



Joint Venture 6

2015 ANNUAL REPORT
AMERICAN MUNICIPAL POWER, INC.



LETTER TO PARTICIPANTS



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JV6

As the American Municipal Power Wind Farm began its second decade of full commercial operation, 2015 brought continued benefits to the 10 participating communities in the Ohio Municipal Electric Generation Agency Joint Venture 6 (OMEGA JV6), which owns the facility. On behalf of the participants, I'm pleased to offer this overview of the joint venture.

Operations

The AMP Wind Farm generated a total of 13,086,136 kilowatt-hours (kWh) in 2015. This is approximately 4.9 percent below the projection of approximately 13.7 million kWh and 6.5 percent below the 10-year annual production average of approximately 14 million kWh. Wind conditions continue to be the primary contributor to the wind farm performance. January through May and October through November were the best months for the facility's energy production; with total generation exceeding 1.1 million kWh in each of those months. April 2015 brought the most energy generated at more than 1.6 million kWh produced.

Designed to run when wind speeds range between nine and 56 miles per hour (mph), the four JV6 wind turbines achieve optimal output at wind speeds of 31.3 mph.

Financial Overview

On Aug. 17, 2015, the final payment was made on the original project financing, giving the participating communities full ownership with no debt. As debt service was the largest fixed cost of the facility, energy from the wind farm is now one of the lowest cost resources in the participating members' portfolio. The original financing was \$9,861,000 and was paid four years ahead of the original payoff date of Aug. 19, 2019. This was made possible through financing arrangements with a variable cost interest rate that allowed the accelerated pay down of principal during times of lower interest rates.

JV6 provides transmission and installed capacity savings to participants by generating at the time of FirstEnergy and PJM Interconnection peaks. The behind-the-meter generator reduces the amount of power flowing from the wholesale grid, thereby lowering transmission and capacity charges for the

upcoming year. JV6 generation during the peak hours of 2015 will provide annual transmission savings of approximately \$35,000 and annual capacity savings of approximately \$30,000.

Regarding the renewable energy certificate (REC) market, it remains at a minimum and is not projected to increase significantly over the next five years. The REC revenue JV6 generates continues to contribute to a renewal and replacement fund to be used for major future expenses and does not offset the fixed operations and maintenance rate.

Maintenance

AMP staff performed and coordinated several maintenance and repair projects in 2015.

- In February, staff completed work prompted by the turbine #3 hydraulic oil pump, which was running continuously and overheating the system. The issue was first discovered late in 2014. The overheating also caused other systems to malfunction, including the melting of O-ring seals in the hydraulic system. Staff made repairs to the oil pump and the associated systems. Pump starter contacts which caused the event were later replaced in all turbines.
- In March, the nacelle cooling fans failed in turbines #1 and 2. Staff replaced the nacelle cooling fans and shrouds.
- In July, turbine #3 experienced a blade pitch problem. VESTAS replaced the blade pitch proportional valve at the direction of AMP staff.
- In July, turbine #4 experienced a failed proportional valve, which was replaced by AMP staff.

OMEGA JV6 remains a sound investment for participating communities. With the debt retirement, the value of the investment will increase even further. The sound financial policies that led to the early debt retirement are something of which we should all be proud.

Michigan

Indiana

Kentucky

Ohio

West Virginia

Pennsylvania



OMEGA JV6 Communities
OMEGA JV6 Wind Farm

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.

JV6



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