



Metropolitan Water Reclamation District of Greater Chicago

Press Release

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For immediate release

September 15, 2015

Energy curtailment at MWRD leads to massive savings for taxpayers



Phil Schrieber (second from left), regional manager with EnerNoc, presented a check of \$1.09 million to Metropolitan Water Reclamation District of Greater Chicago officials, including Vice President Barbara McGowan (from left), Executive Director David St. Pierre and President Mariyana Spyropoulos.

A check for over a million dollars was presented to the Metropolitan Water Reclamation District of Greater Chicago (MWRD) Board of Commissioners to illustrate the amount of energy savings the agency accrued through the 2014-15 PJM electric grid electricity curtailment program.

Phil Schrieber, regional manager with EnerNOC, presented the check of \$1.09 million to MWRD President Mariyana Spyropoulos, Vice President Barbara McGowan and Executive Director David St. Pierre. MWRD curtailed 29.5 megawatts resulting in the payment for the energy curtailment program that ran from June 1, 2014 through May 31, 2015. In order to meet program requirement and its commitment to savings, the MWRD was on call for emergency load curtailment during the program period and participated in a one-hour mandatory test in Septem-

ber 2014 to prove it can curtail the required reduction in electricity and meet its obligation.

“Energy curtailment at our facilities aligns with our district goals to become energy neutral within the next decade by capturing renewable energy from our own processes,” said President Spyropoulos. “Just as we no longer view sewage as a waste product, but as a resource that can be recovered and reused, we also acknowledge there are significant amounts of energy savings in the way we run our plants. We know that when it rains, our facilities have to work overtime, but in between the deluges we discovered new ways to be resourceful, cut our energy demands and put more money back in the hands of taxpayers.”

EnerNOC, a leading provider of cloud-based *(continued)*



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energy intelligence software and services to thousands of enterprise customers and utilities globally, was chosen to work with the MWRD after their proposal was accepted through a competitive procurement process. EnerNOC reviewed MWRD operations and proposed a curtailment strategy that maximized MWRD returns from the program. In addition, EnerNOC installed their real-time electric monitoring at six of the MWRD treatment plants to enable visibility and management of MWRD's participation in the load curtailment program. EnerNOC's proposal for participation in the demand response program was \$38,950.00 per megawatt-year for paid capacity.

MWRD again participated in a one-hour mandatory test on June 4, for the June 1, 2015 through May 31, 2016 program year, during which time the MWRD successfully curtailed 50.3 megawatts. This savings will result in quarterly payments in 2015 and 2016 of approximately \$1.87 million total. This savings represents a sharp reduction in the amount of energy used by the MWRD, according to the scheduled capacity at peak demand periods. One megawatt of electricity, for example, can power between 750 and 1,000 homes.

Since 1997, the MWRD has participated in various curtailment programs. Through voluntary curtailments by the MWRD and other participants, the curtailment providers have been able to defer the need for additional generating capacity necessary to meet the very short-lived peak demands expected during the summer months. Due to participation in these programs, the MWRD has been compensated a cumulative savings of \$8 million since 1997.

Utilities have to provide enough energy to provide sufficient power on the warmest day of the year. The savings

is calculated by multiplying the amount of megawatts reduced with the value of the energy as determined by PJM's capacity market.

The majority of energy used by MWRD facilities is electrical. To meet these savings, all MWRD facility operators have procedures they follow to reduce electrical energy consumption. These procedures include a list of equipment that could be shut down without sacrificing operations while avoiding any flooding concerns.

The MWRD serves more than 5 million residents and thousands of industries within Cook County, generating 1.4 billion gallons of water for treatment each day. Divided into seven service areas, the MWRD sends its water to seven different treatment plants through the sewer systems. These seven water reclamation plants (WRP) range in capacity from 1.2 billion gallons per day at the Stickney Plant, the world's largest, to 2.3 million gallons per day at the Lemont Plant. Approximately 467 billion gallons were treated at MWRD plants during 2014, all while meeting the National Pollutant and Discharge Elimination System permit limits designed to protect and enhance the quality of area waterways.

In the MWRD's pursuit of energy neutrality by 2023, the agency strives to implement several green initiatives during its water treatment process that will foster an efficient system that limits energy consumption while improving capacity. The MWRD is currently analyzing several renewable energy consumption strategies, including creating energy from sewage solids, organic waste material and water itself, solar thermal energy and sewer thermal heat pumps at the Kirie WRP.

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Recovering Resources, Transforming Water

Established in 1889, the MWRD (www.mwr.org) is an award-winning, special purpose government agency responsible for wastewater treatment and stormwater management in Cook County, Illinois.