

Rural economies with otherwise flat or negative growth in most sectors have seen a HUGE UPTICK in jobs from wind, solar and energy efficiency.

99% of America's wind capacity is in rural areas.

Nearly

yearly growth in clean energy iobs in the Midwest.

> **Majority of Midwest states have MORE CLEAN ENERGY JOBS PER CAPITA**

in rural areas than in urban ones.

CLEAN JOBS RURAL AMERICA

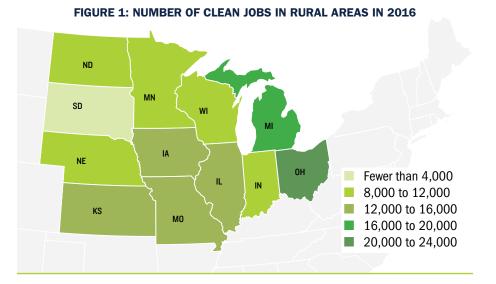
OVERVIEW

Clean energy creates jobs and supports local tax bases and infrastructure development, while providing new opportunities for rural communitiesdriving economic benefits that are becoming ever more apparent. In rural communities facing economic challenges, investments in wind, solar, and energy efficiency are booming. This report focuses on one part of America-the rural Midwest-that exemplifies the growth in clean energy jobs in rural areas nationwide.

CLEAN ENERGY'S STATE IMPACT

More than 8,000 new rural clean energy jobs were added in the 12-state Midwest region stretching from Ohio to North Dakota in 2016 alone, bringing the total number of rural Americans who work in clean energy in this region to nearly 148,000 (see Figure 1)-nearly a 6 percent increase over 2015. Of those 148,000 jobs, almost 22,000 are in renewable energy generation, with the rest in energy efficiency and sustainable transportation.

Per Capita: Seven of the 12 states in the region now have more clean energy jobs per capita in rural areas than in urban areas. North Dakota leads the Midwest in rural per-capita jobs in clean energy (Figure 2), with wind, solar and energy efficiency companies helping fill the void left behind by a downturn in the gas extraction industry in the state.





About E2 Environmental Entrepreneurs (E2) is a national, nonpartisan group of business leaders, investors, and professionals from every sector of the economy who advocate for smart policies that are good for the economy and good for the environment. Our members have founded or funded more than 2,500 companies, created more than 600,000 jobs, and manage more than \$100 billion in venture and private equity capital. For more information, see www.e2.org or follow us on Twitter at @e2org.

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Growth Rate: Clean energy jobs throughout the Midwest grew at a much faster rate than overall jobs economy-wide (see Figure 3). In 2016, the number of rural clean energy jobs increased more than 5 percent for most Midwestern states, with several states experiencing annual growth rates of 7 or 8 percent. In states that otherwise saw flat growth or even losses across the economy, this growth is a particularly valuable contribution.

Comparing Jobs: In 11 out of 12 Midwestern states, more residents are employed by the renewable energy and energy efficiency sectors than by fossil fuel power plants, extraction, refinement, and transportation combined. The difference is even more pronounced in rural areas of the Midwest where clean energy jobs make up a greater portion of total rural employment, with North Dakota being the lone exception, though one which still boasts 8,000 rural clean energy jobs and rapid expansion of wind energy (see Figure 4).

THE OPPORTUNITY

Federal investment can accelerate the benefits to rural communities from the booming clean energy economy. Several U.S. Department of Agriculture (USDA) programs, including the Rural Energy Assistance Program and the Energy Efficiency and Conservation Loan Program, support clean energy development in rural areas. The federal government can also support rural communities by maintaining policies and programs that incentivize clean energy growth, like funding at the Dept. of Energy, EPA, USDA for programs that support innovation and adoption of energy efficiency and renewable energy technologies. Many of these programs that have helped the clean energy boomincluding federal innovation programs, rural development grants, and tax creditshave an uncertain future and should be supported.

FIGURE 2: RURAL CLEAN ENERGY JOBS PER CAPITA IN 2016

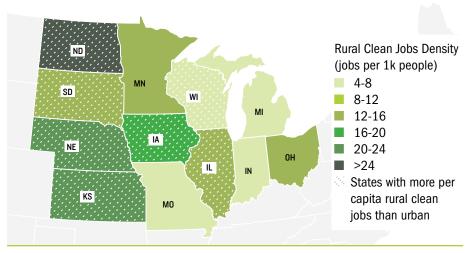


FIGURE 3: 2015-2016 GROWTH IN CLEAN ENERGY JOBS AND ECONOMY-WIDE EMPLOYMENT FOR RURAL AND URBAN AREAS

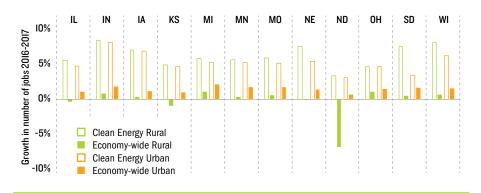
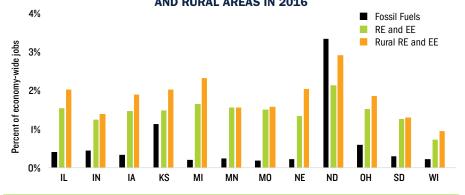


FIGURE 4: CONTRIBUTION OF FOSSIL FUELS AND RENEWABLE ENERGY (RE) AND ENERGY EFFICIENCY (EE) SECTORS TO TOTAL EMPLOYMENT FOR STATES AND RURAL AREAS IN 2016





Methodology

This fact sheet is based on data from "Clean Jobs Midwest," prepared by BW Research Partnership, a full-service, economic and workforce research consulting firm. In this analysis, urban areas include cities and their surroundings, as defined by Metropolitan Statistical Areas (MSAs), and rural areas include Nonmetropolitan Areas. Both MSAs and Nonmetropolitan Areas are defined by the U.S. Office of Management and Budget.