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 – Lighting Consultant
Schaeffer Marketing Group, Inc., St. Louis, MO
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
# 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
Case Studies

# 4 – John A. Logan College – Fall 2013

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
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
IGEN Aggregation Program for Exterior Lighting

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

<table>
<thead>
<tr>
<th>Fixtures</th>
<th>Estimated kWh Savings</th>
<th>DCEO Incentives</th>
<th>Annual Energy Cost Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC</td>
<td>121</td>
<td>79,453</td>
<td>$23,582</td>
</tr>
<tr>
<td>DACC</td>
<td>184</td>
<td>287,310</td>
<td>$85,275</td>
</tr>
<tr>
<td>IVCC</td>
<td>221</td>
<td>231,917</td>
<td>$68,834</td>
</tr>
<tr>
<td>JALC</td>
<td>320</td>
<td>174,429</td>
<td>$38,676</td>
</tr>
<tr>
<td>KC</td>
<td>10</td>
<td>11,248</td>
<td>$3,338</td>
</tr>
<tr>
<td>LC</td>
<td>169</td>
<td>187,574</td>
<td>$57,470</td>
</tr>
<tr>
<td>SWIC</td>
<td>341</td>
<td>410,686</td>
<td>$121,893</td>
</tr>
<tr>
<td>Totals:</td>
<td>1,366</td>
<td>1,382,617</td>
<td>$399,068</td>
</tr>
</tbody>
</table>

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

*subject to DCEO approval
# 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