WASTEWATER TREATMENT PLANT ASSESSMENT PROGRAM

Are the costs of operating your wastewater treatment plant too high? Do you want to find ways to improve your systems to bring cost savings to your community? The Illinois EPA Office of Energy is teaming up with SEDAC and the Illinois Sustainable Technology Center (ISTC) to help local municipalities **reduce the cost of wastewater treatment** through free energy use assessments.

SEDAC and ISTC have provided energy assessments for 40 wastewater treatment plants. How much energy and money have these facilities saved?

Average annual kWh savings identified:
490,000
Average annual cost savings identified:
$39,000
Total annual cost savings for all projects:
$1,558,000

APPLY FOR A FREE ASSESSMENT

sedac.org/wastewater 800.214-7954 info@sedac.org

An energy assessment provided by SEDAC or ISTC will include a facility walk through, utility bill analysis, and an assessment report with:

- Energy efficiency recommendations
- Projected capital cost and payback time
- Projected energy and cost savings

To qualify for an assessment, a facility must:

- Be located in Illinois and owned by the State or a local government
- Allow SEDAC or ISTC access to the treatment facility
- Share facility information with SEDAC, ISTC and Illinois EPA
- Share final report with Illinois EPA

There is potential for future funding for energy efficiency improvements.

The Illinois EPA WWTP Assessment program is a partner of the U.S. Dept. of Energy Sustainable Wastewater Infrastructure of the Future [SWIFt] Accelerator for energy efficiency in wastewater treatment. More information available at https://better-buildingsinitiative.energy.gov/accelerators/wastewater-infrastructure.

ENERGY SAVING TIPS FOR WWTP

1. **AERATION.** Use dissolved oxygen sensor aeration controls and fine bubble aeration to reduce energy consumption.
2. **BLOWER.** Consider upgrading to a high-efficiency, variable capacity blower.
3. **ELECTRIC MOTOR CONTROL.** Use variable frequency drives on aeration blower motors and pump motors.
4. **FLOW CONTROLS.** Adjust flow rates during low and peak times for more consistent, optimized operations.
5. **WASTEWATER SYSTEM PIPING.** Inspect piping for leaks and repair as needed to reduce pumping energy requirements.
6. **LIGHTING.** Choose efficient lighting sources, such as LEDs, and occupancy controls.
7. **HEATING AND COOLING.** Tune up existing equipment. Use high efficiency condensing boilers and furnaces of 92% efficiency or better. Use high efficiency air conditioning equipment with an outdoor air economizer.
8. **TEMPERATURE SETBACKS.** Use automatic or manual controls to adjust temperature settings and system operation according to time of day and building loads.

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SEDAC
Smart Energy Design Assistance Center

ILLINOIS SUSTAINABLE TECHNOLOGY CENTER
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