

North Carolina's Wind Energy Facilities Bill: The Debate Continues Over the Future of Wind-Power Generation in the North Carolina Mountains

David Boaz

Introduction

When North Carolina created its Renewable Energy and Energy Efficiency Portfolio Standard in 2007,¹ it became apparent that the state's utility companies needed to explore new ways to bring power to North Carolina homes. As a result, many studies have examined the feasibility of harnessing wind power along N.C.'s extensive coastline and high mountain ridges. The U.S. Department of Energy's National Renewable Energy Laboratory, for example, has indicated that N.C. has "wind resources consistent with utility-scale production" situated along the coast and the higher mountain ridges in the western region.² The Department of Energy estimates that 1,000 MW of utility scale wind energy production would result in \$1.1 billion in cumulative economic benefits for the state, 2.9 million tons in annual CO₂ reduction, and 1,558 million gallons in annual water savings.³ In order to achieve such production, wind power would have to clear regulatory hurdles that have hindered these projects in the past.

Recent debates in the North Carolina Senate revealed significant obstacles to the development of wind farms in the mountains of the state. Senate Bill 1068 (S.B. 1068), which the Senate passed 42-1 this summer, provides a permitting process and regulation for wind energy facilities. The end of S.B. 1068 includes an amendment to the North Carolina Ridge Law which many see as the most drastic stand against wind turbines by elected officials in any state.⁴

The bill amends the 1983 Ridge Law to allow only turbines that are 100 feet or smaller on

¹N.C. Gen. Stat. § 62-133.8 (2008).

² *North Carolina Wind Resource Map*, U.S. DEPARTMENT OF ENERGY, October 10, 2009, http://www.windpoweringamerica.gov/maps_template.asp?stateab=nc.

³ *Economic Benefits, Carbon Dioxide Emissions Reductions, and Water Conservation Benefits from 1,000 Megawatts of New Wind Power in North Carolina*, US DEPARTMENT OF ENERGY, October 10, 2009, http://www.windpoweringamerica.gov/maps_template.asp?stateab=nc.

⁴ Kate Galbraith, *North Carolina Moves to Limit Wind Projects*, GREEN, INC: A NEW YORK TIMES BLOG, October 12, 2009, <http://greeninc.blogs.nytimes.com/2009/08/07/north-carolina-moves-to-limit-wind-projects/?emc=eta1>.

ridgelines above 3,000 feet to harness wind to generate electricity for residential purposes which would effectively ban any large utility-scale wind projects in the state's mountains.⁵

The History of the Ridge Law

The General Assembly passed the Mountain Ridge Protection Act, commonly referred to as the Ridge Law, in 1983 in response to vocal public displeasure over the construction of a tall resort on top of Sugar Mountain in Avery County, North Carolina.⁶ The General Assembly crafted the law to guard the mountains against the erection of “tall buildings” in excess of 40 feet on ridges that are 3,000 feet above sea level, or those that are 500 feet or more above the adjacent valley floor.⁷ Exemptions to the law include: “**a.** water, radio, or television towers or any equipment for the transmission of electricity or communication or both and **b.** structures of a relatively slender nature and minor vertical projections of a parent building, including chimneys, flagpoles, flues, spires, steeples, belfries, cupolas, antennas, poles, wires, or *windmills* (emphasis added).⁸”

Originally, many in North Carolina presumed that the exemption for windmills covered wind turbines that generated electricity.⁹ In 1978, the US Department of Energy constructed the largest wind turbine in the world at that time on the top of Howard's Knob in Boone, North Carolina. The tower was over 140 feet tall, and the national and state media gave it extensive coverage.¹⁰ It is hard to believe that, given the enormity of this project, state legislators would have inserted the exemption for windmills without knowledge of this achievement.¹¹

In 2002, when the Tennessee Valley Authority prepared an Environmental Impact Statement for their proposed Stone Mountain wind farm, the North Carolina Department of

⁵ Permitting of Wind Energy Facilities, S.B. 1068, 2009 Gen. Assem. (N.C. 2009), at 6.

⁶ Louis Zeller, *The NC Ridge Law is no Obstacle to Wind Power*, BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE, October 11, 2009, available at www.bredl.org.

⁷ *Id.*

⁸ N.C. Gen. Stat. § 113A-206(3) (2008).

⁹ Zeller, *supra* note 6.

¹⁰ *Id.*

¹¹ *Id.*

Justice found that it would be allowed under North Carolina law.¹² In response to this ruling, however, State Attorney General Roy Cooper issued a rebuttal saying that the legislature's intent in drafting the exemption was to include the "traditional, solitary farm windmill which has long been in use in rural communities, not wind turbines of the size, type, or certainly the number proposed here."¹³ He went further to say that a project of this magnitude would not be permitted under the Ridge Law "especially when all the turbines would probably be seen together from most viewing locations."¹⁴ Although his letter would appear to erect legal hurdles to wind power generation in the state, the Attorney General offered an exception to his opinion in a footnote in the letter. Cooper suggested that an alternate site that the TVA already considered would be more appropriate because it had already been strip-mined.¹⁵ It would follow then that this caveat appears to allow wind turbines under the Ridge Law so long as the project is sensitive to mitigating its visual impact on the surrounding area.

The Ridge Law also provides local governments the opportunity to establish ordinances governing the creation of wind farms within their territories.¹⁶ Watauga County determined that single wind power turbines are exempt from the Ridge Law, and issued an ordinance regulating not only small, but large utility-scale wind energy systems as well.¹⁷ The ordinance restricts the height of wind towers to 135 feet, with the provision that the Watauga County Planning Board could approve a taller tower provided that the project met certain conditions requiring minimal visual obstruction and harmony with its natural surroundings.¹⁸

¹² *Id.*

¹³ Stephen G. Bell, *The Way the Winds are Blowing these Days: The Rapid Growth of Wind Energy and Legal Hurdles of North Carolina's General Statutes*, 8 N.C. J. L. & TECH. 117, 140 (2006).

¹⁴ *Id.*

¹⁵ *Id.* at 141.

¹⁶ N.C. Gen. Stat. § 113A-208(a) (2008).

¹⁷ *Watauga County Ordinance to Regulate Wind Energy Systems*, NORTH CAROLINA WIND WORKING GROUP, October 12, 2009, <http://www.wind.appstate.edu/reports/WataugaCountywindordinance.pdf>.

¹⁸ *Id.*

Senate Bill 1068: Permitting of Wind Energy Facilities

Due to the ambiguities in the Ridge Law, and the heightened attention to finding renewable energy resources in the state, North Carolina lawmakers attempted to establish some clarity with Senate Bill 1068. As originally introduced, the bill would have expanded the exemption for windmills to include “wind turbines for the development of electricity” that have less than 100 kilowatts rated capacity in combination with any other turbines within one-half mile, and wind turbines with capacity above 100 kilowatts provided that they comply with any city or county ordinance “regulating the siting of wind turbines.”¹⁹ This first edition of the bill would have allowed for the construction of large-scale wind energy projects subject to the outlined permitting process and compliance with local ordinances. As the bill moved through the required Senate Committees, Senators from mountain districts began to fight against the new exemption.²⁰

The chief concern among the opposition lies in the construction of wind turbines that would interrupt the pristine beauty that the western North Carolina mountain ridges afford the residents of this state.²¹ The Senate Finance Committee, the final stop for the bill before debate on the Senate floor, stripped the language cited above regarding the exemption for wind turbines. In its place, committee members inserted an exception for windmills that are associated with a residence with the primary purpose to produce electricity for that residence provided that the windmill is no taller than 100 feet.²² If the House and Senate ultimately pass S.B. 1068 with this exception, it would effectively prohibit the development of wind energy production in the

¹⁹ Permitting of Wind Energy Facilities (Edition 1), S.B. 1068, XXXth Gen. Assem. (N.C. 2009), at 5.

²⁰ Julia Merchant, *Clean Energy Future may be Blowing in the Wind*, INDUSTRIAL WIND ACTION GROUP, October 10, 2009, <http://www.windaction.org/news/22708>.

²¹ *Id.*

²² S.B. 1068, 2009 Gen. Assem. (N.C. 2009), at 6.

mountains of North Carolina in areas that have the most potential for production.²³ This language closely conforms to the Attorney General’s interpretation of the Ridge Law by expressly stating that the exemption for windmills under the law only applies to small-scale turbines producing electricity for residential purposes.

The Senate left the remainder of the bill, which includes the permitting process for wind energy facilities, largely intact throughout the process. Section 1 of S.B. 1068 defines a wind energy facility for the purposes of permitting as meaning “the turbines, accessory buildings, transmission facilities, and any other equipment necessary for the operation of the facility that cumulatively, with any other wind energy facility whose turbines are located within a half-mile of one another, have a rated capacity of three megawatts or more of energy.”²⁴ The bill then details the permitting process for coastal wind facilities, and creates a Coastal Resources Commission to oversee and grant permission to develop wind energy in coastal areas specified in the bill.²⁵

S.B. 1068 then addresses permitting for wind turbines that lie outside of the coastal area, including the western regions and mountain ridges of the state that are the main focus of this discussion. The bill directs that no development of a wind energy facility can begin without first obtaining a permit from the N.C. Department of Environment and Natural Resources (DENR).²⁶ A permit application must include a detailed explanation of the location, capacity of proposed energy generation, and certification that the developer notified the adjacent property owners to the “maximum extent practicable.”²⁷ The developer must also include a study of the noise,

²³ Galbraith, *supra* note 3.

²⁴ S.B. 1068, 2009 Gen. Assem. (N.C. 2009), at 1, lines 16-20.

²⁵ *Id.* at 2-3

²⁶ *Id.* at 4, lines 3-4.

²⁷ *Id.* at lines 7-13.

shadow flicker, avian, and viewshed impacts that the proposed facility might have.²⁸

The bill then instructs DENR to deny a permit if the facility would have adverse effects on:

ecological systems, natural resources, cultural sites, recreation areas, or historic sites of more than local significance, including national or state parks or forests; wilderness areas; historic sites; recreation areas; segments of the natural and scenic rivers system; wildlife refuges; preserves and management areas; areas that provide habitat for threatened or endangered species; and primary nursery areas designated by the Wildlife Resources Commission.²⁹

In addition, S.B. 1068 also requires DENR to deny permits to projects that would have significant detrimental impacts on views from state or national parks as well as natural heritage and conservation areas that the national or state government dedicated for their high recreational value.³⁰

The bill then stipulates that DENR hold a public hearing in the county in which the proposed facility would be located within 75 days of acceptance of the completed application.³¹ Any proposed facility must, in addition to meeting these requirements, also comply with any local ordinances regarding land use and the regulation of wind turbines.³² The bill specifically states that it does not preclude the developer from the obligation to obtain any city or county permit to construct a wind energy facility.³³

The Debate Continues

The debate surrounding S.B. 1068 often finds itself pitting environmentalist against environmentalist. Senator Joe Sam-Queen (D-Waynesville), who was a key player in limiting the windmill exemption, said that large turbines “are not worth the compromise it gives to our sense

²⁸ *Id.* at lines 14-17

²⁹ *Id.* at lines 26-33

³⁰ *Id.* at lines 36-40.

³¹ *Id.* at page 5, lines 16-18.

³² *Id.*

³³ *Id.* at lines 27-29.

of place and the beauty of the mountains.”³⁴ Senator Martin Nesbitt (D-Asheville) stated that large wind facilities would “destroy our crown jewel.”³⁵ Others, however, believe that opponents to large wind turbines in the mountains have overstated their possible pernicious environmental effects. Dr. Dennis Grady with Appalachian State University conducted a study on the public opinion regarding development of wind farms in the mountains.³⁶ He concluded that although 74% of participants cited aesthetics as their major reservation about wind turbines on ridge tops, 77% who had seen a large turbine in person found them to be graceful and elegant structures.³⁷ In fact, Grady concluded that by a 2 to 1 margin, western North Carolinians do not believe that ridge top turbines should be prohibited.³⁸

The House did not have time to consider the bill as the 2009 Session ended before it came up in committee. Representative Pricey Harrison (D-Greensboro) said that the House is unlikely to pass S.B. 1068 with its current ban on utility-scale wind turbines because the issue has been very divisive.³⁹ She went on to say that the House will probably strip the bill of the added exemption, and deal only with the permitting process outlined in other sections of the bill.⁴⁰ If the House declines to address the exemption and removes it from the bill, the Ridge Law will remain in its current state, and ambiguity over the legality of wind turbines in the N.C. mountains will remain. Many environmental groups, including Environment North Carolina and Environmental Defense, believe that with responsible development, construction can take place

³⁴ Merchant, *supra* note 20.

³⁵ Galbraith, *supra* note 3.

³⁶ Dr. Dennis O. Grady, *Public Attitudes Towards Wind Energy in Western North Carolina: A Systematic Survey*, REPORT PREPARED FOR THE 2002 NC WIND ENERGY SUMMIT, December 9, 2002, http://www.energy.appstate.edu/docs/wnc_pubsurvey.pdf.

³⁷ *Id.*

³⁸ *Id.*

³⁹ Andrew Ballard, *Permitting for Wind Turbine Facilities Shelved as State Legislature Adjourns*, 40 ENV'T REP. CUR. DEV. (BNA) 1976 (August 14, 2009).

⁴⁰ *Id.*

that advances North Carolina's need to produce clean energy, while also protecting the state's natural beauty with sensitivity to local desires for land use.⁴¹

S.B. 1068, if passed in its current form, would have far reaching impacts on North Carolina's ability to meet its renewable energy goals. Studies have shown that wind turbines occupying only 5 percent of the state's ridge tops could provide enough renewable energy to fulfill one-fifth of its goals under the state's Renewable Energy and Energy Efficiency Portfolio Standards.⁴² Even if the House scales back the language in the legislation, it remains to be seen how future developers and lawmakers will interpret the current language regarding the windmill exemption in the Ridge Law in attempting to provide wind energy for the state.

⁴¹ *NC Senate Bans Wind Power*, ENVIRONMENT NORTH CAROLINA, October 15, 2009, <https://www.environmentnorthcarolina.org/newsroom/energy/energy-program-news/nc-senate-bans-mountain-wind-power>.

⁴² *Id.*