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Recent Legislation to Promote Wind Energy in Nebraska

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Recent Legislation to Promote Wind Energy in Nebraska

AN UNDERGRADUATE THESIS

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Presented to the Faculty of
The Environmental Studies Program at the University of Nebraska – Lincoln

Major: Environmental Studies
With the Emphasis of: Natural Resources

December 2010

Abstract

Nebraska is currently ranked 4th in the nation for wind energy potential, but ranks low in actual wind power production. The lack of wind energy production could be the result of Nebraska's unique public power districts that have eminent domain of distribution and retail sales of electricity in the State. Public Power districts are prohibited from receiving benefits of state and federal tax incentives for the development of wind farms, however some Nebraska power districts still pursue wind energy as a renewable source of energy.

Recent legislation changes, including the passing of laws LB629 and LB1048, have provided the State of Nebraska with the ability to remove certain barriers of tax restrictions and aid in the development of wind farms throughout the State. Changes in Nebraska legislation have allowed private utilities, in and out of the State, the ability to invest in wind energy and incorporate into Nebraska's energy portfolio. Currently, certain public power districts in Nebraska have set a goal of achieving 10 percent of their energy supply from renewable resources by 2020.

Although it is too early to evaluate the impact of changes in Nebraska's legislation regarding wind energy in the State, the possibilities seem to favor the State public power districts of reaching their renewable energy goal.

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Introduction

The desire to harness additional wind power to generate electricity for heating, cooling and lighting of homes has prompted the State of Nebraska to develop new ways to add wind energy capacity and integrate it into Nebraska's energy portfolio. Planned projects by Nebraska Public Power District (NPPD), Omaha Public Power District (OPPD) and other public power districts, are now in underway and will add more wind generated power on a regular basis through 2020 and into the future. These projects will be accomplished by utilizing both private developers and public power with the result being additional renewable energy for the State of Nebraska through the generation of wind power.

[10] In 2010, Nebraska ranks 4th in the nation for wind potential, however is ranked 22nd for wind production. Low wind energy production in the State of Nebraska is due to state and federal tax incentives not being available to public power due to wind generation power being more expensive than generating electricity with coal. [9] Under State law, the public utility's main goal is to deliver the cheapest power possible.

Public utilities such as NPPD, [1] "... (have) still pursued an economical, practical, and customer-focused approach for developing wind generation in the state".

According NPPD Board of Directors, [1] "NPPD will evaluate all forms of renewable resources feasible in Nebraska and incorporate them in the total mix of NPPD-owned generation and contract purchases with a goal of achieving 10 percent of our energy

supply for NPPD's native load from renewable resources by 2020". [2]Omaha Public Power District (OPPD) has also set similar goals in the use of renewable energy. [10]

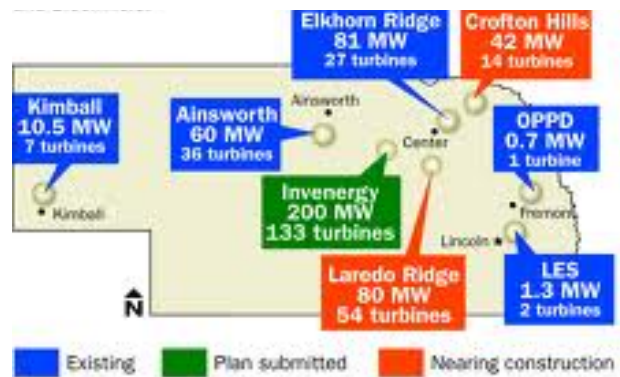
According to the Center of Rural Affairs, "A newly released poll finds overwhelmingly favorable (94%) impressions of wind power among Nebraska voters and strong majority (79%) support for requiring large electric utilities to use renewable energy sources for at least 20% of the electricity they generate."

With such a high potential of wind energy, and strong support for additional development, Nebraska has sought to promote additional wind farms throughout the State using combinations of private landowners and companies to develop wind power. Nebraska currently has five major developed wind farms throughout the State, and with the passage of LB629 and LB1048 to promote additional wind farms, wind energy has the capability to increase significantly in Nebraska.

Current Wind Power in Nebraska

Since 1995, [1] Nebraska has invested more than \$80 million in wind generation. Public power districts have developed, own, or have power purchase agreements with wind farms located throughout the State in order to add wind energy to their energy portfolio. These wind turbines are located at five sites:

Ainsworth, NE-[1] Ainsworth Wind facility became operational in September 2005 and has 36 wind turbines that produce 60 megawatts of power, which is enough energy to



supply around 19,000 homes per year. The budget for Ainsworth Wind Facility, \$81.3 million, was approved for construction without government subsidies.

Elkhorn Ridge Wind Facility – [3] Located near Bloomfield NE, this facility is owned by Edison Mission Group (Irvine, CA) and has 27 turbines which produces 81 megawatts of power, or enough energy to provide electricity to 25,000 homes. Elkhorn Ridge Wind Facility became operational December 2008. NPPD is purchasing all 80-megawatts of power, using 40 megawatts for their customers and selling the other 40 megawatts to other public power utilities.

Municipal Energy Agency of Nebraska (MEAN) – [3] This facility located near Kimball, has seven turbines that began operations in October 2002. The maximum capacity of Kimball wind farm is 10.5 megawatts, which could power 2,000 homes.

Omaha Public Power District (OPPD) – [3] OPPD and Valmont Industries have installed one turbine that started operation in December 2001. The maximum capacity output of the Valley turbine is 0.66 megawatt, which could power 150 homes.

Lincoln Electric System (LES) – [3] LES currently has two turbines located north of Lincoln. The maximum capacity of these turbines is 1.32 megawatts, which could power 350 homes.

The Issue

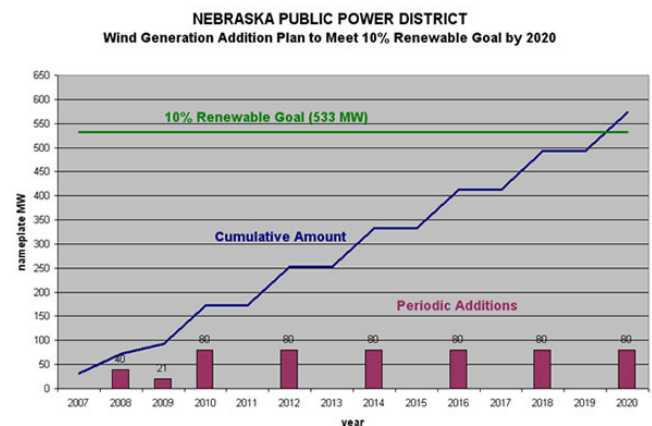
[10]In 2010, Nebraska ranks fourth among states in terms of its potential to produce wind-energy, [9] but in a study conducted by Harvard University, Nebraska ranks 22nd in actual wind-energy production”. [7]As of 2010, Nebraska’s wind farms have the ability to produce only 153 megawatts of power, which is significantly less than

other nearby states that are producing wind generated power. [7] In Iowa, wind farms have the ability to produce more than 3,000 megawatts of power. [10] Compared to Nebraska's 73 operational wind turbines in five main locations, Kansas has eight wind farms that feature 1,016 turbines.

[9] ABC News and the Associated Press stated in an article pertaining wind power production in Nebraska that, "Nebraska's public-power districts have been slow to invest in wind power because it is more expensive than generating electricity with coal, and the public utility's main goal under state law is to deliver the cheapest power possible. [1] According to NPPD, they will still pursue an economical, practical, and customer-focused approach for developing wind generation in Nebraska.

The Plan

The addition of wind-powered generation in the state of Nebraska adds to public power districts diverse renewable energy portfolio. Public power districts, such as NPPD and OPPD, have set goals of achieving 10% of their energy production from renewable resources. [1] According to NPPD Board of Directors, "NPPD will evaluate all forms of renewable resources feasible in Nebraska and incorporate them in the total mix of NPPD-owned generation and contract purchases with a goal of achieving 10 percent of our energy supply for NPPD's native load from renewable resources by 2020".



To achieve this goal, Nebraska will need to increase wind generation capacity by adding more wind turbines throughout the state. However, Nebraska's electric power comes from public power utilities which are not able to receive state or federal tax incentives. One recently approved option is for privately owned entities to build and operate wind farms throughout the state and sell electricity to Nebraska utilities. Another recently approved option is to allow utilities, outside the state, to build wind farms in Nebraska, and sell most of the electricity to customers in other states. These options will allow new wind farms to be built with the aid of state and tax incentives.

Legislation

Nebraska is currently the only state in America that is 100% public power for the distribution and retail sales of electricity. Electric utilities in Nebraska's are controlled by publicly elected public power boards, elected or appointed city council representatives and rural electric cooperative boards.

Public Power Districts currently face challenges in the production of wind farms within the state. Only investor owned utilities can be approved for Federal Production Tax Credits to construct wind farms. [1]Public utilities, like NPPD and OPPD, are not eligible to qualify for production tax credits that would amount to 1.9 cents per kilowatt hour for the first 10 years of the operation of the project. Clean Renewable Energy Bonds have been offered by the federal government as an alternative for federal taxes to public power utilities, but are not a comparable incentive.

Recently, Nebraska passed two laws that promote the construction and operation of wind farms in the State that would allow for privately owned entities to harness wind power with the aid of state and federal tax incentives.

LB629

In February 2007, the committee on Natural Resources introduced LB629, which became a law in May 2007. LB629 allowed Community-Based Energy Development (C-BED). [16] Section 3 of the proposal defines a C-BED project as a new wind energy projects:

(a) (i) consists of more than two turbines, has no single qualified owner owning more than 15% of the project and with at least 33% of the power purchase agreement payments flowing to the qualified owner; or consists of one or two turbines, is owned by one or more qualified owners with at least 33% of the power purchase agreement payments flowing to a qualified owner; and

(b) has a resolution of support adopted by the county board where the project is located; or by the tribal council located within the boundaries of an Indian reservation.

Section 1 part 4 of LB629, defines qualified owners for development as Nebraska residents, a limited liability company composed of Nebraska residents, a Nebraska nonprofit corporation, a Nebraska cooperative association, other than a rural electric cooperative association or generation and transmission cooperative, a political subdivision or unit of local government, including a school district, postsecondary

educational institution, or any other local or regional governmental organization but excludes a municipal electric utility or the municipal power agency, or a tribal council.

Community-Based Energy Development law (C-BED) encourages private development of wind projects throughout the state. The electricity generated by C-BED projects is purchased by public utilities using long-term contracts called power purchase agreements. The benefit of these C-BED wind projects is they receive sales tax exemptions on major equipment, and these tax exemptions are passed on to the local communities through joint ownership with the developers.

LB-629 also gives public power utilities the ability to contract away their right of eminent domain for energy C-BED developments, which are eligible for state sales tax abatement. According to [6] Nebraska Farmers Union, “C-BED can also utilize federal wind energy incentives, including the PTCs-Production Tax Credits and federal tax benefits including depreciation.”

NPPD is currently negotiating with two Chicago based companies to construct wind energy projects near Broken Bow, Nebraska and Petersburg, Nebraska, which would produce 80 megawatts of power annually. [12]These two projects combined could double Nebraska wind energy production, according to the Nebraska Energy Office. Patrick Dalseth, a project coordinator for Midwest Wind Energy, one of the companies currently in negotiation with NPPD, says “That Midwest plans to solicit at least one-third of the projects’ ownership from local sources to meet the state’s Community-Based Energy Development, or C-BED, guidelines.” Dalseth adds “We fully anticipate this being a C-BED project unless we’re otherwise notified.”

LB1048

In January 2010, the Nebraska committee of Natural resources held a hearing to introduce LB 1048, which became a law April 2010.

[15]The purpose of LB 1048 was to encourage and allow opportunities for private developers to develop, operate and own renewable energy facilities for the export of wind energy from the State, while preserving the benefits Nebraskans receive as a result of the State's unique public power system. The bill created a mechanism for the Nebraska Power Review Board to consider, and approve of, renewable energy facilities for the purpose of energy export. The bill also provided an exemption from public power's use of eminent domain for export projects, thus removing what is viewed as a significant barrier to greater wind energy development. In addition, LB1048 provides a new method for taxing projects that will benefit local communities and the developers by creating an alternative to the five-year accelerated depreciation of personal property schedule that is currently in place.

LB1048 created certified renewable export facility in the State of Nebraska that would generate electricity by harnessing the power of wind, and would be built and owned by an entity that is not a public power system. The bill calls for the use of power purchase agreements with a starting term of ten years or more, and also states that 90% of the power that is produced by the facilities would be sold to customers that are located outside the state of Nebraska, while the remaining 10 percent could be accepted or declined by in state utilities.

Invenergy, who is the nation's largest private wind developer, filed an application to construct a \$448-million wind farm in northeast Nebraska shortly after LB 1048 was

passed. The wind farm would have 133 wind turbines across 45,000 acres and produce 200 megawatts of power. It would be the first designed to export wind generated power outside the State of Nebraska.

Benefits

Wind energy production in Nebraska has the ability to benefit the state economically with the production of short and long term employment and tax revenues. In a report to the Nebraska Energy Office by the [8]National Renewable Energy Laboratory, "...The development and construction of 7,800 MW of wind energy in Nebraska by 2030 will support 20,600 to 36,500 construction-period jobs... support 2,200 to 4,000 operations-period jobs. On average, Nebraska's economy is estimated to see a boost in economic activity ranging from \$140 million to \$260 million."

With the potential of expanding wind generation in Nebraska, the [11] Center for Rural Affairs predicts property tax would increase revenues by \$31 million annually for local governments and schools. Landowners in Nebraska would also be projected to receive additional lease payments around \$21 million annually.

Conclusion

Nebraska has been slow to invest in wind energy production as a renewable energy source due to the cost of construction and operation of wind facilities. With

recent changes in legislation, wind energy development has the ability to become valuable factor in Nebraska's energy portfolio.

LB629 has removed barriers concerning tax incentives to wind farm production, and allows private investors to receive state and federal tax incentives in the development of wind farms. This Law has encouraged privately owned companies and investors to produce energy within the State, which would aid in short and long term employment, public power districts in the reaching renewable energy goals and lowering the states dependence on fossil fuels.

LB1048 has similar effects as LB629, but removes barriers for producing wind energy with the intent to export power outside the State of Nebraska. With high potential of wind energy and the availability to export wind power, Nebraska is now available to become a potential leader in wind energy production.

Although it is too early to evaluate the impact wind energy would have on the State, the possibilities seem to favor the state public power districts of reaching their renewable energy goal and lowering the state's dependence on fossil fuels.

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