Funding and Assistance

Greg Swiss – SEDAC Building Energy Specialist

Smart Energy Design Assistance Center (SEDAC), University of Illinois at Urbana Champaign
1. Sources of Funding
   - Incentives
   - Grants

2. Sources of Assistance
   - SEDAC
   - Metropolitan Mayors Caucus
   - Illinois Association of County Board Members
   - Trade Allies
WHERE ARE THESE INCENTIVES FROM?

Energy Efficiency Portfolio Standard (EEPs)
Purpose for programs to reduce energy use in Illinois.
Must be in one of the following investor owned utilities
Page 1 of 2

**Account Number**

- Name
- Service Location
- Phone Number

**Bill Summary**

- Previous Balance: $1,296.06
- Total Payments - Thank You: $1,296.06
- Amount Due on December 5, 2011: $955.66

**Issue Date**: October 19, 2011

**Meter Information**

<table>
<thead>
<tr>
<th>Read Date</th>
<th>Meter Type</th>
<th>Load Type</th>
<th>Reading Type</th>
<th>Previous Reading</th>
<th>Present Reading</th>
<th>Difference</th>
<th>Multiplier</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/19</td>
<td>General Service</td>
<td>Total kWh</td>
<td>9445 Actual</td>
<td>9596 Actual</td>
<td>141</td>
<td>60</td>
<td>8460</td>
<td></td>
</tr>
<tr>
<td>10/19</td>
<td>General Service</td>
<td>kW</td>
<td>27.92 Actual</td>
<td>28.40 Actual</td>
<td>0.48</td>
<td>60</td>
<td>28.80</td>
<td></td>
</tr>
</tbody>
</table>

**Service from 9/20/2011 to 10/19/2011 - 29 Days**

**Commercial Demand - 0 to 100 kW**

**Electricity Supply Services**: $699.47

- Electricity Supply Charge: 8,460 kWh x 0.07014 = $593.38
- Transmission Services Charge: 8,460 kWh x 0.00754 = $63.79
- Purchased Electricity Adjustment: 42.30

**Delivery Services - ComEd**: $183.49

**Taxes and Other**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart Meter Program</td>
<td>0.23</td>
</tr>
<tr>
<td>Environmental Cost Recovery Adj</td>
<td>-0.25</td>
</tr>
<tr>
<td>Energy Efficiency Programs</td>
<td>13.71</td>
</tr>
<tr>
<td>Franchise Cost</td>
<td>4.39</td>
</tr>
<tr>
<td>State Tax</td>
<td>27.21</td>
</tr>
<tr>
<td>Municipal Tax</td>
<td>27.41</td>
</tr>
</tbody>
</table>

**Total Current Charges**: $955.66

(continued on next page)
ENERGY EFFICIENCY PORTFOLIO STANDARD

Customers

Electric Efficiency

- Private Sector
  - Businesses
  - Non-profit
  - Residential

Public Sector Efficiency

- Public Sector
  - Government
  - K-12 Schools
  - Park Districts

- Low Income Res.
  - Affordable Housing
  - PHAs

Natural Gas Efficiency

- Private Sector
  - Businesses
  - Non-profit
  - Residential
WHICH INCENTIVES AM I ELIGIBLE FOR?

Public Buildings

- Park Districts
- Public K-12 School
- Library
- Police/Fire Stations
- Water Treatment
- City Halls
- Community Colleges

Private Buildings

(Everyone Else)

- Ameren Illinois
- Nicor Gas
- ComEd
- Peoples Gas
- North Shore Gas
Funding For:
Existing Buildings
New Construction
Retro-commissioning
Existing Buildings

1. STANDARD ($/ITEM INSTALLED)
2. CUSTOM ($/ENERGY SAVED)
INCENTIVE PROCESS

1. Project That Meets or Exceeds Program Specs.
2. Submit Pre-Approval Application
3. Perform Work After Receiving “Notice to Proceed”
4. Submit Final Application
5. Receive Incentive Payment
<table>
<thead>
<tr>
<th>PROMOTIONS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweet Deal</td>
<td>An extra 10% on projects completed and Final Applications submitted by October 31, 2014 or an extra 5% on projects completed and Final Applications submitted by February 14, 2015</td>
</tr>
<tr>
<td>Double-Up Natural Gas Bonus</td>
<td>Incentives for many natural gas projects were doubled from their values at the start of the 2012 program year (June 2012). The values for these projects are expected to go down June 1, 2015.</td>
</tr>
<tr>
<td>Clean Water Energy Efficiency Initiative</td>
<td>Custom incentives for high efficiency blowers, aeration diffusers, and controls can receive up to 100 percent of the project cost, at the rate of $0.36/kWh. Use special addendum application forms found at: <a href="http://www.illinois.gov/dceo/whyillinois/KeyIndustries/Energy/Pages/EnergyEfficiencyForms.aspx">http://www.illinois.gov/dceo/whyillinois/KeyIndustries/Energy/Pages/EnergyEfficiencyForms.aspx</a></td>
</tr>
<tr>
<td>Combined Heat and Power Program</td>
<td>The Combined Heat and Power Program, or CHP for short, provides cash incentives for CHP projects that increase the efficiency of wastewater plants, community colleges, hospitals, and other buildings in the public sector. Funding is available for design, construction and production of CHP systems. Initial application deadline is November 21, 2014. <a href="http://www.illinois.gov/dceo/whyillinois/KeyIndustries/Energy/Pages/CHPprogram.aspx">http://www.illinois.gov/dceo/whyillinois/KeyIndustries/Energy/Pages/CHPprogram.aspx</a></td>
</tr>
<tr>
<td>Partner Bonus</td>
<td>Partner Bonus: organizations attending a SEDAC training, Trade Ally training, or participating in the MEEA STEP program can get a 15% bonus on projects and final applications completed by April 1, 2015.</td>
</tr>
</tbody>
</table>
Public Sector 15% Bonus

DCEO ILLINOIS ENERGY NOW
PARTNER PROGRAM

Partner Bonus Coupon: ADDITIONAL 15%* EXPIRES APRIL 1, 2015

<table>
<thead>
<tr>
<th>[For DCEO partner use only]</th>
<th>[For applicant completion]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Entity Name:</td>
<td>Contact / Attendee:</td>
</tr>
<tr>
<td>Hoopeson Area CUSD #11 Maple Elem School</td>
<td></td>
</tr>
<tr>
<td>Electricity Utility:</td>
<td>Job Title:</td>
</tr>
<tr>
<td>Ameren</td>
<td>FEIN Number:</td>
</tr>
<tr>
<td>Natural Gas Utility:</td>
<td>Phone:</td>
</tr>
<tr>
<td>Ameren</td>
<td>Email:</td>
</tr>
</tbody>
</table>

* The Partner Bonus Coupon will increase the qualifying incentive by 15% provided by the Illinois Energy Now Public Sector Energy Efficiency (PSEE) Standard, Custom or Boiler Tune-up Programs. To be submitted with the incentive application.

Eligibility: To receive a Partner Bonus Coupon, the public facility must be a customer of investor-owned utilities (ComEd, Ameren Illinois, Nicor Gas, North Shore Gas, and Peoples Gas), and have participated in one or more of the partner programs (SEDAC, ERC and MEEA) listed below.
### LIGHTING

**Argonne National Laboratory**

<table>
<thead>
<tr>
<th>Building Type</th>
<th>Research Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Measures</td>
<td>Lighting, Controls</td>
</tr>
<tr>
<td>Total Project Cost</td>
<td>$172,000</td>
</tr>
<tr>
<td>Total DCEO Incentives</td>
<td>$49,960</td>
</tr>
<tr>
<td>Final Project Cost</td>
<td>$122,040</td>
</tr>
<tr>
<td>Annual Energy Savings</td>
<td>$39,000</td>
</tr>
<tr>
<td>Payback</td>
<td>3 years</td>
</tr>
</tbody>
</table>

**What they did…**

- Retrofit lighting within buildings
- Installed lighting controls
- First of multi-building project.

**Incentive 30%**
What they did…
- Windows on office
- Retrofit lighting
- Setback Thermostats
- High Efficiency HVAC

<table>
<thead>
<tr>
<th>Henry County Highway Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Type</td>
</tr>
<tr>
<td>Energy Measures</td>
</tr>
<tr>
<td>Total Project Cost</td>
</tr>
<tr>
<td>Total DCEO Incentives</td>
</tr>
<tr>
<td>Final Project Cost</td>
</tr>
<tr>
<td>Annual Energy Savings</td>
</tr>
<tr>
<td>Payback</td>
</tr>
</tbody>
</table>
**Recommended…**

- Low Wattage Retrofit Lighting
- Occupancy Sensors
- Gym Lighting Upgrade
- Parking Lot LED Lighting
- Demand Control
- Ventilation
- VFD for Gym HVAC

<table>
<thead>
<tr>
<th>Recreation Center</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building Type</strong></td>
</tr>
<tr>
<td><strong>Energy Measures</strong></td>
</tr>
<tr>
<td><strong>Annual Energy Savings</strong></td>
</tr>
<tr>
<td><strong>Total DCEO Incentives</strong></td>
</tr>
<tr>
<td><strong>Savings</strong></td>
</tr>
</tbody>
</table>
NEW CONSTRUCTION PROGRAMS

1. Design Assistance
2. Incentives
Prescriptive/Standard Incentives
$/item installed

OR

Custom
$0.08/kWh savings
$2.00/therm savings
Code compliant base building
Or
Standard Eff. Equipment

+ High Performance Design Bonus
% cost savings beyond code +$0.40-$1.40/sf
NEW CONSTRUCTION PUBLIC SECTOR

What they got…
Incentive for 30% beyond code

<table>
<thead>
<tr>
<th>Chicago Botanical Gardens</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Type</td>
<td>Laboratory</td>
</tr>
<tr>
<td>Energy Measures</td>
<td>Lighting, HVAC, fans</td>
</tr>
<tr>
<td>Annual Energy Savings</td>
<td>$19,409</td>
</tr>
<tr>
<td>Incremental Cost</td>
<td>$130,934</td>
</tr>
<tr>
<td>Total DCEO Incentives</td>
<td>$36,184</td>
</tr>
<tr>
<td>Simple Payback</td>
<td>4.8 years</td>
</tr>
</tbody>
</table>

What they did…
- Improved lighting
- Chilled/heated slab
- High efficiency fans
- Solar panels
- Green roof
**Recommended Strategies beyond code:**
- Install demand control ventilation throughout facility
- Increase efficiency of mechanical systems
- Utilize higher performance glazing
- Add air sealing to building specifications
- Further reduce lighting power density

**Recommended Strategies to add:**
- Building Automation System
- Full building commissioning
- Bi-level switching in stairs

*51% Energy Cost Savings (vs. ASHRAE 90.1-2007)*

*Potential of $63,969 in DCEO incentives!*
DCEO SPECIAL PROGRAMS

Energy Efficiency Aggregation Program
ISBE School Energy Efficiency Grants
Natural Gas Boiler Tune-up Program
Steam Trap Retrofit
Energy Performance Contracting
Lights for Learning
School Direct Lighting Install
Low Income Incentive Programs
MEEA’s STEP
LED Exit Signs
Low-flow Faucet Aerators
Low-flow Showerheads
Kitchen Pre-rinse Green Nozzles
CFLs
Vending Machine Controls
Occupancy Sensors
LED Screw-in Lamps for Outdoors
Illinois Clean Energy Community Foundation (ICECF)

http://www.illinoiscleanenergy.org/

- Schools
- Non-profits
- Non-EEPs
- Community Centers

Innovative Lighting Systems

Renewables
- Wind
- Solar
- Biomass

Advancing Renewable Energy

Emerging Technologies

Images by Illinois Clean Energy Community Foundation
DCEO wind and solar grants

- Open for a VERY limited time CLOSED
- $10,000 maximum
- PV
  Residential and commercial
  $1.50/watt or 25% of project costs
  Not-for-profit and public
  $2.60/watt or 40% of project costs
- Wind
  Residential and commercial
  $1.70/watt or 30% of project costs
  Not-for-profit and public
  $2.60/watt or 40% of project costs
Financial Incentives

Green Building Incentive
- City of Chicago - Green Permit and Green Homes Programs

Industry Recruitment/Support
- Renewable Energy Business Development Grant Program

Local Grant Program
- City of Chicago - Small Business Improvement Fund

Non-Profit Grant Program
- Illinois Clean Energy Community Foundation Grants

PACE Financing
- Local Option - Contractual Assessments for Renewable Energy and/or Energy Efficiency

Performance-Based Incentive
- Illinois Solar Energy Association - Renewable Energy Credit Aggregation Program
- Solar Renewable Energy Credits

Property Tax Incentive
- Commercial Wind Energy Property Valuation
- Special Assessment for Solar Energy Systems

Sales Tax Incentive
- Sales Tax Exemption for Wind Energy Business Designated High Impact Business

State Bond Program
- Renewable Energy and Energy Efficiency Project Financing

State Grant Program
- Biogas and Biomass to Energy Grant Program
- Efficient Living Energy Grant
- Energy Efficient Affordable Housing Construction Program
- Public Sector Energy Efficiency Aggregation Program
- Public Sector New Construction and Retrofit Program
- Retro-Commissioning (RCx) Program
- School Energy Efficiency Grant Program

State Loan Program
- Energy Impact Illinois Loans
- Green Energy Loans

State Rebate Program
- Energy Impact Illinois Rebates
- Public Sector Electric Efficiency Programs
- Solar and Wind Energy Rebate Program
SOURCES OF ASSISTANCE

SEDAC

Illinois Association of County Board Members and Commissioners

Metropolitan Mayors Caucus

DCEO Trade Allies
1. Energy Assistance and Assessments

2. Retro-Commissioning
   - Full RCx
   - Mini RCx
   - Dashboards

3. New Construction Design Assistance

Presentations
Publications
- Case Studies
- Fact Sheets
- Newsletters
- Website

apply.sedac.org
Free SEDAC services

Clients assisted:

1,292 energy assessments

88 RCx completed

Studies over 128 million sf with an additional 8.9 million sf underway

10-49% annual cost savings

Paybacks of 3 years or less
# RETRO-COMMISSIONING PROGRAM

## FULL RCx
- HVAC and building control systems
- High energy users 150,000 sf or more
- Limited # projects
- Owner’s invest $10,000 in improvements
- Strategies have 18 month or less payback

## MINI RCx
- Too Small for Full RCx
- Significant Savings Potential
- Analyze HVAC and Controls
- Shorter Time Frame
- No $ Commitment By Client
- Time Commitment By Client

**Finding Low Cost Measures**

**Optimize Building Performance**
NEW CONSTRUCTION DESIGN ASSISTANCE

Tailored services, needs of project and owner
Energy expert meets with team or reviews
Feedback
Assists in establishing energy goals
Identify available incentives
Design is aligned with incentives
32% Energy Cost Savings (vs. ASHRAE 90.1-2007)

**Recommended Strategies**
- High performance fenestration
- Beyond code insulation and air tightness requirements
- Solar shading
- HVAC controls and commissioning
- Enhanced lighting controls

**Additional Measures:**
- Sub-Metering
- Domestic Hot Water Energy & Water Use Reduction
- Occupancy-Based Space Temperature Control
- Daylight Harvesting with Daylighting Tubes
- Site and Parking Lot Lighting Efficiency
- Owner-controlled plug load management strategies
COMMUNITY COLLEGE – COLLEGE OF DuPAGE

Implemented Strategies:
Roof insulation R-25 continuous insulation (vs. R-20 code min.)
Wall insulation U-0.057 total wall (vs. U-0.064 code max.)
Solar Heat Gain Coefficient 0.24-0.39 (vs. 0.40 code max.)
Heating Efficiency 88% (vs. 82% code min.)
Sensible and latent heat recovery
Condenser heat recovery

23.1% Energy Cost Savings
(vs. ASHRAE 90.1-2007)
Technical and application assistance

Any public sector entity

Carol Kulek

Education and Outreach Energy Consultant, IACBM

217.741.2489

Kulek79@aol.com
1. Technical and application assistance
   
   Edith Makra, Director Environmental Initiatives
   Metropolitan Mayors Caucus
   312.201.4506
   emakra@mayorscaucus.org

2. Bulk Purchasing
   
   Mike Stanch, Energy Solutions Manager
   360 Energy Group
   312.264.8569
   Michael@360eg.com

Any public sector entity Chicago Region
DCEO Trade Allies
Contractors, Engineers, Architects
Trained on Program Rules and Procedures of IEN Incentives

Contact
Sam Rinaldi
Energy Resources Center
312.996.2554
samr@uic.edu
Regardless of the project you are doing. If it is energy efficient there is probably money on the table.
Presentations will be available at:
presentations.sedac.org

Web site: www.sedac.org
Contact: info@sedac.org
1-800-214-7954