Make it in Appalachia

The Supply Chain for Wind Turbines Will Create Jobs in Coal Country

ReImagine Appalachia

Executive Summary

Energy is at the heart of the Ohio River Valley of Appalachia, long known as coal country. The energy of Appalachia powered the factories that produced the glass, concrete, steel, brick and more to build the nation. The original sources of energy powering these industries—coal, oil and natural gas—created good jobs in coal country, but waxes and wanes with evolving technology and depleted mines. Today, new energy sources are diversifying the nation's power load, contributing power that is more stable and less extractive than the more conventional sources. Fortunately, Appalachia is poised to make the machinery to power the technologies of tomorrow, and create equivalent jobs to those now being lost in the coal industry.

Renewable energy development hit a record last year when the U.S. added 48.2 GW of utility scale solar, wind, and battery storage capacity in 2024: a 47% increase over the previous record in 2023.[1] New energy sources are here to stay.

In the next two decades, significant demand for renewable energy will be fueled by both the rapid growth in demand for electricity to power cars, data centers and more, and the commitments made by states and cities across the United States to integrate long-term, sustainable power sources into their grids. Wind power will play a key in meeting the growing need for sustainable energy. This demand will provide important new markets for domestic manufacturers to make the pieces and parts that go into cleantech equipment. In fact, the region is already manufacturing equipment similar to many of the components that go into wind turbines (and other machinery needed for the new energy economy).

Wind Power

Wind provides a significant share of the nation's energy, surpassing power produced by coal plants after exceeding coal generation for the first time in April 2023.[2] Though the increase in wind power capacity last year was outpaced by increased capacity in solar and battery storage, U.S. wind generation reached a record high in April of 2024, generating 47,700 GW hours of power in a single month.

Today more than 73,000 wind turbines operate across the U.S., producing enough electricity to serve more than 46 million American homes.[3] Wind power is now the fourth-largest source of electricity generation capacity in the nation.[4] In the coming decades, this will only grow.

Twenty years ago, researchers at the Renewable Energy Policy Project assessed the potential for the renewable energy revolution, then in its infancy, to create opportunities for manufacturing jobs in Ohio.[5] Following their approach, but with the latest data—and using new projections for the next 20 years—this report assesses the boom in new manufacturing opportunities created by just one sustainable energy source now emerging to displace fossil fueled power generation: wind technology. Instead of just one state, it identifies manufacturing opportunities in the four Appalachian states of Kentucky, Ohio, Pennsylvania and West Virginia.[6]

Replacing coal-fired power plants with a clean source of sustainable energy doesn't mean that Appalachia must lose its place as the power house of American energy. Instead, the region can lean into its existing strengths to play a central role in America's energy future. The region retains its competitive advantages in manufacturing; factories are already moving into renewable energy equipment manufacturing. The skilled manufacturing and energy sector workers will build and operate the power sources of the future. The navigable waterways and dense rail lines that once carried exports from the Appalachian coalfields will ship the wind turbine blades and other components to ports across the continent. Appalachian communities could be uniquely positioned to produce manufactured parts that renewable energy facilities, particularly the wind energy, require.

Current policies from the Trump Administration have created hurdles to the development of wind power, but market demand grows regardless. Onshore wind power plants are now less expensive and faster to build than most types of plants, while costs for offshore technology are declining.[7] These factors make wind a preferred option for meeting the growing energy demand of data centers and electric cars. In addition, federal policies will not impact demand from foreign nations or the interest of states in meeting their own climate goals, for which wind power is essential. Although federal opposition will delay some of the economic development benefits of a growing wind power sector, the market will continue to grow.

And someone needs to make the wind turbines. That someone can and should be in the Ohio River Valley of Appalachia.

Key Findings

New wind infrastructure could create significant manufacturing jobs in Appalachian counties in Kentucky, Ohio, Pennsylvania and West Virginia. This report finds that investment in wind infrastructure could produce over 70,000 manufacturing jobs in these four states by 2045, with nearly a third—some 22,000— in the 193 counties within the jurisdiction of the Appalachian Regional Commission (Figure 1). The concentration of jobs would be in the historically strong manufacturing sectors of the region: plastics, rubber and fabricated metal.

Figure 1

Over the Next 20 Years, Jobs in Wind Power Manufacturing will Grow in the North Central Appalachian Region

Projected Jobs in Wind Power Manufacturing by 2045

	State Wide	Appalachian Counties
Kentucky	5,840	880
Ohio	36,060	5,540
Pennsylvania	29,950	26,950
West Virginia	1,200	1,200

*methodology detailed in full report

These jobs represent the share of new manufacturing opportunities that will come to these communities if they get their share of wind turbine component manufacturing jobs, based on the capabilities of existing manufacturers in these communities now.

Actually capitalizing on the opportunities that will emerge—capturing the new jobs and business opportunities that come with expanded wind turbine manufacture—will require manufacturers, economic developers, and policymakers to take action to enable their communities to build the infrastructure to power the emerging energy revolution. By leveraging existing resources, people in Appalachian communities could specialize in component manufacturing and secure even more jobs in their

communities. Assets that will facilitate such economic growth in Appalachia include:

- The skilled workforce of workers experienced in the manufacturing and energy industries;

- Waterways that can connect factories in Ohio River Valley communities to the coast, where offshore wind turbines are being built out of parts too big to ship overland, and coastal land to build manufacturing facilities is scarce;

- Large facilities with direct water access and substantial grid connections, including retired coal plant sites and shuttered manufacturing facilities;

- The possibility of utilizing existing materials in the region: by mining coal ash now in local waste streams for rare earth metals used in direct drive systems, repurposing ash for cement used in foundations, and integrating hemp fibers into turbine blades.

The extent to which workers and companies in Appalachia benefit from the renewable energy revolution now under way will depend on the decisions of regional manufacturers, economic developers, and policymakers at all levels of government. This report quantifies the opportunities and identifies the regional opportunities that could help to make our region a manufacturing hub to power the new energy economy.

Table of Contents

Background, Context and Potential

The National Electrical Manufacturers Association has projected that after years of flat demand, domestic need for electricity will grow by 2% a year through 2050, driven by electrification of cars and other infrastructure and the advent of data centers.[8] An additional 645 Gigawatts (GW) will be required to meet domestic demand. Recent innovations have made wind and solar power plants among the most affordable options for generating electricity, even without including the enormous cost of climate change in the calculation.[9] Wind power will play a vital role. Some 8,000 component parts go into the construction of a single wind turbine. Manufacturing them can bring thousands of jobs to North Central Appalachia.

The cost of climate change, fueled in part by the carbon emissions of fossil fuels that have powered the electricity industry until recently, is becoming impossible to ignore. By 2024, CO2 levels were the highest on record: that year was also the hottest ever recorded. For years, climate change has caused more and costlier weather disasters, prompting nations around the world to take action. Many states and cities in America have made commitments to reduce their carbon emissions to zero. Wind power will play a key role in meeting those commitments.[10] Recent changes in policy have reversed federal commitments to building wind power infrastructure and created impediments to its adoption, but in states as diverse as New Jersey to Texas, the combination of record energy demand and affordability has driven widespread adoption of wind technology as a solution. The actions of state and local policymakers will ensure that sustainable energy technologies including wind remain a vital part of the energy portfolio of the United States.

If the United States is to maintain energy independence, renewable energy must be a part of the mix. Currently, the nation is a net exporter of energy, primarily in the form of carbon based resources including crude oil and gasoline. But these nonrenewable energy sources deplete over time, and come with costs to climate stability and human health that our trading partners increasingly reject. As other countries move rapidly to adopt sustainable technologies, the U.S. would be left behind without renewable energy investment. Achieving a sustainable power grid with energy independence also means investing in domestic sourcing of critical minerals now controlled by other countries: particularly the rare earth mineral mining and processing now controlled by China. North Central Appalachia will be an important player in this economic growth, which can bring jobs, opportunity and new prosperity to the region.

Wind Power Jobs Will Grow

This report projects that over the next 20 years, the U.S. is projected to add some 500GW of energy capacity from wind turbines.[11] That includes both new capacity, and replacement of much of the existing network of turbines now in service, whose service lives run about 20 to 30 years. Building this capacity will require an investment of about $500 billion and create some 625,000 jobs across the U.S.. Investment in wind infrastructure will create significant manufacturing jobs and capital investment in the states of ReImagine Appalachia's focus: Kentucky, Ohio, Pennsylvania and West Virginia.[12]

This report finds that investment in wind infrastructure could produce some 22,000 manufacturing jobs in the Ohio River Valley and over 70,000 total jobs in these four states by 2045, with a concentration in plastics, rubber and fabricated metal products.

Thousands of jobs related to the wind industry will emerge at both new and existing manufacturers in the 193 counties in the geography of the Appalachian Regional Commission in those four states (Figure 1).

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Actually capitalizing on the opportunities will require manufacturers, economic developers, and policymakers to take action to enable their communities to be among those building the infrastructure that will power the energy revolution now under way. This report estimates the share of all wind-turbine component manufacturing jobs that will flow to Appalachian communities based on their existing share of similar manufacturing jobs. By leveraging existing resources, people in Appalachian communities could specialize in component manufacturing and secure even more jobs in their communities.

Say Watt? The Terminology of Measuring Energy

This report uses a number of measures of energy, all with watts, or millions, billions, or trillions of watts at their core. Where possible, we describe those measures in more familiar terms, such as the number of houses a source might power.

Watts (W): Watts are the yardstick for measuring power. A one hundred watt light bulb, for example, is rated to consume one hundred watts of power when turned on. Leaving that light on for four hours would consume a total of 400 watt-hours (Wh) of energy. Watts measure instantaneous power while watt hours measure the total amount of energy consumed over a period of time.

Kilowatts (kW) and Kilowatt-hours (kWh) (PLA): Kilowatts are power in thousands of watts. A large appliance such as a furnace might draw a few kilowatts. Your monthly electric bill will likely be in hundreds of kilowatt-hours.

Megawatts (MW): Megawatts (MW) are power in millions of watts; they get used to describe the capacity of a power plant or wind farm, and with turbines growing ever larger, can be used for the capacity of a single turbine. A thousand MW is a GW, which many power plants and modern wind farms can produce.

Gigawatts (GW): GW are a measure of power in billions of watts: they tend to be the unit of entire grids or industries. A one GW wind farm can power about 300,000 homes. The measure used for this data analysis is Gigawatts (GW) of capacity.

Power usage combines all the power used times all the hours it was consumed, so the scales start to get very large.

Terrawatt Hours (TWh): Terrawatt hours are hours of power in trillions (a trillion "watt hours."). TWh is the amount of power people consume (and plants produce), for all the hours they use it: power times hours. In 2022, the 47.7 TWh produced by the wind industry was enough to power 41.6% of all households in the United States, some 53 million homes.[13] [14]

Gigawatt Capacity: A GW of capacity is a nameplate that manufacturers assign to their turbines (and to all types of power plants) indicating the power output it could achieve in optimal conditions. GW of capacity would equal actual GW of energy if the power plant operated at a "capacity factor" of 100%. In reality, no power source operates at 100% all the time. We use GW of capacity in our analysis not because it is how much power we get, but because it's how much manufacturers build.

Wind Capacity Factor: In wind power, the capacity factor is a measure of how effectively a wind turbine utilizes the available wind resource. It represents the actual energy produced over a period, usually a year, compared to the maximum energy the turbine or wind farm could have produced if running at its rated capacity 100% of the time. The actual wind power produced is much lower than the nameplate capacity, since no turbine or power plant of any type operates at its maximum output all of the time. Wind generating equipment had a capacity factor of 34.3% in 2024, an average that accounts for the most highly efficient new turbines, as well as older infrastructure.[15] Based on this rate, satisfying all the need for wind energy would require building three times as much wind capacity as there is demand. Fortunately, turbines are becoming more efficient.

Today, in 2025, the newest and largest turbines have higher capacity factors. The National Renewable Energy Laboratory's capacity factors in their latest assessment of wind energy costs are 46.9% for land-based wind turbine plants; 49.0% for fixed-bottom offshore plants; and 38.2% for offshore floating turbine plants. These are the figures used in this analysis.[16]

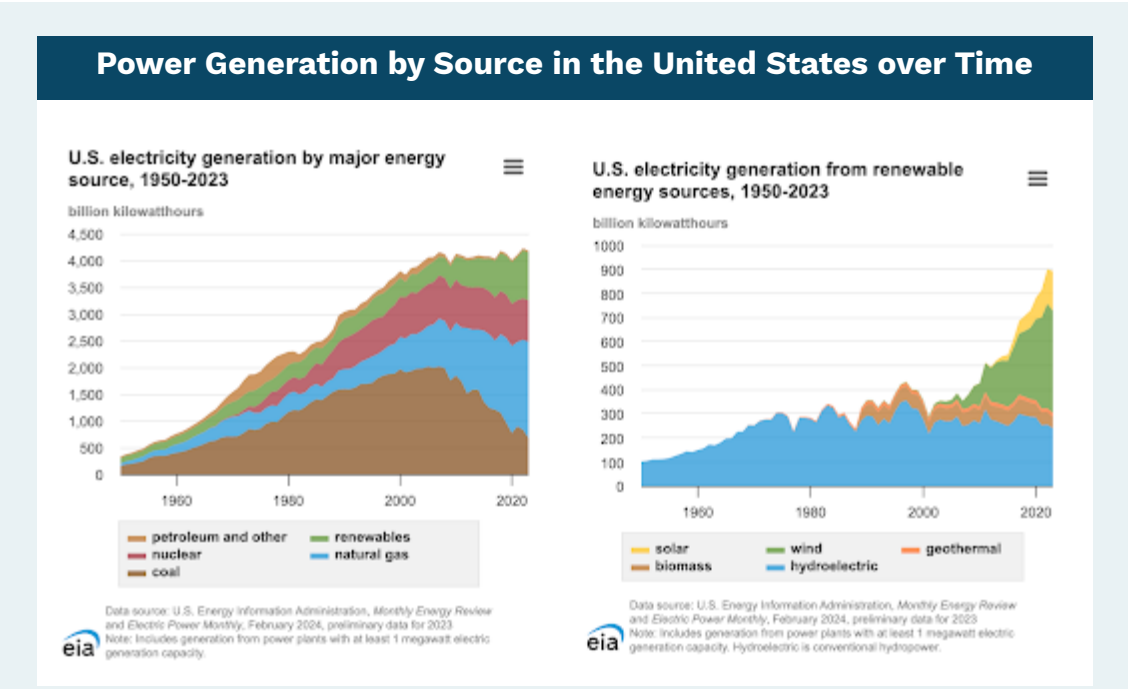
For the sake of comparison, coal-fired and nuclear power plants tend to operate at roughly 33% efficiency–how much energy is actually converted to electricity–due to waste heat generated, and natural gas plants range from 33% to more than 60% depending on whether and how much waste heat is captured and recycled.[17]

The investment needed to create a more sustainable energy economy is already under way. It has created many jobs, with even more to come.

Renewable energy development hit a record when the U.S. added 48.2 GW of utility scale solar, wind, and battery storage capacity in 2024: a 47% increase over the previous record in 2023.[18] Most of the gains were solar and battery storage; wind power grew, but not at its fastest growth rate on record. However, even though its deployment was outpaced by solar and battery storage additions, domestic wind generation reached a record high of 47.7 Terrawatt hours (TWh) produced in a single month by April 2024, compared with 38.4 TWh from coal-fired power plants.[19]

Looking at wind power from a different measure, that of capacity, the 153 GW of wind capacity from more than 73,000 wind turbines operating across the U.S. today is **enough to serve more than 46 million American homes**.[20] Wind power is now the fourth-largest source of electricity generation capacity in the U.S.[21] In the coming decades, this will only grow.

Figure 2



Source: Energy Information Administration

Boom and Bust of Federal Policy

The Biden Administration prioritized and subsidized capital for renewable energy. All renewables—but wind power in particular—are out of favor with the Trump Administration. A new executive order mandates a halt to new federal permitting for wind farms. Agencies have been directed to review permits already issued and withdraw them for new or renewed leases for offshore wind sites.[22] [23]

Currently, 116 wind projects are planned across 27 states, including 13 offshore projects. The offshore projects would add 6.9 GW and the 103 onshore projects would add 24.9 GW of wind capacity.[24] They will produce enough power to power 9.6 million homes: some 2.1 million powered by offshore turbines and 7.5 million by onshore turbines.[25] Altogether, they account for 13.1% of all the electric capacity additions currently planned in the United States. These are only the projects whose developers have filed a Form EIA-860 with the U.S. Energy Information Administration; they do not include projects in earlier planning stages which have not yet been formally registered.

The new executive orders will likely reduce the planned capacity, but regardless, significant wind power additions will still come online this year. Many already have. **Wind power plants made up four times as much of the electric capacity built in the first third of this year (2025) as natural gas plants:** 18% (2,183 MW) versus 4.2 % (511 MW).[26] Wind and solar projects combined make 95.7% of all new electric capacity added this year through April.

The wind industry is now a major component of the national grid, with 73,000 turbines in operation around the nation. Jobs related to new, replacement and maintenance needs of the wind industry will continue

to be in high demand. Jobs for wind technicians alone are projected to grow 60% through the year 2033, much faster than average.[27]

By leveraging existing resources, Appalachian people and businesses could specialize in component manufacturing and secure a growing number of these jobs in their communities. Regional assets that can facilitate this growth include:

- The skilled workforce of workers experienced in the manufacturing and energy industries
- Waterways that can connect factories in Ohio River Valley communities to the coast, where offshore wind turbines are being built out of parts too big to ship overland, and coastal land to build manufacturing facilities is scarce
- Large facilities with direct water access and substantial grid connections, including retired coal plants and manufacturing facilities
- The possibility of utilizing existing materials in the region: by mining coal ash now in local waste streams for rare earth metals used in direct drive systems, repurposing ash for cement used in foundations, and integrating hemp fibers into turbine blades

This paper is about the potential for job growth related to wind power, and the assets of the North Central Appalachian region that can capture those jobs and build opportunity and prosperity for the people of the region.

The Market for Electricity and Wind Energy

U.S. homes, businesses and other energy consumers used 4,097 Terrawatt hours (4.1 trillion kWh) of electricity in 2024, a record the U.S. is poised to beat this year and again next.[28] Despite efforts to reduce energy waste, electricity use is expected to rise dramatically in the near future to support the electrification of cars; the electrification of space and water heating now largely powered by fossil fuels; and the boom in data centers, which require enormous amounts of energy. The U.S. Energy Information Administration projects electricity demand will grow 2.3% this year and 2.1% in 2026 alone.[29]

The National Electrical Manufacturers Association (NEMA) has likewise projected that overall electricity demand in the United States will grow by 2% annually through 2050.[30] At the current rate of power plants' efficiency, meeting that demand would require the addition of some 645 GW of capacity by 2045, a nearly 50% increase from 1,326.5 GW, to 1,971.0 GW.[31] [32]

The National Renewable Energy Laboratory (NREL) estimates that large-scale electrification of infrastructure could boost domestic demand to 6,200 TWh of annual direct electricity consumption by 2035, a growth rate of 3.4% per year over 2020 consumption of 3,700 TWh.[33] Though this demand could be satisfied by any type of power plant, NREL estimates that reaching net zero carbon emissions in electric generation by 2035 would dramatically increase the rate of wind turbine installation to four to six times the rate of installations in 2020.[34] That will be a factor in states that have made commitments to achieve net zero, but even in states that have not, wind power is among the most affordable resources to meet the demand.

In the analysis below, we use NEMA's more conservative estimate of 2-percent annual growth. But it is worth noting that if the NREL scenario plays out, our projection to attain nearly 50% growth in electricity demand over twenty years would be reached in just half that time.

How do we measure demand growth?

This report is primarily interested in Watts of capacity, not Watt-hours of use, since we are focused on manufacturing jobs, and capacity is the measure of what will need to be built. But we can't ignore watt-hours of demand, since that's our guide for how manufacturers will invest to build the turbines and other energy sources to meet tomorrow's energy needs. Our methodology section details how each of these measures is used, along with our assumptions about turbines' efficiency, since it will affect how many turbines we need.

The average wind turbine built in 2022 had the nameplate capacity (operation at 100% of power) of 3.4 MWH. One wind turbine of this size could power an average of 924 homes for one year.[42] Moving up to a different measure (Gigawatts, or GW, a measure of a billion watts) It would take 294 turbines of this size to generate one GW of power.[43] It is estimated that one gigawatt of wind power in 2022 could supply the annual energy needs of around 294,000 average U.S. homes.[44]

Current U.S. policy could slow adoption, but international demand remains high, and long-term domestic demand looks promising.

Though the current policy landscape is creating roadblocks to near-term wind development for domestic markets, global demand remains high. The wind industry achieved a record high 117 GW of new wind capacity installed globally in 2024.[35] The Global Wind Energy Council estimated in 2022 that 10,000 additional wind turbines will need to be installed internationally over the next two decades to keep up with the demand for wind energy, then growing at least 10% per year.[36] Globally, 85 nations have committed to achieve net zero carbon emissions in law (33) or policy (52), nearly all of them by 2050 or sooner.[37] An additional 12 have made declarations, and 41 have proposals in discussion among policymakers.[38] These commitments mean that U.S. manufacturers seeking to get into the supply chain for wind turbine

components could supply international markets even if domestic growth is slowed.

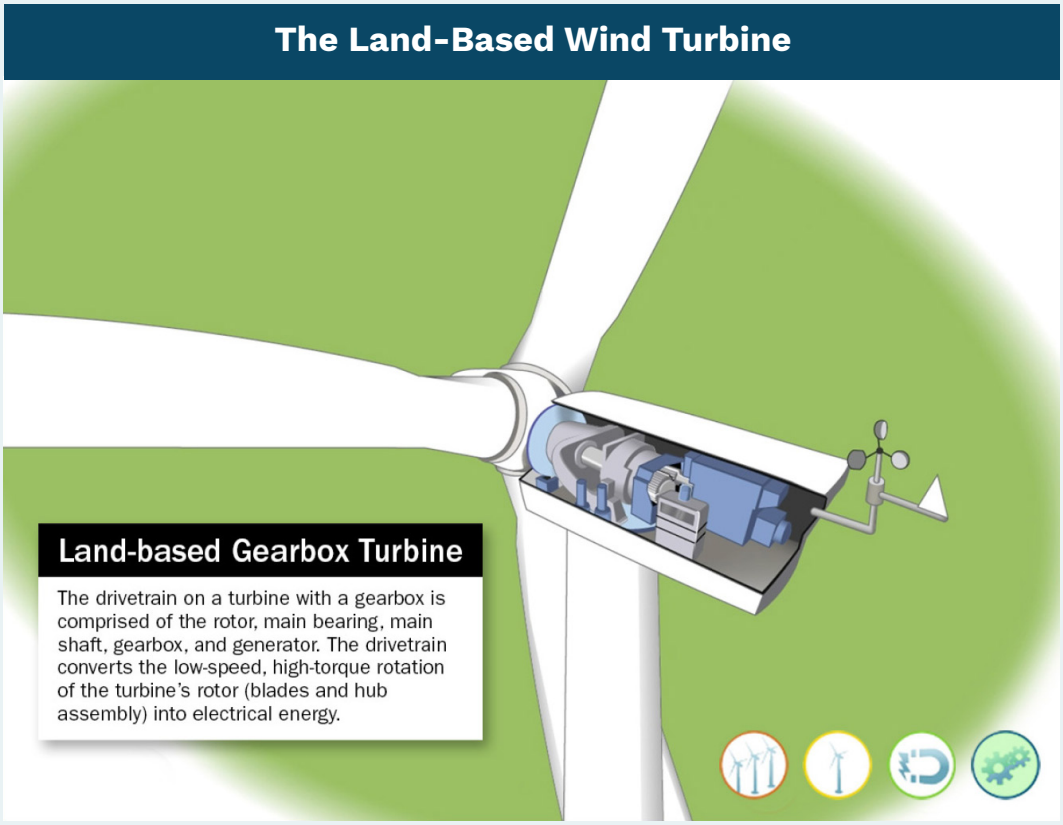
Changing course on climate policy makes the U.S. an outlier, but current U.S. policy is unlikely to change the ultimate course toward progress over time.[39] An overwhelming 77% of Americans believe climate change is a serious threat to humanity.[40] Domestic demand will be bolstered by climate change goals of states and cities. Twenty-four states are members of the United States Climate Action Network and have clean electricity standards, including 19 with benchmarks to reach 100% renewable energy.[41] These standards create strong ongoing incentives to build additional wind capacity; in some states, reaching sustainable energy goals is not possible without it. Nine states have specific goals to bring more offshore wind power online.

The next section identifies key manufactured parts that make up the wind turbine itself. Growth of demand for wind power will create demand for more of these manufactured parts, which will create jobs throughout the manufacturing supply chain in North Central Appalachia.

The Wind Turbine Itself

A wind turbine turns wind energy into electricity using the aerodynamic force from the rotor blades, which work like an airplane wing or helicopter rotor blade. When wind flows across the blade, the air pressure on one side of the blade decreases. The difference in air pressure across the two sides of the blade creates both lift and drag. The force of the lift is stronger than the drag and this causes the rotor to spin. The rotor connects to the generator, either directly (if it's a direct drive turbine) or through a shaft and a series of gears (a gearbox) that speed up the rotation and allow for a physically smaller generator. This translation of aerodynamic force to rotation of a generator creates electricity.

Figure 3



Source: United States Department of Energy at https://www.energy.gov/eere/wind/how-wind-turbine-works-text-version

Larger turbines can generate more energy and open up new possibilities for siting wind power plants where smaller turbines would be impractical.[45] Large turbines are more powerful because they sweep a larger area in which to capture wind power. They can be economical in more sites because taller turbines reach higher into the sky, giving them access to winds that flow at higher speeds and a more steady rate free from the turbulence that disrupts wind flowing close to the ground.

For these reasons, wind turbines are pushing the limit on size, in turn necessitating new manufacturing methods and producers. Over the last two decades, the typical utility scale wind turbine has more than doubled its capacity from about 1.4 MW to about 3.4 MW.[46] The typical turbine manufactured today has grown about 50% taller and its rotor diameter has increased from around 50 meters (165 feet) to 130

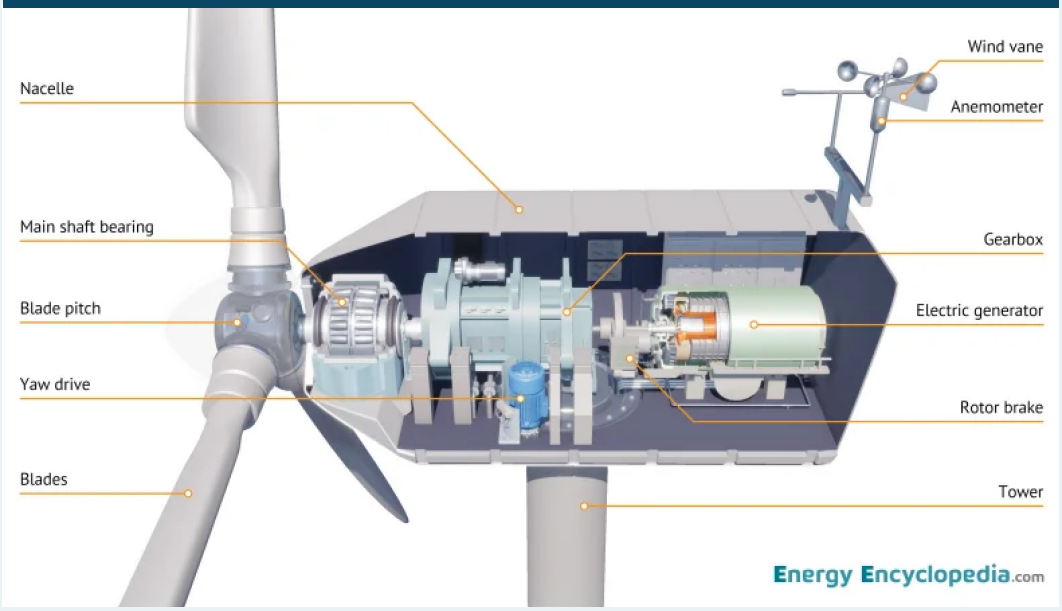
meters (430 feet).[47] These are land-based turbines: offshore turbines are larger still. Turbines have grown enormous in scale and with them, generation power.

The Vestas V90 is an example of a 3.0 MW turbine designed for use both on and offshore. It has a blade length of 148 feet, a hub height of 262 feet and can reach 410 feet high.[48] Its blade tips can move at speeds of 200 mph. They sweep an area of nearly 1.6 acres in size. The V90 has been in production since 2003 and more than 1,500 of them have been built.[49] Offshore turbines are still larger. The Haliade-X, currently the largest turbine in operation in the U.S., produces 13MW of power, has a rotor diameter of 722 feet and a blade sweep equal to 9.4 acres or nearly six city blocks.[50]

The scale of these turbines is pushing the limit on what can be transported over land. Offshore turbines are already much too large. Research is under way to develop modes of transporting blades over rail using controlled flexion, and to construct blades that can bend to withstand this type of journey.[51] New manufacturers will be needed to meet the demand for turbine components, and those with access to large scale transportation networks will be especially well-positioned to participate in the supply chain for parts that will go into land-based turbines, as well as the parts for offshore turbines that must be transported via waterways due to their size. Figure 4 shows some of the key components of the wind turbine motorized unit.

Figure 4

Gear-box Driven Wind Turbine, Common Among Land-based Turbines



Source: https://www.energyencyclopedia.com/en/free-downloads/images/wind-turbine-schematic-diagram-166

An industrial scale wind turbine is made up of more than 8,000 parts.[52] The NREL has identified the kinds of manufacturers needed to make the parts and pieces for the wind turbines of the future. The same manufacturers will supply components and materials for the operation and maintenance of the 73,000 plus windmills currently operating in the United States. Wind turbines typically have an expected lifespan of 20 to 30 years, requiring significant repairs or replacement after that. Many major components are

replaced in as few as 7-10 years.[53] This process, known as "repowering," means that ongoing manufacturing opportunities will be available simply to maintain the existing stock of wind infrastructure.

Figure 5 gives the key components of a wind turbine, along with the share of that component's cost as a percentage of the whole turbine and the industry that would manufacture them. Industries are identified by codes of the North American Industrial Classification System (NAICS) at the 6-digit detailed level code, which includes firms that are already making turbine parts or manufacturing very similar parts at present, as well as the more general 3-digit subsector level, which includes all these firms, plus others that have similar expertise, skilled workers, and equipment that would position them to take on new opportunities to enter the supply chain.

Within the tables, color bars represent turbine component groups.

Rotor components are shown in yellow

Nacelle components are shown in green

Towers are shown in light blue

Other components are shown in orange

Detailed descriptions of these components are provided in Appendix A. Occasionally, subtotals do not sum perfectly to the county totals shown due to rounding.

Figure 5

Key Components of a Wind Turbine

Turbine component	Share of cost	NAICS Subsector	NAICS industry	NAICS industry description
Rotor blades	20.5%	326	326199	All other Plastics Product Manufacturing
Rotor hub	6.5%	331	331511	Iron Foundries
Gearbox	18.5%	333	333612	Speed charger, Industrial
Power converter*	5.9%	335	335999	Electronic equipment and components
Generator	4.9%	333	333611	Turbines, and Turbine Generators, and Turbine Generator Sets
Main frame / Nacelle Frame	4.0%	331	331511	Iron Foundries
Nacelle housing	1.9%	326	326199	All other Plastics Product Manufacturing
Brake system	1.9%	333	333613	Power transmission equip
Tower	20.3%	332	332312	Fabricated structural material
Flanges	1.4%	331	331511	Iron Foundries
Transformer	4.0%	335	335999	Electronic equipment and components
Pitch system	3.0%	335	335312	Motors and generators
Shafts	2.1%	333	333613	Power transmission equip
Rotor bearings	1.4%	332	332991	Ball and Roller Bearings
Yaw system	1.4%	335	335312	Motors and Generators
Bolts	1.2%	331	331511	Iron Foundries
Cables	1.1%	335	335929	Communications wire and cable, nonferrous, made from purchased nonferrous wire

Supply Chain

The NREL has divided firms into four "tiers" based on the type of component the company produces, its customers, and its own suppliers. While **Tier 1 suppliers** are developers themselves, many manufacturing firms could participate as Tier 2 or Tier 3 suppliers to the wind industry. The NREL found that many manufacturers are unaware of this. This lack of knowledge is a barrier to engagement.[54] This report is intended to address that knowledge gap by identifying opportunities for firms in the Appalachian region to produce components for wind turbines.

The most promising opportunities for Appalachian manufacturers could be to become **Tier 2 suppliers**, which produce major components for the wind industry (and face the transportation hurdles of the largest components, noted above). **Tier 3 suppliers** make the more basic components, which are also produced in the region. These are mostly treated as indirect jobs for this report, with the exception being when they represent at least one percent of the turbine cost and appear in the breakdown from Figure 4 above. **Tier 4 suppliers** are not manufacturers; they are mining and extraction enterprises. As such, they are not counted among the manufacturing jobs estimated in this report, though they may represent opportunities of interest to Appalachian communities. Jobs created in these industries are in addition to those identified here.

Tier 1: Finished components. Finished components are the major products that are purchased by an offshore wind energy project developer, such as the wind turbine, foundation, or cables.[55] Tier 1 suppliers contract directly with the project developer. The market for manufacturing turbines is concentrated and has significant barriers to entry, due to factors including the highly specialized technical aspect of the work and the enormous capital expenditure required to enter the market. Becoming a turbine manufacturer would require a longer timeframe, but becoming a Tier 1 supplier of foundations or cables could be readily within reach for Appalachian manufacturers. **Coal country communities could use the coal ash now in their waste streams in the cement for concrete turbine foundations.** And because concrete is heavy, costly to transport, and can typically be made from locally available materials, foundations are often locally sourced. This means that a good way to get into the supply chain to build them is to build them in your own community and buy products made in Appalachia.

Tier 2: Subassemblies. Subassemblies are the systems that have a specific function for a Tier 1 product, which may include subassemblies of numerous smaller parts, such as a pitch system for tilting blades into the wind for more power or as a way to divert damaging high winds. Tier 2 manufacturers contract with Tier 1 suppliers as a subcontractor or vendor. Most of the components identified in this analysis fall under Tier 2. Appalachian communities could have a significant competitive advantage in becoming manufacturers at this level, because many of these components are too large to ship overland. The navigable waterways and railways of the Ohio River Valley could link Appalachian manufacturers to wind farm developers along the east coast.

Tier 3: Subcomponents. Subcomponents are commonly available items that are combined into Tier 2 subassemblies, such as motors, bolts, and gears. Tier 3 manufacturers are typically vendors that provide components to Tier 2 suppliers. Tier 3 components are only identified in this analysis where they make up a large enough share of a turbine to be given their own line item in a cost breakdown. Manufacturing opportunities at this level would be considered a type of "indirect" investment or job; bringing Tier 2 investment to the region is a good way to also create opportunities at this level.

Tier 4: Raw materials. Raw materials, such as steel, copper, carbon fiber, concrete, or rare earth metals, are directly processed into Tier 2 or 3 components. Raw materials are not covered in the data analysis for this report, however, the renewable energy transition may create opportunities in this space that are highly regionally specific. Direct drive wind turbines rely on magnets created from rare earth metals (as do solar panels and electric cars). Currently, mining and processing of these minerals is controlled by China. However, **coal ash contains rare earth minerals in high enough concentrations that they could potentially be recovered from coal slurries**. The technology to achieve this is still under development, but solving it would be a major step toward energy security for the U.S., so it could represent a valuable opportunity for Appalachian communities.

Opportunities for North Central Appalachia

Over the next 20 years, the U.S. is projected to add some 500GW of energy capacity from wind turbines. That will require an investment of about $500 billion. Investment in wind infrastructure will create significant manufacturing jobs and capital investment in the four Appalachian states of Kentucky, Ohio, Pennsylvania and West Virginia, including specifically in Appalachian counties. This section tabulates likely job creation by manufacturing industry for each of the four states. Readers can also go to the appendix for detailed information for their county.

The NREL found that an additional 34 manufacturing facilities would be needed to meet the Biden Administration's commitment to install 30GW of new offshore wind capacity by 2030.[56] Even if the Trump Administration does not commit to that time table – as it has so far signaled it will not – these facilities and this additional capacity will be needed in the near future simply to keep up with energy demand. Already, plans have been registered with the EIA for 6.9 GW of this capacity.[57]

Going forward, the strongest need is for the largest wind turbines – both on and offshore, because these turbines produce the most power, and for applications on land, taller turbines open new siting possibilities in locations that don't get sufficient, steady wind power near the ground. Meeting this demand will require increased capacity in manufacturers with facilities that can produce very large scale components and have access to the transportation infrastructure that can ship blades, towers, nacelles, and other enormous components. Manufacturers in the supply chain for offshore wind turbines will need to be located near ports on navigable waterways.

The tables below describe the likely job and capital investment gains for each of the four states, including the shares that will flow specifically to Appalachian counties. Totals are broken out by industry, based on the share of investment in a wind turbine that goes to each component and the share of all jobs in that industry in the state. These figures are based on likely additions in wind infrastructure over the next two decades as detailed in the methodology section of this report. In each table, components are color coded by the major component group they comprise of the turbine. Rotor components are shown in blue, nacelle components in green, towers in pink, and other components in orange. Detailed descriptions of these components are provided in Appendix A.

The number of firms listed is the *current* number of firms that do or could serve the wind power component industry. In reality, this substantial new investment will likely result in both growth opportunities for existing firms and the establishment of new firms. Table entries with an asterisk "*" mean that there were so few companies in the geography that the Census of Manufactures did not report the number to protect privacy.

County level job projections are tabulated in Appendix B, and detailed information for each Appalachian county in the 4-state region is provided in Appendix C.

Figure 6

Rotor Nacelle Towers Other components

Kentucky

Kentucky is likely to gain some 5,828 jobs including 881 jobs in Appalachian counties, as well as $4.67 billion in investment, with $705 million to Appalachia.

NAICS Industry	Description	Jobs statewide	Jobs in Appalachian counties	Investment in State (millions of dollars)	Investment in Appalachia (millions of dollars)	Firms
326199	All Other Plastics Product Manufacturing	4,219	686	$3,375	$549	68
332312	Fabricated Structural Metal Manufacturing	935	144	$748	$115	39
332991	Ball and Roller Bearing Manufacturing	198	31	$158	$24	9
335312	Motor and Generator Manufacturing	361	15	$289	$12	4
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing	125	5	$100	$4	3
Total		5,838	881	$4,670	$705	

Source: ReImagine Appalachia analysis of data of U.S. Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States and Selected Geographies: 2022; and also from Proprietary Industry Employment dataset[58] 2022. Proprietary industry employment dataset builds on a composite of public datasets, including U.S. federal agencies (BEA, BLS, Census Bureau), state projections, job postings, and business directories. The diverse data sources were used to statistically impute suppressed county-level employment figures for granular North American Industry Classification System (NAICS) codes.

Figure 7

Rotor Nacelle Towers Other components

Ohio

Ohio is likely to gain some 36,063 jobs including 5,544 jobs in Appalachian counties, as well as $28.9 billion in investment, with $4.4 billion to Appalachia.

NAICS Industry	Description	Jobs statewide	Jobs in Appalachian Counties	Investment in State (millions of dollars)	Investment in Appalachia (millions of dollars)	Firms
326199	All Other Plastics Product Manufacturing	12,629	1,736	$10,103	$1,389	360
331511	Iron Foundries	6,896	1,736	$5,517	$1,389	25
332312	Fabricated Structural Metal Manufacturing	4,208	586	$3,367	$469	153
332991	Ball and Roller Bearing Manufacturing	521	73	$417	$58	10
333611	Turbine and Turbine Generator Set Units Manufacturing	295	34	$236	$27	4
333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing	6,722	780	$5,378	$624	16
333613	Mechanical Power Transmission Equipment Manufacturing	2,389	277	$1,911	$222	18
335312	Motor and Generator Manufacturing	1,264	169	$1,011	$135	18
335929	Other Communication and Energy Wire Manufacturing	174	23	$139	$19	7
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing	965	129	$772	$103	26
Total		36,063	5,544	$28,851	$4,435	

Source: ReImagine Appalachia analysis of data of U.S. Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States and Selected Geographies: 2022; and also from Proprietary Industry Employment dataset[59] 2022.

Figure 8

Pennsylvania

Pennsylvania is likely to gain some 26,948 jobs including 14,437 jobs in Appalachian counties, as well as $21.6 billion in investment, with $11.6 billion to Appalachia.

NAICS Industry	Description	Jobs Statewide	Jobs in Appalachian Counties	Investment in State (millions of dollars)	Investment in Appalachia (millions of dollars)	Firms
326199	All Other Plastics Product Manufacturing	7,711	4,342	$6,169	$3,473	282
331511	Iron Foundries	5,685	3,271	$4,548	$2,616	19
332312	Fabricated Structural Metal Manufacturing	6,310	3,552	$5,048	$2,841	150
332991	Ball and Roller Bearing Manufacturing	200	112	$160	$90	5
333611	Turbine and Turbine Generator Set Units Manufacturing	1,165	585	$932	$468	9
333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing	900	452	$720	$361	8
333613	Mechanical Power Transmission Equipment Manufacturing	901	452	$721	$362	7
335312	Motor and Generator Manufacturing	519	213	$415	$170	10
335929	Other Communication and Energy Wire Manufacturing	347	142	$277	$114	8
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing	3,211	1,317	$2,569	$1,054	39
Total		26,948	14,437	$21,559	$11,550	

Source: ReImagine Appalachia analysis of data of U.S. Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States and Selected Geographies: 2022; and also from Proprietary Industry Employment dataset[60] 2022.

Figure 9

West Virginia

West Virginia is likely to gain some 1,201 jobs, all of them in Appalachian counties, as well as $960 million in investment, again all in Appalachia. All West Virginia counties are situated in Appalachia.

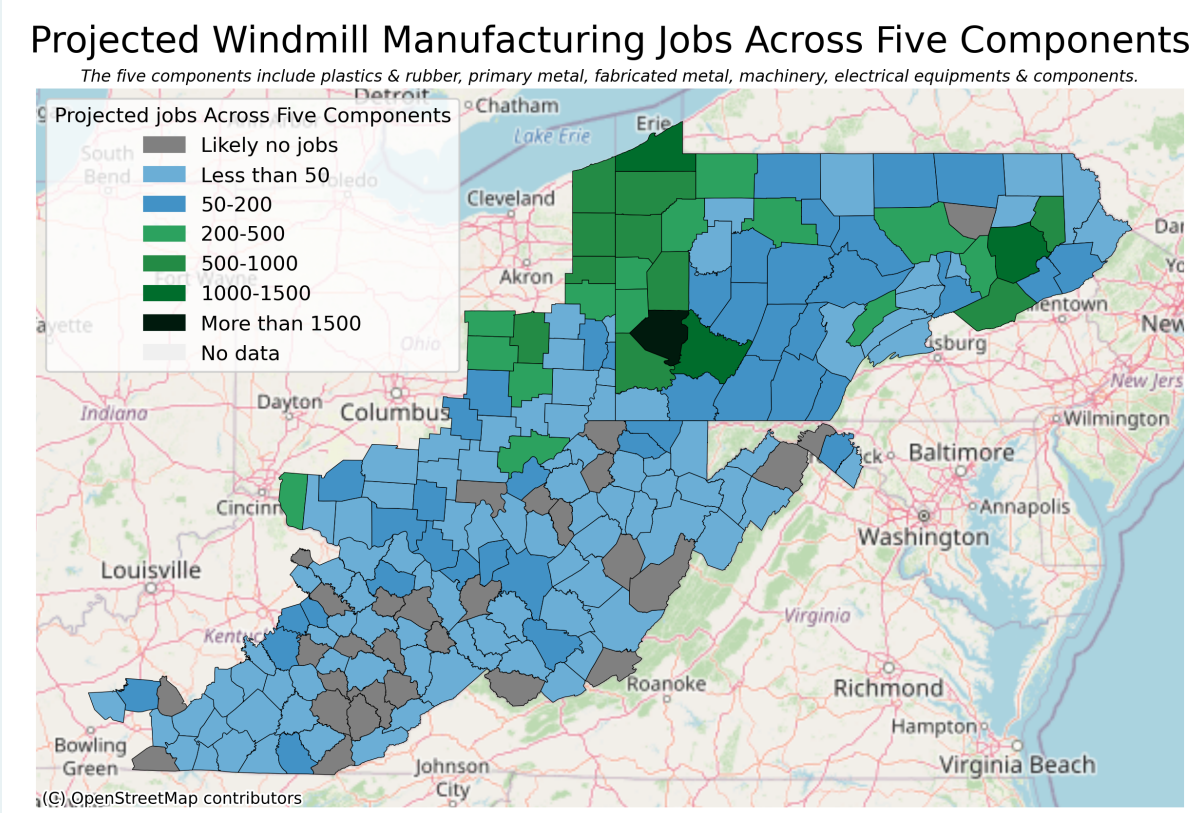
NAICS Industry	Description	Jobs Statewide	Jobs in Appalachian Counties	Investment in State (millions of dollars)	Investment in Appalachia (millions of dollars)	Firms
326199	All Other Plastics Product Manufacturing	615	615	$492	$492	*
332312	Fabricated Structural Metal Manufacturing	418	418	$334	$334	22
335312	Motor and Generator Manufacturing	169	169	$135	$135	5
Total		1,201	1,201	$961	$961	

Source: ReImagine Appalachia analysis of data of U.S. Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States and Selected Geographies: 2022; and also from Proprietary Industry Employment dataset[61] 2022.

Information presented in Figure 7, above, is shown on the map in Figure 10, below.

Figure 10

Employment Projections Associated with Wind Power, By County, North Central Appalachia



Source: ReImagine Appalachia analysis of data of U.S. Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States and Selected Geographies: 2022; and also from Proprietary Industry Employment dataset[62] 2022.

Winning Their Share of Manufacturing Jobs in the Clean Energy Transition Will Require Leveraging the Region's Existing Strengths

Appalachian communities enjoy many potential advantages that could position them as major participants in the offshore wind supply chain. Appalachia's navigable waterways can serve as low-cost transportation routes for wind turbine components, and make Appalachia part of a supply chain for components too large to be shipped overland. The region has available land for large production facilities, some of which have structures, equipment, infrastructure and transportation access to road, rail and water ports, such as decommissioned coal plants and closed factories. The region must capitalize on these resources to garner the estimated jobs that could come to the region.

Tapping the Region's Skilled Manufacturing Workers

The significant opportunities in turbine component manufacturing detailed in this report are based on the fact the Appalachia region already has many skilled manufacturing workers up to the task. The region has

sustained job losses from deindustrialization, and its job market is undergoing transition with the energy portfolio change. The need to include these workers as stakeholders in the new energy economy should be a key priority for policymakers.

Appalachia's Waterways Could Make it a Major Offshore Wind Supplier

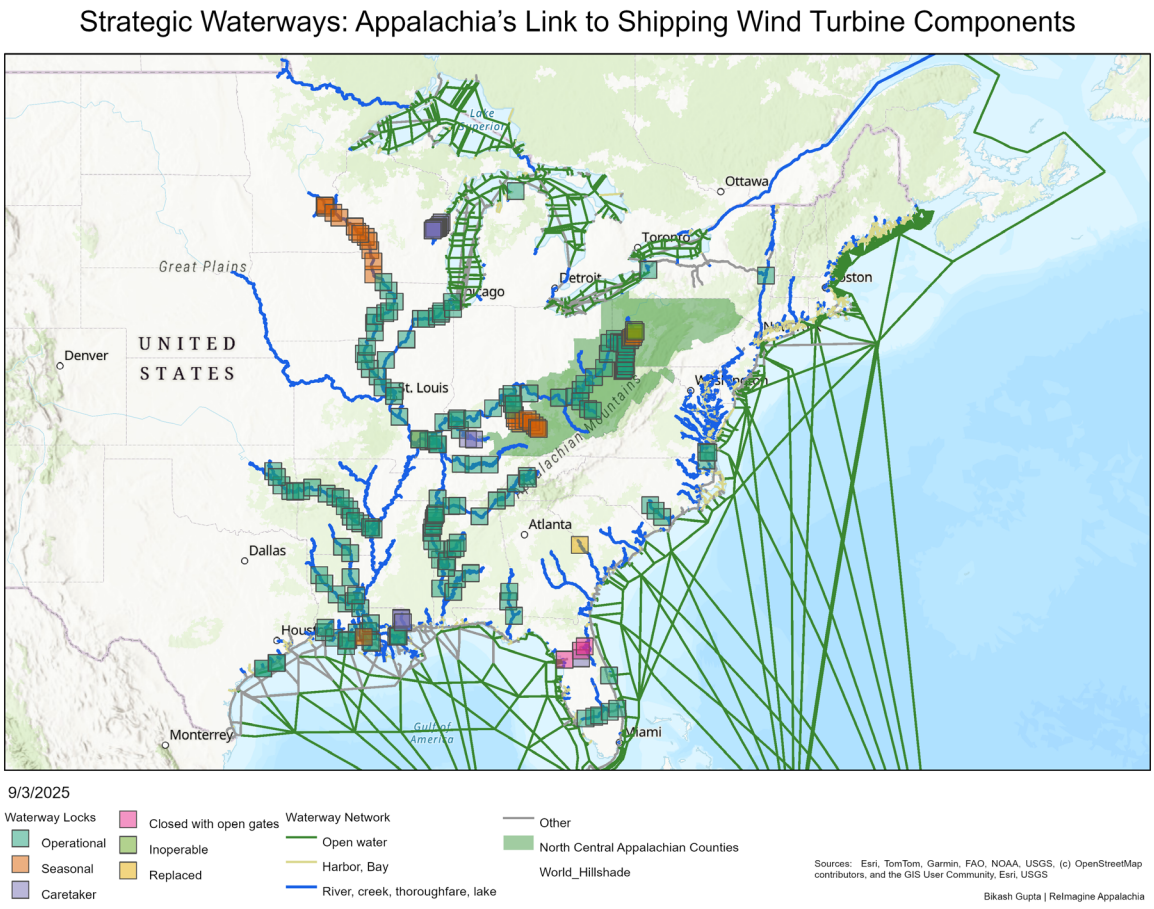
The same waterways that enabled Appalachia to power the Industrial Revolution with its coal exports could also uniquely position the region to participate in the offshore wind turbine supply chain. The NREL divides wind turbine component manufacturers into four tiers, ranging from Tier 1 manufacturers of entire turbines down to Tier 4 raw materials suppliers (detailed above). Most of the highest value opportunities exist in the "Tier 2" level, to build major components such as towers, rotor blades and hubs, and nacelles. For offshore turbines, all of these components are too large to transport overland, leading developers to search for large and expensive plots of waterside land in dense population centers on the East Coast. Transportation currently accounts for 9.9% of the cost of a land-based wind power plant.[63]

Lack of sufficient port locations for end stage manufacturing and staging has emerged as a major bottleneck in the deployment of offshore wind projects. Because finished components are too big to transport via road or railway, factories must be located at ports or along waterways. But just because large component manufacturers must be located on large navigable waterways, does not mean they must be situated on the coast. The facilities also need sufficient acreage, quayside length, quayside bearing capacity, and navigation channel depth to safely fabricate, maneuver, and load out components.[64] Space for facilities of this scale is highly constrained in the population-dense port cities of the Eastern Seaboard where most U.S. offshore wind farms are being planned and built.

End-stage manufacturers are often colocated with staging ports. However, this need not be the case. The Albany Tower Manufacturing Facility now under construction in New York will create some 3,200 manufacturing jobs to build wind turbine towers and ship them to the coast via the Hudson River.[65] Ten miles south, the Coeymans Blade & Nacelle Manufacturing Facility will employ 4,400 building blades and nacelles. Manufacturers located along the Ohio River could likewise build wind turbine towers, blades, nacelles, and other large components, and ship these by barge down the same waterways long used to transport coal for export markets (Figure 11).

Figure 11

Appalachian Waterways Link to International Shipping Routes Through Mississippi River Ports, Down to the Gulf of Mexico and Up to the Great Lakes



Source: EIA, ESRI Federal Data, U.S. Census Bureau

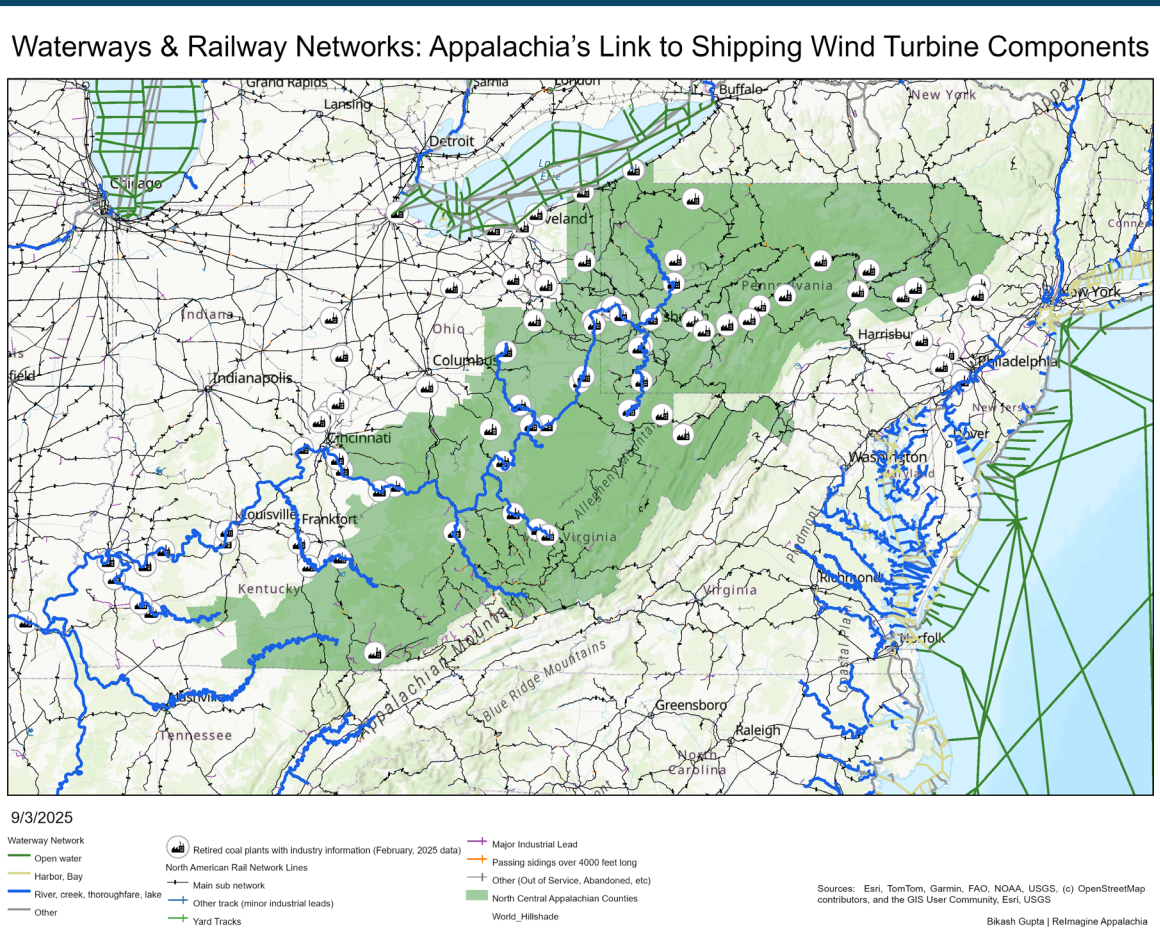
Decommissioned Coal Plants and Shuttered Factories Could Provide Optimal Manufacturing Sites

Deindustrialization and the transition to more efficient energy sources have left Appalachian communities with underutilized legacy facilities that once housed coal-fired power plants and major manufacturing facilities. Many of these facilities have significant advantages that could make them well-suited to be repurposed as manufacturing centers in the wind turbine supply chain. These include large plots of land and in some cases still-usable large buildings; substantial electric grid connections and infrastructure; and direct proximity to navigable waterways. Repurposing these sites as renewable North Central Appalachia's navigable waterways and rail, along with the numerous retired coal plant sites in the region, can be assets for the wind turbine component industries.

By both water and rail, factories located on shuttered coal plant sites in the Ohio River Valley of Appalachia can connect to the east and West Coasts via the Mississippi River as well as to the north to the great lakes trade routes. Energy manufacturers would realize a vital opportunity to turn brownfields into assets.

Figure 12

Rail and Water Transit Link Shutteered Coal Plant Sites to International Shipping Options



Source: EIA, ESRI Federal Data, U.S. Census Bureau

Wind Turbines Rely on Materials that Could Be Diverted from Appalachian Waste Streams

The National Renewable Energy Laboratory (NREL) estimates that concrete comprises 34% of the material used in a land-based wind farm by weight: that's 2.6 times the material used in the turbines themselves (13%).[66] Fly ash has become a sought after additive to cement, the portion of concrete that holds it together. Replacing some of the cement with fly ash reduces costs, makes fresh concrete more workable, and strengthens hardened concrete, and reduces the carbon footprint.[67] Wind turbine foundations can utilize fly ash from coal plants, which can be collected directly for recycling, diverting it from ever entering waste streams, and mined from existing slurry ponds and landfills which now pose health and environmental hazards in the communities where they are located.[68] Mining rare earth elements for the magnets necessary to the turbine operation, from acid mine drainage in streams as well as from coal slurries, ponds and landfills, can also create new job opportunities for coal miners.[69]

In part due to this weight, and to minimize unnecessary shipping costs, concrete is typically locally sourced. Raw materials needed to make it, including sand, gravel, and cement, are readily available in most regions. Foundations comprise about 6.1% of the cost of a land-based wind plant.

Coal Ash and Acid Mine Drainage Contain Critical Minerals and Rare Earth Elements

Rare earth metals are a critical component of direct-drive style wind turbines that dispense with the gear box used in older and smaller models. Offshore turbines such as the Haliade X now being installed at U.S. offshore wind plants on the east coast rely on direct drive systems, which depend on magnets made with rare earth elements.[70] China controls the supply, manufacture and technology related to rare earths, which are critical in the manufacture of magnets.[71] It has long restricted exports of rare earths and related technology to the U.S., reserving its minerals for factories in China, including the factories of American companies like Apple. In response to tariff spikes in the spring of 2025, China tightened its export of rare earths to the United States, banning altogether the export of six rare earth metals whose supply chain it completely controls and the export of magnets made from rare earths.[72] As of this writing, neodymium – the preferred rare earth metal used in direct drive wind turbines – was not on the list, but an escalation in the trade war would likely include neodymium.[73]

Rare earth elements are categorized as "rare" not because they are truly rare in nature, but because they are diffuse and difficult to isolate from other elements in the minerals they are found in. **Because burning coal in power plants concentrates these elements by a factor of 4 to 10, coal ash is a rich source of rare earth elements.[74] Extractable rare earth metals now held in landfills and other waste storage in the Appalachian basin are worth $4.9 billion and account for 58% of all rare earths available in U.S. coal ash waste.**[75] This figure reflects the fact that current technology supports a recovery rate of only about 30% for the bituminous coal ash found in the Appalachian Basin. This rate may be better for neodymium, the preferred rare earth metal for use in direct drive turbines: researchers experimenting to determine an effective technique were able to recover neodymium at a rate of 62% using a method known as electrodialysis, which works by separating positive or negatively charged ions through a membrane.[76] Some 5.8 gigatons of coal was produced in the U.S. between 1950 and 2021.[77] Among the ash sent to slurry ponds, landfills, and other waste storage, more recently produced ash is generally more accessible. An estimated 69% of ash produced in the U.S. from 1985–2021 is stored as waste and could be recoverable, a process that could also create jobs within the region.[78]

Besides the supply chain bottlenecks associated with dependence on a single, sometimes adversarial, trading partner, rare earth mining carries risk of both severe health problems for workers and nearby residents, and significant environmental degradation.[79] For these reasons, companies and researchers are seeking both alternative sources of rare earths, and to develop direct-drive turbines that dispense with rare earth metals altogether.

West Virginia University is operating a pilot project to recover rare earths from streams polluted with acid mine drainage, using a technique that has cleaned the waters of such streams for many years.[80] The need to implement safe mining procedures and include communities in decision-making is paramount. WVU's process is both better for the environment – it is a method of cleaning acid mine drainage to protect nearby waters - and economical, since it does not require energy intensive techniques to separate rare earth metals from raw earth.

Work Maintaining and Repowering Existing Capacity

As of October 2022, over 70,000 land-based wind turbines with a combined capacity of nearly 138 gigawatts (GW) were in operation in the United States. The need to regularly repower existing turbines creates an opportunity for manufacturers to secure predictable repeat business from clients at locations where transport logistics have already been solved.[81] One of the best ways to ensure that regional manufacturers can play a role in this supply chain is to produce wind power locally by installing wind turbines within the region.

Opportunity to Recycle and Innovate Blade Materials

The magnets also have a very low rate of recycling of just 5%. Many stakeholders – invested in wind energy because of its sustainability – want to see an end to this accumulation of industrial waste. Vestas Wind Systems A/S, a wind turbine design, manufacturing, and global installation company, has announced that it will produce zero waste wind turbines by 2040.

Conclusion

The energy revolution has already begun. Over the next two decades, it will usher in far more energy infrastructure, from more sustainable sources. With that, it can also create more jobs for Appalachian communities. Appalachia has long been the powerhouse that fueled innovation and industry. Today some of the same advantages that made our region a cornerstone in the energy industry can position Appalachian communities to be integral players in the new energy economy of the future.

Methodology

This report follows a method developed by the Renewable Energy Policy Project (REPP) for a 2005 report on Ohio.[82]

Researchers estimated that each GW of wind power constructed would result in the creation of 3,000 jobs. They used what turned out to be a very conservative estimate that 50,000 MW (50GW) of wind power would come online nationwide over the next 20 years: 147,311.6 MW was built and in operation by January 2025.[83]

Using current market reports and projections of expected wind capacity additions and job creation, this analysis projects that about 1,250 FTE manufacturing jobs per GW will be created over the next 20 years. This is fewer jobs per GW than anticipated in 2005 but substantially more wind generation is expected to be built in the future. Employment in manufacture of wind turbines required to meet energy demands by 2045 will expand by about 625,000 jobs across the U.S..

The purpose of this report was to identify and parse those jobs into specific manufacturing industries and then identify their likely location within Appalachian counties in the states of Kentucky, Ohio, Pennsylvania and West Virginia.

Steps:

1. **Project the level of wind energy expansion to 2045**
2. **Calculate jobs to be created by manufacturing expanded wind capacity**
3. **Identify the major component parts of a wind turbine and determine the cost of each as a share of the whole turbine. Use this to estimate the level of investment that will flow into each major component.**
4. **Identify the manufacturing industries that build each component using the North American Industrial Classification System (NAICS)**
5. **Estimate the number of jobs that will be created in Kentucky, Ohio, Pennsylvania and West Virginia, and the Appalachian counties where they will emerge, based on the share of workers in related industries in those communities now**
6. **Report firms doing business within the state in each 6-digit NAICS industry**
7. **Estimate capital investment for expanded manufacturing for wind generation**

Step 1: Projection of wind energy expansion

This paper projects expansion of employment related to the wind industry over the next 20 years - between 2025 and 2045 - based on an expected demand for **500 GW of wind capacity additions.**

The National Electrical Manufacturers Association (NEMA) has projected that electricity demand in the United States will grow 2% annually through 2050.[84] This is from electricity produced by any type of power plant. The National Renewable Energy Laboratory (NREL) forecast that renewable energy specifically will face still higher growth in demand of 3.4% per year by 2035.[85]

This analysis uses the 2% growth forecast of the National Electrical Manufacturers Association figure because it gives an outlook for the full 20-year timeframe of our analysis, and because the NREL's projection, over the shorter timeline, could be dampened by delays to wind infrastructure adoption by the current administration. Using this figure results in a conservative estimate of energy demand growth.

Based on these projections, the United States is expected to add 645 GW of new electric power generating capacity by 2045, and hold a stock of power plants capable of generating a total of 1,917 GW at a time under ideal conditions.[86] [87] That represents a 48.6% increase over the U.S. portfolio of electric power plants today. We project that about 500 MW of that capacity will come from new wind infrastructure.

Assumption: capacity factor will remain constant.

Importantly, the estimate that the stock of power plants will grow at the same rate as demand for electricity rests on an assumption that the overall efficiency of power plants will not change. That efficiency is measured as plants' capacity factor, a ratio that indicates the amount of power a plant produces on average as a percentage of the total it could produce under ideal conditions. The capacity factor of new turbines is in fact improving; however, because aging causes a turbine's capacity factor to decrease over time, and because turbines are replacing other types of power plants whose capacity factor is already higher, we retain the assumption that capacity factor averaged across the whole electric energy portfolio will remain about the same as it is now. **This means a 2% increase in energy demand will translate into a 2% increase in power plant capacity.** If, instead, capacity factors improve substantially, this demand could be met with fewer plants.

Based on 2% growth rates in energy demand and the current efficiency of power plants, the U.S. is projected to have power plants capable of generating 1,917 GW of electricity by 2045. Some portion of that capacity will be wind. This report considers several possible scenarios and relies on a middle estimate to arrive at a projected level of investment for wind infrastructure over the next twenty years. These scenarios are based on both the fact that demand will increase the total stock of power plants (by nearly 50%), and the fact that now aging and inefficient plants will be retired, so that some plants operating today will no longer be operating by 2045.

Figure A-1 shows three possibilities for how much wind power could come online by 2045. The data analysis focuses on the total capacity of power plants expected to be online in 2045 (1,917 GW), then considers how much of that total is likely to come from wind power.

High estimate for wind energy production: Among the ten states producing the largest share of their total energy from wind turbines, the percentage of total electricity coming from turbines ranged from 30.4% in Texas to 76.2% in Iowa, and had an average of 46.8%, as of April 2025.[88] For the U.S. to get 46.8%

of its electricity from wind by 2045 - a rate five states have already surpassed - it would require the addition of 922 GW of new wind power. This high estimate also assumes that all turbines operating today would be replaced, since they would be at minimum 20 years old, the low range of expected lifespan for a wind turbine. Though the assumption that all these turbines would be replaced in their entirety is somewhat aggressive, it is very likely that some will undergo major repowers that require the replacement of significant components such as blades or gearboxes more than once in this timeline, so that on average, the assumption of total replacement of existing wind stock may be more likely than the more conservative scenarios described below.

Low estimate for wind energy production: Currently, 11.7% of electricity produced nationally comes from wind turbines.[89] If that rate simply held steady, with no shift in demand toward wind away from other energy sources, then the U.S. would require 231 GW of wind capacity in 2045. For this low-end estimate, we assume that all currently existing wind turbines contribute to this total, so that no turbines are replaced in whole or part. Today the U.S. has 155 GW of wind capacity: subtracting that out yields 76 GW of new wind energy needed. This very conservative estimation is impractical in reality because it would rely on the existing stock of wind turbines to all remain in operation twenty years from today, with no replacement of manufactured parts. Also, the wind power projects on file with the EIA as of January already exceed this share: they comprise 13.1% of all power plant projects as measured by the GW's they could produce under best operating conditions.

Middle estimate for wind energy production: By averaging the current wind share of electric generation capacity (11.7%), with the 46.8% share among the states most reliant on wind power, we get a projected rate of 29.3%. As of April 2025, at least ten states were already exceeding that share of energy generated by wind. If the U.S. generated 29.3% of all its electricity from wind power by 2045, that would require capacity of 578 GW. For this middle analysis, we assume that half of the current wind power capacity remains in use at that time, offsetting the need for new turbines by 77 GW and requiring the addition of 500 GW of capacity from new wind power plants. **We round this to estimate that the U.S. will add 500 GW of wind power capacity by 2045. This is the foundation of our analysis.**

Figure A-1

Projected Expansion of Wind Capacity Over 20 Years (2025-2045) as a Share of the 2045 National Electricity Portfolio

	Low estimate (11.7%)	High estimate (46.8%)	Middle estimate (29.3%)	Used in Analysis
Projected Expansion of Wind Capacity (MW)	75,883	922,452	500,153	500,000
Assumptions	All existing wind turbines remain in operation. None are replaced or repowered.	All existing wind turbines are replaced.	Half of existing wind turbines are replaced.	NA. Figure rounded from middle estimate.

Step 2: Calculating jobs to be created by manufacturing expanded wind capacity

By 2023, the wind industry supported 125,580 full-time workers, including 45,088 in construction and 23,543 in manufacturing.[90] Those workers were needed to build, install, and operate 148,403.9 MW of wind power. Wind related jobs in the U.S. grew 4.5% in 2022.

The NREL has estimated that adding 30GW of offshore wind power could create between 20,000 and 55,000 direct and supplier manufacturing jobs by 2030, with the wide range based on the share of components coming from domestic manufacturers.[91] We use an estimate that each GW of electricity requires about 1,250 jobs. This is substantially lower than the number of jobs required in 2005 when the REPP wrote the precursor report: they estimated that each GW would create about 3,000 jobs. The lower figure is consistent with available sources today, including NREL's projections and the existing staff of wind-related workers maintaining the nation's current wind portfolio. This reduction likely reflects the larger scale of today's turbines, could be affected by automation over the past two decades, and may be a conservative estimate. Based on this job creation rate, the addition of 500GW of new wind capacity could create about 625,000 manufacturing jobs nationwide. The need to routinely maintain and repower existing turbines means that manufacturing jobs created by the scale-up of wind energy will likely be needed over the long-term. Woods Mackenzie estimated that 14GW of wind capacity had been partially or fully repowered as of 2022, with plans to repower an additional 16GW in the coming year.[92]

In the following steps, we identify the manufacturing industries into which the investment will flow, then the states and communities where new jobs will be created.

Step 3: Identification of Component Parts Needed for New Capacity

We parse the investment of new wind development into demand for each of 17 separate turbine components in four major groups. The NREL Cost of Wind Energy Review 2022 edition is the primary source for this breakdown; though the 2024 edition is the latest available, the 2022 report gives more component detail than the 2024 report.[93] The NREL provides for component cost breakdown into blades, rotors, nacelles, power converters, and towers (with a separate figure for tower flanges). Here, we group components into rotors (including blades), nacelles, towers, and other components. In addition, we further break down components based on a model turbine, the 5 MW REpower MM92 turbine. For this we use the cost breakdown of Dr. Taher Halawa for the British University in Egypt for Industry.[94]

The NREL cost breakdown forms the basis of this analysis: we first parse total cost into component groups as laid out in that report. Next, we distribute costs within component groupings using the British University breakdown where that work gives more specific detail. The NREL is the more important data source because it focuses on the entire market of turbines and is U.S.-centered. The use of the second source allows us to zero in on more detail and assign a cost to all components comprising at least 1 percent of the total makeup of a turbine by cost. All detail costs from the model are weighted to represent their component cost in the U.S. as determined by the NREL.

The MM92 is no longer built in the U.S., though the model remains in service, and creates opportunities for manufactured parts for repowering.[95] It offers a representative mix of components considering the current wind energy infrastructure, which includes both land-based and newly constructed offshore wind farms. The MM92 has been constructed both on land and offshore. U.S. models have only been built on land. Unlike some of the largest models, it uses a gearbox, as land-based turbines generally do. The MM92 has

45.3 meter (150 foot) length blades and a 100 meter (330 foot) tower, placing it nearer in size to the typical 3.3MW land-based turbine than to the typical 12MW offshore turbine.[96]

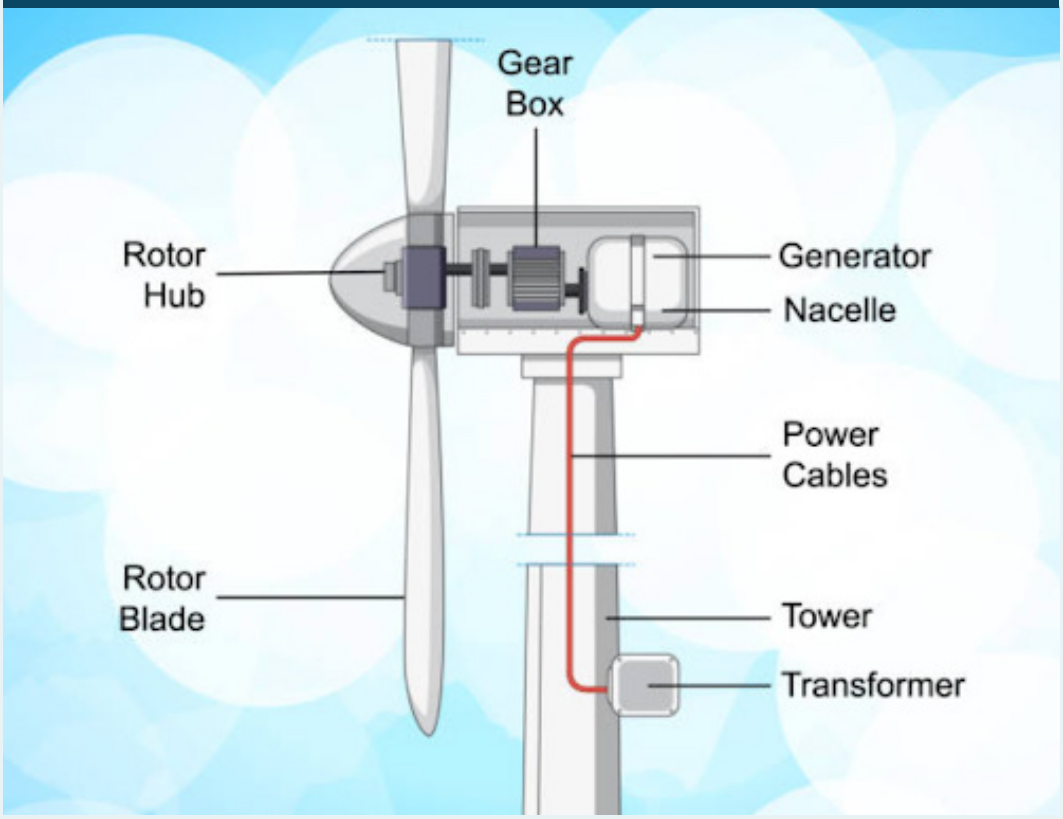
Valuing parts of the nacelle: an example of how we use each source

The nacelle is valued at 36.4% of the turbine's total, accounting for the tower, by the NREL, and 30.0% in the presentation of the MM92 turbine model. This means the NREL values the nacelle at 1.213 times the valuation of the model, as a share of the whole turbine's cost. The NREL does not subdivide the nacelle, so we first prioritize the NREL source, by assigning the 36.4% weight to the whole nacelle. We then look to the model to cost out the subcomponents, reweighting the share of each so that they sum to 36.4%. For the nacelle, this means multiplying the model's valuation of each part by 1.213. By taking these steps, we prioritize all data given by the NREL, then where the NREL does not provide a datapoint, we turn to the model for more detail.

Figure A-2 details the component breakdown. Descriptions of these components are given in the Figures below, and in detailed descriptions, in the Appendix.

Figure A-2

Gear-Box Driven Wind Turbine, Common Among Land-based Turbines



Source: https://www.istockphoto.com/search/2/image-film?phrase=wind+turbine+diagram

Step 4: Identify the manufacturing industries that build each component using the North American Industrial Classification System (NAICS)

Components are identified by North American Industry Classification System (NAICS) code.[97] We assign each component a 6-digit NAICS code, using the catalogue available from the U.S. Census Bureau.[98] This report relies on data from the Economic Census conducted by the U.S. Census Bureau every five years: most recently released in December 2024 covering data from 2022. The Economic Census provides data on the number of jobs in each manufacturing industry, firms, and the amount of revenue generated, among other information. We supplement these data with additional job estimates from our proprietary industry employment dataset, which uses a composite of U.S. federal data sources (e.g., BLS), state projections, job postings, and business directories to overcome the problem of data suppression found in the BLS employment dataset.

The Census Bureau surveys about 4.2 million business firms operating in North America, and firms report the types of products or services they provide including all the NAICS codes their products or services fall under.[99] Data gatherers then supplement this information with administrative data from federal agencies to get a highly comprehensive picture of the businesses operating in the U.S.

Companies reporting the same NAICS code are involved in similar activities. Using this system, the Renewable Energy Policy Project - which wrote a precursor to this report in 2005 - was able to tabulate the companies involved in activities similar to the manufacturing of wind turbine components.[100] These companies may or may not be active in the wind turbine supply chain, but those making similar components have existing capabilities that could enable them to move into that market. For example every company reporting "332991" manufactures ball and roller bearings of some kind. Many of those companies would be well positioned to produce the large ball and roller bearings used in turbines, with skilled workers and machinery already on hand.

NAICS codes have several levels of detail, with each digit indicating a higher level of detail.[101] For example, a first digit of 3 indicates Manufacturing, 332 is "Fabricated Metal Product Manufacturing," and 332991 is "Ball and Roller Bearing Manufacturing."

For this report, we began with components matched by the Renewable Energy Policy Project for their 2005 report.[102] We then identified changes to how wind turbines are constructed since that report was produced. Changes included both new components and new materials used to construct components. The biggest change has been the entry of offshore turbines into the industry. These turbines use many of the same core components – including hubs, blades, and nacelles – only on a larger scale. But their anchoring systems differ significantly from land-based turbines.

A relatively new entrant into the market is turbines that use direct-drive systems, which replace gearboxes, though gearbox-style turbines still continue to predominate, and uncertainty about sourcing of rare earth metals needed in direct drive systems is likely to delay their wider adoption until the U.S. can develop a domestic supply chain for their mining and refinement. Instead, some developers are seeking alternatives to rare earth dependent direct drive turbines altogether.[103]

Though offshore turbines utilize many of the same components as their smaller land-based counterparts, the overall breakdown of project costs for an offshore farm differs from that of a land-based farm, with installation and transmission costs making up a much larger share of the total. This report therefore divides likely wind investment by type, and assesses costs accordingly.

We allocate likely wind investment to specific components using 6-digit NAICS codes. Based on these codes, we determine the number of jobs that will be created in each state (Kentucky, Ohio, Pennsylvania, and West Virginia). Then at the more general 3-digit subsector level, we identify the counties within those states where jobs will emerge.

Step 5: Determine where the jobs will be created

Knowing the industries where demand for new workers will grow enables us to estimate the number of jobs that will emerge in Kentucky, Ohio, Pennsylvania and West Virginia and to identify the communities most likely to get the jobs. We project this based on the share of all wind investment that would flow into each state and county in the ReImagine Appalachia geography if they kept their current share of all U.S. jobs in that industry. For instance, 2.7% of all ball and roller bearing manufacturing workers are in Kentucky, so if Kentucky gets its "share" of new workers in this industry from wind investment, it will get 2.7% of the new ball and roller bearing manufacturing jobs. Those shares are parsed out based on employees, rather than firms, to account for the fact that firms can vary significantly in size, from just a few workers to thousands. Using the percentage identified for workers, we also parse the likely economic investment that will flow into the community, and report that in millions of dollars (step 7).

The jobs estimates are the core of our report. The dataset we use to identify where they will most likely emerge come from the Economic Census, and the proprietary industry employment dataset we discussed earlier.

Economic Census data are available down to 6-digits for states and 3-digits for counties. For this report, we allocate investment to states at the 6-digit specific industry level, then parse the state share to counties based on their share at the more general 3-digit subsector level. This means we have a highly specific sense of likely wind investment in states, and a more general view of where that investment is likely to flow within the state. We assign each county a share of jobs if it currently has jobs in the 3-digit NAICS subsector according to either the Economic Census or the proprietary industry employment dataset estimates, and only if it is in a state that has workers doing work in the specific industry as identified at the 6-digit detailed level.

To combine these datasets, we first use the Economic Census to determine how many of the likely 500,000 wind-related manufacturing jobs to emerge in the U.S. will go to each state, based on their current share of all U.S. jobs in the specific industry. Then we identify how those jobs will likely be divided up to counties by taking the larger of their current number of jobs in either the Economic Census or Brookings dataset, and dividing that out by the total, to get a multiplier decimal.[104] For instance, Columbiana County, Ohio has 469 jobs in Primary Metal Manufacturing (subsector 331) according to the Economic Census, and 560 according to Brookings. We take the 560, and divide it by the total for Ohio, to estimate that Columbiana County will get about 1.48% of all new Primary Metal Manufacturing jobs that come to Ohio: about 102 jobs.

Manufacturers in the (3-digit) subsector may currently be doing other types of work, but would be well positioned to take on new opportunities to enter the turbine component supplier market. We only count counties that both have manufacturers working within the 3-digit subsector and are in a state having manufacturers working in the more specific 6-digit industry.

Of course, whether a state or county gets its "share" of jobs and investments, captures an even bigger share of the market, or gets nothing at all depends on the choices made by people and businesses in the

community, economic developers, and policymakers.

Step 6: Firms involved in manufacture for expanded wind capacity

We report out the number of existing firms as reported to the Economic Census. This is not a projection; it is a straightforward datapoint on existing firms. We know that wind investment will create opportunity for new businesses, however, this report does not parse how much of the new wind investment will flow to existing firms versus new firms that may come into the market. There will be long-term opportunities for both.

At least eleven manufacturing facilities serving the land-based wind market re-opened, expanded or announced plans to do so in 2023, creating more than 3,000 new jobs.[105] The NREL found that reaching the addition of 30GW of offshore wind, as described above, would require an additional 34 manufacturing facilities to be built.[106] Firms producing components similar to those produced for the wind industry already will have a clear advantage in winning contracts to make turbine parts; the presence of these firms within a community positions their community in a strong place to participate in the emerging market. But the growing demand for turbine components will likely create opportunities for new business ventures too, especially to leverage regional strengths to overcome bottlenecks in the supply chain.

Step 7: Capital investment for expanded manufacturing for wind generation

This report additionally estimates the level of investment that could flow into North Central Appalachia over the next 20 years, assuming 500 GW of wind power are added over that time. We use the cost breakdown of turbine components from the National Renewable Energy Laboratory Cost of Wind Energy Review: 2024 Edition. They are based on the Levelized Cost of Energy (LCOE).[107] Estimated LCOE for land-based installations ranged from $30–$61/Mwh and used a reference figure of $42/Mwh. Offshore projects were costed out based on whether their substructures were fixed-bottom or floating.The fixed-bottom offshore wind estimate is $117/MWh, and the floating substructure estimate is $181/MWh. Both have a range of $76–$234/Mwh.[108] While the NREL also breaks out costs for distributed wind turbines, this report only considers utility scale turbines.

Using these figures, we identify a weighted average cost of wind power of $53 per Mwh. Land-based projects comprise 88.8% of the wind energy projects planned today, as measured by MW of capacity. Figure x gives the breakdown in costs for wind power plants.

Figure A-3

Energy Cost of On- and Offshore Wind Power					
	Cost per Mwh	**Share of planned wind turbine capacity by MW**	**Share of offshore turbines (MW)**	**Capacity factor**	**Cost per MW**
Land-based turbines	$42	88.8%	0	46.9%	$784,478
Offshore turbines		11.2%			
Fixed bottom	$117		2 / 3	49.0%	$2,091,673
Floating	$181		1 / 3	38.2%	$4,150,681
Weighted Average	$53				$1,007,753

Currently, land-based wind power plants can be built at a lower cost than most baseload plants. Offshore plants are significantly costlier to build, but innovation and scale are working to bring those costs down. The U.S. Department of Energy's Wind Shot program was working under the Biden Administration to reduce the cost of floating offshore wind in deep waters by more than 70%, to $45 per MWh by 2035.[109]

At the current rate, one MW of energy capacity from a wind turbine costs nearly $1 million, on average. At this rate, building 500GW of wind power would entail an investment of about $500 billion. This $500 billion is parsed to states using the same shares used to determine their share of the 625,000 likely jobs.

Appendix A – Components of a Wind Turbine

A typical wind turbine has about 8,000 parts, but they can be grouped into major component categories. Figure A-4 gives a quick guide to major components. Below are detailed descriptions of each.

Figure A-4

Wind Turbine Components in Detail

Turbine component or group	Industry and NAICS code	Description
ROTOR		The rotor of a wind turbine is the rotating part, typically consisting of blades attached to a central hub, that captures wind energy and converts it into rotational motion. This rotational motion then drives a generator, which produces electricity. Components for the rotor include blades and hub.
Rotor Blades	**326199** All Other Platics Product Manufacturing	Rotor blades capture the energy of the wind and convert it into the rotational mechanical energy the generator uses to produce electricity. They work similarly to the blades of an airplane. Wind must travel a greater distance to pass the curved surface than the flat surface, so wind pressure decreases over the curve and rises over the flat side, creating the lift that spins the hub. Modern utility scale turbines have three blades.
Rotor Hub	**331511** Iron Foundries	Typically made of iron, the hub serves as the base for the rotor blades and extenders. It attaches to the nacelle using a shaft and bearing assembly. It typically rotates freely, but its rotation can be stopped by brakes, allowing workers to safely enter the turbine for service. Because the hub is often cast as a single steel part, it is one of the components that can be constrained by transit infrastructure.
NACELLE		The nacelle of a wind turbine is essentially the "engine room" of the wind turbine. It is a housing at the top of the turbine's tower that contains the essential machinery for converting wind energy into electricity: The gear box, power converter, generator, nacelle frame (main frame), brake system.
Gear Box	**333612** Speed Changer, Industrial	The gearbox employs a planetary gear system to convert low-speed rotation of the input shaft from the rotor to high-speed rotation which drives the high-speed shaft of the generator assembly. Gearboxes are an expensive component in a utility-scale wind turbine, and because torque increases more quickly than power when increasing rotor diameter is increased, the gearboxes for larger wind turbines are more expensive per kilowatt (kW) of rated power than for smaller turbines. This and the difficulty of replacing a gearbox that wears out have led to the widespread adoption of direct-drive systems, which eliminate the need for a gearbox at all, in offshore turbines. However, this poses separate challenges, because the direct drive system in a modern turbine relies on rare earth metals whose supply is almost wholly controlled by China. For this reason, gearboxes generally continue to be used in the land-based turbines that now comprise most of the market, as well as in some offshore turbines
Power converter	**335999** Electronic Equipment and Components	The power converter matches the generator's output power with the electric grid. The power converter synchronizes the generator to the phase of the utility grid by converting the AC signal from the generator to DC, and then re-inverting the DC back to AC at the correct phase. This conversion is needed to match the rate of the turbine's power generation, which varies with wind speed, to the constant frequency needed for transmission on the grid, but it is the reason turbines cannot maintain grid stability themselves in the way that a coal or nuclear plant can. For this reason, grids that are converting to 100% renewable energy use a separate grid stabilizer.
Generator	**333611** Turbines, Turbine Generators, and Turbine Generator Sets	This system converts the work of the rotating shaft into electrical energy by spinning the rotor around the magnetic stator and using the electromagnetism to produce AC electricity. The generator relies on the use of power electronics to match the turbine's variable output to the phasing of the electric grid.
Nacelle Frame/ Main Frame	**31511** Iron Foundries	The nacelle frame is a steel bed that serves as a base for the nacelle housing and the mounting point on which all of the major components are bolted. The nacelle frame is a single cast steel piece.
Nacelle Housing	**326199** All other Plastics Product Manufacturing	The nacelle housing sits atop the tower on the nacelle frame and protects the turbine machinery.
Brake System	**333613** Power Transmission Equipment	Mechanical brakes stop the rotors, gears and generator from turning for maintenance and during inclement weather that could damage the turbine. Brakes complement the yaw mechanism, which typically halts any blade rotation by turning the rotors perpendicular to the wind direction. The brake system prevents undesired rotation or fatigue on the turbine and ensures the safety of workers servicing the turbine.

Figure A-4, *cont.*

Wind Turbine Components in Detail		
Turbine component or group	**Industry and NAICS code**	**Description**
TOWER		The tower is the vertical structure that supports the entire turbine, including the nacelle and rotor blades. It's a crucial component that elevates the turbine blades to a height where wind speeds are higher and more consistent, thus optimizing energy capture. Towers are designed to withstand significant forces from wind and other environmental factors.
Tower	**332312** Fabricated Structural Metal	Turbine towers are made of rolled, tubular steel, and built in sections due to their size. Towers are the largest single component of the turbine. Land-based towers typically reach about 100 meters (roughly 330 feet): roughly the height of a 30-story building. Offshore towers reach about 137 meters (450 feet): about 42 stories.
Tower Flanges	**331511** Iron Foundries	Tower flanges join tower segments using a combination of bolting and welding. Towers are built in segments due to size. Bolts are costed out separately since they also appear in other parts of the turbine.
Transformer	**335312** Motors and Generators	The pitch system controls the pitch of the blades to achieve the optimum angle for the wind speed and desired rotation speed. For variable-pitch wind turbines, a drive system is used to change the pitch of the blades to vary power output, and at high wind speeds to divert excess energy, thus reducing stress on the blades and keeping rotational speeds within design specifications. There are typically three motors used to perform this function, one for each blade. Pitch systems may be hydraulic or fully-electric.
Pitch System	**335312** Motors and Generators	The pitch system controls the pitch of the blades to achieve the optimum angle for the wind speed and desired rotation speed. For variable-pitch wind turbines, a drive system is used to change the pitch of the blades to vary power output, and at high wind speeds to divert excess energy, thus reducing stress on the blades and keeping rotational speeds within design specifications. There are typically three motors used to perform this function, one for each blade. Pitch systems may be hydraulic or fully-electric.
Shafts	**333613** Power Transmission Equipment	The low speed shaft connects the rotor to the input of the gearbox, and the high speed shaft connects the output of the gearbox to the generator. Direct drive systems use just a single shaft. Most turbines continue to utilize a gearbox system, but the sizes of shafts have significantly decreased over time. These smaller shafts experience greater fatigue and may need more regular maintenance.
Rotor Bearings	**332991** Ball and Roller Bearings	Bearings are used for the shafts, gearbox, yaw mechanism, generator, and other rotating parts, enabling these parts to move freely.
Yaw Drive	**335312** Motors and Generators	The yaw drive slews the turbine directly into the wind in order to generate maximum power under normal operating conditions. At high wind speeds, the yaw system turns the turbine up to 90 degrees from prevailing winds to reduce stress on internal components and to prevent stalling due to over-speed conditions.
Bolts	**331511** Iron Foundries	Bolts join tower segments and other components.
Cables	**335929** Communications wire and cable, nonferrous, made from purchased nonferrous wire	Power cables transmit power generated by the turbine to the grid. Turbines also have control cables, array cables, and more.

ROTOR - The rotor of a wind turbine is the rotating part, typically consisting of blades attached to a central hub, that captures wind energy and converts it into rotational motion. This rotational motion then drives a generator, which produces electricity. Components for the rotor include blades and hub.

Rotor Blades
Subsector Code: 326 Plastics and Rubber Products Manufacturing
Industry Code: 326199 All other Plastics Product Manufacturing
Description: Rotor blades capture the energy of the wind and convert it into the rotational mechanical

energy the generator uses to produce electricity. They work similarly to the blades of an airplane. Wind must travel a greater distance to pass the curved surface than the flat surface, so wind pressure decreases over the curve and rises over the flat side, creating the lift that spins the hub. Modern utility scale turbines have three blades.

Blade design is one of the key engineering challenges to maximizing wind turbine power outputs, and is still undergoing rapid innovation. Turbine blades must balance achieving maximum lift over the length of the blade with maintaining structural integrity even in strong wind conditions.

Turbine blades typically comprise about 50%. fiberglass, along with other materials, but they are classified under plastics and rubber manufacturing because they are composites and their manufacturers are primarily engaged in building the structures themselves, regardless of material. The fact that turbine blades, unlike most other turbine parts, cannot typically be recycled has led researchers to seek out both new materials for turbine blade construction and methods to recycle existing blades.[110] The evolution of blade materials is a window into the complexity of this emerging market: though our analysis focuses at a more macro level, the use of new materials – possibly including hemp fiber – will itself create opportunities for companies in Appalachia. The NREL estimated the cost of a single turbine blade at $154,000 in 2019.

Rotor Hub
Subsector Code: 331 Primary Metal Manufacturing
Industry Code: 331511 Iron Foundries
Description: Typically made of iron, the hub serves as the base for the rotor blades and extenders. It attaches to the nacelle using a shaft and bearing assembly. It typically rotates freely, but its rotation can be stopped by brakes, allowing workers to safely enter the turbine for service. Because the hub is often cast as a single steel part, it is one of the components that can be constrained by transit infrastructure.

NACELLE - The nacelle of a wind turbine is essentially the "engine room" of the wind turbine. It is a housing at the top of the turbine's tower that contains the essential machinery for converting wind energy into electricity: The gear box, power converter, generator, nacelle frame (main frame), brake system.

Gear Box
Subsector Code: 333 Machinery Manufacturing
Industry Code: 333612 Speed Changer, Industrial
Description: The gearbox employs a planetary gear system to convert low-speed rotation of the input shaft from the rotor to high-speed rotation which drives the high-speed shaft of the generator assembly. Gearboxes are an expensive component in a utility-scale wind turbine, and because torque increases more quickly than power when increasing rotor diameter is increased, the gearboxes for larger wind turbines are more expensive per kilowatt (kW) of rated power than for smaller turbines. This and the difficulty of replacing a gearbox that wears out have led to the widespread adoption of direct-drive systems, which eliminate the need for a gearbox at all, in offshore turbines. However, this poses separate challenges, because the direct drive system in a modern turbine relies on rare earth metals whose supply is almost wholly controlled by China. For this reason, gearboxes generally continue to be used in the land-based turbines that now comprise most of the market, as well as in some offshore turbines.

Power converter
Subsector Code: 335 Electrical Equipment, Appliance, and Component Manufacturing
Industry Code: 335999 Electronic Equipment and Components

Note: Power converters were grouped together with transformers in the REPP report under the heading of "Power Electronics"
Description: The power converter matches the generator's output power with the electric grid. The power converter synchronizes the generator to the phase of the utility grid by converting the AC signal from the generator to DC, and then re-inverting the DC back to AC at the correct phase. This conversion is needed to match the rate of the turbine's power generation, which varies with wind speed, to the constant frequency needed for transmission on the grid, but it is the reason turbines cannot maintain grid stability themselves in the way that a coal or nuclear plant can. For this reason, grids that are converting to 100% renewable energy use a separate grid stabilizer.[111]

Generator
Subsector Code: 333 Machinery Manufacturing
Industry Code: 333611 Turbines, and Turbine Generators, and Turbine Generator Sets
Description: This system converts the work of the rotating shaft into electrical energy by spinning the rotor around the magnetic stator and using the electromagnetism to produce AC electricity. The generator relies on the use of power electronics to match the turbine's variable output to the phasing of the electric grid.

Nacelle Frame / Main Frame
Subsector Code: 331 Primary Metal Manufacturing
Industry Code: 331511 Iron Foundries
Description: The nacelle frame is a steel bed that serves as a base for the nacelle housing and the mounting point on which all of the major components are bolted. The nacelle frame is a single cast steel piece.

Brake System
Subsector Code: 333 Machinery Manufacturing
Industry Code: 333613 Power Transmission Equipment
Description: Mechanical brakes stop the rotors, gears and generator from turning for maintenance and during inclement weather that could damage the turbine. Brakes complement the yaw mechanism, which typically halts any blade rotation by turning the rotors perpendicular to the wind direction. The brake system prevents undesired rotation or fatigue on the turbine and ensures the safety of workers servicing the turbine.

TOWER - The tower is the vertical structure that supports the entire turbine, including the nacelle and rotor blades. It's a crucial component that elevates the turbine blades to a height where wind speeds are higher and more consistent, thus optimizing energy capture. Towers are designed to withstand significant forces from wind and other environmental factors.

Tower
Subsector Code: 332 Fabricated Metal Product Manufacturing
Industry Code: 332312 Fabricated Structural Metal
Description: Turbine towers are made of rolled, tubular steel, and built in sections due to their size. Towers are the largest single component of the turbine. Land-based towers typically reach about 100 meters (roughly 330 feet): roughly the height of a 30-story building.[112] Offshore towers reach about 137 meters (450 feet): about 42 stories.[113]

Because wind flow is stronger and more consistent at higher altitudes, engineers design turbines that can reach as high as possible. But road and rail transportation limitations restrict the size of land-based towers

by both diameter and height. Offshore turbine towers are too large for overland transport and must be shipped from their manufacturing facility to their final destination via waterways.

Developers are exploring ways to address the overland transport limitation, including at least one company that has built a 105 meter turbine tower out of wood. Besides meeting the transport challenge, the tower is also carbon negative, storing more carbon than it takes to produce.[114] Another firm working with the University of California, Irvine, developed a technology for building 3D printed ultra-tall concrete wind turbine towers of 140 feet on-site at wind plants.[115] Though concrete, like steel, is carbon intensive, the technology would increase energy production by more than 21 percent and could be used to improve existing turbines when they are repowered. If either wood or concrete towers were widely adopted, it would substantially change the industries that could participate in the supply chain.

Tower Flanges
Subsector Code: 331 Primary Metal Manufacturing
Industry Code: 331511 Iron Foundries
Description: Tower flanges join tower segments using a combination of bolting and welding. Towers are built in segments due to size. Bolts are costed out separately since they also appear in other parts of the turbine.

OTHER COMPONENTS

Transformer
Subsector Code: 335 Electrical Equipment, Appliance, and Component Manufacturing
Industry Code: 335999 Electronic Equipment and Components
Note: Transformers were grouped together with power converters in the REPP report under the heading of "Power Electronics"
Description: The transformer matches the generator's output power with the electric grid by converting it to the high voltage necessary to be sent over the grid.

Pitch System
Subsector Code: 335 Electrical Equipment, Appliance, and Component Manufacturing
Industry Code: 335312 Motors and Generators
Description: Controls the pitch of the blades to achieve the optimum angle for wind and rotation speed. For variable-pitch wind turbines, a drive system is used to change the pitch of the blades to vary power output, and at high wind speeds to divert excess energy, thus reducing stress on the blades and keeping rotational speeds within design specifications. There are typically three motors used to perform this function, one for each blade. Pitch systems may be hydraulic or fully-electric.

Shafts
Subsector Code: 333 Machinery Manufacturing
Industry Code: 333613 Power Transmission Equipment
Description: The low speed shaft connects the rotor to the input of the gearbox, and the high speed shaft connects the output of the gearbox to the generator. Direct drive systems use just a single shaft. Most turbines continue to utilize a gearbox system, but the sizes of shafts have significantly decreased over time. These smaller shafts experience greater fatigue and may need more regular maintenance.

Bearings
Subsector Code: 332 Fabricated Metal Product Manufacturing

Industry Code: 332991 Ball and Roller Bearings
Description: Bearings are used for the shafts, gearbox, yaw mechanism, generator, and other rotating parts, enabling these parts to move freely.

Yaw Drive
Subsector Code: 335 Electrical Equipment, Appliance, and Component Manufacturing
Industry Code: 335312 Motors and Generators
Description: The yaw drive slews the turbine directly into the wind in order to generate maximum power under normal operating conditions. At high wind speeds, the yaw system turns the turbine up to 90 degrees from prevailing winds to reduce stress on internal components and to prevent stalling due to over-speed conditions.

Cable
Subsector Code: 335 Electrical Equipment, Appliance, and Component Manufacturing
Industry Code: 335929 Communications wire and cable, nonferrous, made from purchased nonferrous wire
Note: Cable was not included in the REPP report. The entry of offshore turbines into the market has made cable a much bigger portion of total wind power plant infrastructure.
Description: Wind turbines have many cables that serve various functions. Power cables transmit power generated by the turbine to the grid. Control cables set the pitch of the blades and other systems. Communication cables transmit data to allow monitoring of the wind power plant. Grounding cables provide surge protection. Offshore wind farms have additional cables, including array cables that link multiple turbines to a substation, and export cables that connect the offshore substation to an onshore substation where it in turn links to the grid.

Appendix B - Calculating Jobs Numbers for North Central Appalachia

We estimate the number of jobs Appalachian communities can gain from new wind investment by dividing the total demand for new wind industry workers nationwide by their share in the region. To get this share, we use the existing number of employees at firms now producing wind turbine components or similar parts as identified by their NAICS codes. This approach creates a conservative estimate of the number of jobs Appalachian communities could gain from growth in the wind industry, because it assumes that they keep their current share of all similar jobs. In other words, they gain jobs from wind industry investment, but no faster than any other region. If, instead, Appalachian communities planfully leveraged their existing strengths to become part of a manufacturing hub for the wind industry, they could exceed these estimates.

Figure B-1

Projected Jobs from Wind Power Development in Kentucky

Subsector		Plastics and Rubber Products Manufacturing	Primary Metal Manufacturin	Fabricated Metal Product Manufacturing	Machinery Manufacturing	Electrical Equipment, Appliance and Component Manufacturing	
NAICS Code		326	331	332	333	335	
County	Appalachian?						Total for county /geography
Kentucky		4,219	0	1,133	0	486	5,838
Adair	Yes	0	0	2	0	0	2
Bath	Yes	0	0	0	0	0	0
Bell	Yes	0	0	0	0	0	0
Boyd	Yes	14	0	9	0	1	23
Breathitt	Yes	3	0	0	0	0	3
Carter	Yes	64	0	5	0	2	71
Casey	Yes	0	0	18	0	0	18
Clark	Yes	104	0	28	0	8	139
Clay	Yes	0	0	0	0	0	0
Clinton	Yes	0	0	3	0	0	3
Cumberland	Yes	0	0	2	0	0	2
Edmonson	Yes	0	0	1	0	0	1
Elliott	Yes	0	0	0	0	0	0
Estill	Yes	0	0	0	0	0	0
Fleming	Yes	18	0	5	0	0	23
Floyd	Yes	0	0	4	0	0	4
Garrard	Yes	0	0	1	0	0	1
Green	Yes	0	0	0	0	0	0
Greenup	Yes	25	0	6	0	2	33
Harlan	Yes	0	0	1	0	0	1
Hart	Yes	137	0	5	0	0	142
Jackson	Yes	0	0	3	0	0	3
Johnson	Yes	1	0	0	0	0	1
Knott	Yes	0	0	0	0	0	0
Knox	Yes	0	0	7	0	0	8
Laurel	Yes	3	0	14	0	0	17
Lawrence	Yes	0	0	0	0	0	0
Lee	Yes	0	0	1	0	0	1
Leslie	Yes	0	0	0	0	0	0
Letcher	Yes	0	0	1	0	0	1
Lewis	Yes	8	0	0	0	0	8
Lincoln	Yes	0	0	1	0	0	1
Madison	Yes	77	0	14	0	0	91
Magoffin	Yes	0	0	0	0	0	0
Martin	Yes	0	0	0	0	0	0
McCreary	Yes	0	0	3	0	0	3
Menifee	Yes	0	0	2	0	0	2
Metcalfe	Yes	0	0	1	0	0	1
Monroe	Yes	0	0	0	0	0	0
Montgomery	Yes	125	0	7	0	7	139
Morgan	Yes	0	0	2	0	0	2
Nicholas	Yes	0	0	1	0	0	1
Owsley	Yes	0	0	0	0	0	0
Perry	Yes	0	0	0	0	0	0
Pike	Yes	0	0	3	0	0	3
Powell	Yes	0	0	2	0	0	2
Pulaski	Yes	0	0	7	0	0	7

Figure B-1, cont.

Projected Jobs from Wind Power Development in Kentucky

Subsector		Plastics and Rubber Products Manufacturing	Primary Metal Manufacturin	Fabricated Metal Product Manufacturing	Machinery Manufacturing	Electrical Equipment, Appliance and Component Manufacturing	
NAICS Code		326	331	332	333	335	
County	Appalachian?						Total for county /geography
Robertson	Yes	0	0	0	0	0	0
Rockcastle	Yes	2	0	0	0	0	2
Rowan	Yes	32	0	8	0	0	40
Russell	Yes	0	0	4	0	0	4
Wayne	Yes	0	0	2	0	0	2
Whitley	Yes	76	0	3	0	0	79
Wolfe	Yes	0	0	0	0	0	0
Allen	No	0	0	1	0	0	1
Anderson	No	47	0	3	0	0	50
Ballard	No	0	0	9	0	0	9
Barren	No	9	0	7	0	0	16
Boone	No	256	0	69	0	3	328
Bourbon	No	0	0	5	0	0	6
Boyle	No	68	0	7	0	0	76
Bracken	No	5	0	0	0	0	5
Breckinridge	No	0	0	9	0	0	9
Bullitt	No	53	0	7	0	3	62
Butler	No	65	0	1	0	0	65
Caldwell	No	0	0	0	0	0	0
Calloway	No	63	0	1	0	0	64
Campbell	No	4	0	10	0	2	16
Carlisle	No	0	0	0	0	0	0
Carroll	No	26	0	73	0	2	101
Christian	No	29	0	19	0	16	64
Crittenden	No	33	0	0	0	0	34
Daviess	No	74	0	32	0	9	115
Fayette	No	93	0	32	0	29	154
Franklin	No	0	0	21	0	0	22
Fulton	No	0	0	0	0	1	1
Gallatin	No	25	0	6	0	0	30
Grant	No	1	0	6	0	4	10
Graves	No	0	0	10	0	1	11
Grayson	No	149	0	11	0	0	160
Hancock	No	0	0	4	0	0	4
Hardin	No	207	0	12	0	6	225
Harrison	No	0	0	5	0	0	5
Henderson	No	53	0	23	0	0	76
Henry	No	0	0	0	0	0	0
Hickman	No	0	0	0	0	1	1
Hopkins	No	50	0	11	0	0	62
Jefferson	No	455	0	234	0	368	1,057
Jessamine	No	85	0	9	0	0	94
Kenton	No	44	0	22	0	18	84
Larue	No	0	0	4	0	0	4
Livingston	No	0	0	0	0	0	0
Logan	No	149	0	12	0	0	161
Lyon	No	0	0	0	0	0	0
Marion	No	105	0	8	0	0	113
Marshall	No	36	0	16	0	0	52
Mason	No	12	0	0	0	0	12
McCracken	No	51	0	36	0	1	89
McLean	No	1	0	2	0	0	3
Meade	No	0	0	1	0	0	1
Mercer	No	0	0	1	0	0	2
Muhlenberg	No	43	0	1	0	0	44
Nelson	No	291	0	12	0	0	303
Ohio	No	0	0	17	0	0	17
Oldham	No	8	0	5	0	0	13
Owen	No	0	0	0	0	0	0
Pendleton	No	11	0	1	0	0	12
Scott	No	349	0	48	0	0	396
Shelby	No	156	0	23	0	0	179
Simpson	No	75	0	19	0	0	93
Spencer	No	0	0	0	0	0	0
Taylor	No	35	0	16	0	0	50
Todd	No	0	0	1	0	0	1
Trigg	No	13	0	3	0	0	16
Trimble	No	0	0	0	0	0	0
Union	No	32	0	2	0	0	33
Warren	No	189	0	70	0	1	260
Washington	No	7	0	0	0	0	7
Webster	No	30	0	2	0	0	32
Woodford	No	45	0	1	0	0	46
TOTAL		4,219	0	1,133	0	486	5,838
Appalachian		686	0	174	0	20	881
Outside Appalachia		3,532	0	958	0	466	4,957

Figure B-2

Projected Jobs from Wind Power Development in Ohio

Subsector		Plastics and Rubber Products Manufacturing	Primary Metal Manufacturing	Fabricated Metal Product Manufacturing	Machinery Manufacturing	Electrical Equipment, Appliance and Component Manufacturing	
NAICS Code		326	331	332	333	335	
County	**Appalachian?**						**Total for county /geography**
Ohio		**12,629**	**6,896**	**4,729**	**9,406**	**2,403**	36,064
Adams	Yes	1	0	3	2	0	5
Ashtabula	Yes	358	68	52	64	46	587
Athens	Yes	14	0	2	16	0	32
Belmont	Yes	0	0	7	0	0	7
Brown	Yes	0	0	7	1	0	7
Carroll	Yes	0	0	18	1	0	19
Clermont	Yes	55	17	77	103	11	263
Columbiana	Yes	122	102	68	91	0	382
Coshocton	Yes	0	179	8	16	93	297
Gallia	Yes	0	0	0	18	0	18
Guernsey	Yes	111	18	21	64	0	213
Harrison	Yes	0	0	3	3	0	7
Highland	Yes	99	0	18	34	0	152
Hocking	Yes	0	0	11	0	0	11
Holmes	Yes	160	6	66	10	0	243
Jackson	Yes	29	25	2	0	0	56
Jefferson	Yes	0	58	8	51	0	117
Lawrence	Yes	1	0	8	78	0	87
Mahoning	Yes	149	436	78	112	29	804
Meigs	Yes	0	0	0	0	0	0
Monroe	Yes	0	6	0	11	0	17
Morgan	Yes	0	0	17	26	0	43
Muskingum	Yes	41	37	12	18	0	108
Noble	Yes	0	0	2	0	0	2
Perry	Yes	0	30	4	26	0	60
Pike	Yes	0	0	4	0	0	4
Ross	Yes	0	0	7	33	0	40
Scioto	Yes	3	39	4	0	37	83
Trumbull	Yes	62	540	77	91	84	855
Tuscarawas	Yes	424	94	67	141	0	725
Vinton	Yes	0	0	0	1	0	1
Washington	Yes	108	81	8	81	21	298
Allen	No	211	0	38	22	0	271
Ashland	No	115	1	21	118	15	270
Auglaize	No	99	65	35	785	0	985
Butler	No	465	564	102	229	54	1,415
Champaign	No	129	0	62	49	0	239
Clark	No	33	28	58	113	0	231
Clinton	No	273	1	20	9	0	303
Crawford	No	6	42	48	65	0	161
Cuyahoga	No	415	801	674	1,054	298	3,242
Darke	No	130	6	12	18	144	310
Defiance	No	0	98	22	44	0	164
Delaware	No	46	56	36	112	37	286
Erie	No	19	30	18	97	0	163
Fairfield	No	126	22	37	49	0	235
Fayette	No	125	0	7	34	0	166
Franklin	No	476	118	209	335	42	1,180
Fulton	No	21	162	65	38	0	286
Geauga	No	380	5	28	79	16	508
Greene	No	39	68	23	17	0	148
Hamilton	No	230	133	290	423	143	1,218
Hancock	No	469	51	31	135	148	835
Hardin	No	17	0	8	14	0	39
Henry	No	48	0	19	26	0	94
Huron	No	224	23	18	162	14	441
Knox	No	108	0	21	182	0	311
Lake	No	237	221	249	336	52	1,095
Licking	No	317	0	79	26	0	422
Logan	No	65	73	6	5	46	195

Figure B-2, cont.

Projected Jobs from Wind Power Development in Ohio

Subsector		Plastics and Rubber Products Manufacturing	Primary Metal Manufacturing	Fabricated Metal Product Manufacturing	Machinery Manufacturing	Electrical Equipment, Appliance and Component Manufacturing	
NAICS Code		326	331	332	333	335	
County	**Appalachian?**						**Total for county /geography**
Ohio		**12,629**	**6,896**	**4,729**	**9,406**	**2,403**	36,064
Lorain	No	243	167	163	217	64	854
Lucas	No	107	68	99	146	144	565
Madison	No	8	9	12	78	0	106
Marion	No	155	71	18	15	150	409
Medina	No	199	68	93	138	5	502
Mercer	No	79	3	26	169	0	277
Miami	No	131	75	112	161	15	494
Montgomery	No	392	56	210	624	112	1,393
Morrow	No	6	48	3	7	0	64
Ottawa	No	31	40	15	20	0	106
Paulding	No	54	0	8	0	0	63
Pickaway	No	111	0	11	28	0	150
Portage	No	589	69	62	144	29	894
Preble	No	0	50	26	183	100	359
Putnam	No	66	0	39	78	62	245
Richland	No	255	233	59	144	24	715
Sandusky	No	277	75	52	47	87	539
Seneca	No	210	42	17	93	0	361
Shelby	No	213	85	52	263	31	644
Stark	No	307	685	201	260	43	1,495
Summit	No	1,103	252	227	330	75	1,987
Union	No	90	121	10	49	70	341
Van	No	3	0	49	41	0	92
Warren	No	112	77	68	194	11	462
Wayne	No	140	117	88	101	0	447
Williams	No	352	75	58	95	36	617
Wood	No	452	101	51	113	16	733
Wyandot	No	384	0	9	0	0	393
TOTAL		12,629	6,896	4,729	9,406	2,403	36,064
Appalachian		1,736	1,737	659	1,091	321	5,544
Outside Appalachia		10,893	5,160	4,070	8,315	2,082	30,520

Figure B-3

Projected Jobs from Wind Power Development in Pennsylvania

Subsector		Plastics and Rubber Products Manufacturing	Primary Metal Manufacturing	Fabricated Metal Product Manufacturing	Machinery Manufacturing	Electrical Equipment, Appliance and Component Manufacturing	
NAICS Code		326	331	332	333	335	
County	**Appalachian?**						**Total for county /geography**
Pennsylvania		**7,711**	**5,685**	**6,510**	**2,966**	**4,076**	26,948
Allegheny	Yes	161	766	348	226	344	1,845
Armstrong	Yes	28	0	30	20	8	86
Beaver	Yes	175	164	87	10	57	494
Bedford	Yes	71	0	52	66	10	199
Blair	Yes	24	53	28	22	9	137
Bradford	Yes	107	1	26	5	0	139
Butler	Yes	93	232	152	83	11	572
Cambria	Yes	0	74	64	21	0	159
Cameron	Yes	0	9	42	4	0	55
Carbon	Yes	4	44	11	5	0	63
Centre	Yes	40	1	52	18	0	110
Clarion	Yes	1	0	6	0	1	7
Clearfield	Yes	23	18	48	29	0	119
Clinton	Yes	48	3	4	4	0	58
Columbia	Yes	86	47	65	20	0	218
Crawford	Yes	184	77	167	101	8	538
Elk	Yes	0	8	246	24	154	432
Erie	Yes	712	127	326	136	48	1,349
Fayette	Yes	17	20	75	9	3	125
Forest	Yes	0	0	0	6	0	6
Fulton	Yes	0	0	14	38	0	53
Greene	Yes	26	0	7	4	0	36
Huntingdon	Yes	0	0	27	6	0	33
Indiana	Yes	73	1	47	20	0	141
Jefferson	Yes	35	0	108	48	0	191
Juniata	Yes	3	0	6	0	0	9
Lackawanna	Yes	179	28	157	10	181	555
Lawrence	Yes	33	66	97	18	10	224
Luzerne	Yes	647	58	242	24	36	1,006
Lycoming	Yes	262	85	73	37	0	456
McKean	Yes	0	0	73	7	49	129
Mercer	Yes	34	263	154	54	16	521
Mifflin	Yes	104	25	28	9	70	235
Monroe	Yes	28	42	23	4	12	108
Montour	Yes	0	0	2	12	0	14
Northumberland	Yes	120	8	43	10	8	189
Perry	Yes	0	0	5	1	0	7
Pike	Yes	0	0	4	0	16	20
Potter	Yes	0	0	0	8	28	36
Schuylkill	Yes	303	235	91	20	85	735
Snyder	Yes	6	0	4	0	0	11
Somerset	Yes	32	43	51	13	0	138
Sullivan	Yes	0	0	0	0	0	0
Susquehanna	Yes	0	3	8	6	3	20
Tioga	Yes	97	23	49	8	0	177
Union	Yes	0	0	5	17	0	22
Venango	Yes	11	120	42	32	27	232
Warren	Yes	120	1	57	1	109	288
Washington	Yes	85	250	135	56	169	695
Wayne	Yes	0	3	9	7	0	19
Westmoreland	Yes	371	342	269	201	197	1,381
Wyoming	Yes	0	29	6	10	0	45
Adams	No	164	15	87	8	0	275
Berks	No	344	622	180	51	1,244	2,442
Bucks	No	357	60	353	169	108	1,047
Chester	No	111	178	149	80	95	614
Cumberland	No	198	75	67	40	36	416
Dauphin	No	353	161	65	49	104	733
Delaware	No	117	27	148	30	24	347
Franklin	No	37	34	86	177	8	342
Lancaster	No	645	430	437	181	107	1,800
Lebanon	No	46	71	79	16	33	244
Lehigh	No	242	50	120	82	249	743

Figure B-3, *cont.*

Projected Jobs from Wind Power Development in Pennsylvania

Subsector		Plastics and Rubber Products Manufacturing	Primary Metal Manufacturing	Fabricated Metal Product Manufacturing	Machinery Manufacturing	Electrical Equipment, Appliance and Component Manufacturing	
NAICS Code		326	331	332	333	335	
County	**Appalachian?**						**Total for county /geography**
Pennsylvania		**7,711**	**5,685**	**6,510**	**2,966**	**4,076**	26,948
Montgomery	No	211	191	434	134	139	1,110
Northampton	No	214	230	128	101	76	749
Philadelphia	No	40	51	167	43	85	385
York	No	290	219	345	315	95	1,264
TOTAL		7,711	5,685	6,510	2,966	4,076	26,948
Appalachian		4,342	3,270	3,664	1,489	1,672	14,437
Outside Appalachia		3,369	2,415	2,846	1,477	2,404	12,511

Figure B-4

Projected Jobs from Wind Power Development in West Virginia

Subsector		Plastics and Rubber Products Manufacturing	Primary Metal Manufacturing	Fabricated Metal Product Manufacturing	Machinery Manufacturing	Electrical Equipment, Appliance and Component Manufacturing	
NAICS Code		326	331	332	333	335	
County	**Appalachian?**						**Total for county / geography**
West Virginia		**615**	**0**	**418**	**0**	**168**	**1,201**
Barbour	Yes	8	0	0	0	0	9
Berkeley	Yes	87	0	5	0	1	93
Boone	Yes	0	0	1	0	0	1
Braxton	Yes	0	0	1	0	0	1
Brooke	Yes	0	0	75	0	0	75
Cabell	Yes	7	0	46	0	22	76
Calhoun	Yes	0	0	0	0	0	0
Clay	Yes	0	0	3	0	0	3
Doddridge	Yes	0	0	0	0	0	0
Fayette	Yes	13	0	4	0	0	17
Gilmer	Yes	1	0	0	0	0	1
Grant	Yes	0	0	7	0	0	7
Greenbrier	Yes	9	0	0	0	0	9
Hampshire	Yes	0	0	0	0	0	0
Hancock	Yes	32	0	2	0	1	34
Hardy	Yes	20	0	1	0	0	20
Harrison	Yes	7	0	11	0	1	18
Jackson	Yes	0	0	5	0	0	5
Jefferson	Yes	25	0	5	0	0	31
Kanawha	Yes	13	0	15	0	27	56
Lewis	Yes	28	0	0	0	0	28
Lincoln	Yes	0	0	0	0	0	0
Logan	Yes	0	0	17	0	6	24
Marion	Yes	10	0	23	0	22	55
Marshall	Yes	25	0	22	0	0	48
Mason	Yes	22	0	4	0	0	26
McDowell	Yes	0	0	0	0	0	0
Mercer	Yes	7	0	23	0	1	31
Mineral	Yes	37	0	5	0	0	41
Mingo	Yes	0	0	1	0	0	1
Monongalia	Yes	0	0	17	0	43	60
Monroe	Yes	0	0	0	0	0	0
Morgan	Yes	0	0	0	0	0	0
Nicholas	Yes	4	0	5	0	0	9
Ohio	Yes	20	0	29	0	0	50
Pendleton	Yes	0	0	1	0	0	1
Pleasants	Yes	29	0	3	0	0	32
Pocahontas	Yes	0	0	0	0	0	0
Preston	Yes	0	0	5	0	0	5
Putnam	Yes	26	0	32	0	0	58
Raleigh	Yes	22	0	7	0	34	63
Randolph	Yes	0	0	2	0	0	2
Ritchie	Yes	44	0	0	0	0	44
Roane	Yes	2	0	0	0	0	2
Summers	Yes	0	0	1	0	0	1
Taylor	Yes	20	0	0	0	0	20
Tucker	Yes	0	0	1	0	0	1
Tyler	Yes	0	0	5	0	0	5
Upshur	Yes	0	0	1	0	0	1
Wayne	Yes	2	0	2	0	10	14
Webster	Yes	0	0	0	0	0	0
Wetzel	Yes	0	0	0	0	0	0
Wirt	Yes	0	0	0	0	0	0
Wood	Yes	93	0	24	0	1	118
Wyoming	Yes	1	0	5	0	0	5
TOTAL		615	0	418	0	168	1,201
Appalachian		615	0	418	0	168	1,201
Outside Appalachia		0	0	0	0	0	0

Appendix C - Detailed County Profiles

This appendix contains a detailed profile of the likely manufacturing jobs and investment potential from building wind power infrastructure in all Appalachian counties in the Ohio River Valley states of Kentucky, Ohio, Pennsylvania and West Virginia. The tables show what industries are likely to reap the most jobs and investment by specific industries.

Within the tables, color bars represent turbine component groups.

Rotor components are shown in yellow

Nacelle components are shown in green

Towers are shown in light blue

Other components are shown in orange

Detailed descriptions of these components are provided above in Appendix A. Occasionally, subtotals do not sum perfectly to the county totals shown due to rounding.

Kentucky

Adair County

Rotor **Nacelle** **Towers** **Other components**

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			2	$2

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Bath County

Rotor **Nacelle** **Towers** **Other components**

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Rotor Nacelle Towers Other components

Bell County

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Rotor Nacelle Towers Other components

Boyd County

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	14	$11
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	9	$7
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	1	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			23	$19

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Rotor Nacelle Towers Other components

Breathitt County

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	3	$2
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			3	$2

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Rotor Nacelle Towers Other components

Carter County

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	64	$51
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	5	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	2	$2
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			71	$56

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Casey County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	18	$14
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			18	$14

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Clark County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	104	$83
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	28	$22
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	8	$6
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			139	$112

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Clay County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Clinton County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	3	$2
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			3	$2

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Cumberland County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			2	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Edmonson County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Elliott County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Estill County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Fleming County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		Plastics and Rubber Products Manufacturing	18	$14
	326199	**All Other Plastics Product Manufacturing**		
331		Primary Metal Manufacturing	0	$0
	331511	**Iron Foundries**		
332		Fabricated Metal Product Manufacturing	5	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	**Ball and Roller Bearing Manufacturing**		
333		Machinery Manufacturing	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	**Mechanical Power Transmission Equipment Manufacturing**		
335		Electrical Equipment, Appliance, and Component Manufacturing	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**23**	**$18**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Floyd County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**0**	**$0**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**0**	**$0**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**4**	**$3**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**0**	**$0**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**0**	**$0**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**4**	**$3**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Garrard County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**0**	**$0**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**0**	**$0**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**1**	**$1**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**0**	**$0**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**0**	**$0**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**1**	**$1**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Green County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**0**	**$0**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**0**	**$0**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**0**	**$0**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**0**	**$0**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**0**	**$0**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**0**	**$0**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Greenup County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	25	$20
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	6	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	2	$2
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			33	$26

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Harlan County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Hart County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	137	$110
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	5	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			142	$114

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Jackson County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	3	$2
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			3	$2

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Johnson County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	1	$1
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Knott County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Knox County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	7	$6
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			8	$6

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Laurel County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	3	$2
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	14	$12
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			17	$14

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Lawrence County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Lee County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Leslie County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Letcher County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Lewis County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	8	$6
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			8	$6

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Lincoln County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Madison County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	77	$61
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	14	$11
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			91	$73

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Magoffin County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Martin County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

McCreary County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	3	$2
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			3	$2

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Menifee County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			2	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Metcalf County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Monroe County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Montgomery County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	125	$100
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	7	$6
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	7	$5
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			139	$111

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Morgan County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			2	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Nicholas County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Owsley County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Perry County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Pike County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	3	$2
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			3	$2

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Powell County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$2
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			2	$2

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Pulaski County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	7	$6
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			7	$6

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Robertson County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Rockcastle County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	2	$1
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			2	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Rowan County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	32	$25
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	8	$6
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			40	$32

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Russell County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	4	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			4	$4

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Wayne County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			2	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Whitley County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	76	$61
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	3	$2
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			79	$63

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Wolfe County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Ohio

Adams County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	1	$1
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	3	$2
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	2	$1
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			5	$4

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Ashtabula County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	358	$286
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	68	$55
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	52	$41
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	64	$51
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	46	$37
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			587	$470

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Athens County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	14	$11
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	16	$12
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			32	$25

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Belmont County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	7	$5
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			7	$6

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Brown County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	7	$5
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	1	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			7	$6

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Carroll County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	18	$14
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	1	$1
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			19	$15

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Clermont County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	55	$44
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	17	$13
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	77	$61
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	103	$82
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	11	$9
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			263	$210

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Columbiana County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	122	$98
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	102	$82
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	68	$54
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	91	$72
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			382	$306

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Coshocton County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	179	$143
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	8	$6
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	16	$13
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	93	$75
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			297	$238

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Gallia County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	18	$15
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			18	$15

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Guernsey County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	111	$89
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	18	$14
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	21	$17
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	64	$51
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			213	$171

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Harrison County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	3	$3
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	3	$3
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			7	$5

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Highland County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	99	$79
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	18	$15
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	34	$27
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			152	$122

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Hocking County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	11	$9
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			11	$9

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Holmes County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	160	$128
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	6	$5
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	66	$53
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	10	$8
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			243	$194

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Jackson County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	29	$23
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	25	$20
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$2
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			56	$45

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Jefferson County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	58	$47
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	8	$6
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	51	$40
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			117	$93

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Lawrence County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	1	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	8	$6
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	78	$63
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			87	$69

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Mahoning County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	149	$119
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	436	$349
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	78	$63
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	112	$89
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	29	$23
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			804	$643

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Meigs County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Monroe County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	6	$5
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	11	$9
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			17	$13

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Morgan County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	17	$13
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	26	$21
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			43	$34

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Muskingum County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	41	$33
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	37	$30
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	12	$10
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	18	$15
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			108	$87

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Noble County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$2
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			2	$2

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Perry County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	30	$24
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	4	$3
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	26	$20
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			60	$48

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Pike County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	4	$3
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			4	$3

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Ross County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	7	$6
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	33	$26
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			40	$32

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Scioto County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**3**	**$2**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**39**	**$31**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**4**	**$3**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**0**	**$0**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**37**	**$29**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**83**	**$66**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Trumbull County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**62**	**$50**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**540**	**$432**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**77**	**$62**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**91**	**$73**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**84**	**$67**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**855**	**$684**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Tuscarawas County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**424**	**$339**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**94**	**$75**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**67**	**$53**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**141**	**$113**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**0**	**$0**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**725**	**$580**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Vinton County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**0**	**$0**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**0**	**$0**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**0**	**$0**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**1**	**$1**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**0**	**$0**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**1**	**$1**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Washington County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	108	$86
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	81	$65
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	8	$6
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	81	$65
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	21	$16
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			298	$239

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Pennsylvania

Allegheny County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	161	$129
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	766	$612
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	348	$278
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	226	$181
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	344	$275
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1,845	$1,476

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Armstrong County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	28	$22
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	30	$24
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	20	$16
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	8	$7
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			86	$69

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Beaver County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	175	$140
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	164	$131
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	87	$70
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	10	$8
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	57	$46
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			494	$395

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Bedford County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	71	$56
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	52	$41
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	66	$53
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	10	$8
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			199	$159

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Blair County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	24	$19
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	53	$43
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	28	$22
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	22	$18
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	9	$8
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			137	$110

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Bradford County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	107	$85
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	1	$1
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	26	$21
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	5	$4
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			139	$111

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Butler County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	93	$75
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	232	$186
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	152	$122
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	83	$66
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	11	$9
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			572	$457

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Cambria County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	74	$59
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	64	$51
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	21	$17
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			159	$127

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Cameron County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	9	$7
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	42	$33
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	4	$3
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			55	$44

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Carbon County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	4	$3
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	44	$35
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	11	$9
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	5	$4
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			63	$51

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Centre County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	40	$32
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	1	$1
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	52	$41
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	18	$14
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			110	$88

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Clarion County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	1	$1
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	6	$5
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	1	$1
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			7	$6

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Clearfield County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	23	$19
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	18	$15
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	48	$39
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	29	$23
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			119	$95

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Clinton County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	48	$38
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	3	$2
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	4	$3
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	4	$3
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			58	$47

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Columbia County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	86	$69
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	47	$37
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	65	$52
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	20	$16
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			218	$174

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Crawford County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	184	$148
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	77	$61
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	167	$134
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	101	$81
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	8	$7
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			538	$430

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Elk County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	8	$7
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	246	$197
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	24	$19
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	154	$123
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			432	$346

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Erie County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	712	$569
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	127	$102
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	326	$261
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	136	$109
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	48	$38
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1,349	$1,079

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Fayette County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	17	$14
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	20	$16
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	75	$60
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	9	$7
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	3	$3
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			125	$100

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Forest County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	6	$5
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			6	$5

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Fulton County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	14	$11
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	38	$31
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			53	$42

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Greene County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	26	$21
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	7	$5
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	4	$3
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			36	$29

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Huntingdon County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	27	$22
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	6	$5
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			33	$26

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Indiana County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	73	$58
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	1	$1
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	47	$38
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	20	$16
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			141	$113

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Jefferson County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	35	$28
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	108	$86
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	48	$38
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			191	$153

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Juniata County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	3	$2
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	6	$5
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			9	$7

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Lackawanna County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	179	$143
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	28	$23
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	157	$125
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	10	$8
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	181	$145
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			555	$444

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Lawrence County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	33	$26
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	66	$53
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	97	$78
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	18	$14
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	10	$8
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			224	$179

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Luzerne County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	647	$517
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	58	$46
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	242	$193
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	24	$19
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	36	$29
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1,006	$805

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Lycoming County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	262	$209
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	85	$68
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	73	$59
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	37	$29
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			456	$365

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

McKean County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	73	$58
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	7	$6
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	49	$40
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			129	$104

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Mercer County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	34	$27
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	263	$211
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	154	$123
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	54	$43
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	16	$13
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			521	$417

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Mifflin County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	104	$83
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	25	$20
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	28	$22
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	9	$7
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	70	$56
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			235	$188

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Monroe County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	28	$22
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	42	$34
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	23	$19
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	4	$3
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	12	$9
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			108	$87

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Montour County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$2
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	12	$9
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			14	$11

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Northumberland County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	120	$96
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	8	$6
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	43	$35
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	10	$8
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	8	$6
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			189	$151

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Perry County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	5	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	1	$1
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			7	$5

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Pike County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	4	$3
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	16	$13
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			20	$16

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Potter County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	8	$6
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	28	$22
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			36	$29

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Schuylkill County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	303	$242
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	235	$188
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	91	$73
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	20	$16
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	85	$68
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			735	$588

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Snyder County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	6	$5
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	4	$3
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			11	$9

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Somerset County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	32	$26
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	43	$34
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	51	$40
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	13	$10
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			138	$111

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Sullivan County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Susquehanna County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	3	$3
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	8	$6
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	6	$5
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	3	$3
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			20	$16

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Tioga County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	97	$78
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	23	$19
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	49	$39
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	8	$6
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			177	$141

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Union County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	5	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	17	$14
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			22	$17

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Venango County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	11	$9
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	120	$96
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	42	$33
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	32	$25
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	27	$22
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			232	$185

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Warren County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	120	$96
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	1	$1
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	57	$46
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	1	$1
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	109	$87
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			288	$231

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Washington County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	85	$68
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	250	$200
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	135	$108
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	56	$45
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	169	$135
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			695	$556

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Wayne County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	3	$3
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	9	$7
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	7	$5
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			19	$15

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Westmoreland County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	371	$297
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	342	$274
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	269	$215
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	201	$161
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	197	$158
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1,381	$1,104

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Wyoming County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	29	$23
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	6	$5
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	10	$8
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			45	$36

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

West Virginia

Barbour County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	8	$7
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			9	$7

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Berkeley County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	87	$69
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	5	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	1	$1
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			93	$74

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Boone County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Braxton County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Brooke County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	75	$60
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			75	$60

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Cabell County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	7	$6
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	46	$37
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	22	$18
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			76	$61

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Calhoun County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Clay County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	3	$2
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			3	$2

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Doddridge County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Fayette County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	13	$11
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	4	$3
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			17	$14

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Gilmer County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	1	$1
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Grant County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	7	$6
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			7	$6

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Greenbrier County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	9	$8
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			9	$8

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Hampshire County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Hancock County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	32	$25
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	1	$1
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			34	$27

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Hardy County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	20	$16
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			20	$16

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Harrison County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	7	$5
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	11	$9
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	1	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			18	$15

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Jackson County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	5	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			5	$4

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Jefferson County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	25	$20
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	5	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			31	$24

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Kanawha County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	13	$10
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	15	$12
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	27	$22
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			56	$44

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Lewis County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	28	$22
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			28	$22

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Lincoln County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Logan County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	17	$14
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	6	$5
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			24	$19

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Marion County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	10	$8
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	23	$18
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	22	$18
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			55	$44

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Marshall County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	25	$20
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	22	$18
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			48	$38

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Mason County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	22	$18
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	4	$3
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			26	$21

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

McDowell County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Mercer County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	7	$6
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	23	$19
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	1	$1
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			31	$25

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Mineral County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	37	$29
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	5	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			41	$33

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Mingo County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Monongalia County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	17	$14
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	43	$34
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			60	$48

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Monroe County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Morgan County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Nicholas County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**4**	**$3**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**0**	**$0**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**5**	**$4**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**0**	**$0**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**0**	**$0**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**9**	**$7**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Ohio County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**20**	**$16**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**0**	**$0**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**29**	**$23**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**0**	**$0**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**0**	**$0**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**50**	**$40**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Pendleton County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**0**	**$0**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**0**	**$0**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**1**	**$1**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**0**	**$0**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**0**	**$0**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**1**	**$1**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Pleasants County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**29**	**$23**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**0**	**$0**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**3**	**$2**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**0**	**$0**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**0**	**$0**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**32**	**$25**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Pocahontas County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Preston County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	5	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			5	$4

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Putnam County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	26	$20
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	32	$26
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			58	$46

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Raleigh County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	22	$17
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	7	$6
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	34	$27
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			63	$50

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Randolph County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$2
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			2	$2

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Ritchie County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	44	$36
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			44	$36

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Roane County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	2	$1
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			2	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Summers County

Rotor Nacelle Towers Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022
Proprietary Industry Employment data, 2022

Taylor County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	20	$16
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			20	$16

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Tucker County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Tyler County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	5	$4
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			5	$4

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Upshur County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	1	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			1	$1

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Wayne County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	2	$2
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	2	$1
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	10	$8
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			14	$11

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Webster County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Wetzel County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Wirt County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	0	$0
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	0	$0
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	0	$0
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	0	$0
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	0	$0
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			0	$0

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Wood County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**93**	**$75**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**0**	**$0**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**24**	**$19**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**0**	**$0**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**1**	**$1**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**118**	**$94**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Wyoming County

Rotor | Nacelle | Towers | Other components

NAICS Subsector	Includes industries	Description	New Jobs (FTE)	Investment (millions of dollars)
326		**Plastics and Rubber Products Manufacturing**	**1**	**$0**
	326199	All Other Plastics Product Manufacturing		
331		**Primary Metal Manufacturing**	**0**	**$0**
	331511	Iron Foundries		
332		**Fabricated Metal Product Manufacturing**	**5**	**$4**
	332312	Fabricated Structural Metal Manufacturing		
	332991	Ball and Roller Bearing Manufacturing		
333		**Machinery Manufacturing**	**0**	**$0**
	333611	Turbine and Turbine Generator Set Units Manufacturing		
	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing		
	333613	Mechanical Power Transmission Equipment Manufacturing		
335		**Electrical Equipment, Appliance, and Component Manufacturing**	**0**	**$0**
	335312	Motor and Generator Manufacturing		
	335929	Other Communication and Energy Wire Manufacturing		
	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing		
Total			**5**	**$4**

SOURCE: ReImagine Appalachia analysis of data from US Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022 Proprietary Industry Employment data, 2022

Appendix D - Where Wind Power Component Manufacturing Is Likely to Be Concentrated

All four Ohio River Valley states are projected to gain manufacturing jobs from investment in wind energy infrastructure, with some job creation projected in nearly every county. The manufacturing jobs likely created through wind energy investment fall into five major subsectors: Plastics and Rubber Manufacturing (NAICS 326); Primary Metal Manufacturing (NAICS 331); Fabricated Metal Product Manufacturing (NAICS 332); Machinery Manufacturing (NAICS 333) and Electrical Equipment and Component Manufacturing (NAICS 335).

Figure D-1

Job Creation By Subsector For The Four States Of North Central Appalachia

Manufacturing Jobs by Subsector: Statewide		Kentucky	Ohio	Pennsylvania	West Virginia	Subsector Total
326	Plastics and Rubber Product Manufacturing	4,219	12,629	7,711	615	25,174
331	Primary Metal Manufacturing	-	6,896	5,685	-	12,581
332	Fabricated Metal Product Manufacturing	1,133	4,729	6,510	418	12,790
333	Machinery Manufacturing	-	9,406	2,966	-	12,372
335	Electrical Equipment and Component Manufacturing	486	2,403	4,076	169	7,134
	Total	**5,838**	**36,063**	**26,948**	**1,202**	**70,051**

Source: ReImagine Appalachia analysis of data of U.S. Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States and Selected Geographies: 2022; and also from Proprietary Industry Employment dataset[116] 2022.

Figure D-2

Job Creation by Subsector for Just The Appalachian Counties of the Four States

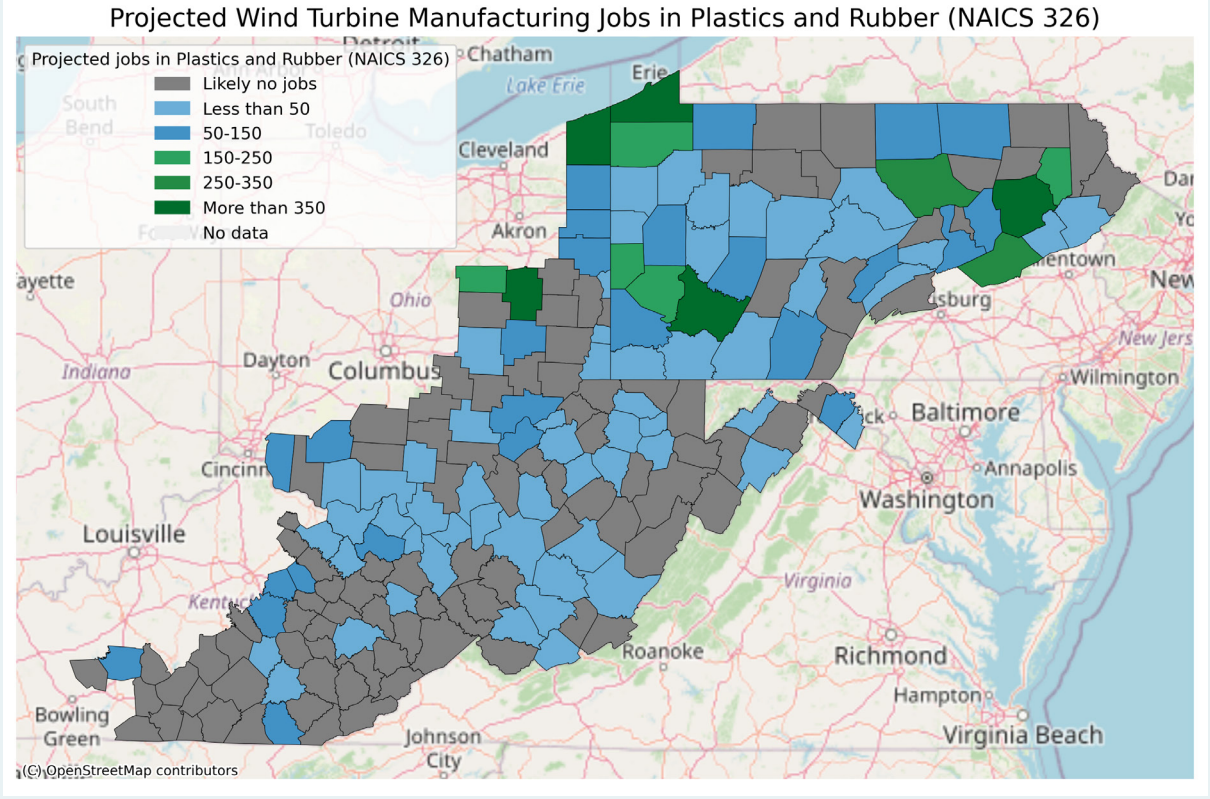
Manufacturing Jobs by Subsector: Appalachian Counties		Kentucky	Ohio	Pennsylvania	West Virginia	Subsector Total
326	Plastics and Rubber Product Manufacturing	686	1,736	4,342	615	7,379
331	Primary Metal Manufacturing	-	1,736	3,271	-	5,007
332	Fabricated Metal Product Manufacturing	174	659	3,664	418	4,915
333	Machinery Manufacturing	-	1,091	1,489	-	2,580
335	Electrical Equipment and Component Manufacturing	20	321	1,672	169	2,182
	Total	**880**	**5,543**	**14,438**	**1,202**	**22,063**

Source: ReImagine Appalachia analysis of data of U.S. Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States and Selected Geographies: 2022; and also from Proprietary Industry Employment dataset[117] 2022.

Among these, jobs in the plastic industry are projected to be the most abundant, and will be created in many counties. Plastics jobs will account for more than half of the wind-related manufacturing jobs created in West Virginia, and around three quarters of all jobs created in Kentucky, both statewide (72%), and in Appalachian Counties (78%). These jobs will be highly important in Steel Valley communities in Ohio and Pennsylvania.

Figure D-3

Likely Plastics Manufacturing Jobs in Ohio River Valley Counties

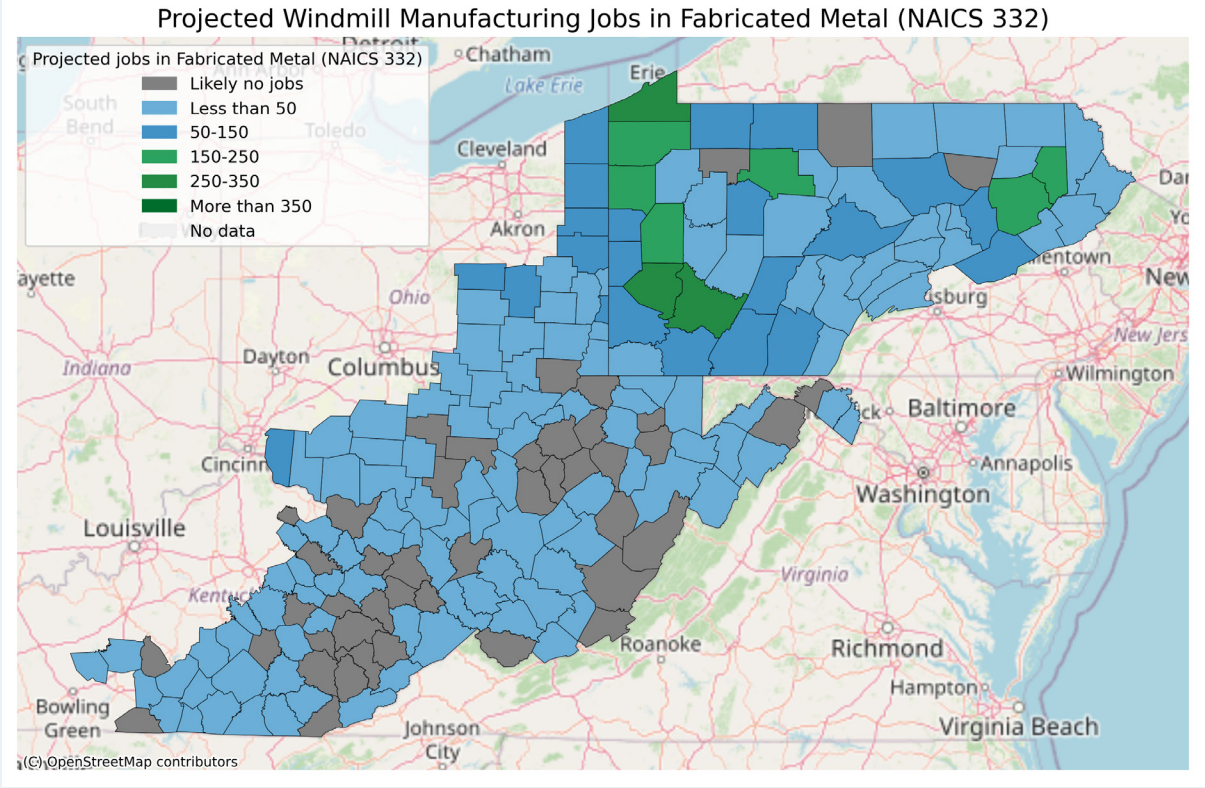


Source: ReImagine Appalachia analysis of data of U.S. Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States and Selected Geographies: 2022; and also from Proprietary Industry Employment dataset[118] 2022.

Many fabricated metal product manufacturing jobs will also be created. Though not as plentiful as plastics jobs, they are projected to be the most geographically dispersed across the region. Not only urbanized industrial legacy cities, but also small counties throughout all four states will see likely fabricated metal jobs from wind investment.

Figure D-4

Likely Fabricated Metal Manufacturing Jobs in Ohio River Valley Counties



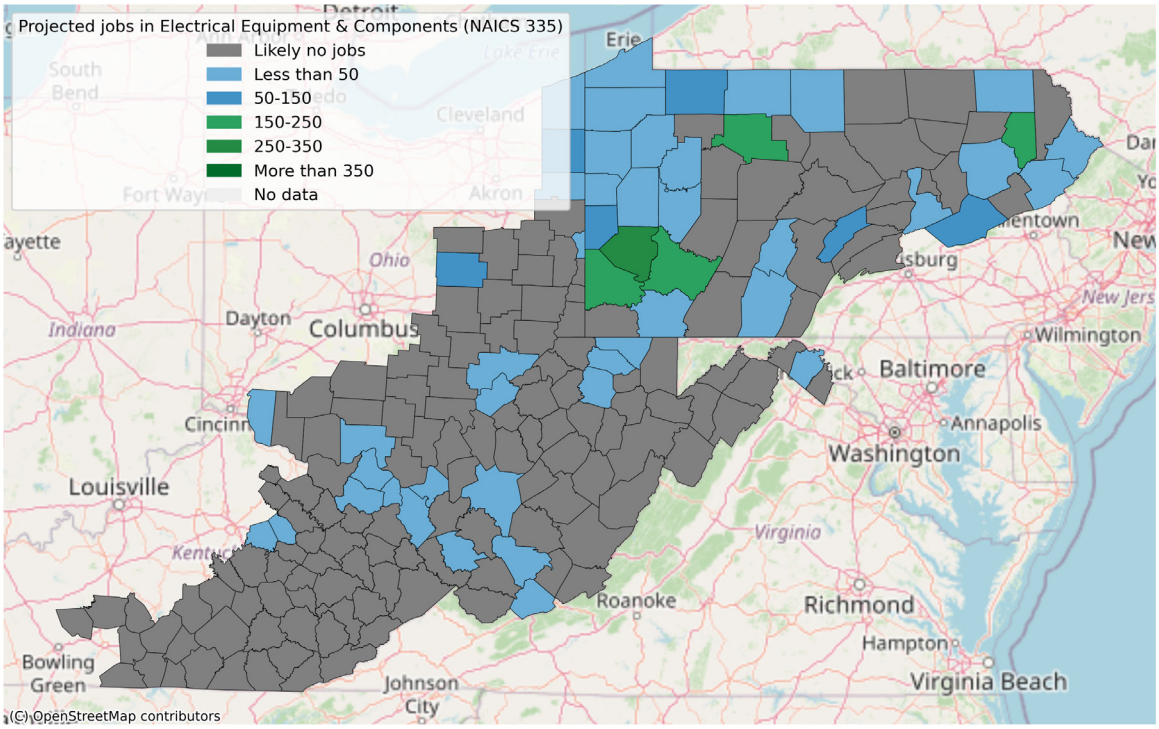
Source: ReImagine Appalachia analysis of data of U.S. Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States and Selected Geographies: 2022; and also from Proprietary Industry Employment dataset[119] 2022.

Wind investment will also create jobs in electrical equipment and component manufacturing in all four Ohio River Valley states. These jobs will be more concentrated in specific communities, and in Kentucky, most will fall outside the state's Appalachian region. However, nearly 2,200 equipment and component manufacturing jobs are likely to be created region-wide. They will be especially important to the once heavily-industrialized community around Pittsburgh.

Figure D-5

Likely Electrical Equipment and Component Manufacturing Jobs in Ohio River Valley Counties

Projected Wind Turbine Manufacturing Jobs in Electrical Equipment & Components (NAICS 335)

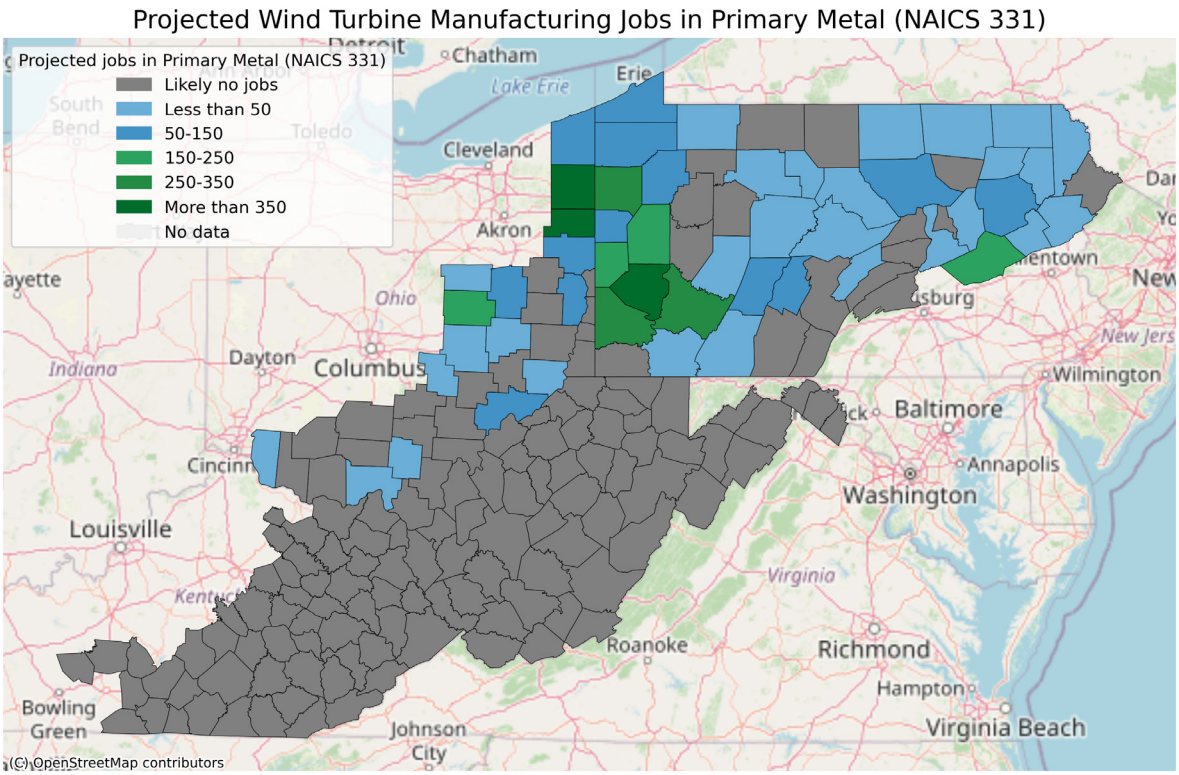


Source: ReImagine Appalachia analysis of data of U.S. Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States and Selected Geographies: 2022; and also from Proprietary Industry Employment dataset[120] 2022.

Primary metal manufacturing jobs are likely to be the second most abundant jobs created for the region. These jobs will be heavily concentrated in Steel Valley communities in Ohio and Pennsylvania. While no primary metal manufacturing jobs are projected for Kentucky and West Virginia, they will be highly important to the more densely populated communities where they will be created in Ohio and Pennsylvania. Note that, while Ohio is projected to see more overall jobs in this subsector, only Appalachian counties appear in the map.

Figure D-6

Likely Electrical Primary Metal Manufacturing Jobs in Ohio River Valley Counties

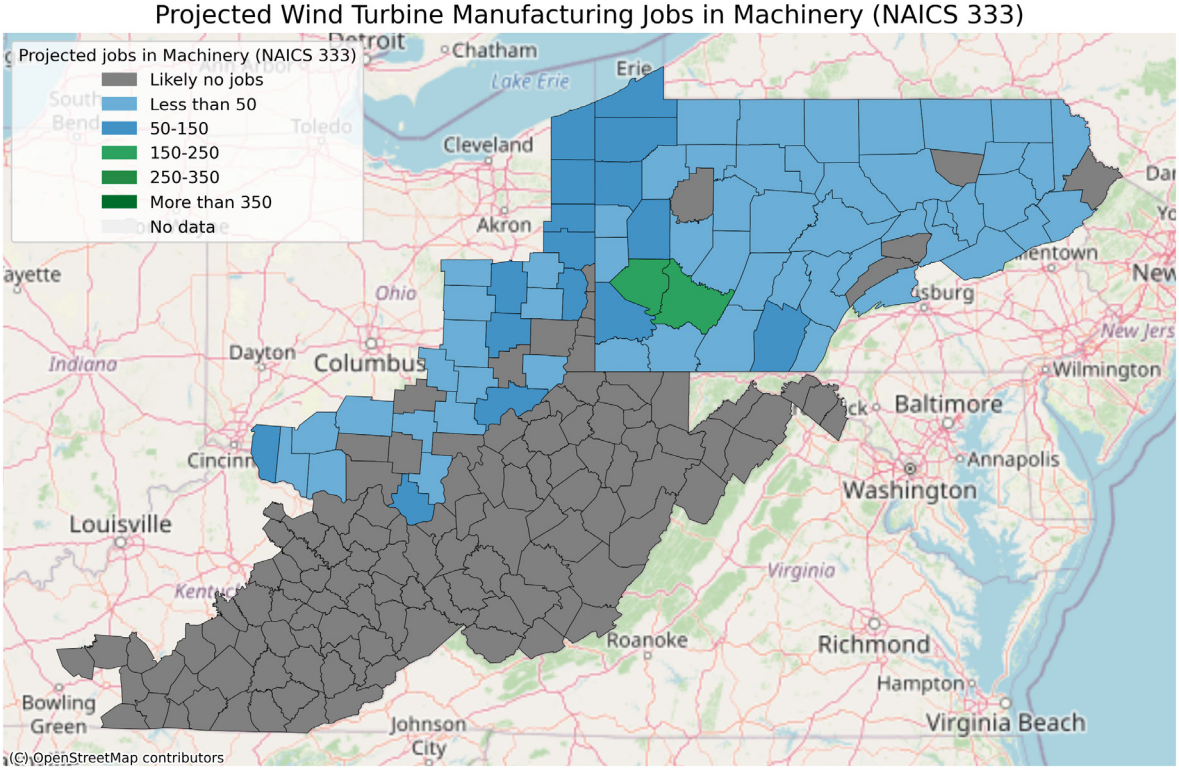


Source: ReImagine Appalachia analysis of data of U.S. Census Bureau, EC2231BASIC: Manufacturing: Summary Statistics for the U.S., States and Selected Geographies: 2022; and also from Proprietary Industry Employment dataset[121] 2022.

Wind investment will also create significant machinery manufacturing jobs. These jobs are expected to appear in Ohio and Pennsylvania.

Figure D-7

Likely Machinery Manufacturing Jobs in Ohio River Valley Counties



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12 This report follows a method developed by the Renewable Energy Policy Project (REPP) for a 2005 report on Ohio. Researchers estimated that each GW of wind power constructed would result in the creation of 3,000 jobs. They used what turned out to be a very conservative estimate that 50,000 MW (50GW) of wind power would come online nationwide over the next 20 years: 147,311.6 MW was built and in operation by January 2025.
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