge's request for clarification is reasonable and it should be granted.

56. In pre-construction condition 18, Staff wants Beech Ridge to provide "a copy of the tax agreement" it has with the Greenbrier County Commission to pay at least $400,000 a year to the county. Staff's Initial Brief pp. 17-21. Beech Ridge asked that the "tax agreement" be referred to as a "guaranty" and asks for language that allows the Greenbrier County Commission to designate a fund for the promised minimum payment. Beech Ridge Reply Brief pp. 51-54. Staff did not object to Beech Ridge's request. The Commission concludes that Beech Ridge's request for clarification is reasonable and it should be granted.

57. In operational condition 4, Staff wants to prevent aerial spraying and aerial tree trimming on the transmission line right-of-way. Beech Ridge did not object to Staff's recommendation. The Commission will accept Staff's recommendation as to aerial spraying. However, the Commission will permit Beech Ridge to use aerial tree-trimming, if Beech Ridge so desires.

58. In operational condition 6, Staff wants Beech Ridge to prohibit the use of any lighting in the project area except for the required FAA lighting. Staff's Initial Brief pp. 22-23. Beech Ridge believes that additional lighting is required for parts of the project other than turbines and, thus, it asks to allow "lighting required by any applicable fire or safety code, regulation or accepted good utility practice." Beech Ridge Reply Brief pp. 51-54. Staff did not object to Beech Ridge's request. The Commission concludes that Beech Ridge's request for clarification is reasonable and it should be granted.

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59. The Commission agrees with Building Trades that the intervenors brought important concerns to the table, and those concerns will result, and have already resulted, in important changes to the project. Such participation yields great public benefit. The Commission wishes to acknowledge the civil advocacy of all of the parties to this proceeding.

60. The Sierra Club supports Beech Ridge's application, provided several conditions are attached to the certificate. The Sierra Club's recommendations mirror Staff's and Mr. Young's suggestions in many ways, and the Commission has adopted certain of those conditions in this order. Beech Ridge should consider any Sierra Club recommendations which are not addressed in the conditions attached to Beech Ridge's siting certificate.

61. Fish and Wildlife also offered several conditions, including an adaptive management plan, such as Staff and Mr. Young recommended. Fish and Wildlife asks that a plan be required to be in effect immediately and that it remain in place for the life of the project. Beech Ridge has agreed to test adaptive management strategies, including further increasing the cut-in speed. The Commission agrees with Beech Ridge's proposal.

62. Several intervenors and commentors urge the Commission to adopt Fish and Wildlife's recommendation for three years of pre-construction studies. Beech Ridge objected, arguing that Fish and Wildlife's recommendation is a guideline only and is not binding. The Fish and Wildlife recommendation comes from "Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines," dated May 13, 2003. This guidance recommends three years of pre-construction studies for areas with high seasonal concentrations of birds, so that turbines may be shut down when birds are highly concentrated at the site. Guidelines p. 4.

63. The 2003 Fish and Wildlife Guidance also expressly states that the recommendations are voluntary and interim in nature. See also 68 Fed. Reg. 41174-41175. The guidance also recites it will be modified as necessary. Id. On April 26, 2004, Fish and Wildlife issued an implementation memo "to provide more detailed direction to Service personnel on how the Guidelines are to be applied." Memo p. 1. Service personnel were once again instructed that the guidelines were voluntary. Attachment p. 1, to Memo. "The Interim Guidelines are not to be construed as rigid requirements, which are applicable to every situation, nor should they be read literally." Id. Again, three years of pre-construction surveys are recommended "where risk is considered sufficiently high." Id. p. 2. "This does not mean that 3 years of monitoring should be recommended at all sites." Id.

64. The Commission also notes that the Fish and Wildlife recommendations have been received as public comment. These recommendations have not been provided under oath, tested through cross-examination, or been subject to rebuttal testimony.

65. Since Fish and Wildlife's three-year pre-construction guideline is an interim recommendation, expressly voluntary, and not rigid; since there is evidence that this recommendation is not being implemented across the nation; and since the recommendation was made as public comment and not as evidence, the Commission declines to require three years of pre-construction studies.

66. Fish and Wildlife suggested other items that the Commission is not prepared to adopt at this time. For instance, Fish and Wildlife recommends five years of post-construction studies. The Commission should not, on the basis of untested public comment remarks, adopt Fish and Wildlife's five-year recommendation. However, the Commission will require Beech Ridge to consider any Fish and Wildlife recommendations which are not addressed in the conditions attached to Beech Ridge's siting certificate.

67. Finally, the Commission recognizes that Beech Ridge has offered to make minor adjustments to further lessen the impact of this project on the community. The Commission, though, cannot assess the impact of moving the turbines Beech Ridge identified in its Reply Brief as candidates to move or remove, if the Commission so desired. The Commission consents to any such adjustments (move/remove) as are disclosed in the record of this proceeding, provided that Beech Ridge obtains the agreement of any adjoining residents within one mile. If the landowner is different from the resident, then Beech Ridge must also obtain the agreement of the landowner.

ORDER

IT IS THEREFORE ORDERED that the Commission denies the motions to conduct a view filed by Mountain Communities, Mr. Woelfel and Mr. and Mrs. Eisenbeiss.

IT IS FURTHER ORDERED that the Commission denies the motions filed by Mr. Woelfel and Mr. and Mrs. Eisenbeiss to require Beech Ridge to post a bond for damages.

IT IS FURTHER ORDERED that the Commission denies the motions to dismiss Beech Ridge's application due to the insufficiency of Beech Ridge's maps.

IT IS FURTHER ORDERED that the Commission denies the motion to dismiss Beech Ridge's application due to the minor change in the transmission line location.

IT IS FURTHER ORDERED that the Commission denies the motions to strike Beech Ridge's response to Mr. and Mrs. Eisenbeiss' Reply Brief. The letter from Dr. Pierpont attached to Mr. and Mrs. Eisenbeiss' Reply Brief is accepted as public comment.

IT IS FURTHER ORDERED that, pursuant to W. Va. Code § 24-2-11c, Beech Ridge's application for a siting certificate is granted, conditioned, however, upon the following:

General Preconstruction and Construction Certificate Issues:

(1) Prior to commencing construction, Beech Ridge must file a verified statement indicating that all pre-construction conditions and requirements of the certificate have been met.

(2) Beech Ridge shall require all contractors to use standard noise buffers on all equipment and trucks.

(3) Beech Ridge shall require contractors to use pile driving equipment which have the least noise impact and restrict pile driving, during the weekdays, to 7 a.m. to 7 p.m.

(4) All construction activities should take place mostly during daylights hours.

(5) Construction activities should be limited during church hours.

(6) If dynamiting should become necessary, it should be limited to daylight hours and should follow all State and Federal rules, regulations, and laws.

(7) Beech Ridge must dispose of all contaminated soil and construction debris in approved landfills in accordance with appropriate environmental regulations.

(8) Beech Ridge must design, install and implement a fire protection system, using industrial best practices, in accordance with all applicable fire safety codes.

(9) Beech Ridge must coordinate with fire, safety and emergency personnel during all stages of the project to promote efficient and timely emergency preparedness and response.

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of West Virginia
Charleston

(10) The siting and support transmission facilities certificates shall become invalid if Beech Ridge has not commenced a continuous course of construction within five years of the date the final certificate is granted or has not completed construction by the tenth year without petitioning the Commission for approval to expand these time frames, provided there are no material changes to the project that necessitate a reopening.

(11) Beech Ridge must file with the Commission evidence of any necessary environmental permits and/or certifications prior to commencing construction (including any letters from US Fish &Wildlife, WVDNR, W.Va. Division of Cultural and History and West Virginia State Historic Preservation Office indicating either that Beech Ridge does not need to take further action or outlining what action Beech Ridge needs to take to be in compliance with that agencies rules/laws).

(12) Beech Ridge must file evidence of approval and/or acceptance of the wetlands delineation (Beech Ridge needs to file with the Commission written evidence of the Wetlands survey being completed and approved); the final endangered species study with any required mitigation plans; and the historical/archeological significance study with any required mitigation plans prior to commencing construction.

(13) Beech Ridge must file copies of the final Interconnection Agreements between Beech Ridge and PJM prior to commencing operation.

(14) Beech Ridge must comply with the Endangered Species Act (16 USC § 1531 *et seq.*), the Migratory Bird Treaty Act (16 USC § 701 *et seq.*), and, if applicable, the National Environmental Policy Act of 1969 (42 USC § 4321 *et seq.*) in both the construction and operation of the Project. Should any authorized governmental agency or court with competent jurisdiction find that Beech Ridge is not complying with any one of the above three acts in either the construction or the operation of the Project, then Beech Ridge must notify the Public Service Commission in writing in this case of any such finding within ten (10) days of any such finding being made. Furthermore, the Commission may seek any legal remedies it has authority to seek, including injunctive relief, to address any such findings.

(15) Beech Ridge must file evidence of its EWG status from FERC prior to commencing operation.

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(16) Beech Ridge must have a decommissioning fund in place prior to commencement of operation. The fund will cover dismantling of the turbines and towers, as well as land reclamation. The fund should be an escrow account, or a bond or a surety that is held by an independent party, such as the County Commission. This fund shall not be a part of Beech Ridge's assets. Beech Ridge must hire an expert to assess, from time to time, the size of the fund that would be needed, taking into consideration resale or salvage value. Beech Ridge must obtain the Commission's approval of the evaluative expert, as well as Commission approval of the periodic reports. The Commission reserves the right to also hire its own evaluative expert to evaluate any of the periodic reports.

(17) The construction of the I lines of turbines shall not occur unless all property owners agree to participate in the project.

(18) Beech Ridge should provide, if it has not already, a copy of the guaranty agreement between Beech Ridge and the Greenbrier County Commission whereby Beech Ridge agrees to pay at least $400,000 a year to the County. The Greenbrier County Commission may designate a fund for this minimum payment.

General Operational Phase Certificate Issues:

(1) This condition applies at anytime–not just in the operational stage: If Beech Ridge should transfer its certificate, Beech Ridge must, pursuant to *Siting Rule* 7.1, notify the Commission in writing of the identity of the transferee and submit an affidavit from the transferee attesting to its willingness to abide by the terms of a siting certificate as issued.

(2) Beech Ridge must use licensed certified herbicide applicators.

(3) Beech Ridge must have the Material Safety Data Sheet filed on the plant site for all herbicides used on the transmission line right-of-way.

(4) Beech Ridge shall not use aerial spraying on its transmission line right-of-way.

(5) Beech Ridge shall provide the PSC with copies of all future interconnection studies and any interconnection agreement.

Public Service Commission
of West Virginia
Charleston

(6) Beech Ridge shall prohibit the use of lighting in the project area as much as possible. Beech Ridge may light the project as required by the FAA, or any applicable fire or safety code, regulation or accepted good utility practice.

(7) Beech Ridge will consult with a Technical Advisory Committee regarding the post-construction bat and bird studies. Membership shall be open to a representative of each of the following:

PSC
US Fish and Wildlife Service
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A statewide environmental organization w/ 500+ members and in existence for at least 10 years.
A statewide bird group.
A private or academic institution with a background in avian issues.

Beech Ridge shall consult with the Technical Advisory Committee on the following:

(a) Three years of post-construction bat mortality and adaptive management studies, after operations commence, to assess 1) the project's impact, if any, upon bat life, 2) the potential for adaptive management techniques to mitigate such impacts, and 3) the expected costs over a range of mitigation effectiveness levels.

(b) Three years of post-construction bird studies, after operations commence, to assess the impact, if any, on birds.

(c) A one year post-construction eagle/osprey study.

(d) If the project causes significant levels of bat or bird mortality and adaptive management techniques are proven effective and economically feasible, Beech Ridge and its successors will make a good faith effort to work with the Commission to apply parameters to implement facility-wide adaptive management strategies on an on-going basis.

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(8) Beech Ridge shall update the Commission in writing twice a year on the studies being conducted. The update shall be directed to the attention of the Commission's Executive Secretary. Unless Beech Ridge obtains Commission consent for other deadlines, the updates shall be filed on or before January 30 and July 31 each year. Beech Ridge shall provide a copy of each report to the members of the Technical Advisory Committee.

(9) Beech Ridge's agreement to test adaptive management strategies shall be in effect immediately upon operation of the project. Beech Ridge may request modifications of its strategies in filings with the Commission.

(10) There have been concerns expressed at Backbone, under certain atmospheric conditions, that unnecessary lighting can contribute to additional bird mortality. Thus, Beech Ridge shall work with its employees and the FAA to minimize the impact that lighting will have upon the project's visibility.

(11) All of these terms apply to Beech Ridge, and to any subsequent owners/operators.

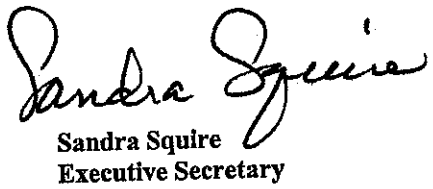
IT IS FURTHER ORDERED that the Commission hereby approves the Memorandum Agreement dated February 13, 2006, between Beech Ridge and Building Trades. The Commission anticipates that all representations and commitments made by the parties therein shall be kept by the parties.

IT IS FURTHER ORDERED that the Commission's approval of the Memorandum Agreement does not mean the Commission is the proper forum to resolve any disputes that may arise from operating under such Agreement.

IT IS FURTHER ORDERED this case is removed from the Commission's docket of active cases.

IT IS FURTHER ORDERED that the Commission's Executive Secretary serve a copy of this order upon all parties of record by United States First Class Mail and upon Commission Staff by hand delivery.

A True Copy, Teste:



Sandra Squire
Executive Secretary

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64. The Commission also notes that the Fish and Wildlife recommendations have been received as public comment. These recommendations have not been provided under oath, tested through cross-examination, or been subject to rebuttal testimony.

65. Since Fish and Wildlife's three-year pre-construction guideline is an interim recommendation, expressly voluntary, and not rigid; since there is evidence that this recommendation is not being implemented across the nation; and since the recommendation was made as public comment and not as evidence, the Commission declines to require three years of pre-construction studies.

66. Fish and Wildlife suggested other items that the Commission is not prepared to adopt at this time. For instance, Fish and Wildlife recommends five years of post-construction studies. The Commission should not, on the basis of untested public comment remarks, adopt Fish and Wildlife's five-year recommendation. However, the Commission will require Beech Ridge to consider any Fish and Wildlife recommendations which are not addressed in the conditions attached to Beech Ridge's siting certificate.

67. Finally, the Commission recognizes that Beech Ridge has offered to make minor adjustments to further lessen the impact of this project on the community. The Commission, though, cannot assess the impact of moving the turbines Beech Ridge identified in its Reply Brief as candidates to move or remove, if the Commission so desired. The Commission consents to any such adjustments (move/remove) as are disclosed in the record of this proceeding, provided that Beech Ridge obtains the agreement of any adjoining residents within one mile. If the landowner is different from the resident, then Beech Ridge must also obtain the agreement of the landowner.

ORDER

IT IS THEREFORE ORDERED that the Commission denies the motions to conduct a view filed by Mountain Communities, Mr. Woelfel and Mr. and Mrs. Eisenbeiss.

IT IS FURTHER ORDERED that the Commission denies the motions filed by Mr. Woelfel and Mr. and Mrs. Eisenbeiss to require Beech Ridge to post a bond for damages.

IT IS FURTHER ORDERED that the Commission denies the motions to dismiss Beech Ridge's application due to the insufficiency of Beech Ridge's maps.

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Public Service Commission
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Charleston

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A private or academic institution with a background in avian issues.

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(11) All of these terms apply to Beech Ridge, and to any subsequent owners/operators.

IT IS FURTHER ORDERED that the Commission hereby approves the Memorandum Agreement dated February 13, 2006, between Beech Ridge and Building Trades. The Commission anticipates that all representations and commitments made by the parties therein shall be kept by the parties.

IT IS FURTHER ORDERED that the Commission's approval of the Memorandum Agreement does not mean the Commission is the proper forum to resolve any disputes that may arise from operating under such Agreement.

IT IS FURTHER ORDERED this case is removed from the Commission's docket of active cases.

IT IS FURTHER ORDERED that the Commission's Executive Secretary serve a copy of this order upon all parties of record by United States First Class Mail and upon Commission Staff by hand delivery.

A True Copy, Teste:

Sandra Squire

Sandra Squire
Executive Secretary

CLW:sek
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PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

At a session of the Public Service Commission of West Virginia, in the City of Charleston, on the 5th day of September, 2006.

CASE NO. 05-1590-E-CS (REOPENED)

BEECH RIDGE ENERGY LLC, a limited liability company,
Olney, Maryland.
Application for a Siting Certificate to Authorize the Construction and Operation of a Wholesale Electric Generating Facility and Related Transmission Support Line of Less than 200 kV and Associated Interconnection Facilities in Greenbrier County and Nicholas County, West Virginia.

COMMISSION ORDER

By this Order, the Commission grants a motion to extend the time to file a petition to reconsider.

Background

On August 28, 2006, the Commission approved the application of Beech Ridge Energy, LLC to construct and operate a wholesale electric generating facility in Greenbrier and Nicholas Counties. The Commission's order was 92 pages and included multiple conditions upon the grant of authority to Beech Ridge.

On August 30, 2006, Alicia and Jeffrey Eisenbeiss, *pro se* intervenors in the case, asked for 10-14 more days to file a petition to reconsider, due to the volume of the Commission order.

DISCUSSION

Rule 19.3 of the Commission's Rules of Practice and Procedure, 150 C.S.R. Series 1, allows petitions to reconsider within 10 days. It also requires that petitions be verified and state specifically the grounds relied upon. Further, the rule allows responses to be filed 10 days after a petition to reconsider is served upon the other parties to a case. However, the Commission may issue an order ruling on the petition at any time after it is filed.

It is reasonable to grant the motion and briefly extend the time to file a petition to reconsider. The new deadline shall be September 18, 2006.

As the detailed August 28, 2006, order establishes, the Commission reviewed in detail the various positions set forth in this case. Parties are advised that reconsideration offers an opportunity to point out matters which the Commission overlooked, but is not for the purpose of considering new arguments or evidence not in the record.

FINDINGS OF FACT

1. By Order issued August 28, 2006, the Commission approved the application of Beech Ridge Energy, LLC to construct and operate a wholesale electric generating facility in Greenbrier and Nicholas Counties, on certain conditions.

2. Alicia and Jeffrey Eisenbeiss, *pro se* intervenors in the case, seek 10-14 more days to file a petition to reconsider.

CONCLUSIONS OF LAW

1. The Commission should reopen this case to consider Mr. and Mrs. Eisenbeiss's petition.

2. Rule 19.3 of the Commission's Rules of Practice and Procedure, 150 C.S.R. Series 1, allows petitions to reconsider within 10 days. It also requires that petitions be verified and state specifically the grounds relied upon. Further, the rule allows responses to be filed 10 days after a petition to reconsider is served upon the other parties to a case. However, the Commission may issue an order ruling on the petition at any time after it is filed.

3. It is reasonable to grant the motion and briefly extend the time to file a petition to reconsider. The new deadline shall be September 18, 2006.

4. As the detailed August 28, 2006, order establishes, the Commission reviewed in detail the various positions set forth in this case.

5. Parties are advised that reconsideration offers an opportunity to point out matters which the Commission overlooked, but is not for the purpose of considering new arguments or evidence not in the record.

ORDER

IT IS THEREFORE ORDERED that this case is reopened.

IT IS FURTHER ORDERED that the motion to extend the time period to file a petition to

reconsider is granted. The new deadline is September 18, 2006.

IT IS FURTHER ORDERED that the Commission's Executive Secretary serve a copy of this order upon all parties of record by United States First Class Mail and upon Commission Staff by hand delivery.

A True Copy, Teste:

Sandra Squire
Executive Secretary

CLW/JML/sek
051590cd.wpd