



Energy Efficiency
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Energy-Saving Strategies for Local Governments

Ameren Illinois Energy Efficiency Program Overview

- Illinois Mandated: Energy Rate Relief Act in 2008
- Program goals:
 - Provide financial incentives to lower the cost of energy-saving equipment upgrades.
 - Save Ameren Illinois 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 **\$34.4 million** in annual incentives over the past five years.



Incentives Overview



**Indoor and Outdoor
LED Lighting**



**Heating, Cooling
and Ventilation**



**Specialty
Equipment**



**New Construction
Projects***



**Retro
Commissioning***



**Custom
Projects***

**Pre-approval is required*

[**AmerenIllinoisSavings.com/Business**](http://AmerenIllinoisSavings.com/Business)



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2025 Renewable Energy Projects for the Urbana and Champaign Sanitary District



Bradley M. Bennett
Director of Engineering

Background Information

- ❖ Separated Sanitary Sewer System – service area of 44 square miles.
- ❖ Serve 155,000 Persons in Champaign, Urbana, Savoy, Bondville and nearly 10,000 in unincorporated areas.
- ❖ User Charge and Development Fees are primary sources of revenue.
- ❖ Two treatment plants – Northeast (1924) and Southwest (1968).
- ❖ Average day flow: 25.28 MGD
- ❖ Peak hour flow: 74.6 MGD
- ❖ 28 lift stations, 18 miles of force main and 95 miles of interceptors.



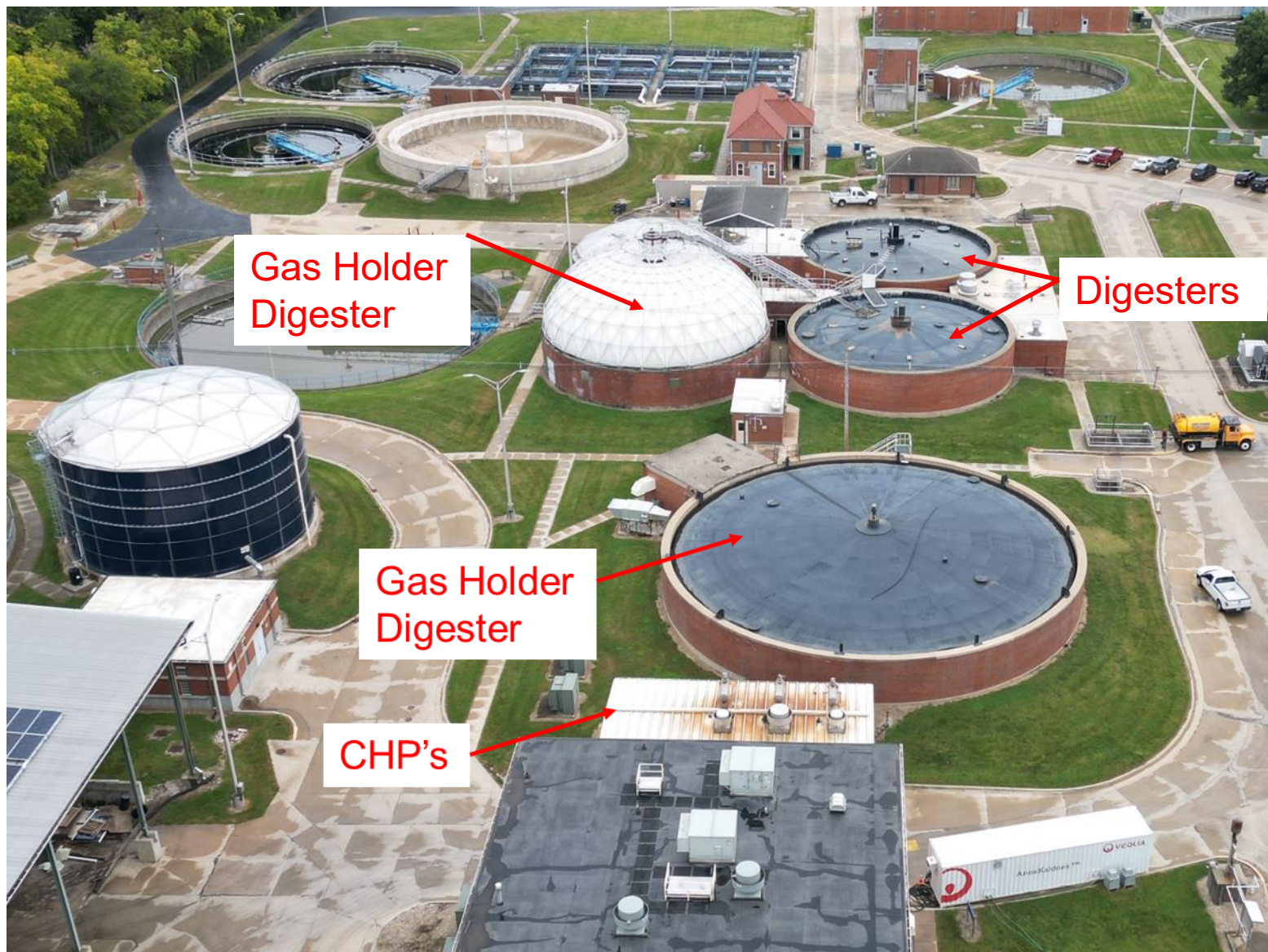
Historical Perspective

- ❖ **1894** – Urbana septic tank constructed.
- ❖ **1897** – Champaign septic tank constructed.
- ❖ **1921** – UCSD created on May 24th.
- ❖ **1924** – Northeast Plant (NEP) construction completed.
- ❖ **1950s** – Biogas used to power aeration blowers at NEP and for boiler to heat anaerobic digesters.
- ❖ **1968** – Southwest Plant (SWP) construction completed.

Historical Perspective

- ❖ **2005** – Combined Heat Power (CHP) units installed at NEP using biogas as a fuel source.
- ❖ **2025** – CHPs replaced with higher efficiency units and biogas conditioning system – operational in October 2025.
- ❖ **2025** – 2.2 Megawatt solar field construction at SWP – operational in December 2025.

NEP Digesters and CHPs



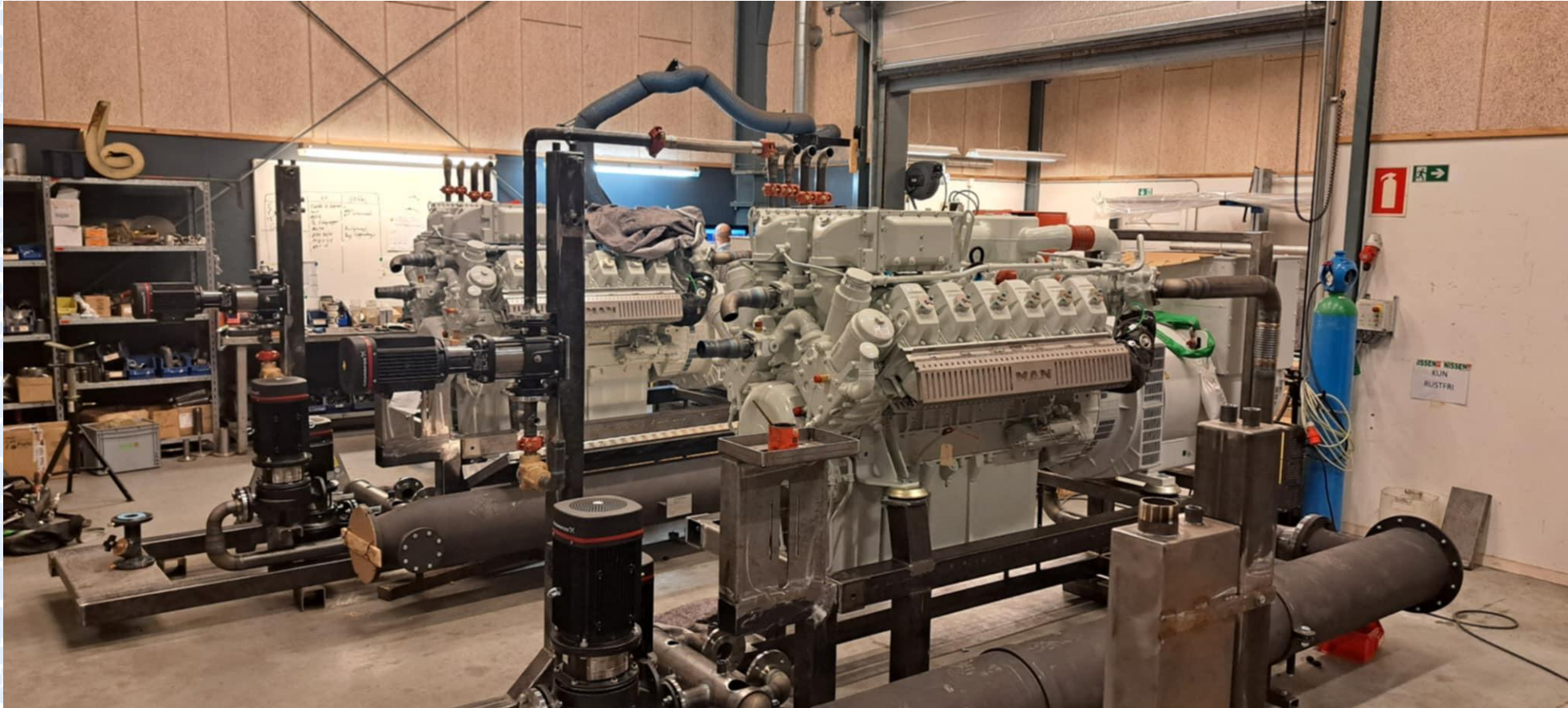
Existing CHP Information

- ❖ UCSD generates average of 202,000 cf of biogas per day for CHPs.
- ❖ Three Caterpillar CHP engines installed in 2005.
- ❖ Generation capacity of 216 kW per engine.
- ❖ No biogas conditioning system.
- ❖ CHPs provided 30% to 35% of electrical power for NEP.
- ❖ CHPs provided most of heat for Anaerobic Digestion Process.

New CHPs Information

- ❖ Two new Nissen CHP Engines – operational in October 2025.
- ❖ Generation capacity of 434 kW per engine.
- ❖ New biogas conditioning system – will remove moisture, H₂S and siloxanes.
- ❖ New CHPs estimated to produce:
 - ❖ 238,889 therms/year
 - ❖ 4,676,373 kW-hrs of electricity/year
- ❖ New CHPs estimated to provide 60% to 70% of electrical power for NEP.

New CHPs Being Built



New Biogas Conditioning Equipment



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New CHP Financial Incentives



- ❖ Anticipate \$1.1 million in Investment Tax Credits from IRS
- ❖ Anticipate \$1.1 million in funds from Ameren Illinois Energy Efficiency Program incentives
- ❖ Net metering

New Solar Field Information

- ❖ Solar Power Purchase Agreement with Sol Systems executed in May 2023.
- ❖ Output of 2.2 megawatts – SWP average usage is 2.6 megawatts.
- ❖ 11.26 acres with 4,248 solar panels located at SWP.
- ❖ Electrical pricing starts at \$0.02 per kWh in Year One.
- ❖ Electrical pricing increases to \$0.04 per kWh by year 15 of agreement.
- ❖ Sol Systems retains SRECs and ITCs — not UCSD.

Solar Power Purchase Agreement - Schedule



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- ❖ **November 2024** – Engineering, Procurement and Construction (EPC) agreement with Verde Solutions.
- ❖ **May 2025** – Design completed and permits obtained.
- ❖ **July 2025** – Construction starts.
- ❖ **December 2025** – Solar field operational.

Solar Field Site: August 6, 2025



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Solar Panels Being Installed



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2025 Business Symposium

Questions?