In 2015, the Ohio Municipal Electric Generation Agency Joint Venture 2 (OMEGA JV2) provided significant transmission and capacity savings to participating AMP members in a year that saw both challenges and opportunities.

The majority of the diesel units were upgraded with Diesel Oxidation Catalysts (DOC) to meet the Reciprocating Internal Combustion Engines National Emission Standards for Hazardous Air Pollutants (RICE NESHAP) rules in 2015. PowerSecure, under contract to AMP, began installation of the DOC in March and completed testing at the end of June. The contract with PowerSecure also provides continued monitoring and compliance services, including testing, summary reporting and preparation of reports to the U.S. Environmental Protection Agency (USEPA).

AMP staff, along with Gas Turbine System Services, upgraded the water injection systems on the two LM5000 gas turbines. The new systems are more stable and stopped the performance swings that were encountered with the old systems. In addition, the anti-icing controls on the LM5000s were upgraded to provide increased protection to the turbines during extreme winter temperatures.

JV2 operations did experience a significant challenge with a fire at one of the diesel units in Versailles. On the afternoon of Sept. 3, a small fire took place in Unit 2. Village line personnel isolated power and fuel supply to the site and the village fire department was called to extinguish the fire. Following the incident, AMP generation operations staff assessed damage and returned Units 1 and 3 to service. Manufacturer’s representative Ohio CAT, working with an additional contractor, is repairing damage and the unit is expected to return to service mid-2016.

This effort provided a transmission savings of approximately $3.3 million and a 2016-2017 planning year capacity savings of $8.9 million due to peak shaving success during the summer of 2015.

A 2015 federal court ruling determined that USEPA’s 100-hour Demand Response provision, which allowed diesel units to run up to 100 hours annually for demand response purposes, was illegal and mandated removal of the provision. The 100-hour provision only impacted the one JV2 unit in Bowling Green that had not been upgraded with DOC to comply with RICE NESHAP standards. On a motion filed by the USEPA – in conjunction with other intervenors – the DC Circuit Court granted a stay of the mandate until May 1, 2016. Staff plans to prepare and issue a request for proposals for the potential sale of the unit.

OMEGA JV2 Financial Operations
OMEGA JV2 participating communities paid $1.55 per kilowatt-month (kW-month) as a fixed rate for operations and maintenance (O&M) costs. Participants’ charges for JV2 O&M costs had been invoiced at a fixed rate of $1.67/kW-month for 2014. The financing participants in the project were charged a rate of $3.17/kW-month for the debt service component of the project, which remained unchanged from 2014. The variable rate is determined by the cost of fuel and efficiency of the units.

Michael Dougherty, CMRP
Chair – OMEGA JV2
Superintendent
Cuyahoga Falls Electric System

Project Overview
OMEGA JV2 is a competitive project composed of 36 AMP member communities. The joint venture owns three gas turbine distributed generation units and 35 diesel units. The project has a total capacity of 138.65 megawatts, 34 of which diesel units have been upgraded with Diesel Oxidation Catalysts to meet the new RICE NESHAP rules. AMP manages the project on behalf of participants and can operate the diesel units remotely from its Energy Control Center to procure participating communities with reduced capacity costs, energy and transmission charges, and distributed generation during times of high market energy prices.