ECONOMIC IMPACT ANALYSIS FOR RALEIGH SOLAR I, LLC

PROPOSED SOLAR POWER GENERATION FACILITY

IN RALEIGH COUNTY, WEST VIRGINIA

JUNE 12, 2020

Downstream Strategies

Ideas that sustain.

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Economic Impact

This section provides estimates of the impact of the Raleigh 1 project on the local and state economy and describes the model used to calculate the estimates. These estimates cover the construction phase of the project and lightly touch on the ongoing contributions after construction. The economic impact analysis considers the direct, indirect, and induced economic impacts of construction and operation of the project to local employment and other economic activity including taxes, and property values.

Dakota Power Partners retained Downstream Strategies, LLC ("Downstream") to analyze the project's impact on the state and local economy. Downstream based its analysis on data provided by Dakota Power Partners on the expenditures during the construction phase of the Project. The IMPLAN economic impact model was used to estimate the impact of the project for Raleigh County and for the entire state of West Virginia.

The project will provide a significant economic boost to Raleigh County and the state of West Virginia. Total capital expenditures for project development are expected to be just less than $90 million. Nearly half of this amount is estimated to be spent on goods and services in the state and local economies, providing extraordinary opportunities for West Virginia businesses to benefit from a growing renewable energy sector.

Table 1: Total Impacts by Geography (million 2020 dollars)

	Output	Employment	Value Added	Labor Income
Raleigh County	$40.7	194	$22.6	$9.0
All other West Virginia counties	$14.3	70	$7.5	$5.3
West Virginia total	**$55.1**	**263**	**$30.1**	**$14.3**

Source: Dakota Power Partners and Downstream Strategies/RQA Group IMPLAN analysis. Note: Totals may not match due to rounding.

Table 2: Total State Impact (million 2020 dollars)

	Output	Employment	Value Added	Labor Income
Direct	$31.9	111	$18.6	$7.3
Indirect	$15.7	92	$7.2	$4.5
Induced	$7.5	60	$4.3	$2.5
West Virginia total	**$55.1**	**263**	**$30.1**	**$14.3**

Source: Dakota Power Partners and Downstream Strategies/RQA Group IMPLAN analysis.

The injection of spending by Dakota Power Partners and subsequent recirculation of money within the county and state will promote business activity and provide incomes to households, as illustrated in Tables 1 and 2. Based on the IMPLAN estimates, construction spending will result in a $40.7 million economic impact in Raleigh County and a $55.1 million economic impact across West Virginia. This includes direct, indirect, and induced economic impacts.

Employment Impacts

As shown in Table 1, construction of the Raleigh 1 project will generate approximately 194 jobs in Raleigh County. The increased employee compensation (wages, salaries, and benefits) associated with these jobs is estimated to be approximately $9 million. Outside of Raleigh County, the project is

estimated to support an additional 70 jobs in West Virginia, which will provide an additional employee compensation of approximately $5.3 million. This includes commuters employed directly by the project as well as indirect and induced jobs in other sectors of the economy.

Taxes

Raleigh 1 is estimated to provide between $3–4 million in increased state and local taxes during construction.

Property Values

The land that will be used for the Raleigh 1 project is currently being used for timber and agriculture, and most properties that surround the proposed project have the same or similar land uses. Some single-family residential properties are interspersed within the general project area, and a small housing development is located approximately one-tenth of a mile to the north of the project.

Extensive geospatial analysis and surveying of properties adjacent to similar solar installations across the country have shown that facilities of this type have little or no impact on the value of property nearby (Al-Hammodah et al., 2018). Further, some studies suggest that large-scale solar installations result in a modest increase in adjoining property value (McGarr, 2018).

Local Per Capita Income

Raleigh County's per capita income of just over $24,000 per year (U.S. Census Bureau, 2020) is less than half of the expected average annual income of jobs supported by the Raleigh 1 project; therefore, the construction of the project will increase the county's per capita income. When compared with other counties, Raleigh County has a large number of residents working in construction and extraction occupations (U.S. Census Bureau, 2019). To the extent possible, the Raleigh 1 project will utilize this specialized workforce during the construction phase of the project.

Economic Opportunity Cost

The Raleigh 1 project is to be constructed north of Interstate 64 along Grandview Road, approximately 5 miles east of Beckley. Like much of West Virginia, both Raleigh County and Beckley have experienced steady population decline in recent years. The project site is located on privately owned property, which is currently being used for agriculture and timber. Given the steady population decline of the area, the property is not likely to be used for commercial or residential development soon. Furthermore, in the event the population and development trends in the area change, the grading and preparation of the property for solar would prepare the property in a manner conducive to other types of development. The project represents a very good and valuable use of the property from an economic standpoint because it will create jobs and generate local and state tax revenues.

Tourism

The project site is near Little Beaver State Park and the New River Gorge National Scenic River Area; however, it is unlikely that it will negatively impact tourism in the area. In fact, it may serve as an additional attraction for individuals visiting Raleigh County and the surrounding areas. If constructed, the Raleigh 1 project would be the first of its kind in West Virginia, a noteworthy advancement for the

state. When West Virginia's first wind farm was constructed in Preston and Tucker counties, vehicle pull-off areas were constructed to allow tourists to observe the turbines.

Existing Infrastructure

Given the temporary nature of the construction activity and the fact that most workers will be sourced from the local area, the project is not expected to have a large impact on existing public infrastructure. However, workers from outside the region will utilize local housing options, including hotels and rental properties, as well as other local services. This spending alone is expected to support 21 jobs in Raleigh County and provide approximately $600,000 in new labor income.

Alternate Land Use

The project area and surrounding properties are currently used for grazing, farming, and timber production. Using this property for solar development takes advantage of the nearby substation and will generate significantly more jobs and economic impacts than the existing land uses in the area.

Ongoing Impacts

Taxes. During commercial operation, under a to-be-negotiated payment in lieu of taxes agreement, the project is expected to annually provide approximately $2,000 per MW of installed nameplate capacity per year to the county, totaling $4.5 million over 25 years in new local tax revenues.

Jobs. After construction, the project will require ongoing vegetation management and maintenance, which will result in a modest amount of ongoing employment and local impacts.

Regional Development Impact

The project is not anticipated to result in any immediate impacts to regional development, including commercial and industrial development, housing, and transportation. The project will likely result in positive regional development activity in the future.

During the 2020 Regular Session of the West Virginia Legislature when two bills designed to facilitate the development or solar power projects in West Virginia were considered by the Legislature (SB 578 and SB 583, both of which bills passed the Legislature and were signed into law by Governor Justice), West Virginia Commerce Secretary Ed Gaunch, Executive Director Michael Graney of the West Virginia Development Office, and other public officials and business leaders noted that many Fortune 500 and other businesses now require that a state have a good supply of renewable energy generation before they will consider investing in or locating a project or facility in the state. By enhancing the supply of renewable energy generation in West Virginia, Raleigh 1 can reasonably be expected to enhance regional and statewide development in West Virginia for years to come.

Commercial and Industrial Development

No known commercial or industrial development is planned for the area near the Raleigh 1 project at this time. However, as large and small businesses set sustainability goals, locating near and accessing power from renewable energy projects like the Raleigh 1 project is increasingly important. This project could very well serve as a catalyst for a large commercial or industrial development in Raleigh County.

Housing

Most of the workers hired for this project are expected to be local. Therefore, the project will not significantly affect the local housing market. Further, the local area has enough temporary housing options to accommodate the increase in demand created by non-local workers during construction.

Transportation

The impact to county and state roads will be minimal and confined to the area immediately surrounding the Raleigh 1 project during construction. No long-term impacts to the transportation system are anticipated as a result of this project.

References

Al-Hamoodah, Leila et al. 2018. An Exploration of Property-Value Impacts Near Utility-Scale Solar Installations. Lyndon B Johnson School of Public Affairs. The University of Texas at Austin.

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