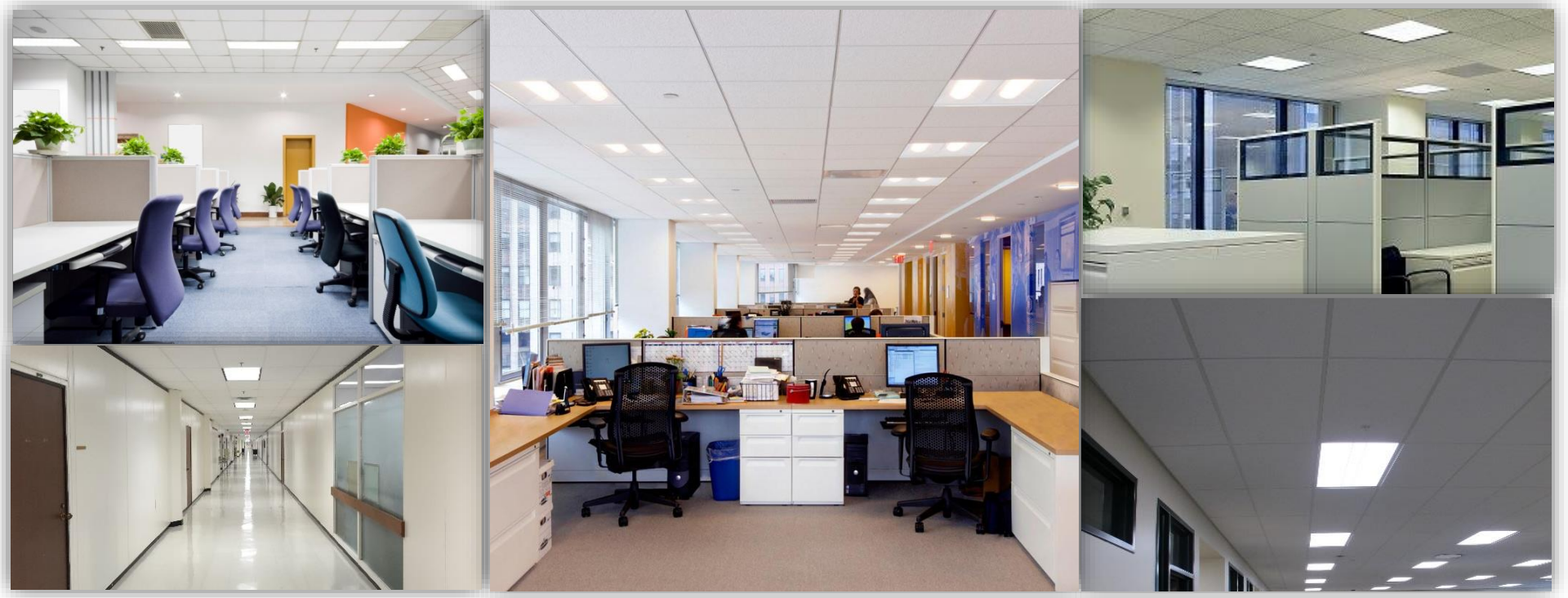
February 2017 Liaison Call
2/28/17

ESUS Environmental Stewardship Utilities & Sustainability Community
A Community of IFMA

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Interior Lighting Campaign

IFMA SAG Liaison Call



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Michael Myer, Michael.myer@pnnl.gov
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

ILC Exemplary Project Recognition, 2016 BOMA International Conference & Exposition

- **1st Year Recognition**
  - 46% - 82% energy savings
  - 2.7 million kWh saved at one building
  - Good savings across many building sectors

BOMA International · IFMA International Facility Management Association · IES Illuminating Engineering Society · GSA U.S. General Services Administration · U.S. Department of Energy · Energy Efficiency & Renewable Energy

Tools and Resources

Website

- New site developed (www.interiorlightingcampaign.org)

Specifications

- Troffers
- Retrofit Kits
- New specifications may be introduced

Utility Incentives

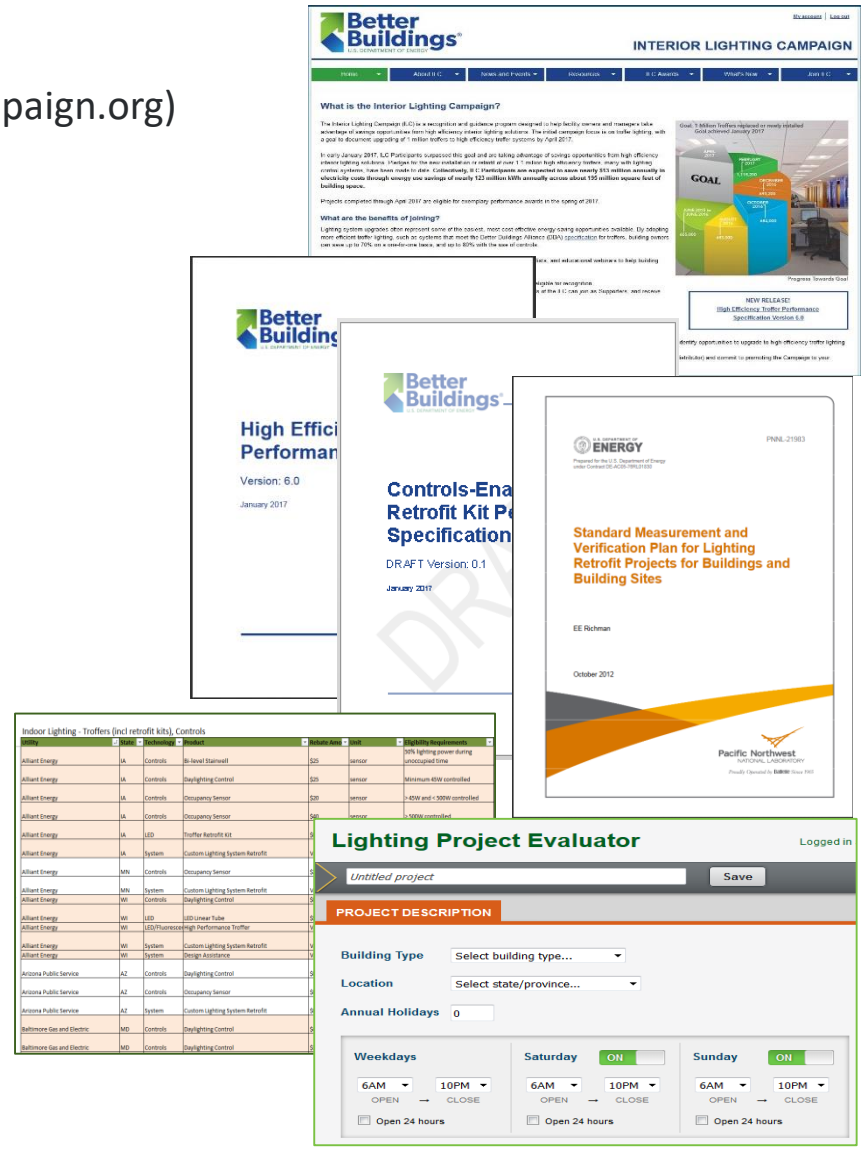
- Troffer Lighting Incentives Database

Calculation Tool

- Lighting Project Evaluator

Reports

- Standard M&V Plan for Lighting Retrofits



* Full list: https://interiorlightingcampaign.org/resources

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Tools and Resources

Fact Sheets

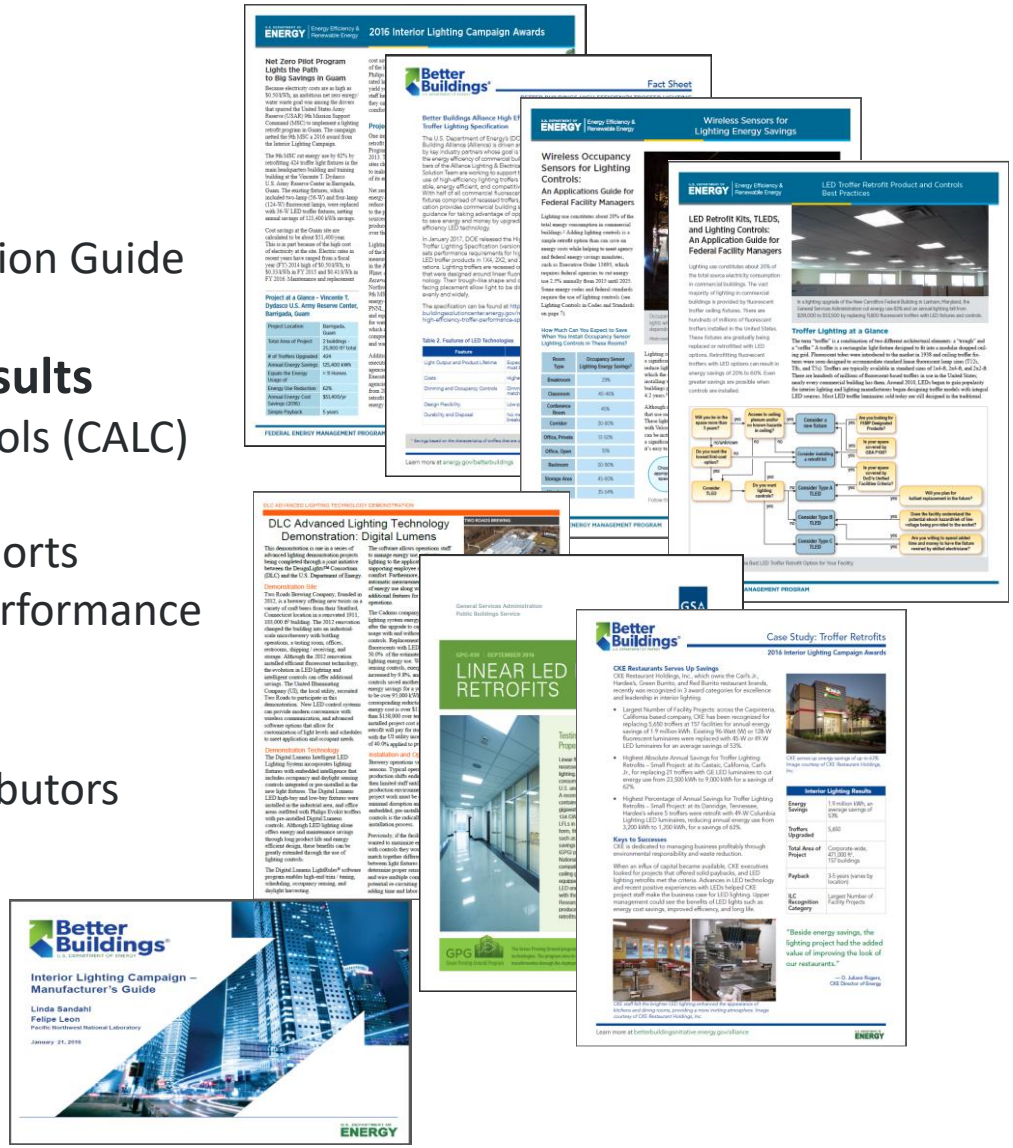
- High Efficiency Troffer Lighting
- Upgrading Troffers to LED
- Wireless Occupancy Sensors Application Guide

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



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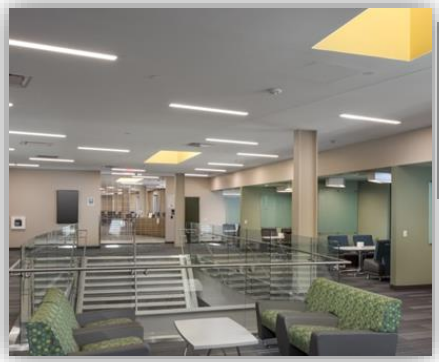
Examples of ILC Supporters and Participants

Supporters

Participants

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.

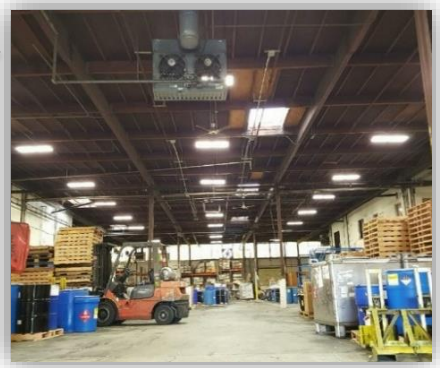
2016 ILC Recognition for Exemplary Projects

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

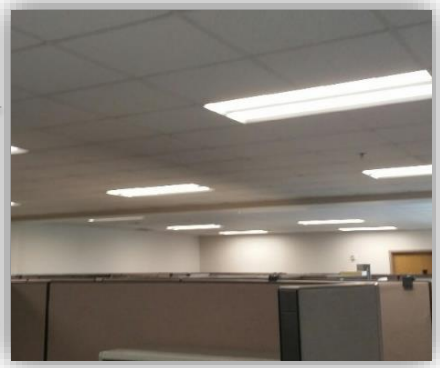
- 477,000 kWh annual savings
- 59% energy reduction

U.S. Toy Co. Headquarters

- 54,000 kWh annual savings
- 53% energy reduction

U.S. Army Reserve –9th Mission Support Command

- 125,000 kWh annual savings
- 62% energy reduction



U.S. Army Reserve –99th Regional Support Command

- 184,000 kWh annual savings
- 51% energy reduction

Questions?

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Sheila Sheridan

Chris Laughman

Jenny Young

Bill Conley

Eric Teicholz, Chair

Dr. Sharon Jaye

John McGee

Board Liaison: Gordo Hicks

FEBRUARY 28, 2017
LIAISON CALL

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News

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.
2. Jan. 11 webinar "Energy and Water Benchmarking – Bringing Financial and Sustainability to Your Building" posted: Attendee URL: https://attendee.gotowebinar.com/register/2807330641764924675
3. New IT/Sustainability SAG How-to Guide on IoT. Need potential authors and SMEs.
4. Comprehensive CEP supported City of Chicago benchmarking report. URL: https://www.cityofchicago.org/content/dam/city/progs/env/EnergyBenchmark/2016_Chicago_Energy_Benchmarking_Report.pdf
5. ESUS participating in IFMA Benchmarking Report (ENERGY STAR analytics)

Need authors

Proposed eFMJ Article	2017	FMJ Issue Theme
Work on the Move2: Adding Sustainability to the Transformation of the Workplace (Sanquist)	Jan Feb 2017	Workspace as a Tool
A Winning Formula: IFMA + CEP Partnership = Energy Efficient Buildings + Healthier Cities (McGee, Zullo)	Mar Apr	Optimizing Operations
Optimizing operations - #1 Life Cycle cost assessment - How to save the environment thru cradle to grave tie in sustainable purchasing	May/Jun	FM and the Environment
Safety, Security and Risk - #2 Indoor Environment - Employee focus especially in the area of safety	Jul/Aug	Safety, Security and Risk
Wellness Benchmarking and certification systems	Sep/Oct	People, Process, Place
IoT, Analytics, AI and Cloud: Implications Means for CRE/FM and Sustainability	Nov/Dec	Technology and Next-Generation FM

2017		
Energy and Water Benchmarking – Bringing financial and sustainability value to your building (Laughman/Zullo)	1/11/2017	64 registrants + Downloads
Utilities (McGee, Bob and Luna)	Feb	POSTPONED
Energy Efficient Buildings + Healthier Cities (McGee, Zullo)	Mar	
COUNCIL - Utilities	Apr	Barbara Luna, John McGee, Rob Mason
Life Cycle Cost Optimation/S. Purchasing	May	
COUNCIL	Jun	
Safety Security Risk: Indoor Environment	Jul	
COUNCIL	Aug	
Wellness Benchmarking and certification -Ravi Bajaj, rbajaj@healthybuildings.com	Sep	
COUNCIL - Healthcare Institute	Oct	
IoT, Analytics, Big Data, IFMA Portal	Nov	
COUNCIL - Information Technology	Dec	

Current How-to Guides:

1. Getting Started (in process of being updated- Hodges)
2. U.S. Government Policy Commissioning (in process, McGee)
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)

New How-to Guides:

15. Occupant Engagement (done)
16. Measuring + Reporting (done)
17. *Energy Storage (DoE/Navigant) - - (in process) – need SMEs, case studies*

<u>In Process</u>

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

<u>Outreach Sources for Emerging Authors</u>
IFMA Foundation, WE SAG, Environment Defense Fund Fellows, IFMA Emerging Professions, Young Professionals in Energy, …

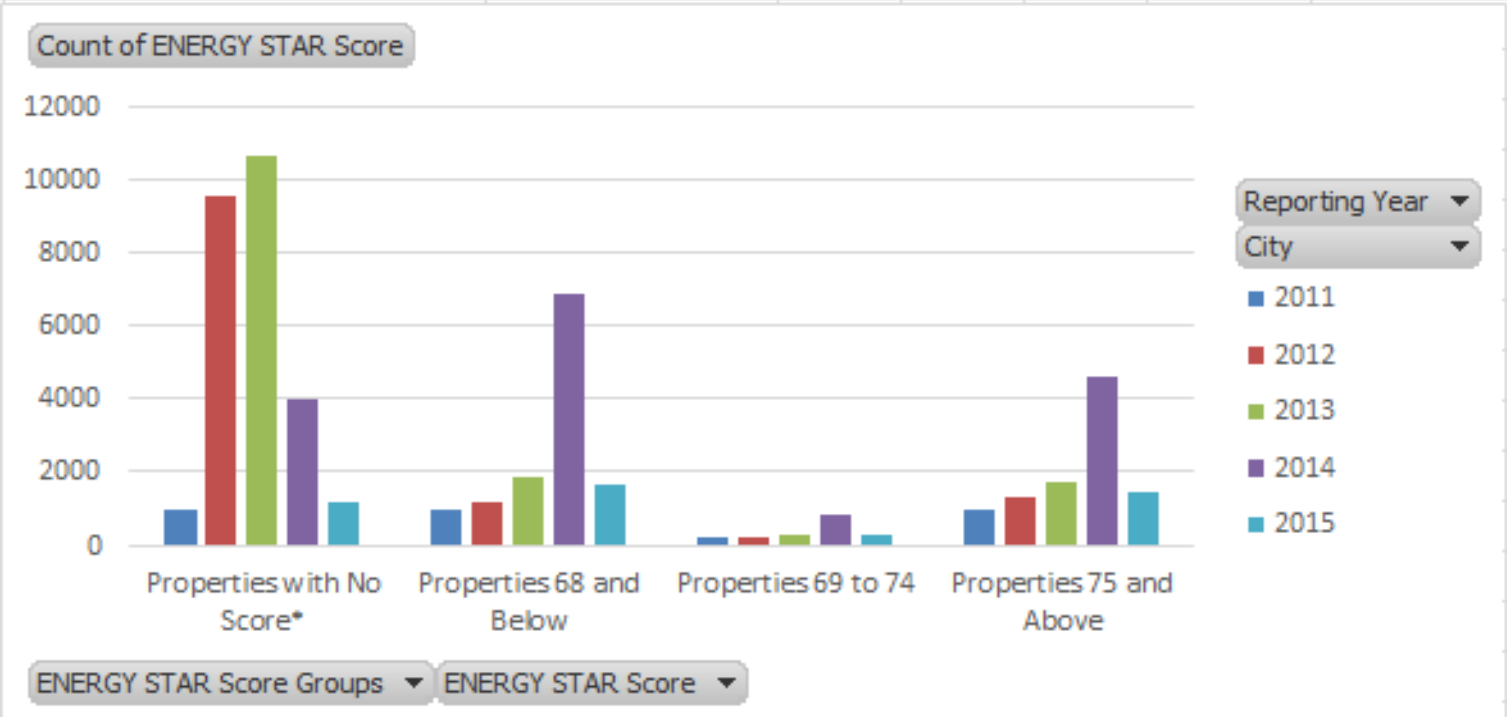
Current Efforts

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

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

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



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Upcoming SAG Liaison Calls

- Tuesday, March 21st @ 12 PM CST

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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

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