American Municipal Power, Inc. and its members are recognized leaders in hydroelectric generation, and the Belleville Hydroelectric Plant, owned by Ohio Municipal Electric Generation Agency Joint Venture 5 (OMEGA JV5), is a large contributor to this recognition.

2012 represented another successful year for the Belleville facility and the joint venture as a whole. While unit outages prompted significant work on both generators, river conditions continue to be the primary influencer of operating performance. The plant generated 223,437 megawatt-hours during the year, which represents a 60.56 percent capacity factor. Of the balance of lost availability, river conditions accounted for 31 percent. River levels that are too high, due to heavy rainfall and snow melt, or too low, due to summer drought conditions, curtail the ability to generate power at the facility. Despite less than ideal river conditions throughout the year, the first quarter of 2012 was the plant’s highest production on record for a spring quarter.

Plant operators dealt with two forced outages in 2012: A stator ground out on Unit 1 and a hub oil pressure pipe failure on Unit 2 had to be repaired and reduced production at the facility. During the outage, operators also pulled, inspected and completed significant repairs to the Unit 1 trashracks. Most of the forced outage was during periods of extremely low river flow, decreasing the actual generation lost. All repairs were completed in a timely fashion. AMP also hired a consultant to conduct a comprehensive, structure-by-structure inspection of the transmission line. Many repairs, including six pole replacements, resulted from the inspection.

OMEGA JV5 distributed diesel generation and purchased replacement power are used to meet participant energy requirements when river conditions curtail power production. Due to market conditions, more of the replacement power in 2012 came from market purchases. However, the units were used for peak shaving in support of AMP’s strategic response to the PJM Reliability Pricing Model (RPM) capacity market. Consequently, JV5’s 15 diesel units ran an average of 37 hours in 2012 compared to the 10-year average of 19 hours annually. This strategy will yield in 2013 a transmission savings of approximately $380,000 and an RPM savings of approximately $370,000.

AMP staff also successfully worked on the regulatory side in support of the project. Proposed federal regulatory standards related to National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE NESHAP) would have placed significant limits on the number of hours JV5 diesel units were able to run during the year.
beginning May 2012. AMP staff and members worked with the regulatory process, filing comments and testifying. Amendments to the final rule released in early 2013 allow the units to run for demand response and certain system support needs.

AMP staff spent a significant amount of time in 2012 working with RICE NESHAP rules. The effort actually dates back to 2010, when rules were finalized impacting JV5 units. Amended rules were released in the summer of 2012 and January 2013. In 2012, staff performed scope work examining the cost/benefit of compliance.

As has been indicated before, due to the success of the Belleville Hydroelectric Plant in its years of operation, the facility is being used as a model for the four new hydroelectric plants AMP currently has under construction on the Ohio River. As part of this strategy, long-time Belleville Plant manager George Connolly transitioned to the newly created position of AMP Hydroelectric Plant Trainer, overseeing training of future hydro plant operators. Anthony Belcher was named Belleville Operations and Maintenance Supervisor.

The bottom line is that OMEGA JV5 and the Belleville Hydroelectric Plant remain a valuable investment for the 42 communities participating in the joint venture. We can all be proud of the leadership we’re providing in terms of renewable and sustainable power generation.

Mayor Don L. Robart
Chairman

PROJECT OVERVIEW

Ohio Municipal Electric Generation Agency Joint Venture 5 (OMEGA JV5) is a cooperative project composed of 42 American Municipal Power (AMP) member communities. Besides the Belleville Hydroelectric Plant, which began commercial operations in 1999, the joint venture consists of backup generation resources and approximately 26.5 miles of 138-kilovolt transmission facilities. AMP developed and operates the project on behalf of OMEGA JV5 participants.