

Kenosha Water Utility Wins American Council of Engineering Companies (ACEC) 2017 Grand Award for Energy Optimized Resource Recovery Project

On March 24, 2017, The American Council of Engineering Companies (ACEC) held its 2017 Wisconsin Engineering Excellence Awards Banquet at the American Club in Kohler, Wisconsin. The Council gave State Finalist Awards to 10 projects that demonstrated a high degree of client satisfaction through quality, and cost-effective solutions. It also gave Best of the State Awards to 6 projects that represented the highest degree of technical innovation, client satisfaction and contributions to the engineering industry. Of these six projects, the prestigious Grand Award was given to the Kenosha Water Utility for its Energy Optimized Resource Recovery Project.

Kenosha Water Utility was then nationally recognized on April 25, 2017 at the Engineering Excellence Awards Gala at the Marriott Wardman Park in Washington D.C.

Kenosha Water Utility set out a progressive goal of a more sustainable wastewater treatment plant. The plant currently handles more than 22 million gallons of wastewater a day and the solids left over from the process had to be loaded onto trucks and hauled away to a landfill. Additionally, the electricity to run the plant increased costs because the facility did not produce its own energy.

Donohue and Associates developed a plan to address all of these issues. The designs used technologies that had not yet been used in North America – the PONDUS system that was installed is one of a handful in the world, delivered a 30% increase in biogas production because of its superior methods in breaking down waste solids.

Alongside this system, centrifuges provided by Centrisys Corporation of Kenosha were installed that significantly reduced the amount of water used in the system. This allowed the facility to cut the number of digesters in half, saving money on operations and maintenance costs. Overall, the new



Top Photo (left to right): Ed St. Peter (KWU), John Martin Antaramian (Mayor of Kenosha), Michael Kopper (Centrisys), G. John Ruffolo (4th District Kenosha Alderman), and Mike Gerbitz (Donohue)

Left Photo (left to right): Dennis Dineen (Donohue), Dave Lewis (KWU), Gerhard Forstner (CNP), Ed St. Peter (KWU), Curt Czarnecki (KWU) and Craig Brunner (Donohue).

process is expected to save the utility in excess of \$500,000 a year.

Awards judge Anna Varney, PE, said “This design is a great example of integrating innovative technologies into existing infrastructure. Now the main heat energy supply comes from waste heat, biogas is converted into electricity and biosolids are Class A to be used as fertilizer instead of Class B which was previously hauled to a landfill.”

The project was focused on a solution that



was both practical and sustainable. Both Donohue and Associates and Centrisys Corporation delivered by using cutting-edge technology that met environmental goals and reusing waste materials to realize extreme cost savings.

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