A combination of extreme temperatures, demand response requirements and transmission constraints led to higher market prices and volatility for the industry in 2013. The OMEGA JV2’s diesel and gas units ran more hours in the last two years than in any combination of years since the units were installed. In addition to responding to market prices, the units were operated to peak shave and reduce transmission and installed capacity requirements for 2014. This effort provided a transmission savings of approximately $2,100,000 and an installed capacity savings of approximately $3,800,000.

The three JV2 gas turbines ran for a total of 152 hours in 2013 compared to the 10-year total average of 124 hours annually. The 34 diesel units ran an average of 26 hours each, compared to the 10-year average of 19 hours.

AMP staff, generation technicians and a representative from Air New Zealand pulled both of the Bowling Green and Hamilton gas turbines to repair several blades and nozzles in-house after finding damage on the yearly borescope. JV2 participants realized $500,000 in savings by not having to contract this work out.

AMP staff and generation technicians also procured, purchased, installed and commissioned a new 600-psi Kobelco gas compressor for the LM5000 gas turbine at Hamilton. These types of concerted efforts were made to assure the generation would be available when needed to take advantage of market opportunities. This effort yielded an average availability of 94 percent for the gas units and 95 percent for the diesel units.

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 (NESHAP) for Reciprocating Internal Combustion Engines (RICE) have placed significant limits on the number of hours JV2 diesel units were able to run during the year – beginning May 2013. AMP staff and members worked through the regulatory process, filing comments and testifying. Amendments to the final rule, released in early 2013, allowed the units to run for 2013 peak shaving, and will allow them to run for future demand response and certain system support needs.

Michael Dougherty, CMRP
Vice Chair
Superintendent
Cuyahoga Falls Electric System

Participating members of the Ohio Municipal Electric Generation Agency Joint Venture 2 (OMEGA JV2) project, an exclusively peaking resource, were able to benefit from both a fiscal and reliability standpoint in 2013.
**Project Overview**

Ohio Municipal Electric Generation Agency Joint Venture 2 (OMEGA JV2) is a cooperative project composed of 36 American Municipal Power (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. AMP manages the project on behalf of participants and can operate the diesel units remotely from its Energy Control Center. The units provide participating communities with capacity and energy.

**OMEGA JV2 Financial Operations**

OMEGA JV2 participating communities paid $1.07 per kilowatt (kW) month as a fixed rate for operations and maintenance (O&M) costs. Participants’ charges for OMEGA JV2 O&M costs had been fixed at $1.18/kW month for 2012. 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 2012. The variable rate is determined by the cost of fuel and efficiency of the units.