

Wind Energy's Role in New York's Clean Energy Economy

Overview

According to the U.S. Bureau of Labor Statistics, the growth of wind generation in the U.S. has brought with it new manufacturing and supply chain facilities, more than 85,000 wind-related jobs, and hundreds of millions of dollars in payments to local taxing districts, private capital investment, and payments to local landowners.¹ A recent evaluation of New York State's Renewable Portfolio Standard (RPS) shows that investments in renewable energy technologies have created similar economic benefits in New York. The analysis concluded that to date, New York's RPS program has created approximately 22,670 total job-years.² The study also found that increasing the portion of New York's electricity generated by renewable energy to 30% by 2015 would result in total economic benefits of more than \$12 billion over the next 29 years. The direct payroll effect would be \$1.4 billion, increasing to \$2.3 billion when considering the economic ripple effect. The report found that for every incentive dollar spent by New York to support the construction of new renewable energy facilities, the state realized more than \$6 of total economic benefit. Wind projects account for 80% of these direct dollars, biofuel retrofits 18%, and hydro upgrades 2%.

In the short term, the greatest positive economic impacts from wind farm development come from in-state spending on construction materials and services, excluding construction wages. In the long term, state and local taxes, or payments in lieu of taxes (PILOTs), account for the largest economic benefits. In addition to the jobs created and tax revenues received, renewable energy also lowers the overall cost of electricity to consumers and reduces pollution that would otherwise have been emitted from fossil fuel-fired generating plants.³

What Kinds of Jobs Do Wind Projects Create?

Domestic manufacturing of wind turbines and their components has increased twelve-fold since 2004. Today there are more than 400 U.S. manufacturing plants building wind turbine components, towers and blades.⁴ According to the American Wind Energy Association's (AWEA) 2010 market report, there are 2,000 to 3,000 wind energy-related jobs in New York State.⁵



Photo Credit: EDP Renewables. Lewis County, NY

1. U.S. Bureau of Labor Statistics see: www.bls.gov/green/wind_energy/

2. KEMA, Inc. and Regional Economic Development Research Group, Inc. *NYSDA Main Tier RPS Economic Benefits Report*, November 14, 2008.

3. Ibid.

4. www.PowerofWind.com

5. American Wind Energy Association. *Windpower Outlook*, 2010

The New York State Department of Labor (NYSDOL) has identified the kinds of jobs created during the multiple phases of wind farm development (whether offshore or onshore). These jobs include:

- Project developers
- Field engineers
- Environmental managers and consultants
- Legal and permitting support
- Community outreach
- Document control
- Administrative and office support
- Numerous construction-related positions in the building trades; laborers, carpenters, ironworkers, concrete and paving, operating engineers, and electricians
- Transportation managers, logistics, escort and truck drivers
- Contract and sub-contract managers
- Project control engineers
- Quality assurance and control technicians
- Safety technicians
- Jobs in the marine, port, and vessel-related industries (offshore projects)
- Project managers
- Project coordinators
- Production managers
- Wind turbine technicians
- Wind turbine maintenance
- Administrative and office support (NYS WDI, 2010) ⁶

How Does Wind Energy Impact New York’s Energy Economy?

New York’s significant wind resources, if harnessed, have the potential to reduce dependence on out-of-state and polluting sources of energy, and reduce reliance on expensive, non-renewable resources like natural gas.

Once a wind farm is constructed, wind is essentially a free resource, not subject to the price fluctuations of fossil fuels. Using more wind power to generate electricity helps reduce the overall cost of electricity in New York State. According to the New York Independent System Operator, which operates the electricity grid, for every 1,000 MW of wind on the power grid, consumers save \$300 million in wholesale energy costs.⁷

How Does Wind Energy Development Impact the Local Economy?

Wind farms provide financial support to the local economy in a variety of ways:

- **Taxes or payments in lieu of taxes (PILOT)** – these payments can represent a significant portion of a rural town’s tax needs and can reduce the burden on other taxpayers; school districts, counties and other municipalities can also receive tax or PILOT payments.
- **Landowner royalty payments** -- these payments are annual payments to property owners that host wind turbines. Landowners receive annual payments for each turbine located on their land.
- **Neighbor royalty payments** – these are annual “good neighbor” payments to homeowners who do not host any turbines but are located within a certain distance of wind turbines on others’ properties. These payments recognize the fact that a whole community hosts a wind farm, not just the landowners with turbines directly on their property.

Local companies are often used during the construction phase of a wind farm for tasks such as roadwork, foundations, and building structures and electrical equipment. In addition, local services such as food, lodging and vehicle services are used throughout the construction phase. A 100 megawatt (MW) wind farm can require 120 job-years of labor and generate an estimated \$4 million in wages during the 3-year construction period.⁸

6. New York State Workforce Development Institute. *New York State Wind Issues – A Workforce Development Institute Special Report*. November 2010.

7. Whitley, Stephen G., *Testimony of the New York Independent System Operator, Joint Public Hearing of the Assembly Standing Committees on Energy and Corporations*, March 5, 2009.

8. KEMA, Inc. and Regional Economic Development Research Group, Inc. *NYSDOL Main Tier RPS Economic Benefits Report*, November 14, 2008.

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