

AMERICAN MUNICIPAL POWER, INC.

# LETTER TO PARTICIPANTS



Brian Carlin Chair – OMEGA JV5 Director of Utilities Bryan, Ohio

JV5

The Belleville Hydroelectric Plant had another successful year in 2015, surpassing both the feasibility study projections and the annual project average in terms of energy production. The 42-megawatt (MW) Ohio River facility produced a total of 261,279 megawatt-hours (MWh) in 2015, which represents a capacity factor of 71.02 percent.

The successful operations benefitted the 42 participating members of the Ohio Municipal Electric Generation Agency Joint Venture 5 (OMEGA JV5), which own the facility. Belleville's 2015 generation was 16,434 MWh more than the 1992 feasibility study projections and 4,383 MWh over its historical annual average. The plant exceeded 90 percent capacity four out of 12 months, achieving in excess of 100 percent in January, meaning it out-performed its rated capacity for the month. 2015 was the third consecutive year the Belleville plant surpassed feasibility study projections and the annual project average.

As expected, river conditions were the principal cause of production loss. Flow-related derates – the periods when the plant generates at lower capacity because Ohio River levels are too high or too low – accounted for 27.32 percent of lost output. This is in line with the facility's annual flow-related derate average.

Of the 27.32 percent of output lost due to flow, high river levels were responsible for approximately 13 percent, low river levels accounted for approximately 14 percent, with the remainder attributed to ice on the river. Non-flow related outages accounted for 1.66 percent of the lost generation, with the bulk of this attributed to planned maintenance outages. Maintenance is scheduled during times of the year when historically plant production is curtailed by river conditions, thereby minimalizing the impact. Planned outages allowed for the completion of routine maintenance procedures, as well as maintenance prompted by new North American Electric Reliability Corp. (NERC) requirements.

Belleville did experience a forced outage in December 2015. The Unit 2 governor pressure transmitter failed, which prompted a short outage for repair.

#### **OMEGA JV5 Diesel Units**

In April 2015, the JV5 participants voted not to upgrade the JV5 diesel units with Diesel Oxidation Catalysts (DOC) to comply with Reciprocating Internal Combustion Engines National Emission Standards for Hazardous Air Pollutants (RICE NESHAP) regulations. A 2015 federal court ruling determined that the U.S. Environmental Protection Agency's (USEPA) 100-hour Demand Response provision, which allowed diesel units, such as the JV5 units, to run up to 100 hours annually for demand response purposes, was illegal and mandated removal of the provision. On a motion filed by the USEPA – in conjunction with other intervenors – the DC Circuit Court granted a stay of the mandate until May 2016. Staff plans to prepare and issue an RFP for the potential sale of the units.

#### **Upgrades/Maintenance Completed**

A number of maintenance-related projects and system upgrades were completed at the Belleville Hydroelectric Plant in 2015. These included a control system retrofit, unit digital governor upgrades, installation of plant information system (OSI PI), H-frame 10-year inspection, transmission line repair work, calibration of critical field devices, gas insulated switchgear five-year inspection, powerhouse roof resurfacing, relay upgrade and generator repairs/electrical testing.

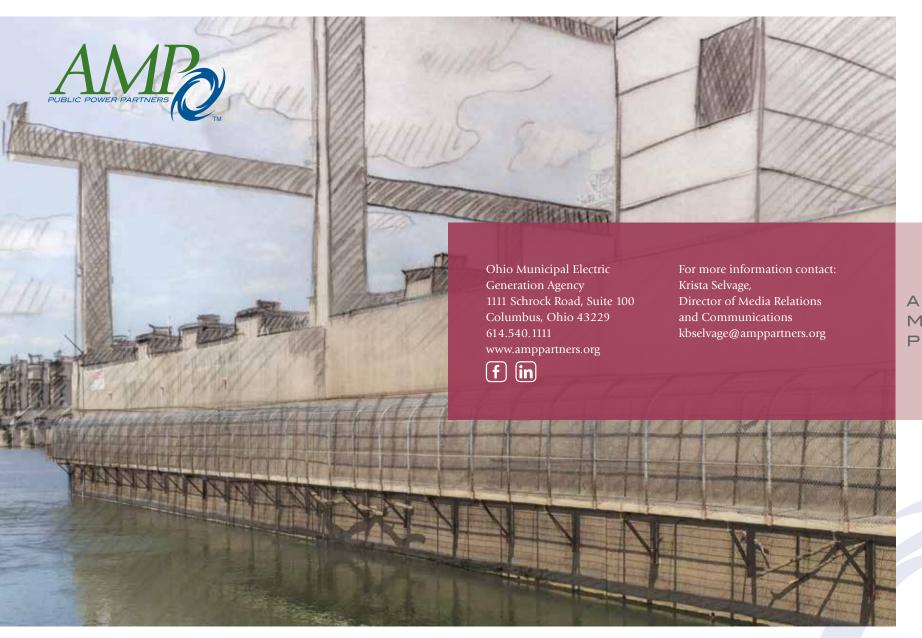
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## Michigan Montpelier Pennsylvania Columbiana Indiana Lucas Brewster Beach City Waynesfield Ohio South Vienna Eldorado Belleville Hydroelectric Plant — OMEGA JV5 Jackson West Virginia Kentucky



### **Project Overview**

OMEGA JV5 is a cooperative project composed of 42 AMP member communities. Besides the Belleville Hydroelectric Plant, which began commercial operations in 1999, the joint venture consists of approximately 26.5 miles of 138-kilovolt transmission facilities. AMP developed and operates the project on behalf of OMEGA JV5 participants.



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