



SECURING OUR FUTURE:

WATER AND WASTEWATER INFRASTRUCTURE
FUNDING OPPORTUNITIES

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AGENDA



- Objectives
- Overview of FOCUS ON ENERGY®
- Financial Incentives
- Project Highlight
- Resources & Technical Assistance
- Questions
- Contact Information

OBJECTIVES



- Uncover the latest funding opportunities available for your projects.
- Tips on navigating the application process and securing funds.
- Real-world case studies of successful funding initiatives.

INTRODUCTION TO FOCUS ON ENERGY



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Partnering with Wisconsin utilities



WHAT IS FOCUS ON ENERGY?

- Wisconsin utilities' statewide program for energy efficiency and renewable energy.
- Includes 107 partnering utilities.
- Works with eligible residents and businesses to install energy efficiency and renewable energy projects.
- Provides financial incentives, education, information, and other resources to encourage participation that leads to increased energy savings and reduced utility bills.

MISSION



- Empowers the people and businesses of Wisconsin to make smart energy decisions with enduring economic benefits.

ECONOMIC IMPACT



- For every \$1.00 invested, Focus on Energy creates more than \$4.00 in benefits for the state of Wisconsin.
- A 2018 study of statewide energy efficiency programs by the Berkeley Lab found that Focus on Energy runs the most cost-effective program in the nation.

BENEFITS OF FOCUS ON ENERGY



**Expert Energy
Advisor Support**



**Energy Team
Coordination**



**Training
Facility Staff**



**Improving Return
on Investment**



**Supporting
Energy Education**

FINANCIAL INCENTIVES



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PRESCRIPTIVE INCENTIVES

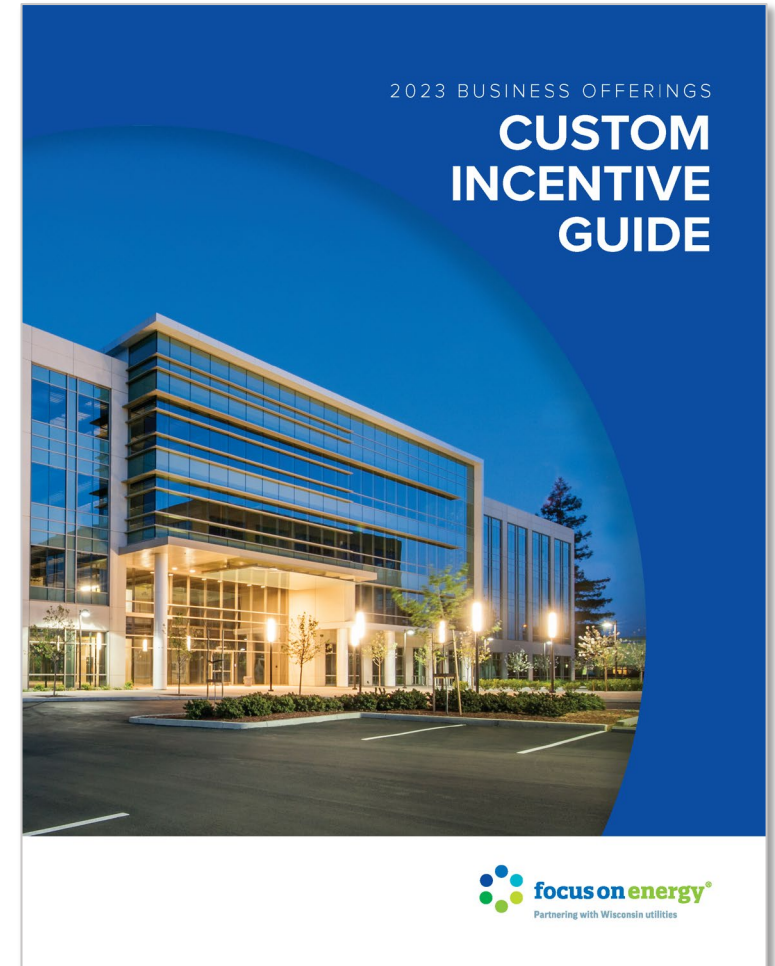


- Specific dollar amounts for installing qualifying energy-efficient equipment.
- One-for-one replacement for commonly installed equipment.
- Visit [focusonenergy.com/catalogs](https://www.focusonenergy.com/catalogs) to view current Incentive Catalogs.
- Customer has 60 days after project installation to submit application and invoice(s).

CUSTOM INCENTIVES



- Offered for projects where a prescriptive incentive does not exist.
- E.g., non-standard equipment or operating conditions, not a 1-for-1 replacement.
- Incentive is based on the estimated first year gas and electric energy savings.



CUSTOM INCENTIVES



- Project must have a simple payback of 1-10 years.
- Incentives cannot exceed 50% of the project cost.
- Maximum incentive of \$300,000 per project.
- Customer maximum of \$400,000 per year.

Custom Incentives

Energy Efficiency	Renewable Energy
\$0.05 per kWh saved	\$0.10 per kWh saved or generated
\$100 per peak kW reduced*	\$100 per peak kW reduced or generated*
\$0.95 per Therm saved	\$1.25 per Therm saved or generated

*Peak kW reduction is determined by the average kW load reduction occurring between 2 p.m. and 6 p.m. on weekdays during June, July, August, and September.

CUSTOM INCENTIVES



- **All custom incentives require pre-approval from the program before equipment is purchased or work begins.**
 - This includes signing purchase orders or proposals.
- Contact an Energy Advisor ASAP to determine whether your project requires a custom incentive.

A photograph of a white water tower with a blue base, set against a clear blue sky. The word "JUNEAU" is written in blue capital letters on the white upper portion of the tower. The tower is positioned on the right side of the image, partially overlapping a large blue circular graphic on the left.

PROJECT HIGHLIGHT: CITY OF JUNEAU WASTEWATER TREATMENT FACILITY (WWTF)



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FACILITY REDESIGN



- Pursued redesigning their wastewater treatment process and building a more efficient aeration system.
 - Existing (1) 75HP blower 24/7 with no controls.
 - Proposed oxidation ditch – Variable Frequency Drives (VFDs)/ Dissolved Oxygen (DO).
 - Approximately 35HP of aeration on average.
 - VFDs on all process pumps.
- Determined energy savings a priority, planning with their design engineer and Focus on Energy, receiving a 10% planning bonus.
- Utilizing the Clean Water Fund Program and Energy Efficiency Principal Forgiveness funding.

LIGHTING UPGRADES, INSTALLING VFDS AND SPLIT SYSTEM A/C



- Upgrading exterior and interior lighting to LED fixtures with occupancy/vacancy sensors.
- Utilizing Focus on Energy comprehensive lighting solutions in lab and office spaces, aligning light levels with Illuminating Engineering Society (IES) recommendations.
- Installing VFDs on process pumps.
- Installing energy-efficient air-source heat pump, split system (A/C).

TOTAL ENERGY SAVINGS



- **Estimated Annual Energy Savings**
 - 337,685 kWh
- **Estimated Utility Bill Savings**
 - \$37,145 per year
- **Focus on Energy Incentives**
 - \$19,662
- **WI DNR Energy Efficiency Principal Forgiveness Funding**
 - \$19,662

PROJECT HIGHLIGHT: CITY OF RACINE WWTF



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CUSTOM UV SYSTEM UPGRADE



- Project consists of retrofitting the existing Ultra-Violet (UV) disinfection system.
- Replacing the current system with a more efficient UV treatment system.
 - Medium pressure – High-intensity lamps replaced with low pressure – high output lamps.
 - Varying UV lamp intensity (down to 30%), number of lamps in operation, and number of channels needed.
 - Automated chemical/mechanical cleaning system (maximize UV efficacy).
- Utilizing \$50,000 in Energy Efficiency Principal Forgiveness Funding.

TOTAL ENERGY SAVINGS



- **Estimated Annual Energy Savings**
 - 1,255,347 kWh
- **Estimated Utility Bill Savings**
 - \$138,088 per year
- **Project Cost**
 - \$1,530,000
- **Focus on Energy Incentives**
 - \$77,097
- **WI DNR Energy Efficiency Principal Forgiveness Funding**
 - \$50,000
- **Payback Period**
 - 11 years

RESOURCES AND TECHNICAL ASSISTANCE

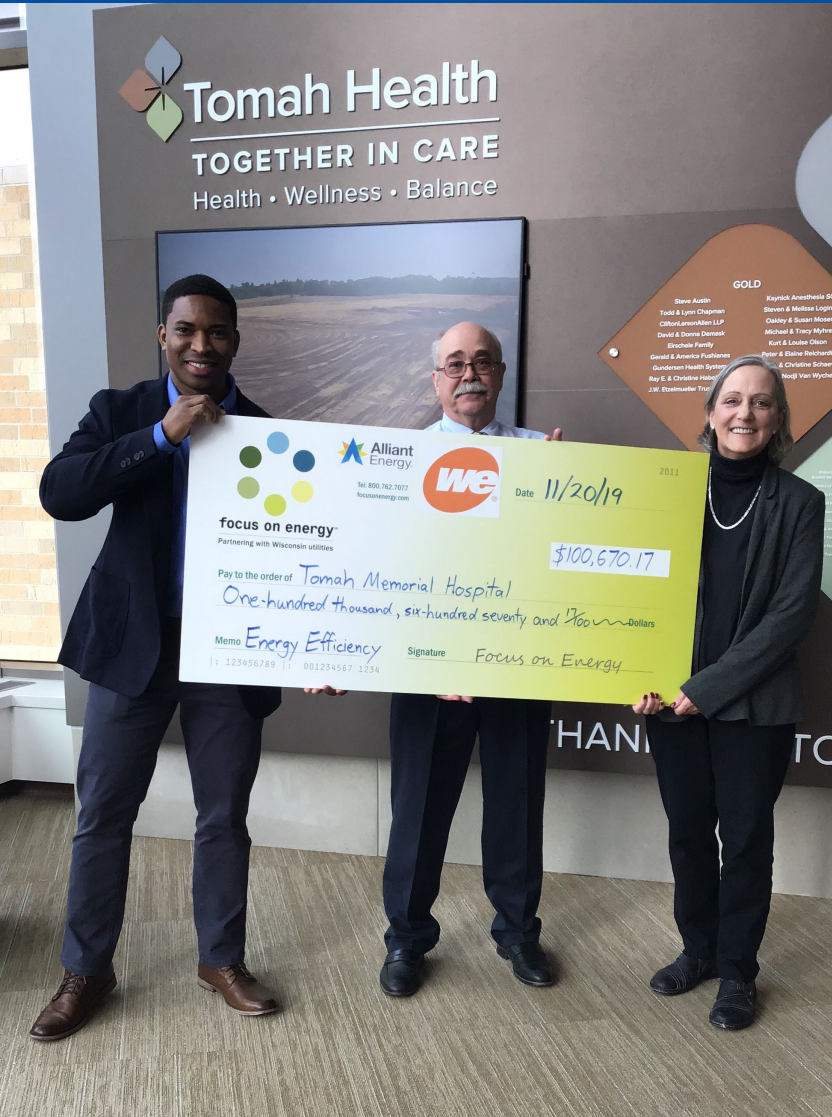


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WORKING WITH AN ENERGY ADVISOR



- Identify energy-saving opportunities.
- Create, maintain, and monitor energy management plans.
- Verify measure eligibility and assist with paperwork.
- Complete energy-saving estimates and apply for custom incentives.
- Coordinate media and PR opportunities.

ENERGY ADVISOR MAP

SERVING SCHOOL AND GOVERNMENT CUSTOMERS



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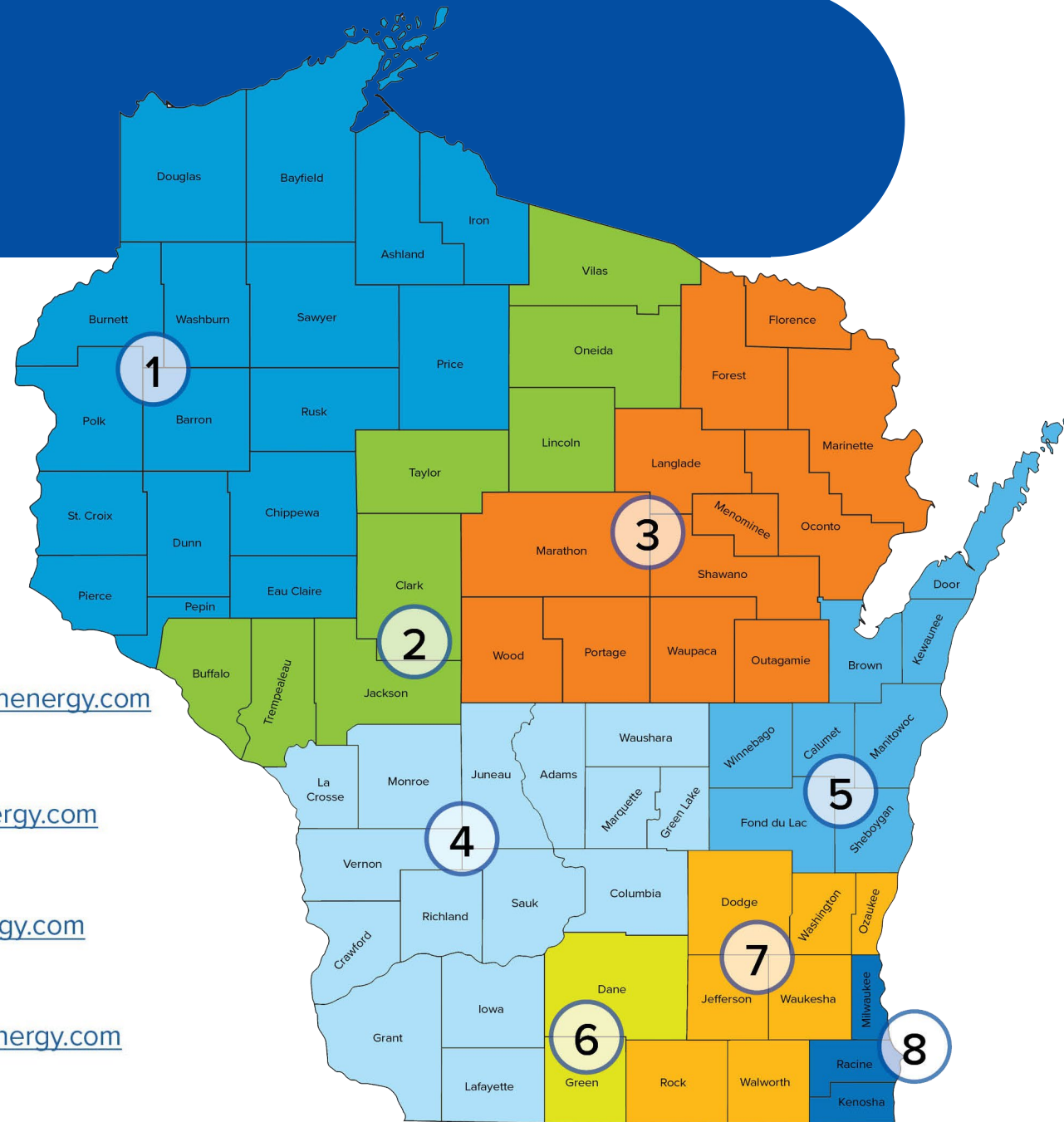
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WORKING WITH A TRADE ALLY



- Registered Trade Allies provide additional support.
- Familiar with the incentives their equipment qualifies for.
- Assist with completing paperwork.
- Can elect to receive an incentive on behalf of the customer, reducing first-cost.
- Find a Trade Ally tool at focusonenergy.com/trade-allies

PROJECT PLANNING BONUS



- Develop your energy-saving priorities and strategic energy goals to achieve powerful long-term benefits in your community.
- Include Focus on Energy in your planning process and receive expert energy support.
- Receive a **10% bonus** on projects completed in 2023.

WASTEWATER PLANT ENERGY ASSESSMENT (WWPEA)



1. Choose a registered Wastewater Service Provider (WSP).
2. Submit the WWPEA application for pre-approval.
3. WSP completes the assessment.
4. Submit assessment report and invoice to Focus on Energy.
5. Incentive is paid.



WASTEWATER PLANT ENERGY ASSESSMENT QUALIFIED SERVICE PROVIDERS

AECOM Statewide Service www.aecom.com Jeff Montpas, PE • 608.828.8121 jeffrey.montpas@aecom.com Rusty Schroedel, PE • 414.944.6140 rusty.schroedel@aecom.com	Applied Technologies Inc. Statewide Service • 262.784.7690 www.ati-ae.com Jim Smith, jsmith@ati-ae.com Bill Ericson, PE waericson@ati-ae.com Kim D'Amato kjdamoto@ati-ae.com	Baxter and Woodman, Inc. Statewide Service www.baxterwoodman.com Jerry Groth, PE • 608.277.1230 ggroth@baxterwoodman.com Pat Planton, PE • 414.257.3150 pplanton@baxterwoodman.com	CBS Squared Inc. Statewide Service www.cbssquaredinc.com Jon Strand, PE • 715.861.7428 jstrand@cbssquaredinc.com	Cedar Corporation Statewide Service www.cedarcorp.com George Thompson, PE • 920.491.9081 Green Bay george.thompson@cedarcorp.com Dean Zanon, PE Green Bay dean.zanon@cedarcorp.com Joe Maritano, PE • 608.249.5046 Madison	Delta 3 Engineering, Inc. Statewide Service • 608.348.5355 www.delta3eng.biz Bart Nies, PE bart@delta3eng.biz Joe Bailie joe@delta3eng.biz Jordan Fure furej@delta3eng.biz	Donohue & Associates, Inc. Statewide Service, WI www.donohue-associates.com Eric Lynne, PE • 920.803.7375 elynne@donohue-associates.com Tim Stockman, PE tstockman@davyinc.com Shawn Welte, PE swelte@davyinc.com
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*Incentive Calculation

Plant Energy Assessment Cost: \$ _____

90% Proposed Cost: \$ _____ (A) or \$5,000 (B)

Estimated Incentive (lower of A or B): \$ _____

The WSP will accept the incentive on behalf of the customer and bill the difference. The customer's cost will be 10% of the total cost or the difference between \$5,000 and the total assessment cost.

PUMP ASSESSMENT



- Comprehensive assessment to identify performance issues.
 - **\$500/pump assessed**, up to 100% of the assessment cost.
 - Qualifying motors must be:
 - 40 HP or greater.
 - Operate a minimum of 500 hours per year.
- Schedule your pump assessment with a Focus on Energy Trade Ally and uncover the potential energy savings.
- Bonus available for installing a variable speed drive on your pump system.

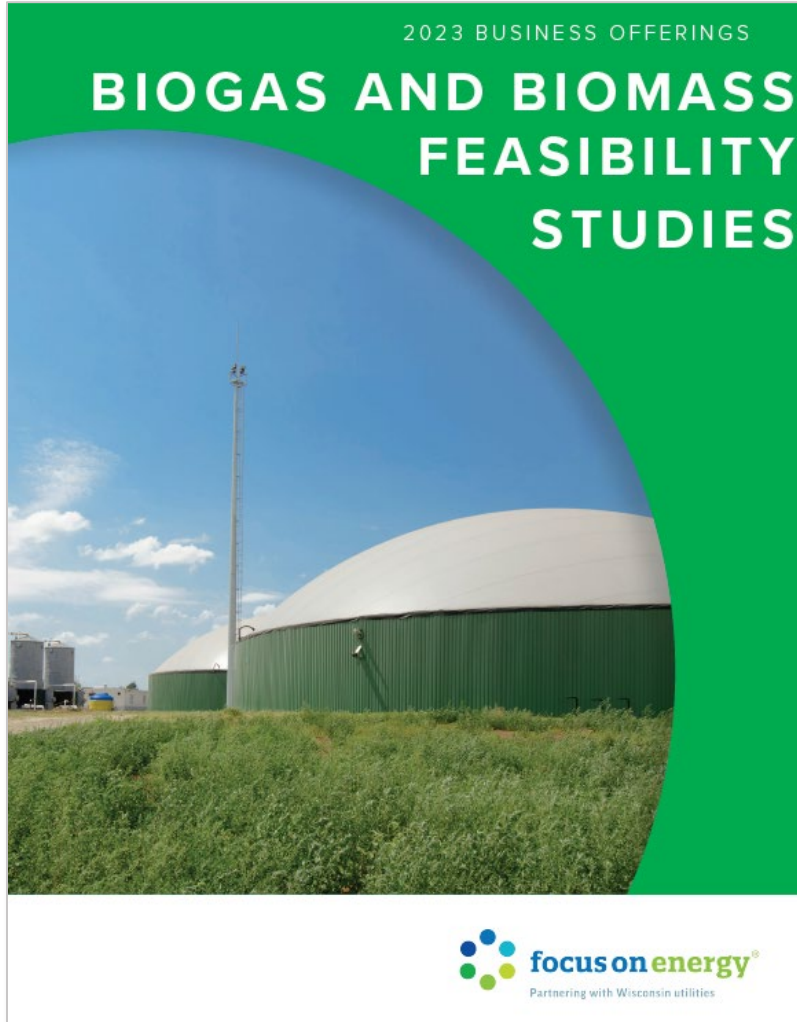
PROJECT ASSESSMENT INCENTIVE (PAI)



1. Select a Trade Ally to perform the project assessment.
2. Submit an application to Focus on Energy for pre-approval.
3. Trade Ally completes the project assessment.
4. Submit project assessment report, invoice, and application to Focus on Energy for payment.
5. Incentive is paid.

Incentive = **50%** of initial savings projection (capped at \$7,500).

BIOGAS & BIOMASS FEASIBILITY STUDY INCENTIVE

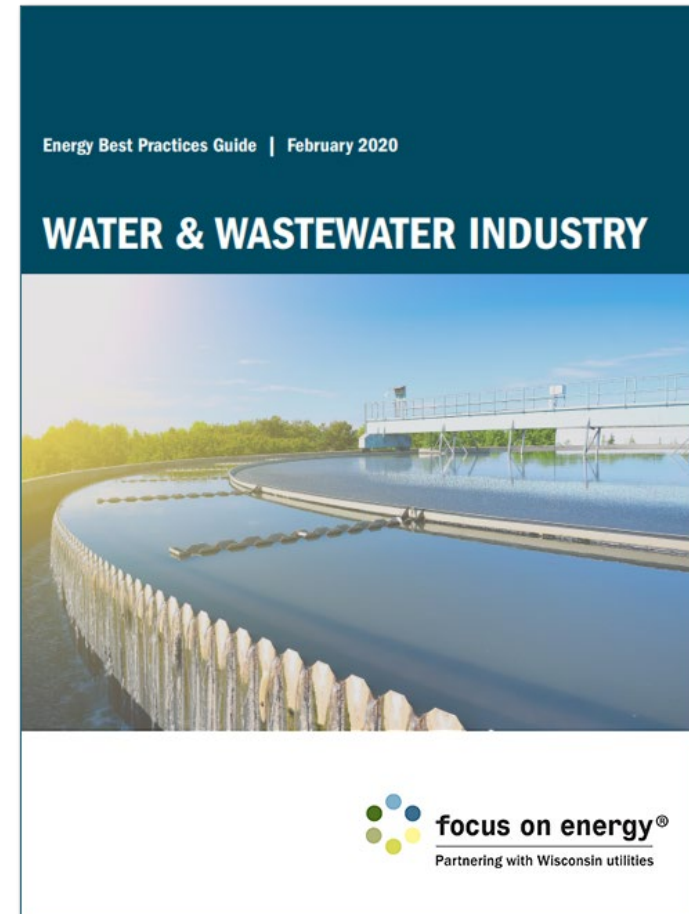


- Similar process to the WPEA and PAI offerings.
- Incentive **<50%** of study cost OR **\$15,000**.

ENERGY BEST PRACTICES GUIDE



- Outlines the basic steps in building an energy management program for school and government facilities.
- Provides general best practices and recommendations.
- Download a free copy at focusonenergy.com/guidebooks



FOCUS ON WASTEWATER

TOP 25 LOW COST - NO COST ENERGY SAVING OPPORTUNITIES



1 Meet with your electric supplier to evaluate your current rate schedule and identify the most efficient rate for your facility.

2 Demand Management

- ✓ Contact your electric supplier to review your energy rate schedule and identify on-peak hours.
- ✓ Review your operations during on-peak hours to identify idle operation of non-essential equipment.
- ✓ Determine if your treatment process(es) can operate during off-peak hours.

Examples Include:

- ✓ Operate mixers or aerators in aerobic digesters during off-peak hours.
- ✓ Accept or treat hauled-in wastes during off-peak hours.
- ✓ Utilize storage, if applicable.
- ✓ Shift filter backwash cycles to off-peak hours.
- ✓ Bump diffusers to off-peak hours or not at all, if practical.
- ✓ Test repaired equipment during off-peak hours.
- ✓ Change lead-lag equipment operation during off-peak hours.
- ✓ Do not mix solids holding tanks during on-peak hours.

3 Maintain pumps and blowers; inspect, lubricate, and replace seals and bearings; check belt tension and alignment and adjust for optimal operation per manufacturers' recommendations.

4 Turn off the aerobic digester blower periodically or operate it intermittently (i.e., 2 hours on / 4 hours off; repeat).

5 Modify the dissolved oxygen (DO) level in the aeration tank(s).

6 Operate select aeration tanks as needed.

7 Change intake filters for aeration blowers regularly to provide minimum resistance for intake air.

8 Identify, assess, and repair aeration system air main leaks.

9 Identify and repair compressed air leaks.

10 Identify equipment speeds and re-sheave blowers to gain efficiencies.

11 Turn off unnecessary lighting and install occupancy sensors.

12 Idle aeration basins or zones seasonally.

13 Adjust system operations when there is a change in wastewater load.

14 Raise wet well levels to reduce static head in the pump system.

15 Lower the aeration tank levels to reduce air header static pressure.

16 Shift nightly or seasonal low-flow periods to smaller HP pumps/blowers.

17 Operate as few UV lamps as possible while meeting disinfection needs.

18 Regularly clean UV lamp sleeves to improve transfer efficiency.

19 Test and calibrate/replace DO sensors.

20 Identify the best location to install DO probes in the aeration tanks.

21 Install programmable thermostats and utilize night set-back/ set-up settings.

22 Assess the potential for organics removal before entering the secondary treatment system. Assess the capability for high organic dischargers to feed loadings directly to a digester.

23 Review your operations to determine if any pumps or blowers are being throttled. If throttled pumps and blowers are identified, review them to decide if they can be unthrottled to operate more efficiently.

24 Idle any unnecessary equipment.

25 Review Focus on Energy's Water and Wastewater Industry Energy Best Practices Guide. This updated guide outlines the basic steps in building an energy management program and provides detailed information on water, wastewater, building efficiency, and general best practices.

LOW-COST – NO-COST ENERGY-SAVING OPPORTUNITIES

TRAINING AND EDUCATION



- Training Sessions:
 - Save money and energy by training your team! Focus on Energy provides training and information to help customers and Trade Allies make smart energy decisions.
 - Check out a full list of sessions at focusonenergy.com/training
- On-Demand Training
 - Focus on Energy provides 24/7 virtual training on various energy efficiency and technology topics for residential, business, and industry solutions.
 - Visit training.focusonenergy.com to search courses by topic.

QUESTIONS?



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