



Potential Economic Impact: Dodge County Wind Project

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KEY FINDINGS

Great River Energy (GRE), in partnership with NextEra Energy Resources, proposes a \$228.5 million wind development project in Dodge and Steele counties. Extension's analysis finds the project will contribute an estimated \$87.4 million in economic activity during construction and \$3.3 million in annual operations. It will support an estimated 555 jobs during construction and 18 during ongoing annual operations. During the anticipated 30-year life of the project, it will generate \$99 million of economic activity in the region.

PROJECT OVERVIEW

NextEra is leading development for four wind energy development projects in Minnesota between 2020 and 2023. They will provide 800 megawatts of power for GRE and its member-owned distribution cooperatives. Dodge County Wind, located southeast of Owatonna, is one such project. It will provide up to 170 megawatts of renewable energy using no more than 58 wind turbines. The project also includes access roads, a collector substation, a tower, and an operations and maintenance (O&M) facility.

The proposed project will contribute to the economy in two ways. First, the project partners will invest in site development and wind tower erection. The economic impact of these construction activities is shorter term in nature and will dissipate when the construction ends. Second, the wind energy project will generate economic activity annually due to ongoing O&M. These impacts are longer term and will occur annually, as long as the project is operating at planned levels.

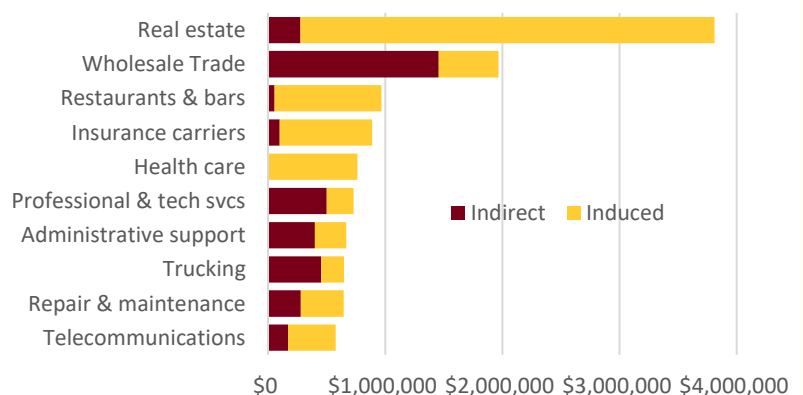
CONSTRUCTION

The project partners plan to invest nearly \$228.5 million in the Dodge wind development project. Of this, an estimated \$67.6 million will be direct activity in Dodge and Steele counties (Table 1). Most of the activity (92%) will be construction related (crews installing turbines, trucks hauling gravel, etc.). The remaining will be professional services, such as legal and architectural services.

Table 1: Economic Contribution, Construction of Proposed Dodge Wind Project, Dodge and Steele Counties, \$228.5 million in total investment

	Output (millions)	Employment	Labor Income (millions)
Direct	\$67.6	400	\$27.7
Indirect	\$6.2	50	\$2.1
Induced	\$13.6	105	\$3.6
Total	\$87.4	555	\$33.4

Chart 1: Top Industries Affected, Construction of Proposed Dodge Wind Project, Dodge and Steele Counties, Indirect and Induced Effects



In total, the Dodge wind project construction will generate an estimated \$87.4 million in economic activity in the two counties. The project will support 555 jobs: 400 construction jobs at the site and 155 jobs at other businesses. The top impacts beyond the construction site will flow to industries including real estate, wholesale trade and restaurants and bars (Chart 1).

In addition to output and employment impacts, the construction project will generate tax collections. The model estimates \$3.3 million in state and local tax collections from construction, including \$0.8 million in property taxes (to fund local services, such as schools).

OPERATIONS AND MAINTENANCE

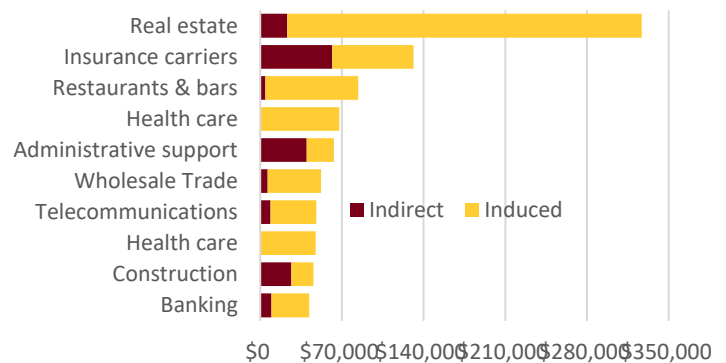
The project partners plan to spend approximately \$6.1 million annually to operate and maintain the Dodge site. Of this, nearly an estimated \$1.9 million will be with businesses within the two counties (Table 2). An estimated \$621,300 will be wages and benefits for the employees on site.

The direct and ripple effects will create an estimated \$3.3 million in annual activity (totaling \$99 million during the life of the project). The project will support \$1.0 million in labor income annually. The project partners anticipate the average wage for O&M workers will be \$69,000. In comparison, the 2019 average wage in southeast Minnesota was \$53,200 (MN DEED). In addition, these jobs will also provide benefits.

Table 2: Economic Contribution, O&M of Proposed Dodge Wind Project, Dodge and Steele Counties, \$6.1 million in annual spending

	Output (millions)	Employment	Labor Income (millions)
Direct	\$1.9	6	\$0.6
Indirect	\$0.2	2	\$0.1
Induced	\$1.2	10	\$0.3
Total	\$3.3	18	\$1.0

Chart 2: Top Industries Affected, O&M of Proposed Dodge Wind Project, Indirect and Induced Effects



The project partners anticipate employing six people to perform O&M at the Dodge site. As a result of spending, the project will support an estimated 18 total workers in the two counties annually. The top impacts from expenditures for O&M will be in industries including real estate, insurance carriers and restaurants & bars (Chart 2), with significant induced or consumer to business impacts.

The project's O&M will generate ongoing state and local tax collections. On an annual basis, the Dodge wind project plans to pay \$1.5 million in property and production taxes. Further, the model estimates \$220,250 in collections from the multiplier effects. Through the project period, this equates to \$51.6 million of revenue.

SUMMARY OF METHODS

Economic impact is comprised of direct, indirect, and induced effects. Direct effect is the initial investment by a business. NextEra provided Extension with its budget for construction and operations. Indirect and induced effects are the multiplier (or ripple) effects. Broadly, indirect effects stem from the business purchasing goods and services and induced effects stem from household spending of income. Extension used the input-output model, IMPLAN, to calculate the indirect and induced effects.

For more detail on the analysis and a full report, visit <https://extension.umn.edu/community-research/economic-contribution-proposed-renewable-energy-projects-minnesota>