

Oklahoma Wind Energy in Rural Communities: Identifying Policy Necessary for Productive Coexistence

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QUESTION

What role should state policy take to mediate the conflicts between wind energy development and rural Oklahoma communities?

OBJECTIVES

This project synthesizes the documents submitted to the NOI as well as laws from Oklahoma and similar states to identify policy necessary for the resolution of disputes between wind energy developers and rural communities.

INTRODUCTION TO CONFLICTS

The major conflicts between rural landowners/communities and wind energy development stakeholders:

- Siting
 - Set backs from non-participating properties
 - Wildlife impact considerations
 - Limitations for siting near or on lands considered sacred
 - Scenic highway byway impacts
 - Setbacks related to safety for roadways, properties, homes, etc.
 - Flicker
 - Impact to mineral rights owners for potential damages to properties as well as between participating and non-participating landowners
- Decommissioning of Turbines
- Notification of Landowners

The Oklahoma Corporation Commission (OCC) opened a Notice of Inquiry (NOI) in order to identify and examine the issues regarding wind energy development in the State of Oklahoma. Parties on each side of the conflict were asked to submit written comments to the OCC's Court Clerk's Office. Here is a timeline of the events of the NOI:

- **May 20, 2014**- Senate President Pro Temp Bingman requests the OCC conduct the NOI
- **July 9 and 11, 2014**- Director of the PUD holds informal meetings with various stakeholders in the forthcoming NOIK
- **August 12, 2014**- Notice Of Inquiry Filed
- **August 26, 2014**- Initial Comments Due
- **September 11, 2014**- First Technical Conference at 10:00 a.m. Courtroom 301
- **September 30, 2014**- First Technical Conference Comments Due
- **October 15, 2014**- Second Technical Conference at 10:00 a.m. Courtroom 301
- **October 31, 2014**- Second Technical Conference Comments Due
- **December 2, 2014**- Hearing 10:00 a.m. Courtroom 301
- **December 30, 2014**- Summary of Wind Energy Development NOI released by Public Utility Division

METHODS AND REFERENCES

Dr. Stephen Stadler introduced me to this specific topic, and I decided to pursue it as the focus of my Wentz project

Firstly, I fully analyzed the Oklahoma First Energy Plan as proposed by Governor Fallin and Secretary Ming in 2011. Here are the goals from that plan that pertain to this project:

- Target 15% renewable energy in Oklahoma by 2015
- Ensure incentives to wind development are competitive with neighboring states
- Foster coordination between multiple uses of surface estate (agricultural, oil and gas, wind development)
- Next, I contacted Kylah McNabb at the Oklahoma Department of Commerce. She directed me to the current NOI filed by the OCC

- Conducted a literary review of all comments filed with the Notice of Inquiry. Figure 2 is an example comment
- Conducted a literary review of the summary of Wind Energy Development NOI released by the Public Utility Division of the OCC
- Most comments filed regarded wind energy projects in Osage County. Figure 1 shows the average wind speed of Oklahoma with Osage County highlighted. Wind speed is directly related to power output of wind turbines. This is important in understanding the wind energy developer's motives
- After identifying the main conflicts, I cross-referenced Oklahoma's State Law regarding wind energy development with similar code from states and communities that display similar wind output as Oklahoma (Illinois, Iowa, Ohio) to make policy recommendations on the mitigation of these regional conflicts

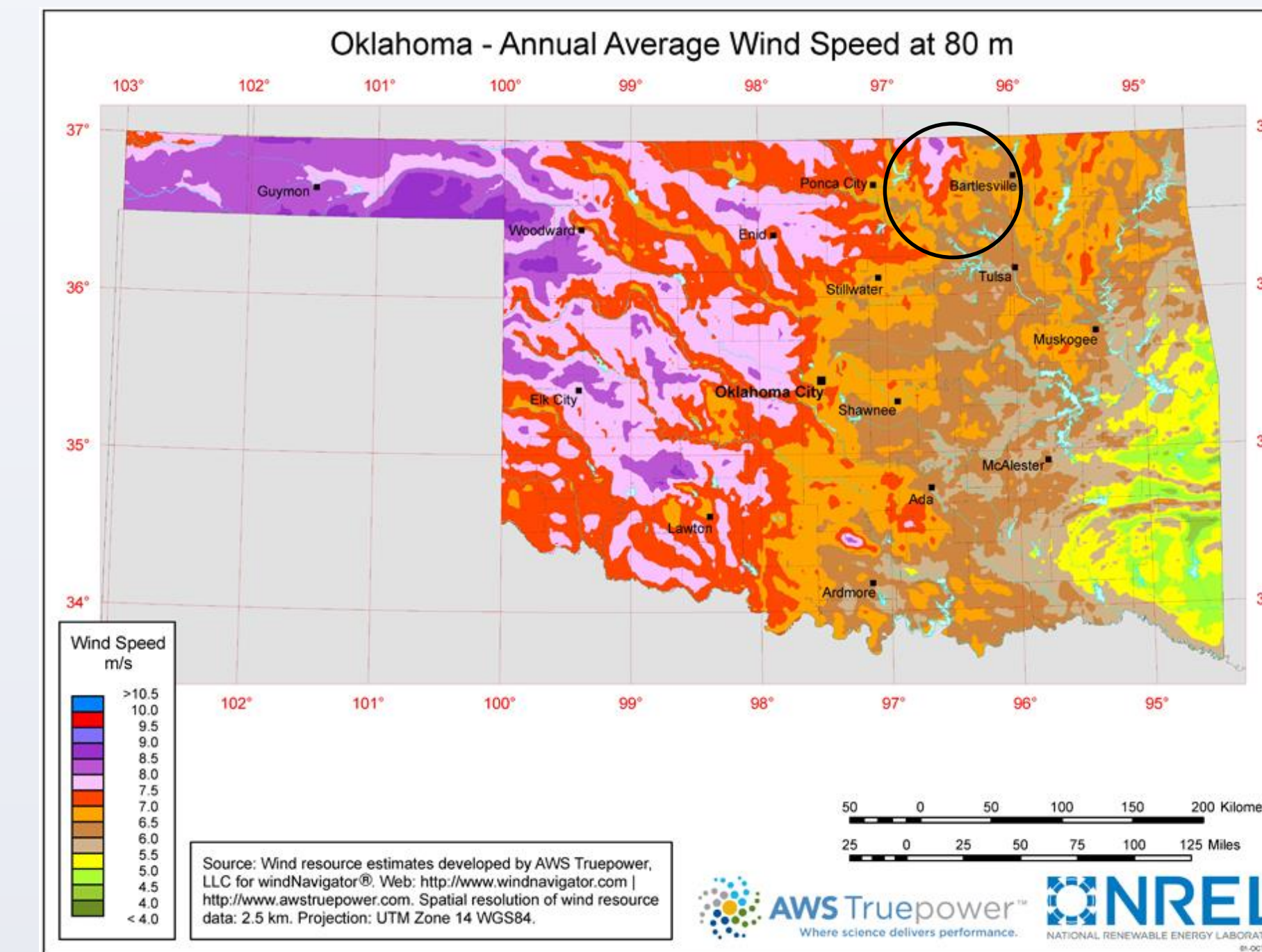


Figure 1. Oklahoma Wind Speed Map with Osage County Highlighted

As a fourth generation rancher, I try to be a good steward of my property by protecting the grasses, water, wildlife, and scenic views I cherish in Osage County. Two industrial wind projects by Tradewind LLC are slated to be built adjoining our ranch which threaten my land, my environment, and the wide-open spaces of the Tallgrass Prairie that I call home.

Here are a few of the reasons why the OCC needs to enact meaningful regulation for wind energy development:

- Osage County has minimal regulations which do nothing to protect adjoining landowners' property rights, the environment including threatened and protected species (e.g. Greater Prairie Chicken and Bald Eagle), or scenic or historical resources. There are also inadequate requirements for the decommissioning and restoration of wind industrial sites which will result in decades of industrial blight in our rural landscapes.
- Landowners with property near these projects will suffer a dramatic decrease in their property values, watch their scenic views be destroyed, and endure permanent and negative alteration of the natural environment.
- These projects would harm the ecologically-sensitive Greater Prairie Chicken breeding grounds, which could eventually lead to listing under the Endangered Species Act and therefore seriously restrict land use, as is now occurring in western Oklahoma with the Lesser Prairie Chicken.
- The project's wind turbines could impair or even block necessary spraying of noxious weeds, such as sericea lespedeza, causing infestation of neighboring properties.
- The turbines would also tarnish the viewshed from all adjoining and nearby properties, including The Nature Conservancy's 40,000 acre Tallgrass Prairie Preserve which brings in thousands of tourists and millions of dollars in economic activity to Osage County.

Figure 2. Example comment from fourth generation rancher of Osage County.

FINDINGS

- It is evident through comparative research that Oklahoma is one of the least regulated wind energy producing states in the USA
- Wind energy developers have capitalized on the relatively open regulation climate of the state and Oklahoma now ranks as the fourth highest state in wind power capacity as of December 31, 2014 with 3.782 MW output
- Unfortunately, the open regulatory environment has had dissatisfactory effects on rural communities and rural landowners which stem from three regulatory areas within Wind Energy: Siting of wind energy sites, decommissioning of wind energy sites, and notification of landowners

Siting	Decommissioning	Notification
Siting procedures need to be recommended to rural communities by the Legislature and/or executive branch Setbacks shall be dependent on turbine height, and not a specified distance Provide guidelines for communities and applying wind developers to follow when new wind developments are to be constructed	The Oklahoma Corporation Commission should be the enforcer of decommissioning obligations 17 O.S. Section 160.14 -15 adequately identifies the decommissioning process and the incorporation of decommissioning costs into the evidence of financial security filing	Oklahoma currently has 0 required notification practices for developers to notify landowners Notification is most likely the only place a state-wide law would be most effective with respect to the other two issues of this conflict At least 180 days prior to development, notification to landowners within a 3 mile radius should include developer's intentions, the planned project area, and construction timeline

CONCLUSIONS

- The largest conflict (siting of wind turbines) should be decided by local communities on recommendation from the state legislature and/or executive branch
- The OCC shall oversee and enforce wind turbine decommissioning obligations
- Land and mineral owners within a 3 mile radius of a planned wind energy project shall be notified of the developer's intentions, the planned project area, and construction timeline at least 180 days prior to the commencement of construction
- The policy developed in response to this conflict needs to remain unbiased, and close attention needs to be paid to its predicted effects on wind energy investment in the state, tax revenue, and protection of Oklahoma's rural citizens
- Communities within the 7.5 to 8.5 m/s wind speed areas of Figure 1 should be identified by the OCC as locations most likely to attract wind energy development and a "Landowner's Rights" packet shall be developed by a coalition of state agencies to assist in the siting process

NEXT STEPS

- The Oklahoma Corporation Commission has filed a Notice of Proposed Rulemaking on these issues to determine the public response and comment and to ultimately make recommendations to the state legislature to consider
- Ideally, a policy memo will be drafted from this research to supplement the recommendations from the OCC that will be released in January 2016
- Further analysis of state and local laws similar to Oklahoma and its communities is required for a comprehensive memo. Some states that should be considered,
 - Iowa (5,917 MW)
 - Illinois (3,568 MW)
- Further analysis of the National Association of Regulatory Utility Commissioners report on *Wind Energy and Wind Park Siting and Zoning Best Practices and Guidance for States* is required for a comprehensive recommendation to the state legislature and executive branch

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I am currently a senior mechanical engineering student and will be graduating in May. My plan for after graduation is to attend the University of Cambridge to pursue an MPhil in Technology Policy