IL ENERGY NOW PROGRAMS FOR PUBLIC WASTEWATER TREATMENT PLANTS

Andrea Reiff
Illinois Department of Commerce & Economic Opportunity
Private Sector Businesses
Residential Non-profits

ComEd
Ameren

Electric Efficiency (75% of electric $)

Electric & Gas Efficiency (25% of program $)

DCEO

Gas Efficiency (75% of gas $)

Nicor
Peoples
North Shore
Ameren

Public Sector Governments
Public Schools
Community Colleges
Public Universities
Airport Authorities

Low Income Residential Retrofit
New Construction
Public Housing

Private Sector Businesses
Residential Non-profits

ILLINOIS OFFICE OF ENERGY & RECYCLING:
ILLINOIS ENERGY NOW

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ILLINOIS ENERGY NOW
Energy savings goals:
- Electricity: 153 million kWh per year
- Natural gas: 5.44 million therms per year

Program budgets:
- Electricity: $55.1 million per year
- Natural gas: $21.2 million per year
• >874 Major and Minor IEPA Wastewater Permits.
  • 124 Facilities with treatment capacity > 5MGD.
  • ~89 Facilities use Anaerobic Digestion.
• 14 Local Operators’ Associations.
• 4 State-wide Illinois Associations.
% ELECTRICAL CONSUMPTION BY PROCESS FOR A WWTP THAT UTILIZES ANAEROBIC DIGESTION
IL ENERGY NOW PUBLIC SECTOR CLEAN WATER INCENTIVE PROGRAM

• Incentive of $0.36 per annual kWh saved.
• High efficiency blowers
• Aeration diffusers
• Controls
• Aeration systems must achieve 25% energy savings.
• Incentives can’t exceed 100% equipment costs.

Rebates based on Standard (set) or Custom (calculated) incentive up to maximum rebate of 75% of total project cost.

**Standard Equipment**

1) Lighting
2) HVAC
3) Equipment
   - HVAC VSD
   - NG Water Heaters
   - Showerheads
   - Compressed Air
   - LED Traffic Signals
4) Kitchen

**Custom Equipment**

- Electric & Gas equipment not listed as Standard and show 1-7 year payback
- Non-HVAC VSD
- Ground Source Heat Pumps
- $0.12 per kWh saved
- $2.50 per Therm saved

**Clean Water Equipment**

- $0.36 per kWh saved for Aeration Systems at public Waste Water Treatment Plants

[Source](http://www.illinois.gov/dceo/whyillinois/TargetIndustries/Energy/Pages/EnergyEfficiencyForms.aspx)
# IL ENERGY NOW: CLEAN WATER FUNDS AWARDED & ENERGY SAVINGS

<table>
<thead>
<tr>
<th>WWTP</th>
<th>IL ENERGY NOW Clean Water Incentive</th>
<th>ICECF Funds Reported</th>
<th>Annual Electric Savings (kWh)</th>
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<tr>
<td>Downers Grove Sanitary District</td>
<td>$153,000</td>
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<td>Fox River Water Reclamation District</td>
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2016-2017 IL ENERGY NOW STANDARD, CUSTOM & CLEAN WATER PUBLIC WASTEWATER APPLICANTS

Bensenville
Granite City
Genoa
Prophetstown
Sanitary District of Decatur
Cortland
Peoria Greater Sanitary District
North Shore Sanitary District
Elmhurst
Flagg Creek Water Reclamation District
Metropolitan Water Reclamation District of Greater Chicago
IL ENERGY NOW COMBINED HEAT & POWER PROGRAM

• Recovery of thermal energy that would otherwise be wasted to produce additional power or useful thermal energy.

• Design Incentive: $75/kW capacity: following completion of the design phase.

• Constructive Incentive: $175/kW capacity: following successful commissioning of the system.

• Production Incentive: $0.06/kWh or $0.08/kWh of “useful electric energy” produced.

• [http://www.erc.uic.edu/energy-efficiency/illinois-energy-now-programs/white-papers/](http://www.erc.uic.edu/energy-efficiency/illinois-energy-now-programs/white-papers/)
OTHER FUNDING SOURCE: IL CLEAN ENERGY COMMUNITY FOUNDATION

Net Zero Energy Wastewater Treatment Program

• Provides grants to wastewater treatment plants committed to achieving site net zero energy performance, or better.

• Projects can combine funding sources up to 100% of total project costs.

http://www.illinoiscleanenergy.org/energy-program/net-zero-energy-wastewater-treatment-plants
IL ENERGY NOW PUBLIC WATER TREATMENT PLANTS: TECHNICAL ASSISTANCE

- Partner with Energy Resources Center at University of Illinois at Chicago
  - Provide outreach and marketing.
  - Provide technical assistance.
    - Look at individual facility’s plant profile to determine best actions.
    - Guidance on grant programs.

http://www.erc.uic.edu/energy-efficiency/illinois-energy-now-programs/waste-water-treatment-facilities-program/
THANK YOU!

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