JOINT VENTURE 6



Brian O'Connell, PE Director of Utilities City of Bowling Green

LETTER TO **PARTICIPANTS**

The American Municipal Power Wind Farm, Ohio Municipal Electric Generation Agency Joint Venture 6 (OMEGA JV6), had another successful year in 2016. In its second decade of operation, JV6 continues to benefit its 10 participating communities, which own the facility.

OPERATIONS

The AMP Wind Farm generated a total of 10,892,000 kilowatt hours (kWh) in 2016. This was 16.7 percent below 2015 generation and 21 percent below the 10-year annual production average of approximately 11.5 million kWh. As expected, wind conditions were the primary drivers of wind farm performance. January, February and December were the best months for facility generation, with total generation exceeding 1.4 million kWh in each of those months. The most monthly energy was generated in December, with a total output exceeding 1.48 million kWh.

The four JV6 wind turbines are designed to run when wind speeds range between nine and 65 miles per hour (mph) and achieve optimal output at wind speeds of 31.3 mph.

FINANCES

The final payment on the original project financing was made in 2015, four years ahead of schedule. The original financing of \$9,861,000 was scheduled to be paid off on Aug. 19, 2019. The participating communities now have full ownership with no debt, making the energy production from the JV6 wind farm one of the lowest cost resources in participating members' portfolios.

JV6 provides transmission and installed capacity savings to participants by providing generation during peak hours of FirstEnergy and PJM Interconnection. The reduction in power from the wholesale grid due to the facility's behind-the-meter generation lowers transmission and capacity charges for the upcoming year. Peak hour generation during 2016 will provide annual transmission savings of \$22,000 and approximately \$34,000 in annual capacity savings.

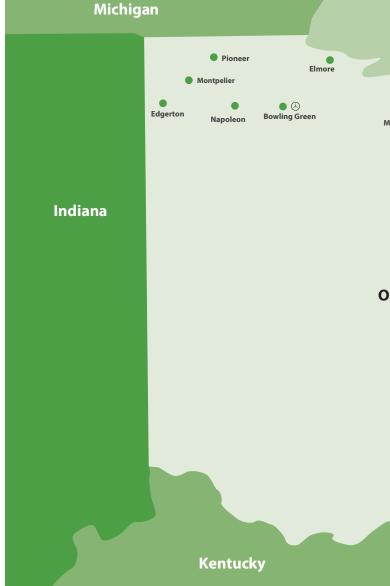
The renewable energy certificate (REC) market remains at a minimum and is not expected to increase significantly over the next five years. The REC revenue JV6 generates no longer contributes to the renewal and replacement fund for major future expenses. Any REC revenue will be issued as credit on each participant's invoice.

MAINTENANCE

AMP staff performed several routine maintenance and repair projects on JV6 in 2016. These included:

- Replacement of three failed yaw gearboxes in Turbine 2 due to the outdrive shaft breaking.
- Performance of annual maintenance and torque checks on all tower flange bolts and on the units in November and December.
- Completed upgrades to the hub leak detection systems to prevent turbines from tripping offline, rerouting the drains back to the hydraulic reservoir to conserve hydraulic oil. Upgrades were completed on all turbines in December.

Brin O'Court





Oberlin

Cuyahoga Falls

Wadsworth

Pennsylvania

Ohio

West Virginia

PROJECT OVERVIEW

OMEGA JV6 is a cooperative project that operates Ohio's first utility-scale wind farm – the American Municipal Power Wind Farm – adjacent to the Wood County Landfill near Bowling Green, Ohio. Ten AMP member communities – Bowling Green, Cuyahoga Falls, Edgerton, Elmore, Monroeville, Montpelier, Napoleon, Oberlin, Pioneer and Wadsworth – receive energy generated from the 7.2-megawatt (MW) capacity installation, which is composed of four 1.8-MW wind turbines. The turbines rest atop 257-foot towers and have blades that extend 132 feet from the turbine casing. Each unit measures nearly 400 feet tall when the blades rotate to their highest point.



OMEGA JV6 Participant
OMEGA JV6 Wind Farm

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2016 financials are available at www.amppartners.org





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