

## MEMORANDUM

DATE: March 14, 2018

TO: Bill Stowe, CEO & General Manager

FROM: Doug Oscarson, Energy Management Consultant

SUBJECT: Energy Management – ISO 50001 Certification

Recognizing the potential value in managing energy, DMWW embarked on employing a formal energy management system (EnMS) in 2014 by joining with the U.S. Department of Energy (DoE) in a pilot program to certify to ISO 50001:2011, the international standard for energy management systems. A second standard, ANSI/MSE 50021 would also be implemented to measure the results of the energy management system.

An energy team was formed early on and tasked with attending three week-long training sessions sponsored by the DoE. Made up with a supervisor, engineer, hourly employee and a project manager, the team worked diligently on the management system with the full support of top management. All employees were made aware of project and encouraged to offer suggestions.

On November 01, 2018, after a rigorous two-week audit, Des Moines Water Works' Fleur Drive Treatment Plant became the first water utility in the United States to certify to both ISO 50001 and ANSI/MSE 50021.

From an environmental perspective, DMWW has helped reduce CO<sup>2</sup> emissions by over 500 metric tons per year. In fact, DMWW has avoided nearly 5000 metric tons of emissions since 2013.

There are also economic incentives to managing energy. From baseline year 2015 through 2016, \$45,746 was invested in the EnMS and \$170,976 was returned for an annualized return of 274%.

Future plans include adding McMullen and Saylorville Treatment Plants and several remote pumping/booster stations to the EnMS.