

STOP "LEAKING" ENERGY

Ameren Illinois Energy Efficiency Business Program

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Agenda

- Ameren Illinois Energy Efficiency Program Overview
- Water Plant Case Studies: Plugging the Energy Leaks
- Project Development Strategy
- Questions





Program Overview

- Illinois Mandated: Energy Rate Relief Act of 2008
- Program Goals:
 - ✓ Provide financial incentives to lower the cost of energysaving equipment upgrades.
 - ✓ Save Ameren customers money on future utility bills.
- Must be an Ameren Illinois natural gas or electric customer.







Real Savings

Financial incentives can help businesses:

- Cut project costs
- Decrease payback periods
- Move energy efficiency projects forward!

The Ameren Illinois
Energy Efficiency
Program has
helped Illinois
businesses save
over \$1.4 billion in
energy costs since
2008.

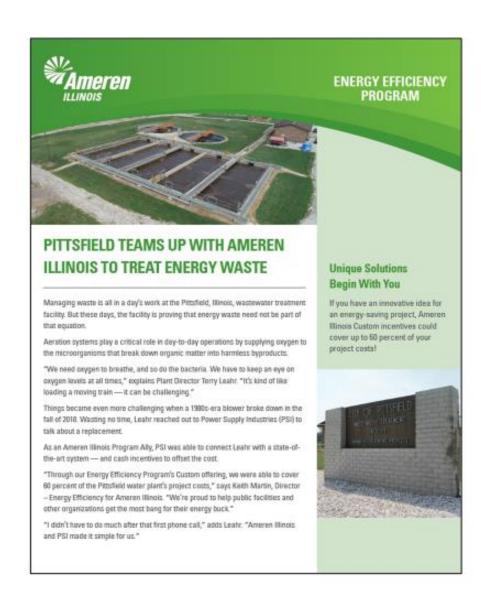
Business
customers have
received an
average of \$36.7
million in annual
incentives over
the past five
years.

Case Studies: Plugging the Energy Leaks



Pittsfield Water Treatment Plant





- Brief Description: Update aeration system from fixed speed bowers to high-efficiency variable speed blowers
- Incentive: WWTP Custom at \$.21/kWh
- Project Cost: \$82,350
- Incentive Amount: \$49,410
- KWh Savings: 271,627 kWh/yr
- Estimated Yearly Savings: \$19,014/yr

Caseyville Water Treatment Plant





CASEYVILLE WATER TREATMENT PLANT TEAMS WITH AMEREN ILLINOIS TO STOP ENERGY DRAINS

Reclaiming and conserving precious natural resources is all in a day's work at the Caseyville Township Water Reclamation Facility. And these days, it's not just about water, but conserving energy, too.

Built in the mid-1960s, the facility has undergone two major plant expansions over the years to meet growing demand in the bustling Metro East area. While growing with the flow, the team at the Caseyville plant is always on the lookout for opportunities to do more with less energy.

One such apportunity came courtesy of the Illinois Environmental Protection Agency (EPA). The Illinois EPA's Wastewater Treatment Plant Energy Assessment Program offers a free facility walk-through, utility bill analysis, and assessment report. Conducted in July 2019 by the Illinois Sustainable Technology Center (ISTC), the assessment of the Caseyville plant pinpointed additional ways to reduce electricity use and identified utility incentives to help fund those upgrades.

"I was really surprised to learn about the Ameren Illinois incentives. It's a deal you can't pass up," says Randy LePere, Sewer System Manager at the plant. "The Illinois EPA evaluation and the Ameren Illinois Energy Efficiency Program is a win-win for anybody wanting to save and get ahead."

Shine a Light on Savings

With lighting technology advancing by leaps and bounds, Caseyville stood to save significantly by installing state-of-the-art LED bulbs and fixtures. In late 2019, the Caseyville facility worked with local Program Ally, Jarvis Electric, Inc., to upgrade lighting in offices, plant buildings, and the garage. Plans are in place to upgrade external lighting to LEDs as well.

"Lighting is a great place to start saving, and LEDs have set a new standard for efficiency," says Jim Dillon, Senior Manager, Energy Efficiency Operations at Ameren Illinois. "With low out-of-pocket costs and streamlined paperwork and installation, our Small Business Direct Install Initiative makes energy savings easy for municipalities and small businesses."

In fact, LePere reports: "The lighting upgrades we made were basically free, and the new lighting is saving us close to \$400 a month."

Easier on the eyes, the benefits of LED lighting go beyond cost savings.

"It's amazing the difference the new lighting makes. It's a much whiter, brighter light," notes LePere. "At one point, when half the lighting upgrades were done and half of the old lighting remained, you could see a considerable difference." wastewater treatment, the Illinois EPA
Office of Energy, in partnership with the
Smart Energy Design Assistance Center
(SEDAC) and the Illinois Sustainable
Technology Center (ISTC), is offering free
energy usage assessments to publicly
owned wastewater treatment plants. Visit
sedac.org/wastewater to learn more or
apply for a free energy assessment.

To learn about Illinois EPA grant funding for energy efficiency improvements at publicly owned wastewater treatment plants, visit www2.illinois.gov/epa/topics/energy/eewwtp

The Lowdown on LEDs

ENERGY STAR® qualified LED lighting uses at least 80 percent less energy than incandescent lighting, which cuts operating costs. And because it lasts 35 to 50 times longer than incandescent lighting — and up to five times longer than fluorescent lighting — you'll save on maintenance costs, too.



•Brief Description: Caseyville installed six variable frequency drives on three 125 HP aeration blower motors and three 300 HP aeration blower motors to help control the varying demand of a plant load that averages 4.4 million gallons per day.

•<u>Incentive</u>: VFD \$175,312 (at @125 hp + bonus)

Project Cost: \$214,110

•kWh savings: 2.22 million kWh/yr

Estimated yearly savings: six-figure/yr

Danville Sanitary District





Digester Complex

Nissen Energy 190 kW CHP Unit

- CHP energy production is approximately 1,414,740 kWh per year
- Offset 26% of the Plant's electric load
- The recovered heat from the CHP system is fed into the Plant's central hot water system at a temperature of 194F.
- At the ~ 85% availability factor, the CHP recovered heat delivers approximately 687 kBtu/hr to heat the three anerobic digesters.
- Saving \$94K per year in electric and \$30K per year in natural gas.

Project Development Strategy

Key Utility Management Areas

Top Four Opportunities





Ten Key Management Areas of a Sustainably Managed Water Plant





Sustainable Utility Management: 2 PM CST April 12

Posted March 7, 2018 by The National Rural Water Association
New Webinar: Sustainable Utility Management: 2 PM CST April 12
Register Now

This webinar will cover the Workshop in a Box and will help water and wastewater professionals prioritize the ten key management areas of sustainably managed utilities: product quality, customer satisfaction, employee & leadership development, operational optimization, financial viability, infrastructure stability, operational resiliency, community sustainability and economic development, water resource adequacy, and stakeholder understanding and support. We will discuss the attributes and walk you through any easy way to see your utility's strengths and weaknesses. The webinar will also teach you how to develop an improvement plan and an action plan to address the weaknesses you identify.

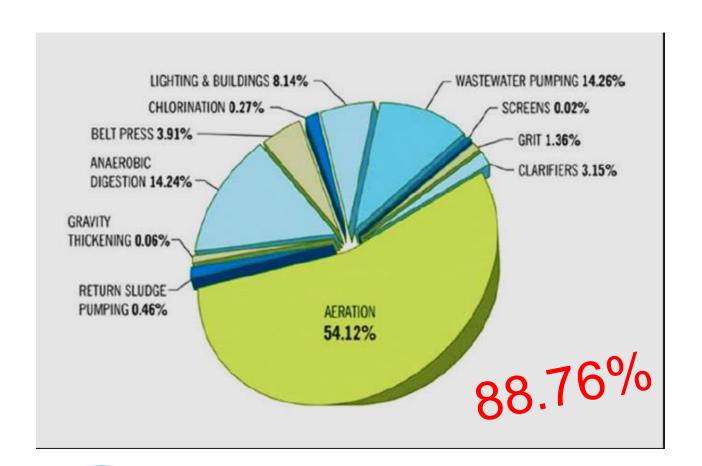
- Product quality
- Customer satisfaction
- Employee & leadership development
- Operational optimization
- Financial viability
- Infrastructure stability
- Operational resiliency
- Community sustainability and economic development
- Water resource adequacy
- Stakeholder understanding and support

Top Four Incentive Opportunities



Energy Efficiency Opportunities for WWTP

- Aeration
- Wastewater Pumping
- Anaerobic Digestion
- <u>Lighting and Buildings</u>



"Should, Want to....HAVE TO!"

- 1. Why should I consider an equipment/process upgrade?
- 2. What is the current cost of my system?
- 3. Who do I have to sell this project to?
- 4. What is the value of this project?







Standard Incentive Overview













AmerenIllinoisSavings.com/Business

*Pre-approval is required

Motor VFDs

- Variable Frequency Drives (VFDs) help pumps and fans use only the energy they need — reducing operating costs and stretching your budget!
- VFDs can be installed on:
 - Commercial and industrial fans: process fans, HVAC fans, cooling tower fans, boiler draft fans.
 - Commercial and industrial pumps: HVAC heating pumps, chilled water distribution pumps, process pumps, water plant pumps.

Incentives from Ameren Illinois can cover up to 80% of your project cost!

Fans and Pumps (2,000+ hours/year):

Private Sector: \$125/hp controlled

Public Sector: \$160/hp controlled

Fans and Pumps (500-1,999 hours/year):

Private Sector: \$40/hp controlled

Public Sector: \$50/hp controlled

Custom Projects: For motors greater than 500hp or processes not eligible through the Standard Application. *Pre-approval is required.*

AmerenIllinoisSavings.com/VFD







Typical motors have two settings — on and off. VFDs allow motors to adjust output based on demand, saving energy during less demanding times.

Compressed Air Systems



- Compressed air filters
- Reduced compressed air setpoint
- Compressed air heat recovery
- Compressed air storage receiver tank
- Efficient compressed air nozzles
- AODD pump controls



AmerenIllinoisSavings.com/CompressedAir

Heating and Cooling Incentives

- Variable frequency drives (VFDs) on HVAC motors
- Ground source and air source heat pumps
- Unitary and split air conditioner units
- Furnaces
- Boiler tune-ups and replacements
- High-efficiency water heaters
- Advanced rooftop controls
- Demand-controlled ventilation

AmerenIllinoisSavings.com/HVAC







LED Lighting Incentives

- \$0.50 per watt reduced on interior and exterior LED replacements.
- Must be DLC-approved lighting
- Eligible incentives include:
 - LED tube and fixture replacements through an approved distributor
 - Networked Lighting Controls (includes LLLC)
 - Seasonal lighting
 - Grow lighting
 - Cooler/freezer lighting and controls

AmerenIllinoisSavings.com/Lighting





Small Business Direct Install (SBDI)



- Subset of Standard Business Program with incentives based on watt reduction
- Electric savings measures only lighting and refrigeration
- Direct installation of energy-saving measures by an enrolled Program Ally
- Ameren Illinois non-residential private AND public sector customers with DS-2 or DS3-A electric delivery rate codes (DS3-B are not eligible)

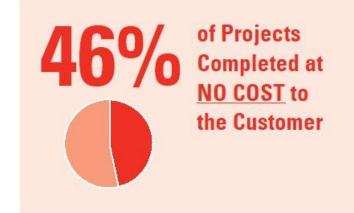


2024 SMALL BUSINESS DIRECT INSTALL PROGRAM

1,284
Customers Served in 2024



\$7.65 Million
Total Electric Incentives Paid







Incentive amounts may vary based on project energy savings.



Additional Program Help

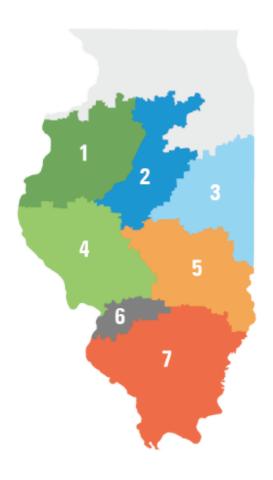
- Strategic Energy Management
- Feasibility Study
- Metering and Monitoring
- Instant Incentives



Resources



Program Resources



Energy Advisors

- For Large Industrial and Small Business customers.
- Free site walk-throughs and project consultations.
- Assistance identifying energy efficiency needs.
- Assistance with application process.

Request your FREE Energy Consultation:

1.866.800.0747

IllinoisBusinessEE@ameren.com

Find an Energy Advisor:

AmerenIllinoisSavings.com/EnergyAdvisor



Program Resources



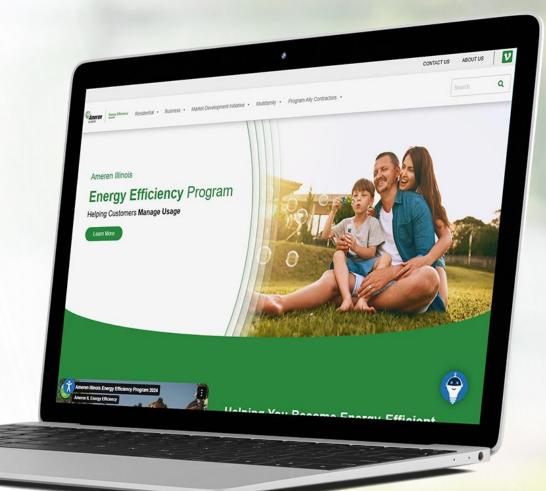
Program Allies

- Contractors who have registered and received training from Ameren Illinois
 - ✓ Familiar with application forms and processes
 - ✓ Help customers complete energy efficiency projects
- Look for a Program Ally:
 - √ Visit AmerenIllinoisSavings.com
 - ✓ Click on "Find a Program Ally Contractor"
- Interested in becoming a Program Ally?
 - √ Visit AmerenIllinoisSavings.com
 - ✓ Click "Program Allies" tab



AmerenIllinoisSavings.com

- Most up-to-date information on incentives
- Applications, application guides and other necessary forms
- Videos, case studies and other educational content
- Program contact information





Building Operator Certification (BOC) Overview



- Training and certification program with more than 20,000 graduates in 20+ years.
- Focus on energy-efficient building operations and preventative maintenance procedures.
- Target audience: building operators with 2+ years of experience working in a building that is 50,000 square foot or larger:
 - Facility managers
 - Building managers
 - HVAC technicians
- Requires 60 hours of classroom time and 10 hours of project work. Class typically meets every other week for three (3) months with unique, expert instructor for each session.
- Graduates who earn Training Certificate of Completion are eligible to take exam to become a Certified Building Operation (CBO).
- Discounted tuition of \$1,400 for anyone who lives or works in Illinois (a \$295 discount).
- Most students will qualify for a FULL tuition reimbursement upon successful completion of a Level 1 or Level II
 course. There is a maximum number of reimbursements per facility.
- Contact with questions: boc@mwalliance.org or 855.420.1785.





Wednesday, October 15, 2025 BOS Center | Springfield, IL



Register at AmerenIllinoisSavings.com/Symposium



Questions?





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