

Q&A | Renewable Energy Development

Bluestem Energy Solutions (Bluestem), an energy development company, is developing a renewable energy project for Perennial Public Power District (Perennial). The project, which will involve the construction of three wind turbines, will be located west of Fairmont along U.S. Highway 6. All of the energy produced by the turbines will be purchased by Perennial for its customers.

If you have questions or would like more information, please contact:
Matt Robinette (Bluestem) at 402-917-6655 or Jamey Pankoke (Perennial) at 402-363-7710.

How many wind turbines will be built, and how big will they be?

There will be three turbines installed. Our technology partner, General Electric, will provide the commercial scale wind turbines. The towers will be 297 feet tall with 192 foot long blades. The total system height will be within current Fillmore County zoning regulation requirements. Each turbine site, including the access roads, will occupy approximately one acre of farm land.

How much electric power will the turbines produce?

All together they will have a maximum capacity of 6.9 megawatts (MW). To put it into perspective, the Village of Fairmont's peak electric load is around 1.5 MW. In addition, according to the American Wind Energy Association, 1 MW of wind-generated power can supply electricity to approximately 300 households per year.

Will the wind turbines produce noise or pose a safety hazard?

The turbines are mechanical pieces of equipment and make noise no different than other pieces of equipment we use every day such as dishwashers, microwaves, tractors and grain dryers. Keep in mind turbines generate electricity when the wind is blowing and there is already an increased level of ambient noise. The proposed location is also in a highly industrialized area with major highways, railroads, an elevator and an ethanol plant in close proximity; the activity from these existing land uses make as much or more noise as a wind turbine. The location of this industrial type district with 24/7 operations was taken into consideration during the project siting. Turbine technology has come a long way in the last decade. Based on our noise studies, the sound that will be audible at approximately a half mile away from these machines when they are generating will be less than a whisper in a library, not taking into account the already existing noise from the current industries. Regarding safety, these turbines are well sited, and safety is always taken into consideration. Based on our experience the generation of electricity through wind turbines poses no more of a safety hazard than an industrial type production facility or even modern agricultural processes and equipment.

How will this development affect land values in the area?

A recent assessors report for a rural county with a large wind farm stated they were actually seeing an increase in land values. The report states that the housing market is strong in the county and there are no abnormalities in values close to the wind farm. It also cites assessors from different counties with wind farms also seeing no effect on land values. One of the reasons for this is that economic investment and new opportunities in our rural areas are needed and important to maintain our quality of life. In addition, this is a smaller wind farm consisting of three turbines located in and around an industrial zone with 24/7 operations. Based on our experience, we believe the financial investment into rural areas for production or manufacturing purposes helps increase the economic quality of life. We view a facility like this no different than the investment which comes from a manufacturing or processing facility; this plant is manufacturing electricity which is needed locally using local resources and increasing the economic activity of the area.

What will happen to the facility at the end of its serviceable life?

It is the responsibility of the owner of the facility to decommission the project and put the ground back to the way it was prior to construction. This decommissioning responsibility is covered in the leases signed with the participating landowners and is also a requirement in the zoning regulations of Fillmore County.

Will these wind turbines be good for Fillmore County's economy?

Yes. This project will be a multimillion dollar investment into Fillmore County. It will put over \$4,000,000 back into Fillmore County through construction opportunities for local companies, property tax revenue, landowner payments and operations and maintenance. This is the equivalent of creating 5 new full time jobs in the area. The taxes the three turbines will pay will have the impact of 27 new homeowners paying property taxes in Fillmore County.

Why is Perennial Public Power interested in doing this project?

Bluestem is able to offer guaranteed pricing to its customers for the energy it produces. Perennial knows the price it will pay for this renewable energy on day 1 and in year 25. The ability for Perennial to lock into their rates on a small percent of their total wholesale energy purchases acts as a hedge against future risks in a quickly evolving utility industry. This project offers Perennial the opportunity to have more control over their financial future and creates local economic development in their service territory through the process. The renewable generation which will be added to Perennial's system and used by their ratepayers helps Perennial meet the demands of current customers. It can also be used in helping recruit new industry.

How soon will construction begin, and when will it be completed?

Bluestem recently performed preliminary dirt work at the site and is in the process of obtaining all the required permits and approvals for this development. The goal is to complete the development activities in the coming months and begin the procurement process after that. It will be a busy year full of activities. A late 2017 or early 2018 operational date is expected.