

IUPUI Audit Identifies \$22,000 of Possible Energy Savings at T.W. Moses Water Treatment Plant

In October of 2016, Citizens' Water Production organization invited IUPUI's Industrial Assessment Center (IAC) to conduct an energy audit of the T.W. Moses Water Treatment Plant at no cost to Citizens. This represents a \$10,000 value. The IAC encouraged Citizens to apply for the audit during a Partnership of Excellence in Research and Learning (PERL) meeting involving IUPUI students last year.

The IAC at IUPUI was formed in 2011, and is one of 28 IACs in the U.S. which are funded by the U.S. Department of Energy. The IAC program provides complimentary energy assessments for small to medium sized companies to aid in improving energy efficiency, reducing waste, and increasing productivity. A team of highly skilled engineering faculty and students conduct energy assessments to identify immediate opportunities for companies to save energy and reduce costs.

After completing the one-day audit of the T.W. Moses facility, the IAC provided recommendations to help Citizens reduce energy consumption and improve sustainability. The team recommended eight efficiency projects which would reduce the facility's energy costs by as much as \$22,000 annually, or four percent of the water treatment plant's energy costs.

IUPUI's IAC recently received a \$1.57 million grant to continue the auditing program through 2021. This is due

in part to Citizens' support. While potential audit facilities must be within Standard Industrial Codes 20-39 to meet the eligibility criteria, IUPUI was able to apply for exemptions to conduct the T.W. Moses audit. After Citizens completed a simple, online application for the facility, the one-day audit was scheduled.

"The IAC should be applauded for putting together a concise report with their assumptions, calculations and findings clearly detailed," said **Steve Berube**, Manager Water System Control and Planning. "The team, which consisted of eight students, was divided into three groups focusing on three primary areas; mechanical, thermal and electrical."

As a result of the IAC's recommendations, Water Production will be implementing three of the projects this year. Four of the recommendations will be implemented as existing equipment fails, and further evaluation will be conducted before a decision is made on the last recommendation.

T.W. Moses represented the student's first water treatment plant audit, and the experience exposed them new career opportunities within the water industry.

"I am grateful to **Justin Redman, Mike Owens, Kevin Tucker, Joe Nagy, and Doug Payton** for their participation in this project," added Berube.

