Participating members of the Ohio Municipal Electric Generation Agency Joint Venture 2 (OMEGA JV2) project saw their diesel and gas units operating at fewer hours in 2014 than in 2013.

That was largely due to the impact of changes, effective in early 2014, to the National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE NESHAP).

Basically, these federal regulatory standards placed significant limits on the hours the JV2 diesel units could run. As a result, the diesel units were converted in 2013 to “emergency use only” during network outages and during PJM-declared Energy Emergency Alert Level 2 (EEA2) events. This resulted in lower operating hours.

The three JV2 gas turbines ran for a total of 116.2 hours in 2014 compared to 152 hours in 2013 and the 10-year total average of 124 hours annually. The 34 diesel units ran an average of 11 hours each, compared to the 2013 total of 26 hours and the 10-year average of 19 hours.

This effort provided a transmission peak-shaving savings of approximately $1.7 million and a 2015-2016 planning year capacity savings of $10 million, with demand response accounting for $7.5 million of that and peak shaving amounting to $2.5 million. Winter savings amounted to $255,000.

In 2014, arc-flash studies were completed on all JV2 turbines to ensure compliance with recent changes in OSHA regulations.

Also in 2014, JV2 participants and AMP staff focused on the possibility of converting much of the diesel fleet back to serving as a peak-shaving resource. AMP staff reviewed multiple retrofitting options with vendors that would make the units RICE NESHAP compliant, and a contract was executed at the end of the year.

After the U.S. Environmental Protection Agency issued final permits, installation of diesel oxidation catalysts to reduce exhaust emissions on the 34 JV2 diesel units began on March 3, 2015. The beneficial outcome of this project is that the 36 JV2 participants will have these units available as a peaking resource in time for the 2015 peaking season.

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 participating communities paid $1.67 per kilowatt-month (kW-month) as a fixed rate for operations and maintenance (O&M) costs. Participants’ charges for OMEGA JV2 O&M costs had been invoiced at a fixed rate of $1.07/kW-month for 2013. 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 2013. The variable rate is determined by the cost of fuel and efficiency of the units.