

# JOINT VENTURE 5



# JV5





**Michael Dougherty, CMRP**  
 Superintendent  
 Cuyahoga Falls Electric Department

## LETTER TO PARTICIPANTS

2016 proved to be another successful year for the Belleville Hydroelectric plant as it surpassed both the feasibility study projections and the annual project average for energy production. The 42-megawatt (MW) facility located on the Ohio River produced a total of 284,169 megawatt hours (MWh) in 2016, representing a capacity factor of 77.03 percent.

The 42 participating members of the Ohio Municipal Electric Generation Agency Joint Venture 5 (OMEGA JV5) benefited from the facility's successful operations as Belleville's 2016 generation was 39,324 MWh more than the feasibility study projections and 25,026 MWh higher than its historical annual average. The plant achieved more than 65 percent capacity factor in nine out of 12 months. 2016 was the fourth consecutive year that the Belleville plant exceeded both feasibility study projections and annual project average.

River conditions were once again the primary cause of production loss. Flow-related production loss – the periods when the plant generates at lower capacity because Ohio River levels were too high or too low – accounted for 21 percent of lost output.

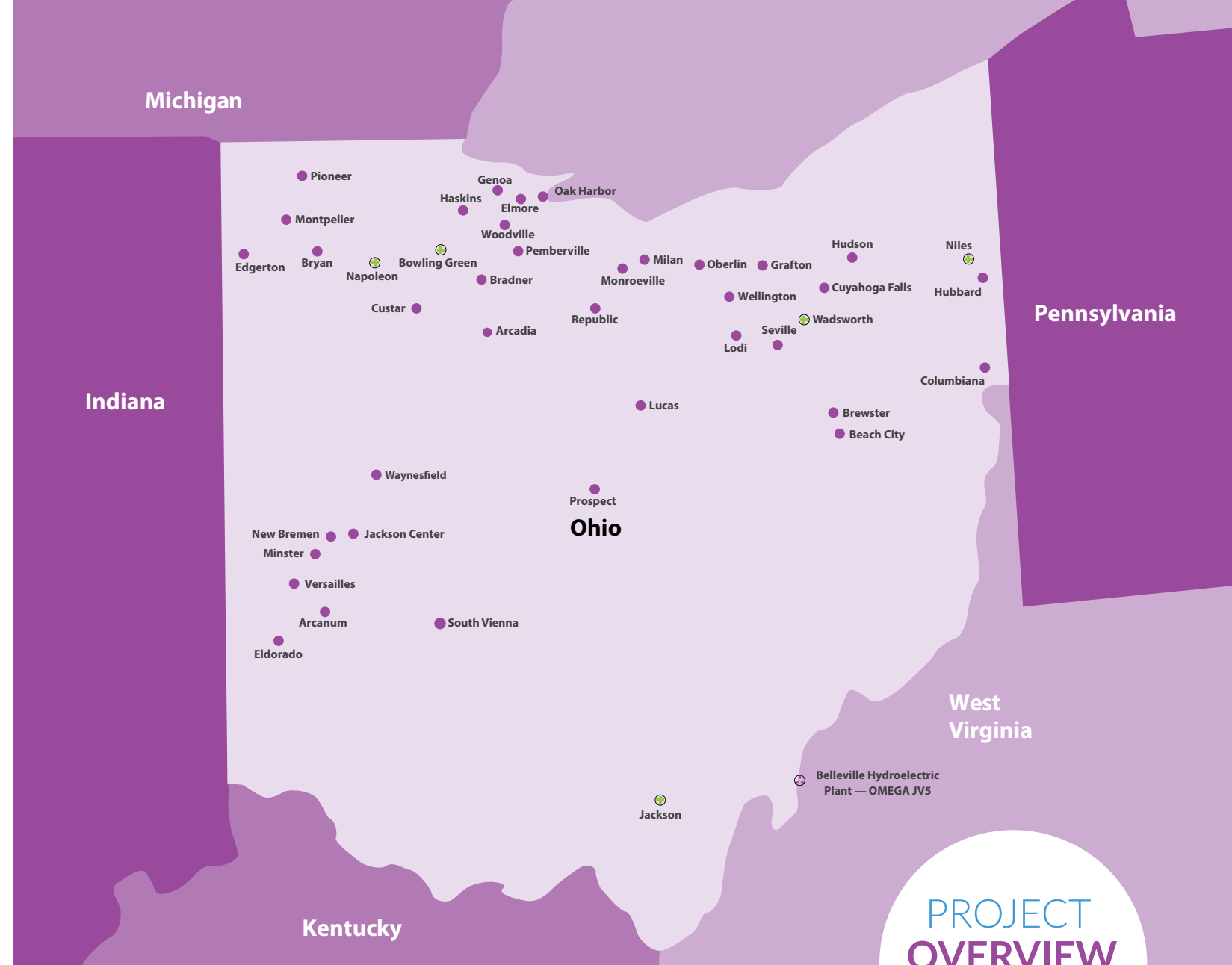
High river levels accounted for approximately 5 percent of the 21 percent lost output, and low river levels were responsible for approximately 16 percent. Non-flow related outages accounted for 1.97 percent of production loss, with the majority of this due to planned maintenance outages. Maintenance is scheduled during times of the year when the plant production is historically curtailed by river conditions, minimizing the operational impact of the outage.

### DIESEL UNITS

The mandate removing the U.S. Environmental Protection Agency's 100-hour Demand Response provision, which allowed diesel units to run up to 100 hours annually for demand purposes, took effect in May 2016. This impacted the 15 JV5 diesel units that had not been upgraded to comply with reciprocating internal combustion engine national emission standards for hazardous air pollutants (RICE NESHAP) rules. The units remain available for emergency use. Staff is conducting a feasibility analysis to determine the most prudent path forward for these units.

### UPGRADES/MAINTENANCE

Along with routine testing and adjustments to ensure regulatory compliance, multiple upgrades and maintenance-related projects were completed at Belleville. These included repairs to and replacement of some transmission line wood poles, the installation of a new Bauer air compressor unit, major upgrades to the unwatering and station drainage systems, overhaul of the cross trash rake boom and repair work on the Unit 2 generator ground.

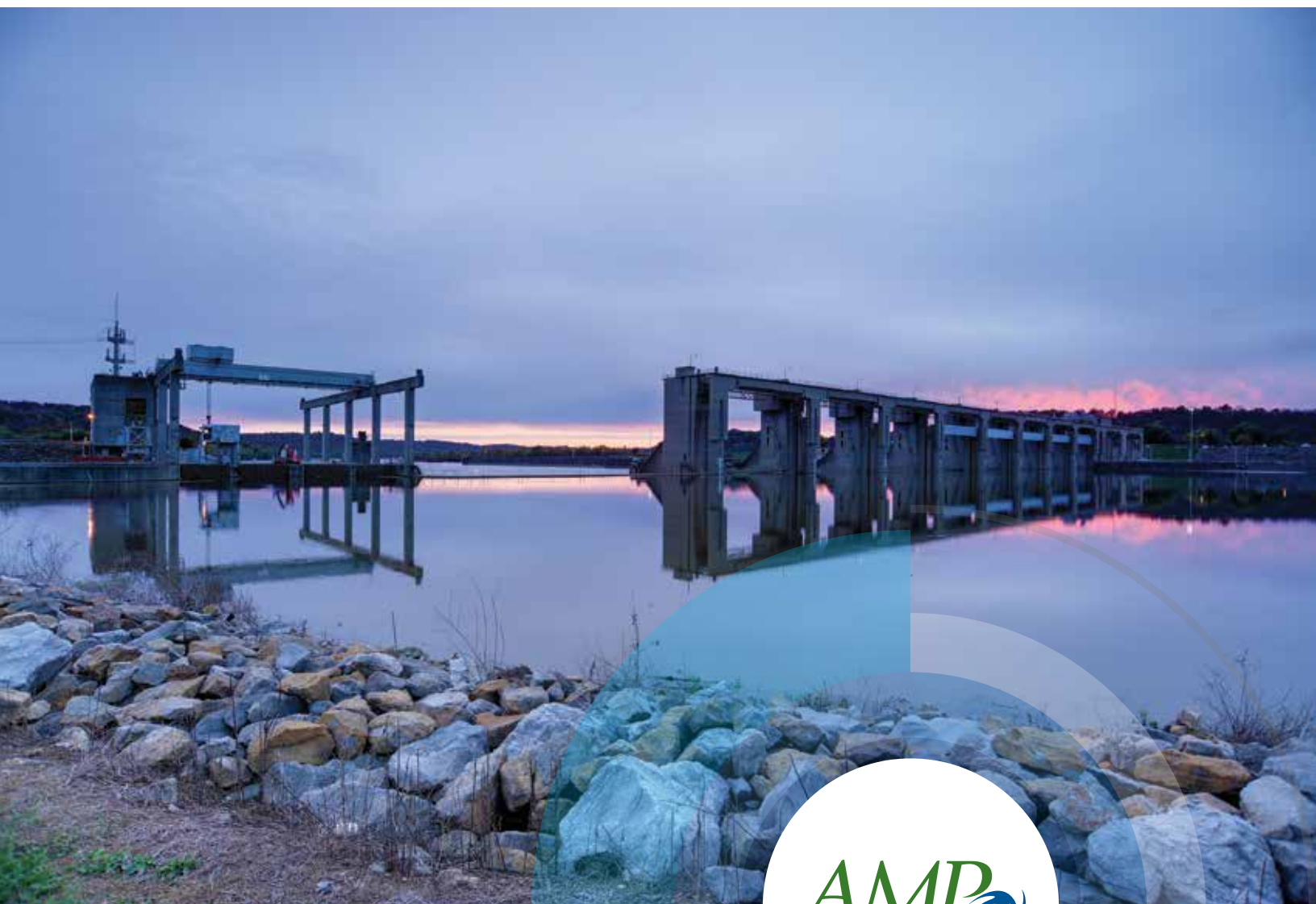


## PROJECT OVERVIEW



OMEGA JV5 is a cooperative project composed of 42 AMP member communities. Besides the 42-MW Belleville Hydroelectric Plant, which began commercial operations in 1999, the joint venture consists of approximately 26.5 miles of 138-kilovolt transmission facilities and fifteen 1.8 MW diesel reciprocating generating units. AMP developed and operates the project on behalf of OMEGA JV5 participants.

- OMEGA JV5 Participant
- Belleville Hydroelectric Plant
- OMEGA JV5 Participant with project diesel generation



Ohio Municipal Electric Generation Agency  
1111 Schrock Road, Suite 100  
Columbus, Ohio 43229  
614.540.1111  
[www.amppartners.org](http://www.amppartners.org)

For more information contact:  
Krista Barber  
Director of Media Relations  
and Communications  
[kbarber@amppartners.org](mailto:kbarber@amppartners.org)

2016 financials are available at [www.amppartners.org](http://www.amppartners.org)

