

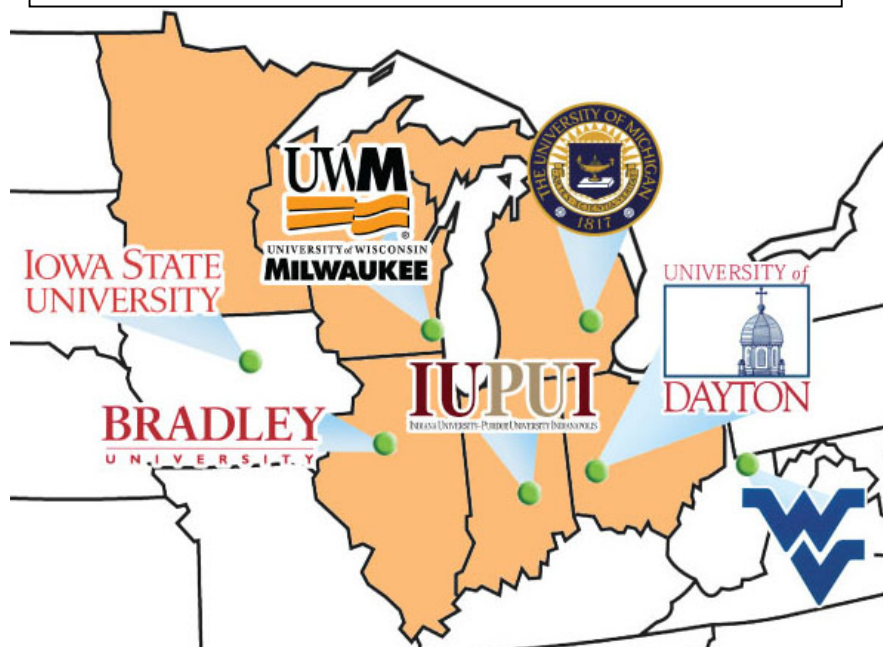
Industrial Assessment Centers

Identifying Energy Savings in Water and Wastewater Plants

Since 1976, Industrial Assessment Centers (IACs) administered by the U.S. Department of Energy have supported small and medium-sized American manufacturers to reduce their energy use and improve their productivity and competitiveness. DOE is now offering up to 50 assessments per year at no cost to industrial or municipal water and wastewater plants.

Located at premier engineering universities, there are 24 IACs across the country that utilize faculty and engineering students to assess energy use, process performance and waste and water flows at local plants. Under the direction of experienced professors, IAC engineering students analyze energy use including: pumps, motors, compressed air, lighting, process heat, steam and combined heat and power (CHP) systems. The final IAC report provides plants with energy-saving and productivity improvement recommendations including cost estimates and projected payback periods.

DOE Industrial Assessment Centers Serving EPA Region 5



IACs are a proven resource for energy efficiency, energy recovery, and energy management, and now water and wastewater treatment facilities are eligible to receive an assessment. For more information on the IACs, or to apply for an assessment, see the following link: <https://iac.university/>

IAC Water Experience

- 50 water and wastewater plants have received assessments from their local IAC, with plant sizes ranging from 1.6 MGD – 115 MGD.
- Annual utility bills range from \$107,361 to \$5,009,337.
- Per-plant potential cost savings from increasing energy efficiency, reducing waste, and improving productivity averages \$232,000.
- Identified annual savings average \$31,000 / MGD.

Assessment Sign Up

If your facility is a water or wastewater plant meeting these general criteria:

- Water treatment plant >5 MGD
- Wastewater treatment plant >2 MGD
- Annual energy bills between \$250,000 and \$2.5 million

Then contact your closest IAC to see if you are eligible for a no-cost assessment.

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What Water Quality Professionals are Saying

“The IAC program and the University of Delaware helped us identify significant opportunities for energy savings. We’re now working with an ESCO on implementing several of the recommended measures. This helps us control our operating costs and manage waste treatment rates and meet our Sustainability Management System goal of becoming a zero net energy facility.”



Jim Newton, Environmental Program Manager Kent County Regional Resource Recovery Facility Dover, DE

“We truly enjoyed having the OSU (Oregon State University) Energy Assessment Team here to evaluate our various equipment and processes for their energy consumption and have benefited from their advice. This is a great program which is free of charge and available to any of us in the industry who are looking to become more energy efficient. The individuals were professional, knowledgeable and offered unexpected insights regarding our potential energy savings. They helped us to begin looking at the facility in different ways to ensure we are operating as energy efficiently as possible. We still have some hurdles to get over, but we are well on our way.”

*Laurie Pierce
Operations and Facilities Director
Olympia WA*



“The IAC program and the University of Delaware has worked with EPA Region III on several waste water treatment plant assessments. They helped the plant operators identify numerous opportunities for energy efficiency which is a win-win for the plants and the environment. EPA encourages water utilities to strive to be more sustainable and invest wisely. Many of the EPA regions have focused our efforts on energy efficiency. We feel that the IAC program would be and has been very beneficial partners to the local water utilities and EPA regional staff. I personally would love to work more with the IAC as a team on as many water utility energy assessments as possible. Thanks for all yc

*Walter Higgins
EPA Region III
Water Protection Division
Philadelphia, PA*



EPA Resources

Online resources are available from EPA’s Office of Wastewater Management to help drinking water and wastewater utilities manage their energy use. Resources include:

- [Energy Use Assessment Tool](#) – Designed to organize billing and equipment records, making it easier to track progress.
- [Energy Management Guidebook for Wastewater and Water Utilities](#) – A fundamental guide to continuous energy improvement.
- [Combined Heat and Power \(CHP\) Partnership](#) - Supports CHP or cogeneration including units powered by biogas.
- [Green Power Partnership](#) – Supports and recognizes water utilities (and others) using electricity produced on-site from resources such as biogas, wind and solar energy.

DOE Resources for Water Utilities

One of the unique attributes of the IAC program is that they work with other organizations and programs within DOE:

- [Better Plants Program \(BPP\)](#) – IACs work with Better Plants partners to improve the energy efficiency and productivity of their smaller facilities, which now includes assessments of water and wastewater plants. energy.gov/betterplants
- [Superior Energy Performance \(SEP\)](#) – Information obtained from IAC assessments can be used to support strategic energy management, or begin the process of achieving Superior Energy Performance in water and wastewater plants, now available on a pilot basis. energy.gov/isosep
- [Combined Heat and Power Technical Assistance Partnerships \(CHP TAPs\)](#) – IACs collaborate with the CHP TAPs and provide referrals and conduct preliminary screening analyses to identify potential opportunities for CHP implementation in wastewater plants. energy.gov/chp

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