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Prairie Wind Turbine Now Fills Polk County Horizon

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Polk County News

Bluestem Energy Solutions' largest in-state wind turbine, Prairie Wind, located southwest of Osceola, Nebraska is standing tall on the Polk County horizon. This 2.5 MW turbine features a 127 meter rotor diameter which is the largest BlueStem has installed in the state. Reaching within inches of the Federal Aviation Administration's 500 ft limit, Prairie Wind is a mesmerizing sight to see. As the massive blades turn, there is a

98 foot clearance between the tip of a blade at 6:00 and the ground below.

- How tall is Prairie Wind?
- 47.5 school buses
- 6 basketball courts
- 62 Max's Food Trucks
- 1,000 4th Street coffees
- 9.5 Polk County courthouses
- 90,000 issues of Polk County News

Prairie Wind's job will be to capture the consistent winds of Polk County and convert that energy into power for Polk County Nebraska. Polk County Rural Public Power District will purchase 100 percent of the tur-

bine's output through a long-term power purchase agreement that includes a guaranteed price for the life of the contract. Based on the average household power use of 1000kWh per month, Prairie Wind will be powering over 900 Polk County homes in the span of one year. This clean, powerful energy will diversify Polk County's energy mix, provide local investment and attribute Polk County in green efficiency.

Bluestem will own and operate Prairie Wind through a public-private partnership with PCRPPD which allows the district to make trans-formative decisions with-

out taking on additional debt or operational risk. The district will not take on any additional capital expenditures as a result of the agreement with Bluestem.

Construction for Prairie Wind began in early October with a recent trial run completed last week.

Tangible only through what it touches, it is a incessant force that has been studied but will forever be untamed.

It is powerful, clean, free and full of promising opportunity.

Wind.
Welcome to Polk County, Prairie Wind.

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Photo credit: Judy Rieken, PCHPPD - The meticulous process to assemble the large turbine drew lots of crowds to Polk County Rd 129. The bottom section was placed on a foggy November 30. Throughout this installation the base and the tower were power washed to clear the area of debris. The bottom section sits on an inch thick of clear, strong, epoxy which allows some give to the tower vibrations and protects the 450 yards of concrete base. Further assembly continued on December 3rd, the top section was erected and the nacelle was set in place. The nacelle is the housing unit for the wind turbine. It is room that is 29.8' long by 12.8' wide and 11.8' tall. With the head attached and generator installed it weighs 150,708 pounds. On December 6th, the sun shined as the three blades were assembled to the hub and lifted and attached to the end of the nacelle. Each blade itself weighs 32,429 pounds.



Prairie Wind Turbine is a mesmerizing sight as it can be seen for many miles throughout Polk County. Prairie Wind is equipped with the newest platform of turbine technology provided by GE and has the largest nameplate capacity of any turbine Bluestem has installed.