IGEN Aggregation Program for Exterior Lighting

IGEN Retreat – Heartland Community College
Tuesday – January 29, 2015
Grant from:

Illinois Department of Commerce and Economic Opportunity, Public Sector Energy Efficiency Key Account/Aggregation Program
(IGEN) is partnering with Sitton Energy Solutions to implement energy efficiency projects on IL community college campuses, specifically focused on:

- exterior lighting
- in the Ameren utility territory.

parking lot, roadway, exterior building, courtyard, pathway
Program Managers

Tim Gibson - IGEN Aggregation Program Manager,
Director of Buildings and Grounds - John A. Logan College

Katie Davis – IGEN Senior Program Coordinator,
College of Lake County

Jason Combs – PE, LEED AP BD+C, Project Manager
Sitton Energy Solutions, O’Fallon, IL
Kristina Steiger -
Schaeffer Marketing Group, Inc.
St. Louis, MO

KrisS@smgrep.com
(314) 681-2633
For Participating Colleges Include:

- Assistance with identifying exterior lighting needs;
- Increased value resulting from aggregation purchasing;
- Simplified rebate process with DCEO; and
- Increased kWh savings and lower utility costs!

PROGRAM GOAL: Total energy savings of 1,250,000 kWh
# 1 – typical parking lot light:

Existing 400w MH shoebox - Convert to Cree XSP 101w LED

DCEO incentive: $468
Annual energy savings: $157.68ea
Installed Cost: $625ea
1 year payback
20+ year life – 10 year warranty
Case Studies

# 2 – typical parking lot light:

Existing 1,000w MH shoebox - Convert to Cree Edge High Output @ 400w LED

DCEO incentive: $854.10
Annual energy savings: $287.77ea
Installed Cost: $1,470ea
  2.15 year payback
  20+ year life – 10 year warranty
Case Studies

# 3 – wall pack

Existing 175w MH wall pack - Convert to Cree XSPW 25w LED

DCEO incentive: $75.00
Annual energy savings: $73.59ea
Installed Cost: $300ea
- 3 year payback
- 20+ year life – 10 year warranty
Installed 132 Parking Lot and Roadway LED lights -

Existing 400w shoebox’s converted to Cree XSP 101w and existing 400w shoebox’s converted to Cree High Output 400w LED fixtures (10 year warranty – 100,000 hour lamplife)

Materials = $72,362.00 + Installation =$21,525.00 = $93,887.00 total cost

DCEO incentive: $77,456.78

NET “out of pocket“ = $16,430.22     Payback = 2.5 years
Program Structure

IGEN Aggregation Program for Exterior Lighting

✓ Lighting needs determined (surveys, technical assistance, options)

✓ Bids solicited for “consortium pricing” on lighting fixtures (offering multiple options)

✓ Colleges may solicit bids from local vendors and will be responsible for installation

✓ Program managers provide incentive and payback estimates and complete DCEO incentive applications

✓ Colleges may draw funds against expected incentives prior to project completion
## Program Goals

**IGEN Aggregation Program for Exterior Lighting**

**GOAL:** Total energy savings of 1,250,000 kWh

<table>
<thead>
<tr>
<th></th>
<th>Fixtures</th>
<th>Estimated kWh Savings</th>
<th>DCEO Incentives</th>
<th>Cost Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC</td>
<td>121</td>
<td>79,453</td>
<td>$23,582</td>
<td>$7,945</td>
</tr>
<tr>
<td>DACC</td>
<td>184</td>
<td>287,310</td>
<td>$85,275</td>
<td>$20,112</td>
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<td>IVCC</td>
<td>221</td>
<td>231,917</td>
<td>$68,834</td>
<td>$23,192</td>
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<td>JALC</td>
<td>320</td>
<td>174,429</td>
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<td>KC</td>
<td>10</td>
<td>11,248</td>
<td>$3,338</td>
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<tr>
<td>LC</td>
<td>169</td>
<td>187,574</td>
<td>$57,470</td>
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<td>SWIC</td>
<td>341</td>
<td>410,686</td>
<td>$121,893</td>
<td>$24,641</td>
</tr>
<tr>
<td><strong>Totals:</strong></td>
<td>1,366</td>
<td>1,382,617</td>
<td><strong>$399,068</strong></td>
<td><strong>$106,847</strong></td>
</tr>
</tbody>
</table>

**NOTE:** Incentives may increase by up to 15%
<table>
<thead>
<tr>
<th>DATE</th>
<th>TASK</th>
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<tbody>
<tr>
<td>January 27th, 2015</td>
<td>Consortium pricing proposals due</td>
</tr>
<tr>
<td>Jan - February – 2015</td>
<td>Colleges obtain labor and/or fixture bids</td>
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<tr>
<td>Feb 13th – 2015</td>
<td>Updated incentive/payback estimates provided to colleges</td>
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<tr>
<td>February BOT meetings</td>
<td>Colleges receive approval to proceed</td>
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<tr>
<td>March 6th – 2015</td>
<td>Colleges issue PO to vendors</td>
</tr>
<tr>
<td>April 17th – 2015</td>
<td>Latest date for fixture delivery per RFP</td>
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<tr>
<td>May 15th – 2015</td>
<td>Latest date for all fixtures installed and</td>
</tr>
<tr>
<td>*May 20th – 2015</td>
<td>All completion verification paperwork due</td>
</tr>
</tbody>
</table>

*subject to DCEO approval
Challenges

# 1 – Completion of purchase and installation of fixtures by mid-May 2015

✓ Program began December 2014 by identifying eligible colleges and surveying lighting needs
✓ Developed RFP for consortium fixture pricing

✓ Colleges to determine labor costs
✓ Complete board approval process
✓ Timeframe must allow for delivery
✓ Fixtures installed by May 1, 2015
Questions?

Tim Gibson:  timgibson@jalc.edu
(618) 985-2828 x 8109

Katie Davis:  kdavis5@clcillinois.edu
(847) 543-2645

Jason Combs:  jcombs@sittoncg.com
(618) 314-4451

Kristina Steiger:  KrisS@smgrep.com
(314) 681-2633