

Distributed Wind Deployment: Triad Recycling and Energy Corporation



The Triad Recycling and Energy Corporation in Tonawanda, NY, is an industrial facility with access to an unobstructed wind resource, served by two Northern Power Systems wind turbines on 120-foot towers.

Photo by Padma Kasathurirangan, Buffalo Renewables

In Their Words

As an experienced installer, why do you think this installation will be successful?

"A distributed wind installation is not a one-day ordeal. It's a long-term commitment that can be very rewarding when managed right. In Triad's case, the system owners are very cognizant of that. They are committed to their wind turbines and continue to innovatively adapt their operations around them. Their enthusiasm made it a very enjoyable project for the Buffalo Renewables team to work on."

- Padma Kasathurirangan, Project Installer for Buffalo Renewables, Inc. and member of DOE's Distributed Wind Installer Collaborative

What was the driving force behind your decision to install a wind turbine, and what do you think will make the project successful? "Clean energy, at a level cost for 25 years is a good business decision, especially for a recycling company. Grants and tax rebates improved project payback and pushed us to move forward with the installation. Project success involves understanding and managing your energy picture. In our case, this meant eliminating demand meter costs by keeping our monthly purchased energy under 2,000 kWh."

- John Hannon, Triad Recycling and Energy Corporation, Project Owner

Project description: Located 1,500 feet from the Niagara River, near the decommissioned Huntley coal-fired power plant, Triad Recycling and Energy Corporation uses a distributed wind system to cost-effectively offset the power required by their energy intensive recycling equipment. Their location is ideal for distributed wind development because they are surrounded by brownfields that offer wide, open spaces with unobstructed winds.

Year of installation: December 2016 - first turbine. November 2017 - second turbine

Type of customer: Industrial

Utility: Net-metered project interconnecting with National Grid, an investor-owned utility.

Estimated production: 180,000 kilowatt-hours (kWh) per turbine per year

Actual production: Triad's first turbine produced over 178,000 kWh of electricity in one year, 98% of estimated production.

Percentage of electricity offset: The first turbine was able to offset 100% of Triad's electricity consumption. Their second turbine was installed as part of a facility expansion and is projected to offset 50% of the electricity load associated with the expanded operation.



Triad Recycling's Northern Power Systems Northwind 100 nacelle with John Hannon, Triad Recycling and Energy and Padma Kasathurirangan, Buffalo Renewables Inc. *Photo by Padma Kasathurirangan, Buffalo Renewables*