

Executive Summary

The American Jobs Project was borne of two tough problems: loss of middle-class jobs in America and congressional paralysis. It seeks to address these problems by taking advantage of one of the biggest market opportunities of our era—the advanced energy and enabling technology sectors—and to do so at the state, not the federal, level. State and local leaders who leverage the unique strategic advantages of their state to grow localized clusters of interconnected companies and institutions are poised to create quality jobs. This report serves as a strategic guide to support those efforts.

Extensive research and more than twenty interviews with stakeholders and experts in West Virginia have identified industrial energy efficiency as showing particular promise in the state. Industrial energy efficiency is an extremely versatile industry, with vast technological applications and services for energy and cost savings within large energy-consuming facilities. Moreover, energy efficiency can enable technological innovation, thereby elevating West Virginia's companies in the marketplace and creating middle-income jobs for West Virginians.

West Virginia is well positioned to benefit from rising global demand for industrial energy efficiency products given its large industrial manufacturing base with chemical and energy efficiency manufacturers, collection of energy-focused research institutions conducting cutting-edge research on fuel and energy efficiency, readily available workforce, and incentives for businesses located in the state. Opportunities to leverage these strengths to further serve growing regional, national, and global markets offer real benefits for the state economy and West Virginia's residents.

However, there are several barriers hindering West Virginia's energy efficiency industry and preventing its supply chain companies from reaching their full potential. These barriers to growth range from inadequate access to capital for innovators and entrepreneurs looking to start a business in the advanced energy sector to limited energy efficiency incentives targeted at the unique needs of industrial customers. West Virginia must address these roadblocks in order to become a competitive hub for energy efficiency.

To take full advantage of these opportunities, state leaders can pursue strategies to create a strong foundation for industry growth and to help West Virginia businesses grow, innovate, and outcompete regional, national, and global competitors. With forward-thinking policies, West Virginia's energy efficiency industry could support 6,100 direct, indirect, and induced

manufacturing and supply chain jobs, on average, annually from 2017 through 2030. Jobs in the energy efficiency sector and related industries will spark local job growth and economic development as employees spend their earnings in the local economy.

Summary of Recommendations

The analysis presented in this report culminates in recommendations for West Virginia's leaders based on best practices in the United States and abroad. Each recommendation identifies opportunities for barrier removal and future growth in the industrial energy efficiency sector. The recommendations are intended to be complementary and would be more powerful if adopted as a package. Alternatively, each recommendation can also be viewed as a stand-alone option.

Strategically Expanding West Virginia's Industrial Energy Efficiency Sector and Supply Chain Companies

Partner with Industry Associations to Create an Energy Efficiency Industry Working Group: Leveraging the strong, existing industry associations in West Virginia to expand awareness of West Virginia's emerging industrial energy efficiency cluster.

Strengthen and Expand West Virginia's Foreign Direct Investment Strategy: Establishing West Virginia as an international hub for industrial energy efficiency manufacturing.

Create an Anchor Company Tax Credit: Providing in-state anchor companies with strategic incentives to help recruit companies to the state to bolster the industrial energy efficiency supply chain in West Virginia.

Fostering a Strong Innovation Ecosystem

Leverage Philanthropic Funding Via a Foundation Liaison: Partnering with private foundations to fund advanced energy incubators and university programs devoted to industrial energy efficiency.

Co-Sponsor a Hackathon to Ignite West Virginia's Entrepreneurial Culture: Promoting and growing an innovation culture within West Virginia's research institutions.

Encourage Commercialization of Cutting-Edge Research: Streamlining the commercialization process for small businesses, researchers, and entrepreneurs to facilitate more rapid technology transfer to market.



Leveraging Local Assets to Increase Access to Capital for Growing Companies

Develop Relationships with Foundations Engaging in Program-Related Investment: Leveraging the resources and missions of large, national foundations to support in-state advanced energy companies.

Create Tax Incentives for Investment in Startups: Providing a capital gains tax exemption to investors in West Virginia's small businesses to foster growth.

Coach Businesses on How to Solicit Capital: Training entrepreneurs to create effective pitches to raise capital.

Establish a State Fund of Funds to Stimulate the Investment Environment: Reducing investment barriers for early-stage companies by improving access to patient capital.

Aligning Training Programs to Meet the Needs of Industry and Serve Students

Support Career-Connected Learning: Expanding opportunities for career-connected learning through early college programs and youth apprenticeship programs to increase the number of skilled graduates.

Encourage High School Partnerships with Community and Technical Colleges: Providing students with the resources necessary to better understand all their postsecondary education options.

Align Community College Efforts with Private Sector Needs: Creating strong partnerships between employers and local community colleges to increase the number of skilled workers in the state and ensure that students have the skills necessary to succeed in today's economy.

Creating Demand for Industrial Energy Efficiency Technology by Increasing Deployment

Offer Industrial Energy Efficiency Tax Incentives to Manufacturers: Reducing the upfront cost of energy efficiency investments while also encouraging manufacturers to expand and upgrade facilities.

Participate in a Regional Energy Efficiency Organization: Tapping into regional network-based organizations to advance West Virginia's industry potential through information sharing and collaboration.

Incentivize Industrial Energy Efficiency Using Energy Performance Indicators: Establishing energy efficiency targets as a way to encourage utilities to invest in load reduction practices such as energy efficiency and lower the financial burden on ratepayers in the long run by reducing utility investments in new generation.

Implement a Utility Energy Efficiency Resource Standard: Establishing energy efficiency targets to reduce the financial burden on ratepayers.

Enable Local Energy and Efficiency Partnership Programs for Commercial and Industrial Energy Efficiency: Establishing a comprehensive energy financing option to help industrial customers who want to invest in energy efficiency equipment.

