

## **City Saves Money And Energy With Real-Time Control System From Hach Company**

***The city of Grand Rapids upgraded its wastewater treatment plant with a Hach Real-Time Control System, resulting in significant savings, a reduction in energy usage, and better control of effluent.***

The city of Grand Rapids is saving energy and money for its residents after installing a Hach Real-Time Control System in its wastewater treatment plant (WWTP), resulting in a nearly \$60,000 energy efficiency incentive payment from Consumers Energy.

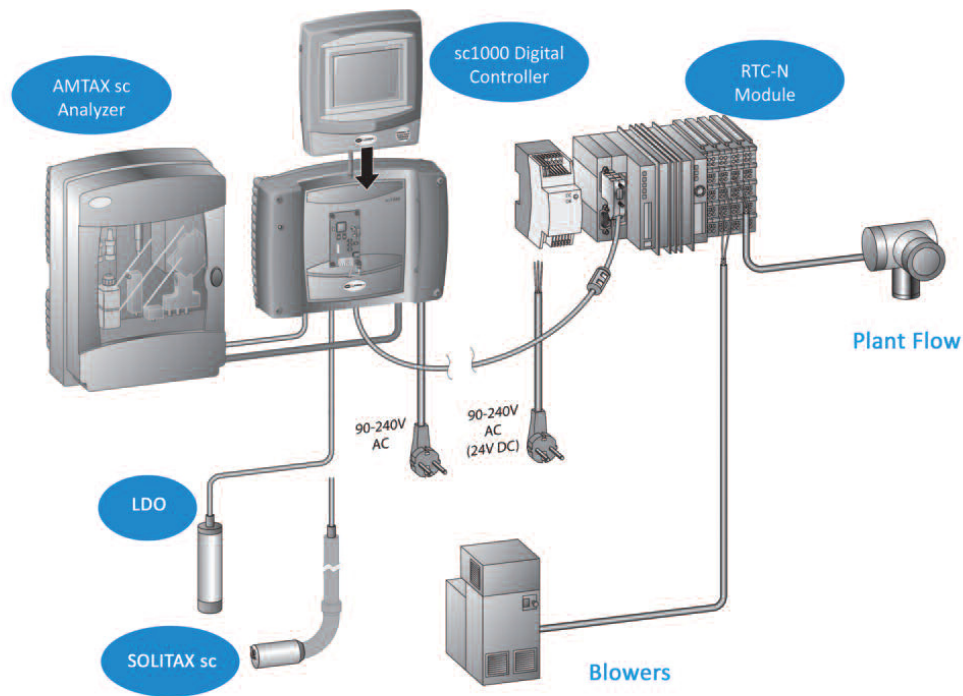
Grand Rapids received a \$58,728 rebate check in December 2013 from Consumers Energy, the local public utility, after investing in a project to upgrade the WWTP's aeration system, including installing a Hach Company Real-Time Control (RTC) System. The plant is on track to save the city more than 735,000 kilowatt hours of electricity and \$62,000 annually, according to Grand Rapids Mayor George Heartwell.



***Grand Rapids city officials display the recently awarded energy efficiency rebate check.***

The return on investment and reduction in energy usage has been significant. Grand Rapids wastewater facility has saved 15 percent in aeration energy costs since installing the RTC nitrification system in June and has given the facility better control of their effluent, according to Mike Lunn, the treatment plant's Environmental Services Director.

“Energy costs associated with the aeration basin are by far the largest expense for wastewater facilities because blowers are run continuously,” said Bob Dabkowski, application development manager for Hach. “Hach’s RTC System for Nitrification, RTC-N, outputs a dissolved oxygen setpoint based upon the ammonia load entering and leaving the aeration basin, triggering the blowers to run at the optimal level for nitrification while reducing wasted energy.”



***The schematic above details the components and setup of the RTC-N System.***

Configuring the Real-Time Controller takes less than 30 minutes, making for a very fast, off-the-shelf experience. The Hach RTC-N System is designed for facilities using continuous flow and continuous aeration-activated sludge processes. The system consists of two ammonia analyzers, a suspended solids probe, a touchscreen interface, and the Real-Time Control module that analyzes data and calculates the dissolved oxygen needed to maintain an effluent ammonia setpoint.