February 2017 Liaison Call
2/28/17
Interior Lighting Campaign

IFMA SAG Liaison Call

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Pacific Northwest National Laboratory
Interior Lighting Campaign

**Current Situation:**
- Lighting represents over 20% of U.S. commercial building energy usage
- Over 75% of these lighting systems use linear fluorescent lamps → 1x4, 2x2, and 2x4 are the common light fixture used
- Less than 5% of installed systems utilize LED technology

**Problem Statement:** Although lighting upgrades provide some of the easiest, most cost-effective energy-saving opportunities for building owners, a number of challenges impede action, including:
  - Unfamiliarity of products
  - Lack of reliable information
  - Difficulty in quickly locating applicable utility incentives
  - Lack of market recognition for exemplary energy practices.

**Solution:** Department of Energy (DOE) + IFMA and others, developed a technical support and recognition campaign known as the Interior Lighting Campaign modeled on a similar campaign related to parking facilities (LEEP Campaign)
Progress and Accomplishments

Launched May 2015, ongoing

• 59 businesses commit to upgrade over 1.1 million existing lights to high efficiency LED systems (2/20/17 status)

• Savings
  – ~$13 million annual cost savings
  – ~123 million annual kWh savings

• 1st Year Recognition
  – 46% - 82% energy savings
  – 2.7 million kWh saved at one building
  – Good savings across many building sectors
Tools and Resources

Website
- New site developed (www.interiorlightingcampaign.org)

Specifications
- Troffers
- Retrofit Kits
- New specifications may be introduced

Utility Incentives
- Troffer Lighting Incentives Database

Calculation Tool
- Lighting Project Evaluator

Reports
- Standard M&V Plan for Lighting Retrofits

* Full list: https://interiorlightingcampaign.org/resources
Tools and Resources

Fact Sheets
• High Efficiency Troffer Lighting
• Upgrading Troffers to LED
• Wireless Occupancy Sensors Application Guide

Case Studies and Demonstration Results
• Commercial Advanced Lighting Controls (CALC) demonstrations
• GSA Green Proving Ground demo reports
• ILC Sites recognized for exemplary performance

Webinars
• A Guide for Manufacturers and Distributors
• ILC Launch

* Full list: https://interiorlightingcampaign.org/resources
Examples of ILC Supporters and Participants

Supporters

Participants

- Southern California Edison
- SWEEP
- NEEP
- NEEA
- WECC
- SMUD
- Pacific Gas and Electric Company
- E Source
- MEEA
- U.S. Department of Energy
- Efficiency Vermont
- ComEd
- DLC
- Franklin Energy
- The University of Wisconsin-Foundation, Inc.
- The Source Go Energy Alliance
- KIMCO Realty
- Staples
- Walgreens
- KOHL’S
- Target
- MGM Resorts International
- Walmart
- Legacy Health
2016 ILC Recognition for Exemplary Projects

Northern Arizona University
- 78,000 kWh annual savings
- 46% energy reduction

TARGET
- 26M kWh annual savings (all sites)
- $2.7 M energy reduction

U.S. General Service Administration
New Carrollton Federal Building
- 2.7M kWh annual savings
- 82% energy reduction

CHRISTUS Health
- 1.45M kWh annual savings
- 61% energy reduction

Tutera Real Estate
- 117,000 kWh annual savings
- 69% energy reduction

*See Reference slides to view additional ILC Recognized Projects.
Baylor Scott and White Health
- 1.43M kWh annual savings – Dallas site
- 61% energy reduction – Grapevine site

Cleveland Clinic
- 2.6M kWh annual savings
- 55% energy reduction

CKE Restaurants Holdings, Inc.
- 1.9M kWh annual savings (all sites)
- 53% energy reduction (average site)

Clean Harbors Environmental
- 11,000 kWh annual savings
- 74% energy reduction
2016 ILC Recognition for Exemplary Projects

U.S. General Service Administration
Byron Rodgers Federal Building
- 477,000 kWh annual savings
- 59% energy reduction

U.S. Army Reserve – 9th Mission Support Command
- 125,000 kWh annual savings
- 62% energy reduction

U.S. Toy Co. Headquarters
- 54,000 kWh annual savings
- 53% energy reduction

U.S. Army Reserve – 99th Regional Support Command
- 184,000 kWh annual savings
- 51% energy reduction
Questions?
FEBRUARY 28, 2017
LIAISON CALL
1. S. SAG \ Council relationships – 1 hour webinars, first is Utilities on April 27 @ 1 PM Central (John McGee and Barbara Luna (ex-pres. Of utility council) are presenters.


3. New IT/Sustainability SAG How-to Guide on IoT. Need potential authors and SMEs.


5. ESUS participating in IFMA Benchmarking Report (ENERGY STAR analytics)
<table>
<thead>
<tr>
<th>Proposed eFMJ Article</th>
<th>2017</th>
<th>FMJ Issue Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work on the Move2: Adding Sustainability to the Transformation of the Workplace (Sanquist)</td>
<td>Jan Feb 2017</td>
<td>Workspace as a Tool</td>
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<tr>
<td>Optimizing operations - #1 Life Cycle cost assessment - How to save the environment thru cradle to grave tie in sustainable purchasing</td>
<td>May/Jun</td>
<td>FM and the Environment</td>
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<tr>
<td>Safety, Security and Risk - #2 Indoor Environment - Employee focus especially in the area of safety</td>
<td>Jul/Aug</td>
<td>Safety, Security and Risk</td>
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<tr>
<td>Wellness Benchmarking and certification systems</td>
<td>Sep/Oct</td>
<td>People, Process, Place</td>
</tr>
<tr>
<td>IoT, Analytics, AI and Cloud: Implications Means for CRE/FM and Sustainability</td>
<td>Nov/Dec</td>
<td>Technology and Next-Generation FM</td>
</tr>
<tr>
<td>Event</td>
<td>Date</td>
<td>Notes</td>
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<td>----------------------------------------------------------------------</td>
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<tr>
<td>Energy and Water Benchmarking – Bringing financial and sustainability value to your building (Laughman/Zullo)</td>
<td>1/11/2017</td>
<td>64 registrants + Downloads</td>
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<tr>
<td>Utilities (McGee, Bob and Luna)</td>
<td>Feb</td>
<td>POSTPONED</td>
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<tr>
<td>COUNCIL - Utilities</td>
<td>Apr</td>
<td></td>
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<tr>
<td>Life Cycle Cost Optimization/S. Purchasing</td>
<td>May</td>
<td></td>
</tr>
<tr>
<td>COUNCIL</td>
<td>Jun</td>
<td></td>
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<tr>
<td>Safety Security Risk: Indoor Environment</td>
<td>Jul</td>
<td></td>
</tr>
<tr>
<td>COUNCIL</td>
<td>Aug</td>
<td></td>
</tr>
<tr>
<td>Wellness Benchmarking and certification - Ravi Bajaj, <a href="mailto:rbajaj@healthybuildings.com">rbajaj@healthybuildings.com</a></td>
<td>Sep</td>
<td></td>
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<tr>
<td>COUNCIL - Healthcare Institute</td>
<td>Oct</td>
<td></td>
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<tr>
<td>IoT, Analytics, Big Data, IFMA Portal</td>
<td>Nov</td>
<td></td>
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<tr>
<td>COUNCIL - Information Technology</td>
<td>Dec</td>
<td></td>
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</tbody>
</table>
1. Getting Started (in process of being updated - Hodges)
3. Carbon Footprint (done)
4. Data Centers
5. Landscaping
6. Water
7. Low Cost/No Cost Energy Savings
8. Food Services
9. ENERGY STAR (done)
10. Green Building Rating Systems (done)
11. Waste Stream Management (done)
12. Green Cleaning (in process)
13. Lighting (done)
14. Commissioning

*Italics = No update author found yet (6 guides)*
15. Occupant Engagement (done)
16. Measuring + Reporting (done)
17. Energy Storage (DoE/Navigant) - - (in process) – need SMEs, case studies

In Process
1. IoT and Sustainability (with IT SAG)
2. Global Green Cleaning (pending)
Junior/Senior Author Program
(Green School Alliance)

• Overview
  – pairs a sustainability SME (Senior Author) with an emerging professional (Junior Author) to produce or update a sustainability HTG

• Senior Author
  – experienced FM professional & SME with proven understanding of the HTG topic & prior writing experience

• Junior Author
  – emerging sustainability professional looking to develop his or her expertise in a particular subject matter pertaining to the sustainable operations and management of facilities
Emerging Author Expectations

1. Research topic
2. Write content
3. Find & share case studies
4. Add figures, tables & charts
5. Edit & format content
6. Manage time effectively
7. Communicate with Senior Author as necessary
8. Take initiative & seek guidance from Senior Author as needed
9. Discuss your needs & objectives with Senior Author
10. Listen objectively when receiving feedback from Senior Author
11. Provide feedback

Outreach Sources for Emerging Authors
IFMA Foundation, WE SAG, Environment Defense Fund Fellows, IFMA Emerging Professions, Young Professionals in Energy, ...
1. Promotion of our ES initiative to CEP cities
   • Update of Liaison Status letter
   • Joint EPA/IFMA/CEP train the trainer webinar for 20 CEP cities (March)
   • FUSION: EPA/IFMA/CEP sessions
2. Expanded city IFMA/CEP webinar (with new cities)
3. Integration of CEP ENERGY STAR Portfolio Manager reports into IFMA Database (ca. 16,000 buildings)
4. Jan. 11 CEP/IFMA ENERGY STAR Case Studies webinar
5. Pilot case study report
### Original Table

<table>
<thead>
<tr>
<th>Jurisdiction (2014)</th>
<th>Chicago</th>
<th>Phila</th>
<th>Boston</th>
<th>DC</th>
<th>NYC</th>
<th>Total Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # of Properties</td>
<td>243</td>
<td>1,152</td>
<td>1,347</td>
<td>1,498</td>
<td>11,804</td>
<td>16,044</td>
<td></td>
</tr>
<tr>
<td>Properties with No Score*</td>
<td>43</td>
<td>453</td>
<td>636</td>
<td>297</td>
<td>5,468</td>
<td>6,897</td>
<td>43%</td>
</tr>
<tr>
<td>Properties 68 and Below</td>
<td>67</td>
<td>419</td>
<td>300</td>
<td>609</td>
<td>5,140</td>
<td>6,535</td>
<td>41%</td>
</tr>
<tr>
<td>Properties 69 to 74</td>
<td>31</td>
<td>48</td>
<td>43</td>
<td>89</td>
<td>572</td>
<td>783</td>
<td>5%</td>
</tr>
<tr>
<td>Properties 75 and Above</td>
<td>102</td>
<td>239</td>
<td>393</td>
<td>503</td>
<td>2,794</td>
<td>4,031</td>
<td>25%</td>
</tr>
</tbody>
</table>

*Not applicable, not reported under the law, or building score associated with another property report (e.g. campus)
Upcoming SAG Liaison Calls

- Tuesday, March 21st @ 12 PM CST
Thank you for joining us today.

Questions? Comments? Want to get more involved? Email us at sustainability@ifma.org or visit esus.ifma.org.

Contact: Jaclyn Lee

Jaclyn.lee@ifma.org