Wind Energy Communities and the Beneficiaries of Wind Energy Development in West Texas

Introduction

Wind energy is a fairly new industry in West Texas, with the first turbines being installed in the late 1990’s. The industry has boomed since then, especially in the mid-21st century during the oil and gas slump and while there has been a drought in much of West Texas and the Great Plains that impacted farming and ranching in these areas. Many ranchers, farmers and other private landowners quickly got on board and drafted wind energy development contracts with wind power development firms, such as GE, Mitsubishi and NextEra to build wind turbine farms on their land in exchange for royalties. These binding contracts allowed private landowners to receive many more direct economic benefits from wind power development than landowners and other citizens without wind energy contracts. Landowners who established contracts after the first wave of wind turbine development in the area ended up receiving better benefits and increased royalty percentages than the pioneers who began the wind energy movement in Nolan County, such as Steve Oatman, a member of the first family to sign a wind energy contract in Nolan County (Interview Oatman). As firms saw the wind energy market potential in the region expand, they rushed to create agreements with any existing landowners without contracts.

It is known that private landowners that lease or sold land to wind energy firms, and other stakeholders such as businesses that are directly related to servicing the wind energy industry, are directly benefitting from the booming wind energy market, however little is known about other beneficiaries of wind energy royalties, tax abatements and overall economic
improvement due to wind energy production in West Texas. There is also very little known
about the internal discrepancies between amount and type of benefits that each landowner
with a wind energy contract receives since contracts can vary greatly between one another due
to the lack of regulation of these types of practices in wind energy regulations and law. Overall,
this paper will explore the economic development concepts, opinions and discrepancies among
direct and indirect beneficiaries of wind energy development in West Texas, and try to identify
if there are realistically any citizens in these communities that are not benefitting from the wind
energy industrial boom in some type of way, whether directly or indirectly.

Methods

I collected data for this paper through interviews and accounts with private landowners
and stakeholders in the community, including Steve Oatman, rancher and owner of Double
Heart Ranch in Nolan County, as well as Russ Petty, owner and founder of Creative Graphic
Solutions (CGS) in Sweetwater, Texas, and Kirstin Smith, Marketing Director at the Sweetwater
Enterprise for Economic Development (SEED). I searched the internet for more information on
the backgrounds of these stakeholders and was able to find articles, online interviews, news
releases and websites that gave me more information into their opinions of personal and
community economic benefits of the wind industry growth in Nolan County, including a NSF-
funded interview and video of Oatman produced by the group “Earth: The Operator’s Manual.”

I obtained documents on-site in Sweetwater that included pamphlets, brochures and
booklets regarding the economic impacts of the booming energy industry in Nolan County and
Sweetwater on the community at large. Some of these materials included a map of “The Top
Things to do in Sweetwater” that included contact information for a majority of the businesses in town that might be helpful to visitors, including schools, local attractions, restaurants and financial institutions. Another really helpful flyer that I picked up was the SEED leaflet that lists general facts about wind related companies in Nolan County and the surrounding region, West Texas regional wind production numbers, economic development incentives for companies and firms looking to relocate to the area, as well as supporting industries that are also located in the region including manufacturing and transportation businesses. This flyer was helpful in giving me a solid understanding of exactly what companies and firms are deciding to invest in the West Texas wind energy economy and how vast the number of organizations are in this region, ranging from wind energy firms to service, logistics, training, manufacturing and transportation businesses and organizations that all supplement the large wind energy industry in the region.

Finally, I used the literature provided for the trip to provide outside examples and sources to compare to my findings from the trip. The five factors of differing “Social Perspectives on Wind Power Development in West Texas,” (Brannstrom et al. 2011) identified in their paper and the “Ex post analysis of economic impacts from wind power development in U.S. counties” (Brown et al. 2012) provided scholarship examples that will supplement the arguments presented in this paper.

Findings

Wind energy came to Sweetwater because of the existing infrastructure from oil and gas exploration in the region. (Interview Smith) Existing transmission lines nearby and a meteorologically good area for wind harvesting were the main selling points to get the industry
to set roots in Nolan County. The Chamber of Commerce and SEED work to bring in companies that will create primary jobs in Sweetwater and bring money into the town. Since wind companies have decided to create wind farms in the region, SEED has been working to recruit businesses and organizations nationally and globally that cater to the established wind energy sector in the region to create thousands of jobs and establish Sweetwater as a national headquarter for the wind industry. (Interview Smith) The community also benefits by hosting the wind technician certification program at Texas State Technical College (TSTC). Students in Nolan County and the surrounding region are fortunate to have a highly regarded certification program locally to get trained as a wind technician. The program was the first of its kind and is optimally located in the heart of the wind capital of the US. It allows students to become certified in a program that is overseen and designed for the immediate needs of the wind industry by local wind industry representatives and executives. (Interview Ince) (TSTC 2014)

Skilled and unskilled blue-collar employees make up the majority of the employees in the Sweetwater wind industry. These people can make starting wages of $18-$20+/hour, depending on the skill set and not including overtime pay and bonuses. (Interview Smith) Because of this, there is a higher than average income in Sweetwater, especially among younger and non-college educated populations. This is great for the community because it brings in additional tax revenue for the city that is able to be used for the school district and government agencies (Brown et al. 2012), but it also has a negative impact by making it harder to find people willing to be employed in other needed fields that pay lower wages, like restaurant and government employees. (Interview Smith, Brannstrom) It also creates a large wealth gap in the community between the people employed in energy sector jobs and people
who are not employed and living well under the poverty line. According to Texas Workforce Commission Tracer Labor Market Tool, last year’s unemployment rate in Nolan County was only 5.4%. (Tracer2.com 2014) There are not as many of these citizens as a typical town of similar size would have, but those that do exist are not moving up from poverty along with the economic prosperity of the region.

Along with high employment rates and the industry bringing in an influx of permanent residents with higher per capita incomes, the real estate market is benefitting and struggling from the growth. There is a high demand for housing, especially for homes for sale. There is also a demand for increased residential apartment housing. (Interview Smith) The benefit to residents with homes looking to sell is that homes can be sold for much higher prices than even 10 years ago due to the increase in average per capita income in the community and shortage of housing.

According to county records, the tax base in Sweetwater went from $350 million in 1999 to over $2 billion after tax abatements this year due to wind energy development in the area. (Interview Petty) These funds have been used to help the Roscoe and Sweetwater School Districts build new sporting facilities, including state-of-the-art football stadiums and softball fields. Increased tax revenue has also been used in the construction of Nolan County’s new multimillion-dollar courthouse, prison and sheriff’s offices (Blanks 2013).

Regionalism in the area is very strong and support for the wind energy industry seemed very positive due to the overall views that the industry is positively supporting the county through economic tax revenue and employment opportunities. (Interview Smith, Petty) The
wind industry brings revenue into the city in other ways as well; one of the main and most consistent being through the annual Wind Trade Show that occurs in Sweetwater in the fall. This event helps the entire community by bringing in hundreds of visitors to who spend thousands of dollars in revenue for hotels, in restaurants and other businesses in the city during their stay. Two new hotels are being built in the city because of the lack of available hotel space in the area when hosting large externally attracting events such as this. (Wind-Show.com 2014)

The wind industry revitalized a dying agricultural community of ranching and farming in the region. The revenue from royalties of landowners who allowed turbines to be built on their land allowed these ranchers and farmers to continue funding their agricultural “hobbies” that were no longer economically profitable since a 20-year drought has ravaged West Texas and the Great Plains. (Interview Oatman, Petty) Royalties to landowners that have turbines on their land average around 4%, but can be significantly higher depending on when the landowner created their contract and what each party negotiated. (Interview Petty) Early pioneers in the wind development movement in Nolan County, like Oatman, feel robbed as they learned that later contracts included significant benefit and royalty increases than what his contract provides him, but because many of the contracts lock the property owner in for 15-30 years, contracts cannot be changed or re-negotiated. There are also no laws currently in place that protect landowners from these types of discrepancies in contracts between them and energy firms. (Interview Oatman)

Discussion
I found that the majority of the community that we were able to interact with were either Factor 1 or 2 Wind Welcomers (Brannstrom et al. 2011) and generally did not have complaints about turbine noise, aesthetics, vibrations or shadows (Kahn 2013), which is different than what Kahn concluded in his paper about the quality of like dynamics in wind communities. Citizens cared less about those aspects than the economic impacts of the industry on the community. The only negative story I heard while on the trio regarding turbines were the dangerous icicles that can fly off of the blades during icy wintry months that can potentially kill or injure roaming livestock. (Interview Intergen Tour). My findings also support conclusions on Kahn’s paper that there is little evidence that proximity to wind turbines is a “disamenity” to neighboring landowners, especially since few people leave near each other and near wind farms in West Texas. (Kahn 2013) His paper offers statistical evidence using data pulled on real estate prices in the vicinity of 13 majors wind farms in the region.

My findings support Khan’s claims that “county property taxes have fallen and public school quality has improved in counties where wind farms have been built.” (Kahn 2013) School districts and city and county governments have been able to take advantage of increased tax revenues to increase the quality of goods and services offered in the community. Overall landowners are profiting from selling and leasing land to wind energy generators.

In the “Ex post analysis of economic impacts from wind power development in U.S. counties” (Brown et al. 2012), Brown claims that counties need to take into account the “displacement of other energy sources” or other land use considerations for land that has been used to support wind farms. My findings support and explain both arguments that Brown is asking us to consider. The Cline oil and gas shale is the only other energy source nearby that
would act as competition to the wind industry, but only from a labor standpoint since the energy that is being extracted from the nearby shale plays will be used as a fuel, whereas the wind energy created on above-ground wind farms will be converted to electricity to sell to the grid for electrical power. Other land uses have also been considered, though much, if not all of the land that the West Texas wind farms are located on are converted agricultural lands that have not been suited for growing crops and ranching for some time now since the region is facing a prolonged drought. Many of these former ranchers and farmers lease their land to wind firms to be able to use and make money off of the land since the original land use is not profitable anymore. Wind turbines also do not restrict any normal land uses such as hunting, ranching, farming or grazing.

Brown states eight claims in his paper on the local economic impact of wind energy on communities throughout West Texas that are fully supported throughout my paper, such as how the industry directly affects employment, generates an indirect demand for goods and services, and that taxes contribute to increased local government revenue that can be used towards local development and public education. (Brown et al. 2012) The two methods also carried out in Brown’s experiments best supports and gathers information and data that is integral in supporting claims that I make throughout this paper because they address actual case studies as well as potential direct, indirect and induced impact models of economic benefits among the population. (Brown et al. 2012)

Conclusion
Through my careful analysis of several direct and indirect beneficiaries of wind energy impacts, I feel comfortable being able to conclude that every citizen within the population of Nolan County is positively impacted, and therefore some type of beneficiary of the wind energy industry boom in the area by simply being a resident of the region; whether it is through direct employment, increased revenue to school districts to improve public education and facilities, or other benefits such as improved roads or other communal public goods. Future research should focus on the impacts of the increased revenue brought to the county from wind energy production. We have established that increased revenue will help improve the public education system, which will create a domino effect that will attract more high-income, well-educated families to the community, which in the long run has the potential, along with other contributing factors, to completely shift the demographics and lifestyle dynamics in the region. (Kahn 2013) With more wealth comes the increased demand for more goods and services, and there could be a potential demand for higher quality shopping and retail centers, administrative and higher-educational facilities, which could act as stepping stones to urbanizing this region.

Limitations of this study included the poor research and data gathered and available about the residents living under the poverty line, their demographics and why they can not seem to break through and take advantage of the growing opportunities in the region that was spurred by the energy boom. I would like to be able to better explore this subset of the population and how, besides the indirect benefits from communal goods, they are supported and more directly benefit from the growth of the wind energy industry in the region.

Or farmers, ranchers and private landowners like Steve Oatman, it seems as though they will be able to benefit greatly form the ever-increasing wind energy production in the region,
and though each contracts may differ, pioneers such as Oatman will be one of the first to be able to re-negotiate terms after his original contract ends, which will benefit him since he has now had over 15 years to watch how the industry had stabilized and shown that it is intending to grow.

References

Interviews:

Steve Oatman, interviewed by the TAMU GEOG 309 course, Oct. 3 2014, Interview #1, Sweetwater Chamber of Commerce

Russ Petty, interviewed by the TAMU GEOG 309 course, Oct. 3 2014, Interview #1, Sweetwater Chamber of Commerce

Kirstin Smith, interviewed by the TAMU GEOG 309 course, Oct. 3 2014, Interview #1, various locations

Timothy Heath Ince, interviewed by the TAMU GEOG 309 course, Oct. 3 2014, Interview #1, Texas State Technical College (TSTC)

Scholarly Literature:


Kahn, Matthew E. "Local Non-market Quality of Life Dynamics in New Wind Farms Communities." *Energy Policy*, 2013, 800-07.

Other Sources:


