

THE ECONOMIC IMPACT OF ENERGIX'S INVESTMENT IN SOLAR ENERGY FACILITIES IN THE COMMONWEALTH OF VIRGINIA

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Abstract

We estimate that Energix's planned investment of \$130 million in Virginia by the end of the first quarter of 2020 will raise Virginia's real (inflation-adjusted) Gross Domestic Product by \$33.2 million by the end of 2020. By 2025, we estimate that

Energix's \$130 million investment in 2019 and 2020 and the operations of its facilities in the Commonwealth will increase real GDP in Virginia by \$48.7 million and create 30 new permanent jobs. Energix's planned management operations in Northern Virginia will create 57 permanent jobs and raise Virginia's real GDP by \$5.5 million when hiring reaches planned levels.

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Executive Summary

Energix Renewable Energies Ltd. is one of Israel's largest renewable energy companies with an estimated market valuation of approximately \$1.6 billion. Energix's renewable energy portfolio includes existing or planned facilities in Israel, Poland, and the United States. Through the end of 2018, Energix's solar energy portfolio included 139 Megawatts (MW) of photovoltaic facilities in commercial operation, approximately 150 MW of projects in the construction or pre-construction phase, and over 1,000 MW of projects in development. Energix Renewable Energies, through its Virginia based subsidiary, Energix US LLC, plans to invest \$130 million in Virginia by the end of the first quarter of 2020. Energix is responsible for the design, development, approval, and construction of the partnership's solar energy production facilities throughout the Commonwealth. Unlike many other solar facility development firms proposing or constructing facilities in Virginia, Energix plans to operate and maintain the solar energy production facilities.

Energix's decision to locate and invest in Virginia was influenced by market and regulatory conditions in the Commonwealth, to include: an emerging market for solar power generation, a significant existing and growing demand for power from data centers, existing legislation supporting the construction and operation of solar power generation projects, and a deregulated market that increases the return on investment to solar power projects. Energix specifically credits the Virginia Israel Advisory Board (VIAB) for introducing the firm to Virginia, connecting Energix with senior leaders in the Commonwealth, brokering entries with private and public entities throughout Virginia, and assisting in the identification of potential projects. Energix noted that VIAB facilitated the partnership between Energix and its US partner, Caden Energy.

Energix's planned investment of \$130 million in the design, development, and construction of solar power generating facilities is projected to be complete at the end of the first quarter of 2020. The pre-construction and construction phases of Energix's solar power facility projects will generate jobs in the construction sector in Virginia. As Energix plans to operate and maintain its facilities in the post-construction phase, it is expanding its existing management team in Northern Virginia and will add permanent jobs to operate and maintain the facilities once construction is complete. Energix's management positions are expected to pay more than \$100,000 annually and it is reasonable to expect that its solar facility operators and maintainers will, on average, earn higher than average salaries. Energix is also seeking approval for additional projects that, in time, will add to its economic impact in the Commonwealth.

We estimate that Energix's planned investment of \$130 million in Virginia by the end of the first quarter of 2020 will raise Virginia's real (inflation-adjusted) Gross Domestic Product by \$33.2 million by the end of 2020. In addition, the investment phase of Energix's solar facilities will increase private nonfarm payrolls (jobs) in Virginia by 97 in 2019 and 219 in 2020, mainly due to an increase in construction employment. We estimate Energix's planned investment of \$130 million in 2019 and 2020, and the operation of its' solar farm facilities in the Commonwealth through 2025 will increase real GDP in Virginia by a total of \$48.7 million from 2019 to 2025 and create an average of 30 new permanent jobs. Energix's management operations in Northern Virginia will add an additional 57 permanent jobs and raise real GDP by an additional \$5.5 million in 2025 alone. Additional investments by Energix in the Commonwealth would undoubtedly increase the estimated economic impact.

1. Introduction

Energix Renewable Energies Ltd. is one of Israel's largest renewable energy companies with an estimated market value of \$1.6 billion.¹ Energix's renewable energy portfolio includes existing or planned facilities in Israel, Poland, and the United States. Through the end of 2018, Energix's solar energy portfolio included 139 Megawatts (MW) of photovoltaic facilities in commercial operation, approximately 150 MW of projects in the construction or pre-construction phase, and over 1,000 MW of projects in development.² Energix Renewable Energies, through its Virginia based subsidiary, Energix US LCC³, plans to invest at least \$130 million in Virginia by the first quarter of 2020.

In this research note, we estimate the total economic impact of Energix's planned investments in 2019 and 2020 in the Commonwealth of Virginia. The period of analysis of the economic impacts is from 2019 to 2025. As the projects are in the pre-construction or construction phase, the estimated total economic impact is a projection of the incremental increase in economic activity and employment in Virginia. Our intent is not only to approximate the increase in direct investment in the Commonwealth, but also estimate the secondary and tertiary impacts on output and employment. As we discuss in this note, a \$1 increase in electric power generation output will, on average, increase gross economic output in Virginia by \$1.37.⁴

¹ Market valuation is obtained from Yahoo Finance as of February 14, 2020.

² Energix Group (2019), Business Overview. Available at: <http://www.energix-group.com/Business-Overview/>.

³ For simplicity, we refer to Energix Renewable Energies Ltd., Energix US LLC, Caden Energix, and the various Caden Energix LLCs formed for specific projects as Energix. Energix is the sole managing partner in Caden Energix and the project specific Caden Energix LLCs.

⁴ We obtain the total economic impact multiplier for the solar electric power generation industry (NAICS 221114) from JOBSEQ. Economic output includes the value added of an industry to final output (Gross Domestic Product) and its output of intermediate inputs that are used in other industries in the production of final output. The total economic impact multiplier includes the direct, indirect, and induced multipliers.

The remainder of this note is structured as follows. In the second section, we briefly review the operations of Energix in Virginia. We then discuss the methodology and assumptions underlying the economic impact estimates in the third section. The fourth section presents the economic impact estimates. The last section concludes and offers suggestions regarding investments in renewable energies.

2. A Brief Background on Energix and Its Decision to Locate in Virginia

Energix entered the Virginia renewable energy market in late 2017 when it established a physical presence in Northern Virginia. The decision by Energix to expand its operations to the United States was driven by the increasing demand for renewable energies. The selection of Virginia was not only influenced by market conditions, but also a regulatory environment and proactive engagement by the Virginia Israel Advisory Board (VIAB).

As illustrated in Table 1, market conditions in the United States have shifted away from coal towards natural gas and renewables. In 2000, total solar (photovoltaic) energy production for electrical generation purposes was 493.4 Kilowatt Hours (KWh) or 0.01% of total net electrical production. By 2018, net electrical generation from solar rose to 66,603.7 KWh, an increase of 13,400%.⁵ During this period, the use of coal in electricity production fell 41.7%, replaced, in part, by natural gas (144.2%), solar, and wind (4,815.8%).

To say that the growth in solar generating capacity exceeded expectations would be an understatement. In 2011, the U.S. Energy Information Administration (EIA) projected that national solar generating capacity would increase ten-fold by 2040.⁶ The 2011 projection of solar

⁵ United States Energy Information Agency, Monthly Energy Report, October 2019.

⁶ United States Energy Information Agency, 2011 Energy Outlook.

generating capacity in 2035 was achieved in 2016 and the 2040 solar generating capacity projection was reached in 2017. From a business perspective, the impetus to invest in solar generating facilities is clear as the solar industry is rapidly expanding. Of note, the EIA’s 2019 Annual Energy Outlook projects 43% of new net electrical generation capacity will come from solar power over the next three decades.⁷

Table 1

Selected Sources of Net Electricity Production in Millions of Kilowatt Hours (KWh)

United States, 2000 and 2018

	Coal	Natural Gas	Nuclear	Solar	Wind	Total Production (Million KWh)
2000	51.72%	15.81%	19.83%	0.01%	0.15%	3,802,105
2018	27.44%	35.14%	19.32%	1.59%	6.58%	4,177,810

Source: United States Energy Information Agency, Monthly Energy Report, October 2019.

Market conditions in Virginia are also favorable for Energix’s investment in solar power generation facilities. While estimates vary, 30% to 40% of cloud service providers in the U.S. reside in Northern Virginia. Projections are that the number of these cloud service providers and the associated data centers will only increase in the coming future.⁸ Increasing population growth and economic activity will also increase the demand for electricity in Virginia over time. In its 2018 annual report, Energix stated that it intends to expand its activities in the U.S., albeit at a

⁷ United States Energy Information Agency, Annual Energy Outlook, 2019.

⁸ While an oft-quoted statistic is that 70% of the world’s internet traffic flows through Northern Virginia, this estimate is disputed (<https://blog.telegeography.com/does-70-of-the-worlds-internet-traffic-flow-through-virginia>). The percentage of cloud service providers can be more accurately estimated.

moderate pace due to overall market complexity and that the U.S. is a relatively new market for the company.⁹ From a regulatory perspective, Energix credits existing legislation supporting the construction and operation of solar power generation projects, and a deregulated market that increases the return on investment to solar power projects. As the state government shifts its electricity demand towards renewable-based sources, the public demand signal for solar is likely to increase over time.

Finally, Energix specifically credits the VIAB for introducing the firm to Virginia, connecting Energix with senior leaders in the Commonwealth, and brokering entries with private and public entities throughout Virginia. VIAB worked with Energix to identify potential projects and locations in the Commonwealth. Energix noted that VIAB facilitated the partnership between Energix and its U.S. partner, Caden Energy.

3. Energix's Operations in the Commonwealth of Virginia

Energix is the sole managing partner in Caden Energix LLC, the partnership between Energix US LCC and Caden Energy. Energix is also the sole managing partner for the LLCs formed for each of the specific projects discussed in this section. Energix is responsible for the design, development, approval, and construction of the partnership's solar energy production facilities throughout the Commonwealth. Energix's proposed solar power projects will be distributed throughout the Commonwealth, including the counties of Appomattox, Campbell, Greenville, Henry, New Kent, Pittsylvania, Prince George, Rockingham, and the independent city of

⁹ Energix Renewable Energies Ltd., "Periodic Report for 2018", <http://www.energix-group.com/Financial-Reports>.

Chesapeake. Unlike many other solar facility development firms proposing or constructing facilities in Virginia, Energix plans to operate and maintain the solar energy production facilities.

Energix expects to complete its planned investment of \$130 million by the end of the first quarter of 2020 and is also in the process of receiving approvals for other solar farm development projects. Table 2 displays four Energix projects that are in the approval, pre-construction, or construction phases in Virginia. These projects provide a measure of the breadth of Energix’s projects and how these projects are moving through the approval and construction process.

Table 2
Examples of Caden Energix Solar Energy Projects in Virginia

Location	Investment	Megawatts	Status
Appomattox ¹⁰	\$60 million	60 MW	Under Consideration
Chesapeake City ¹¹ ,	\$40 million	32 MW	Construction Underway
Campbell County ¹²	\$90 million	60 MW	Approved - County Supervisors
Pittsylvania County ¹³	\$60 million	66 MW	Approved - Planning Commission

Figure 1 illustrates the scope of Energix’s planned investments in the Commonwealth. In total, Energix now plans to build over 700 hundred MW of solar generating facilities throughout the Commonwealth. It is reasonable to conclude that the estimates contained in this report likely underestimate the overall economic impact of Energix over the next five years. We recommend that as additional projects are approved and enter the construction phase that the estimates be updated to reflect this new information.

¹⁰ County of Appomattox, Staff Report, Caden Energix Sprout Spring, February 2019,

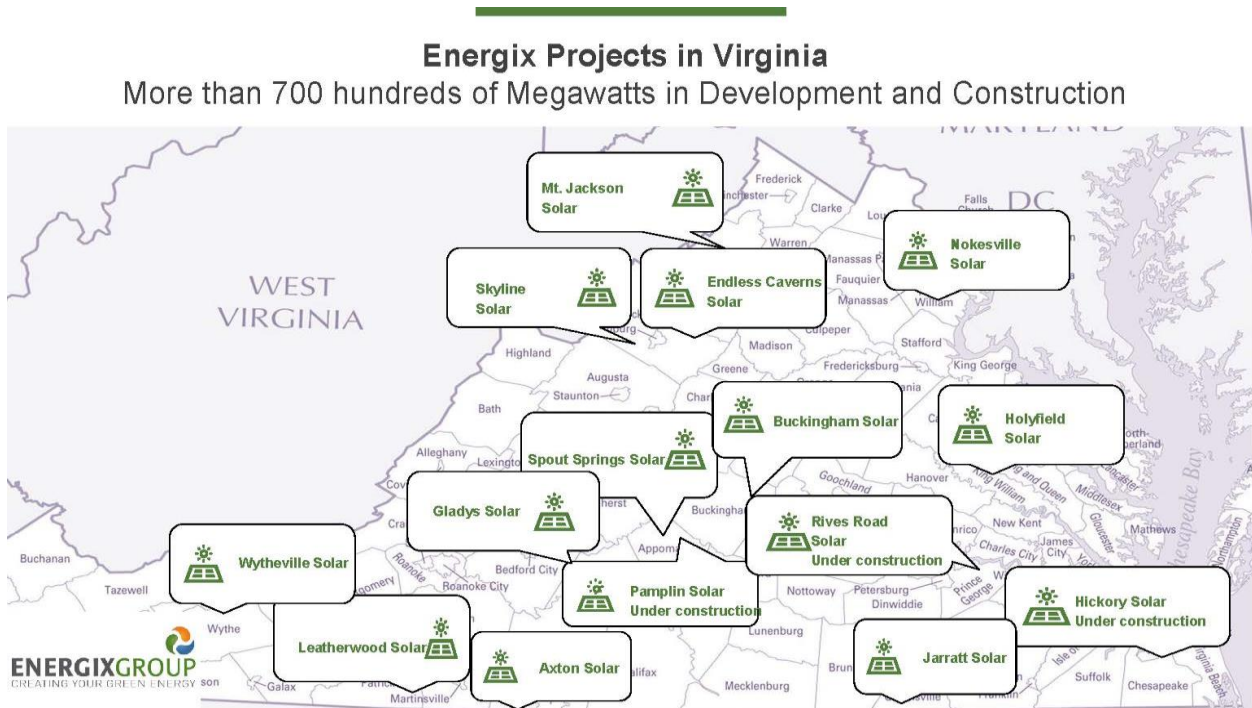
¹¹ Sarah Honosky, “Campbell supervisors OK county’s third solar farm project,” Roanoke News Advance, November 7, 2019.

¹² Victoria Bourne, “Chesapeake narrowly approves \$40 million plan for first solar farm,” Virginian Pilot, February 14, 2018.

¹³ Caleb Ayers, “Another solar farm project advances in Pittsylvania County”, Danville Register & Bee, November 7, 2019.

Figure 1

Energix's Project Portfolio in the Commonwealth of Virginia as of February 2020



Source: Energix (2020).

Energix is also currently expanding its existing management team in Northern Virginia. Energix's new management positions are expected to pay more than \$100,000 annually and five positions were advertised in the fall of 2019. As the solar power generation facilities are completed and enter operation, Energix will need to add permanent jobs to operate and maintain the facilities. While the Bureau of Labor Statistics does not specifically track wages in the solar energy industry, median average wages in the electrical power generation, transmission, and distribution industry group were above median average wages for Virginia in 2018.¹⁴ The

¹⁴ U.S. Bureau of Labor Statistics, Occupational Employment Statistics, 2019.

evidence suggests that Energix’s investments will create an initial burst of construction jobs and then a sustained increase of skilled jobs that pay above the median wage in the Commonwealth.

Virginia’s Renewable Energy Strategy

The global energy industry has undergone significant change in recent years. Economic policy and market forces have shifted the industry towards clean and renewable energy sources. Virginia has taken significant steps to prioritize the transition to clean energy and Energix plays a critical role in this transformation.

In 2018, Virginia lawmakers passed the Grid Transformation and Security Act. The bill called for the expansion of solar energy by allowing for the increased capacity of solar facilities from 50 MW to 5,000 MW. In September 2019, Governor Ralph Northam signed an executive order that set ambitious new goals for the state to reach 30% renewable energy by 2030 and 100% carbon-free electricity by 2050.¹⁵ Northam has pushed these goals further, calling for 3,000 MW worth of solar and onshore wind generation by 2022.¹⁶

Energix’s plan to build over 700 MW of solar generating facilities throughout the Commonwealth is integral to achieving the goals set forth by the governor. Energix’s planned development of solar facilities in rural areas such as Pittsylvania county and Henry county will generate jobs and tax revenue in relatively more rural areas of the Commonwealth. Given the breadth of Energix’s investments in the Commonwealth over the next five years, its impact on the Commonwealth’s renewable energy strategy is likely to increase over time.

¹⁵ Executive Order No. 43, Expanding Access to Clean Energy and Growing the Clean Energy Jobs of the Future, September 16, 2019.

¹⁶ Mel Leonor, “Northam lays out renewable energy goals for Virginia, calls for carbon-free electricity by 2050”, Richmond Times Dispatch, September 17, 2019.

A Short Primer on Economic Impact Analysis

To estimate the impact of Energix's investment in the construction, operation, and maintenance of solar power generation facilities in the Commonwealth of Virginia, we quantify the direct, indirect, and induced economic impacts. We focus our analysis on the impact on the construction sector, the impact on the solar power generation sector, and the impact of Energix's managerial staff.

To understand our approach, it is helpful to imagine a pebble dropped into a puddle of water to visualize how the economy reacts to a change in investment in a solar power generation facility. The impact represents the initial round of economic activity on output, earnings, and employment. The initial round of economic activity ripples through the rest of the economy like the waves moving through the puddle. These ripples represent the indirect and induced impacts that come about through the interconnectedness of the local economy. The indirect economic impact comes from economic activity by suppliers to Energix. The induced impact comes from industries directly and indirectly affected by Energix's investment in Virginia.

These spillovers can create a total economic impact that is larger than the direct impact. The notion of an economic multiplier summarizes the total economic impact of a change in economic activity. If a firm invests a \$1,000,000 (direct impact) that generates \$300,000 in indirect economic impacts and \$200,000 in induced economic impacts, then the economic impact multiplier effect is $(\$1,000,000 + \$300,000 + \$200,000) / \$1,000,000 = 1.5$.

There are two important considerations when evaluating economic multipliers. First, the size of the multiplier inherently depends on how much of the economic activity continues to recycle within the region. If a firm obtains most of its materials from outside of the region (a

“leakage”), then the actual multiplier effect will necessarily be smaller. Second, the multiplier effect, where spending spills over to a variety of other sectors, is great when the direct impact is positive, however, it is equally painful when there is a reduction in direct economic activity. From an economic impact perspective, “new” money that is “injected” in a state has a greater economic impact than “old” money that is “redistributed” from existing spending in a state.

We present dynamic estimates of the estimated total economic impact of Energix’s investment spending and projected spending in Virginia.¹⁷ We use REMI PI+ software, developed by REMI, which is based on regionalized input-output tables and estimates of relationships between industries. The dynamic estimates of the estimated total economic impact apportion the investment spending and other expenditures over time. The estimated economic impacts depend on the flow of investment and other spending. The dynamic estimates also capture the “echo” of economic activities across time.

Estimated Economic Impacts of Energix

Estimated Economic Impact of Energix’s Solar Investment and Operations

To estimate the total economic impact of Energix’s investment in solar power facilities in 2019 and 2020 and its planned operation and maintenance of the facilities through 2025, we must first ascertain the flow of investment and operating and maintenance expenditures. Table 3 illustrates the flow of \$130 million in investment spending into non-residential equipment in 2019 and 2020. We assume that the operating and maintenance expenditures are equivalent to

¹⁷ Static estimates of the total economic impact are available upon request.

an increase in exogenous (outside the model) industrial production¹⁸, starting in 2019 and continuing throughout the duration of the analysis.¹⁹ We specifically limit our analysis to the \$130 million of investment in 2019 and 2020. As Energix places more projects in the approval and construction pipeline, the estimated economic impact will invariably increase.

Table 3
Estimated Investment and Operating Expenditures
Energix Solar Farm Facilities in the Commonwealth of Virginia
Millions of Nominal Dollars
2019 – 2025

	2019	2020	2021	2022	2023	2024	2025
Investment Spending (In Millions)	\$40	\$90	\$0	\$0	\$0	\$0	\$0
Operating Expenditures (In Millions)	\$1.2	\$4.0	\$4.1	\$4.2	\$4.3	\$4.4	\$4.5

Source: Energix with assumptions made by the Dragas Center for Economic Analysis and Policy regarding the timing of investment spending and level of operating expenditures.

Real (inflation-adjusted) Gross Domestic Product (GDP) is a measure of the final value of the production of goods and services in an area during a given period. Figure 2 displays the incremental change in real GDP as a result of Energix’s investment of \$130 million in 2019 and 2020, and operation of solar farm facilities in 2019 through 2025. As one might expect, the estimated impact on real economic activity is highest in the years when Energix is constructing

¹⁸ Exogenous industrial production is equivalent to the increase in output that is outside the model. In other words, the operating expenditures are an injection of new spending from outside of Virginia and thus are not created by spending within the model.

¹⁹ A simplifying assumption is that operating expenditures are equal to three percent of investment spending. We inflate operating expenditures at two percent a year to capture the impact of inflation.

the solar farm facilities. The economic impact does not entirely go away, however, as Energix will continue to expend resources to operate and maintain these facilities. Figure 3 illustrates the cumulative economic impact, a running total of the annual incremental impacts, from 2019 to 2025. In total, we estimate that the cumulative economic impact will be an approximate \$48.7 million increase in real GDP relative to the baseline forecast from 2019 to 2025.

Figure 4 displays the impact of the investment and continued operation of the facilities on private nonfarm employment (jobs). The construction of the solar farm facilities in 2019 and 2020 increases nonfarm employment, not only by construction jobs, but also through indirect and induced impacts on employment across the Virginian economy. These increases, however, dissipate with the end of the construction phase but are also not eliminated given the continued operation and maintenance of the facilities. In 2025, for example, we estimate that Virginia has approximately 30 new jobs above the baseline forecast due to the operation of the solar farm facilities and residual effects of the investment program.

Estimated Economic Impact of Energix's Northern Virginia Facility

Energix is currently hiring new management positions to join its two existing positions in its Northern Virginia facility. We estimate that hiring increases over time and reaches an average of 20 total personnel. We estimate that the total economic impact of Energix's personnel is an approximately \$5.5 million annual increase in Virginia's real GDP. As these are relatively highly paid management personnel (on average), total employment increases by more than 50 jobs once the location is fully staffed. This illustrates the significant economic multiplier on employment in the utilities industry. On average, for every job that is added by Energix, another 1.6 jobs are created through the indirect and induced effects.

Conclusion

Based on information provided by Energix and under reasonable assumptions, we conservatively estimate that Energix's planned investment of \$130 million in the Commonwealth of Virginia and its continued operation and maintenance of the solar energy facilities will increase real (inflation-adjusted) Gross Domestic Product in Virginia. While the impact varies year to year, the cumulative impact from 2019 to 2025 is almost \$50 million. In addition, the construction phase of Energix's solar facilities will increase private nonfarm payrolls (jobs) in Virginia by 102 in 2019 and 239 in 2020. While a number of these jobs will dissipate after the construction phase of Energix's investment is complete, we estimate that Energix's continued operation and maintenance of the solar energy facilities will create, on average, 30 new permanent jobs in Virginia through 2025. Energix's management operations in Northern Virginia will, on average, also add an additional 57 permanent jobs and raise real GDP by \$5.5 million.

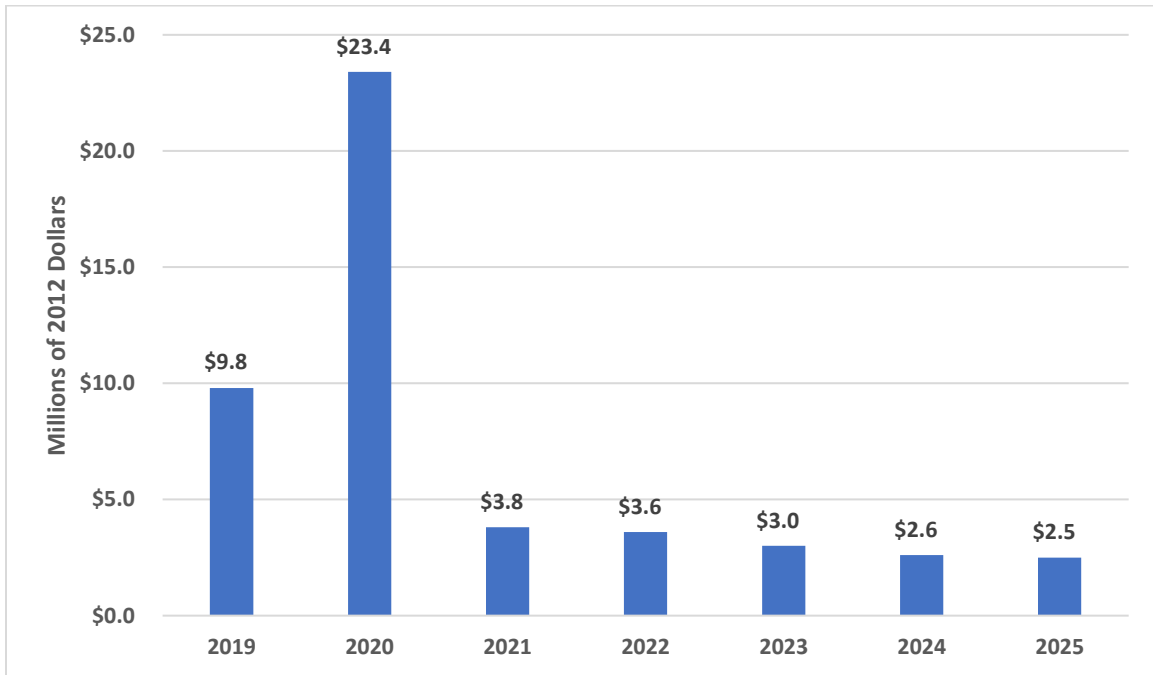
In aggregate, we estimate that Energix's investments and operations in Virginia will increase Virginia's real GDP by approximately \$55 million relative to the baseline forecast from 2019 to 2025. While the most significant increases in jobs are associated with the investment and construction phase, over 80 new permanent jobs remain by 2025. The increases in real GDP and jobs provide a lower bound for Energix's contributions to economic activity in the Commonwealth. As Energix continues to invest in new facilities and expand its Northern Virginia operations, our estimates will increase.

Figure 2

Estimated Annual Economic Impact on Real Gross Domestic Product

Energix US, LLC Investment in the Commonwealth of Virginia

2019 - 2025



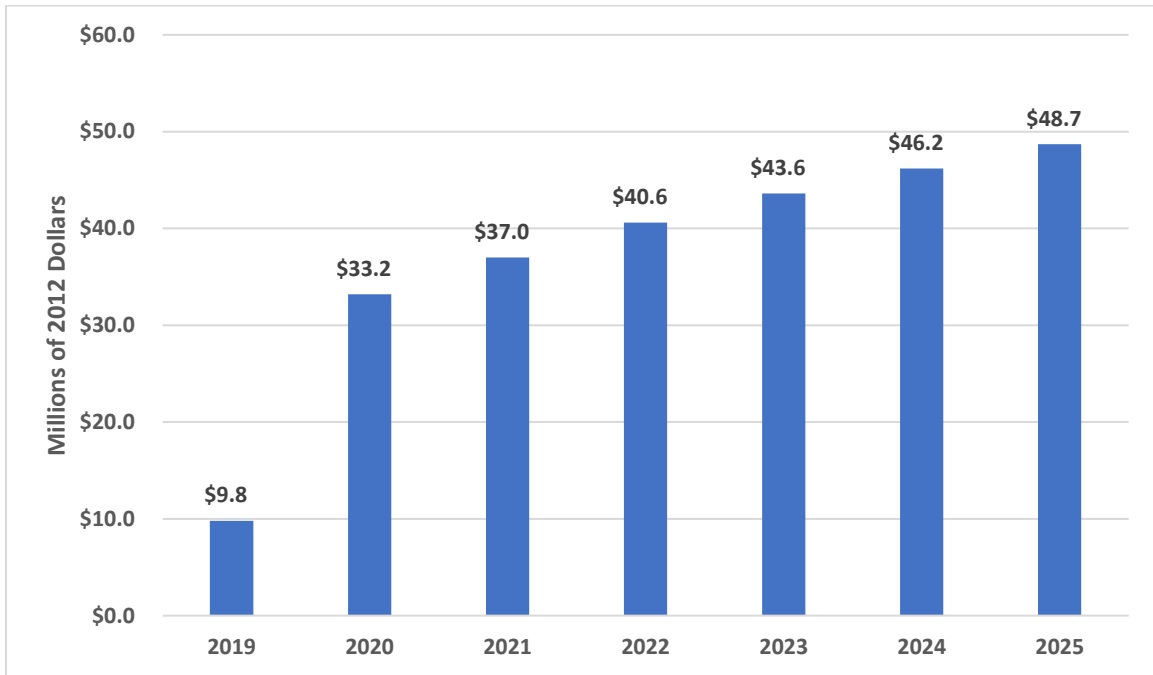
Source: Dragas Center for Economic Analysis and Policy, 2019. Estimated annual economic impact represents the incremental increase in real GDP each year as a result of Energix's planned \$130 million investment and operation of their solar farm facilities.

Figure 3

Cumulative Economic Impact on Real Gross Domestic Product

Energix US, LLC Investment in the Commonwealth of Virginia

2019 - 2025



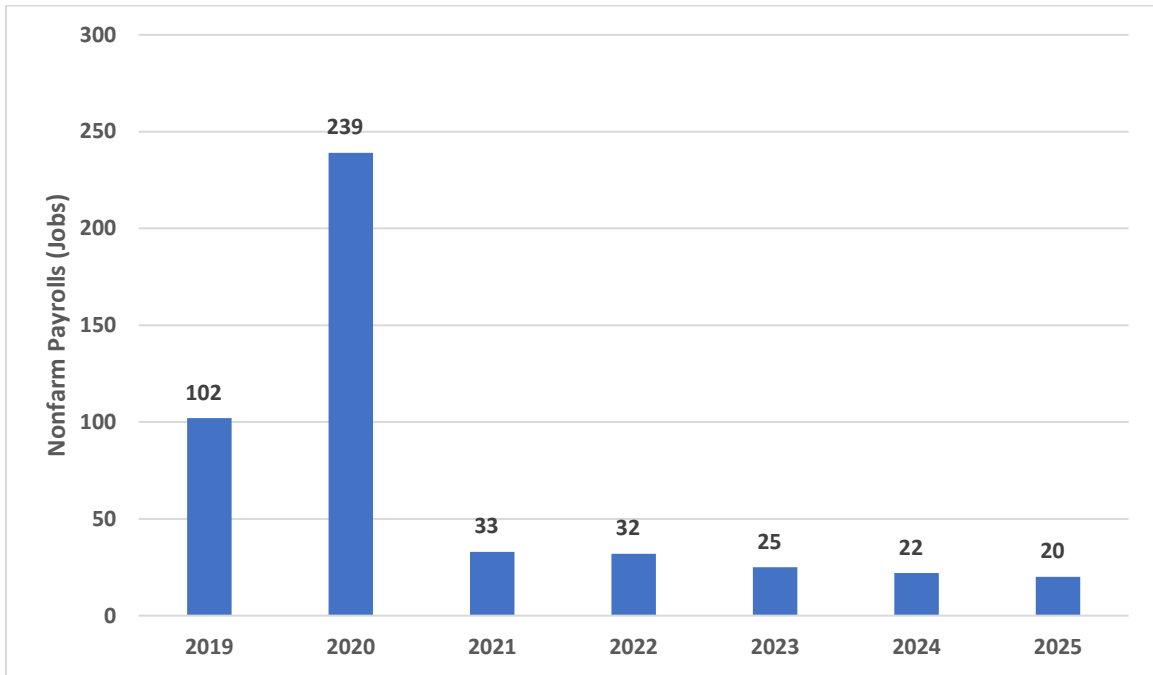
Source: Dragas Center for Economic Analysis and Policy, 2019. Cumulative economic impact represents the sum of the incremental increases in real GDP as a result of Energix’s planned \$130 million investment and operation of their solar farm facilities.

Figure 4

Estimated Annual Economic Impact on Private Nonfarm Payrolls (Jobs)

Energix US, LLC Investment in the Commonwealth of Virginia

2019 - 2025



Source: Dragas Center for Economic Analysis and Policy, 2019. Estimated annual economic impact represents the incremental increase jobs each year as a result of Energix’s planned \$130 million investment and operation of their solar farm facilities.

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Table 4
Estimated Economic Impacts
Energix US, LLC Investment in the Commonwealth of Virginia
2019 - 2025

	2019	2020	2021	2022	2023	2024	2025
Total Employment (Jobs)	107	251	42	38	30	25	23
Private Non-Farm Employment (Jobs)	102	239	33	32	25	22	20
Residence Adjusted Employment	100	234	36	36	29	25	23
Population	30	94	78	70	62	55	50
Labor Force	25	74	55	47	39	33	29
Gross Domestic Product	\$9.8	\$23.4	\$3.8	\$3.6	\$3.0	\$2.6	\$2.5
Output	\$17.1	\$41.0	\$7.1	\$6.7	\$5.6	\$5.1	\$4.8
Value-Added	\$9.8	\$23.4	\$3.8	\$3.6	\$3.0	\$2.6	\$2.5
Personal Income	\$6.5	\$16.3	\$4.3	\$4.1	\$3.6	\$3.2	\$3.1
Disposable Personal Income	\$5.5	\$14.0	\$3.8	\$3.6	\$3.1	\$2.8	\$2.7
Real Disposable Personal Income	\$4.8	\$11.1	\$1.2	\$2.4	\$2.0	\$1.8	\$1.8
Investment Spending	\$40 mil	\$90 mil	\$0	\$0	\$0	\$0	\$0
Operating Expenditures	\$1.2 mil	\$4.0 mil	\$4.1 mil	\$4.2 mil	\$4.3 mil	\$4.4 mil	\$4.5 mil

6 Source: REMI (2019) and Dragas Center for Economic Analysis and Policy. Estimates for Gross Domestic Product, Output, Value Added,
7 and Real Disposable Personal Income are in millions of 2012 dollars. Personal income and disposable personal income are in millions
8 of nominal dollars. Investment spending is investment in nonresidential equipment. Operating expenditures are exogenous industrial
9 production in the utilities industry.

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Table 5
Estimated Economic Impacts
Energix US, LLC Employment in Northern Virginia
2019 - 2025

	2019	2020	2021	2022	2023	2024	2025
Total Employment (Jobs)	11	28	43	57	58	58	57
Private Non-Farm Employment (Jobs)	10	27	40	54	54	53	52
Residence Adjusted Employment	10	25	38	51	52	53	52
Population	3	10	20	31	40	46	52
Labor Force	3	9	16	24	30	33	36
Gross Domestic Product	\$1.0	\$2.5	\$3.9	\$5.3	\$5.5	\$5.5	\$5.5
Output	\$1.7	\$4.4	\$6.8	\$9.3	\$9.5	\$9.5	\$9.5
Value-Added	\$1.0	\$2.5	\$3.9	\$5.3	\$5.5	\$5.5	\$5.5
Personal Income	\$0.9	\$2.3	\$3.8	\$5.4	\$5.9	\$6.3	\$6.6
Disposable Personal Income	\$0.7	\$2.0	\$3.3	\$4.7	\$5.1	\$5.4	\$5.7
Real Disposable Personal Income	\$0.7	\$1.7	\$2.6	\$3.5	\$3.6	\$3.8	\$3.9
Energix Employment	4	10	15	20	20	20	20

6 Source: REMI (2019) and Dragas Center for Economic Analysis and Policy. Estimates for Gross Domestic Product, Output, Value Added,
7 and Real Disposable Personal Income are in millions of 2012 dollars. Personal income and disposable personal income are in millions
8 of nominal dollars. Energix’s employment is assumed to be in the utilities industry.