

# Energy Solutions to Meet Growth in West Virginia



**86,061 energy workers statewide**

Over 12% of state employment



**\$4B in capital expenditure invested**

in energy and manufacturing projects since Q2 2022



**3<sup>rd</sup> most forested state in the nation**

providing opportunity for biomass generation



**\$8.4M in rural revenue**

from clean power projects

The United States is already experiencing sharp increases in energy demand coupled with concerns about rising energy costs. A recent report by S&P Global Commodity Insights predicts that [U.S. electricity demand will surge by 35 – 50%](#) over the next few decades, driven by AI, data centers, and the onshoring of U.S. manufacturing.<sup>1</sup>

A broad portfolio of energy solutions are ready to meet this demand growth and provide economic benefits for communities across the country. In 2024, the United States deployed [\\$338 billion in financing](#) for energy technologies, including renewable energy, EVs, and power grid investment – up from \$303 billion in 2023, a 0.8% increase year on year. Nevertheless, China continued to lead the global market, with \$818 billion of investment in 2024, a 20% increase year on year.<sup>2</sup>

We need more energy now from a broad portfolio of all-of-the-above energy solutions. **This fact sheet highlights energy projects** driving economic growth in West Virginia – and policy solutions to meet growing energy demand.

## Energy Policy Solutions in West Virginia

The [Business Council for Sustainable Energy \(BCSE\)](#) and the [Clean Energy Business Network \(CEBN\)](#) are working with Congressional and state offices to enact policy solutions that will lower energy costs and ensure competitive West Virginia leadership, including:

- Expanding and **modernizing the electric grid and energy infrastructure**, to support integration of new and flexible energy resources.
- Reforming and expanding capacity for **permitting and siting processes** at all levels to enable the build-out of efficient energy infrastructure and buildings.
- Funding **research, development, demonstration, and deployment (RDD&D)** of energy and carbon management technologies, to support West Virginia's innovation in these expanding markets.
- Employing market-based tools, like **tax policy**, that create signals to invest and that leverage private sector dollars.

# West Virginia's Expansive Energy Industry

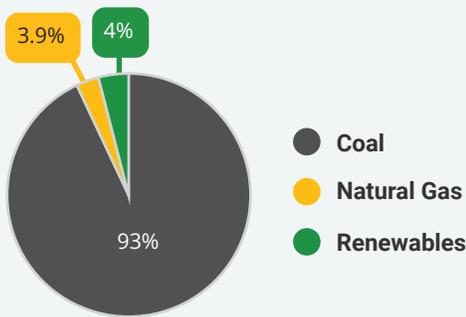
**ENERGY PRICES:** From May 2024 to May 2025, average residential energy prices in West Virginia [increased by 1.3%](#).<sup>3</sup> As of June 2025, [average residential electrical rates](#) in West Virginia are 15.82 cents per kWh, which are the 25th highest in the country.<sup>4</sup>

**UTILITY EFFICIENCY SPENDING:** In 2023, West Virginia utilities invested \$4 million in electric efficiency.<sup>5</sup>

**INVESTMENT:** \$4 billion in capital expenditure has been invested in 25 West Virginia energy and manufacturing projects since Q2 2022.<sup>6</sup>

**RURAL BENEFIT:** Clean power projects provide extra income to farmers, ranchers, and other private landowners. Annually, these drought-proof land lease payments total \$8.4 million.<sup>7</sup>

**NATURAL RESOURCES:** West Virginia is the third most forested state in the nation.<sup>8</sup> Biomass utilization for power generation can be an important component of a thriving forest products market.

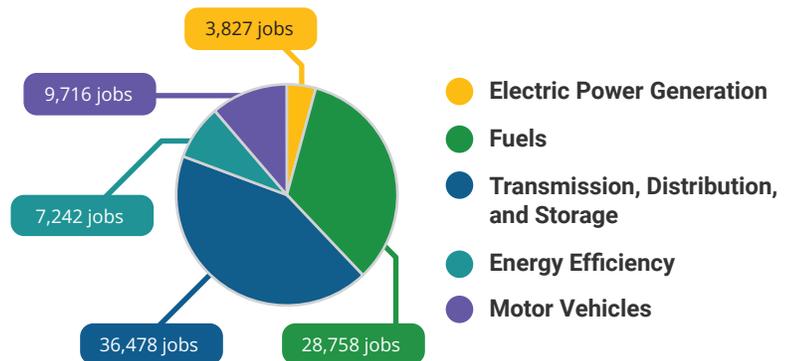


**GENERATION MIX:** Natural gas and renewables provided 7.6% of West Virginia's power generation in 2024, up from 3% a decade ago.<sup>2</sup>

- West Virginia is the [5th largest producer](#) of natural gas in the United States.<sup>9</sup>
- Renewable energy, including hydropower, provides 4% of West Virginia's electricity generation. Solar, wind, biomass, waste-to-energy, geothermal, and hydropower have cumulatively installed more than 1,354 MW of power generation to date.<sup>2</sup>



**JOB:** West Virginia had [86,021](#) energy workers statewide in 2024, representing 1% of all U.S. energy jobs. The energy sector in West Virginia represents 12.3% of total state employment.<sup>10</sup>



# Energy at Work



## **TENASKA:** Tri-State [Carbon Capture and Storage Hub](#)

- Project in development that would capture CO2 emissions from facilities in West Virginia, Ohio, and Pennsylvania and transport them to geologically secure underground storage locations
- Projected to create 1,953 jobs construction and long-term jobs
- Projected to generate \$1.8 million annually in tax revenue to state and local government



## **INVENERGY:** Beech Ridge [Wind Farm and Battery Storage](#) in Greenbrier County

- Wind farm provides 156.3 total MW of power
- One of the largest energy storage projects in the world at the time of construction with 31.5 MW in operation
- Site also host hunters, timber harvests, coal mining, coal scrubbing, and other co-existing land use activities



## **TRANE TECHNOLOGIES:** [Energy-Efficient HVAC and Supply](#)

- Multi-billion-dollar company focused on heating, ventilation, and air conditioning (HVAC) and refrigeration systems
- Operates [Thermo King](#) and [Trane](#) brands
- West Virginia facility in South Charleston provides commercial HVAC and refrigeration

 **The Business Council**  
for Sustainable Energy®

 **CLEAN ENERGY**  
**BUSINESS NETWORK**

*The Business Council for Sustainable Energy (BCSE) is a coalition of companies and trade associations that deploy clean energy and decarbonization solutions, with a sector focus on energy efficiency, natural gas, and renewable energy. Members include investor-owned utilities, public power, independent power producers, project developers, technology providers, equipment manufacturers, environmental and energy market service companies, and more.*

*BCSE collaborates frequently with its small business division, the Clean Energy Business Network (CEBN), which encompasses a network of more than 8,000 cleantech business and community leaders across all 50 states. Collectively, BCSE and CEBN mobilize the full breadth of the clean energy economy, from innovators and small businesses to industry leaders and the trade associations that represent them.*

# Citations

- 1** 2025 US National Power Demand Study. Conducted by S&P Global Commodity Insights and commissioned by the American Clean Power Association.
- 2** 2025 Sustainable Energy in America Factbook. Conducted by BloombergNEF and commissioned by the Business Council for Sustainable Energy.
- 3** U.S. Energy Information Administration Electricity Data Browser.
- 4** Electricity Rates by State. Conducted by Choose Energy (2025).
- 5** 2025 State Energy Efficiency Scorecard. Conducted by the American Council for an Energy-Efficiency Economy.
- 6** Clean Investment Monitor. Conducted by MIT and Rhodium Group.
- 7** Clean Power State by State. Conducted by the American Clean Power Association.
- 8** Forest Inventory and Analysis: Fiscal Year 2022 Business Report. Conducted by the U.S. Department of Agriculture Forest Service.
- 9** U.S. Energy Information Administration. West Virginia State Profile and Energy Estimates.
- 10** United States Energy & Employment Report 2025. Conducted by the U.S. Department of Energy.