



# Outdoor Lighting Accelerator (OLA) Presidential Challenge for Advance Outdoor Lighting

COG Built Environment and Energy  
Advisory Committee Meeting  
February 18, 2016

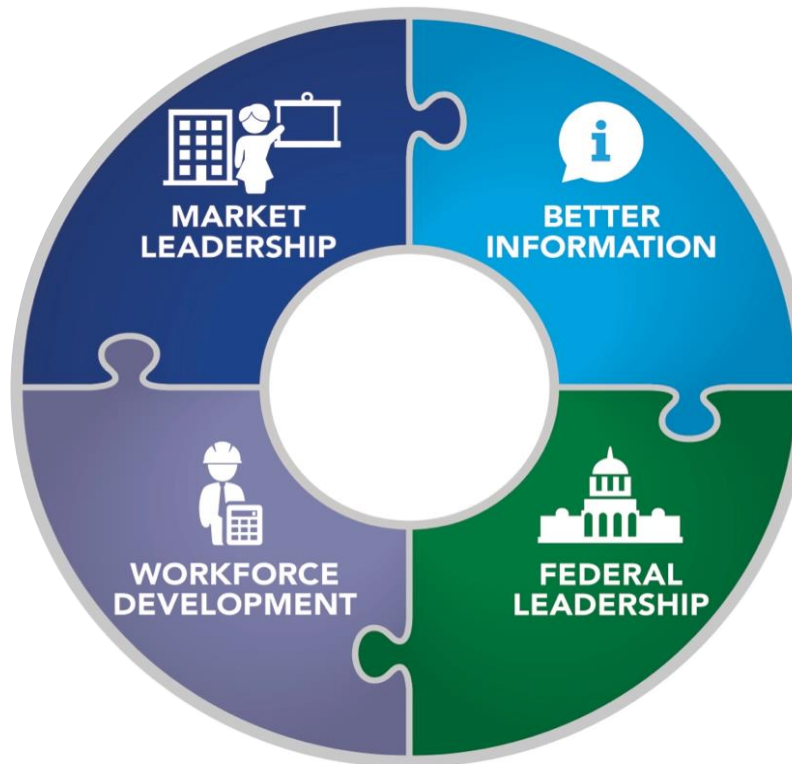
# Better Buildings Initiative

 Developing Innovative, Replicable Solutions with Market Leaders

- Better Buildings Challenge
- Better Buildings Alliance
- Better Buildings, Better Plants
- **Better Buildings Accelerators**
- Better Buildings Residential
- Superior Energy Performance

 Developing a Skilled Clean Energy Workforce

- Better Buildings Workforce Guidelines



 Making Energy Efficiency Investment Easier

- Building Performance Database
- Building Energy Data Exchange Specification
- New Financing Solutions
- Building Energy Asset Scoring Tool
- Home Energy Score
- Appraisal Foundation Memorandum of Understanding

 Leading by Example in the Federal Government

- New Executive Order
- President's Performance Contracting Challenge
- DOE Leadership

<http://betterbuildingsolutioncenter.energy.gov/>

# Goal of the Outdoor Lighting Accelerator

- Accelerate the adoption and use of high efficiency outdoor lighting in the public sector, replacing over 1.5M poles by May 2016, while developing best practice approaches to municipal system-wide replacement for this period and the longer term.
- Collaborate with local municipalities to demonstrate practical and effective best practices to accelerate the adoption of high-performance outdoor lighting.
- Improve system-wide replacement processes at the municipal level.

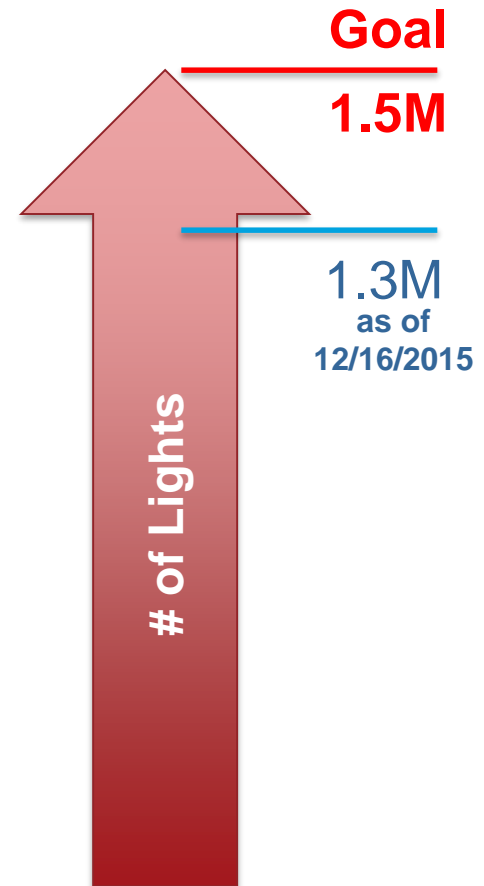
# Why OLA?



# OLA Partnership Status

Accelerator scheduled to end CY 2016. Currently have **23** signed partners:

- 3 states
  - Rhode Island
  - Tennessee
  - Washington
- 5 regional energy networks
  - California Street Light Association
  - Delaware Valley Regional Planning Council
  - Mid-America Regional Council (Kansas City metro);
  - Southeast Michigan Regional Energy Office (Detroit metro);
  - Southern California Regional Energy Network (Los Angeles metro)
- 15 cities
  - Albany, NY
  - Anchorage, AK
  - Chicago, IL
  - Dearborn, MI
  - Deerfield Beach, FL
  - Detroit, MI
  - Flint, MI
  - Huntington Beach, CA
  - Little Rock, AR
  - Los Angeles, CA
  - Portland, ME
  - Racine, WI
  - San Diego, CA
  - St. Petersburg, FL
  - West Palm Beach, FL





# OLA Partner Progress

Partners are overcoming barriers in incremental steps:

- **Regulatory:**

- CALSLA - Negotiated a favorable settlement with PG&E for the 2014 General Rate Case (GRC). Final ruling came in August 2015.
- SEMREO- Judgment in favor of municipalities regarding DTEE's propose tariffs stating that DTEE "failed to establish that its proposed revisions to the municipal lighting tariff are just and reasonable."

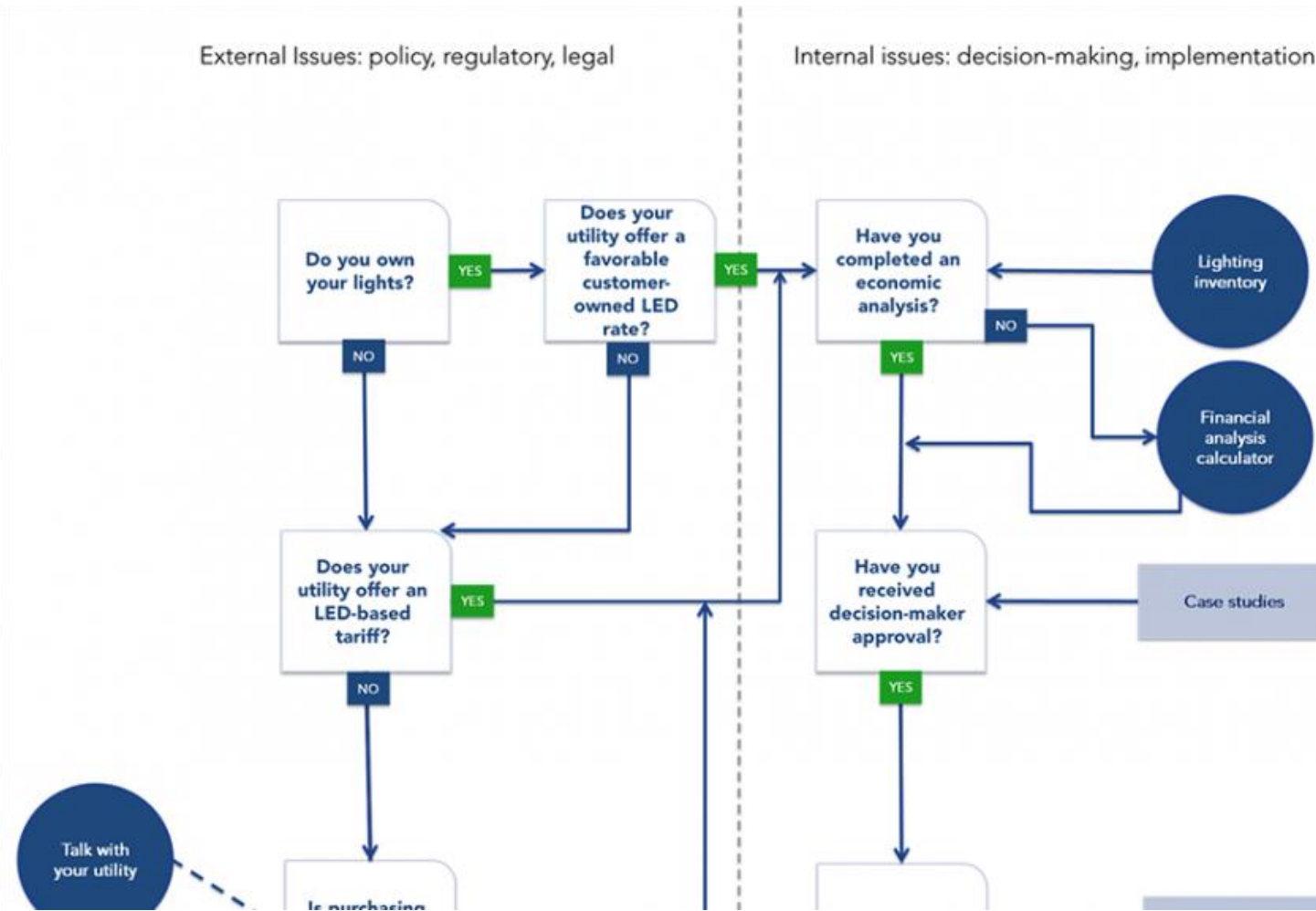
- **Financial:**

- Washington State TIB - Launched **Relight Washington** in collaboration with Sound Energy and Avista Utilities.
- DVRPC - Issued an RFP for the Regional Streetlight Procurement Program.

- **Technical:**

- Detroit - Published SSL report on unique circumstances surrounding its street light conversion due to numerous fiscal challenges in the city.

# Outdoor Lighting Decision Tree Tool - Live



## Lessons Learned from Outdoor Connected Lighting System Installations

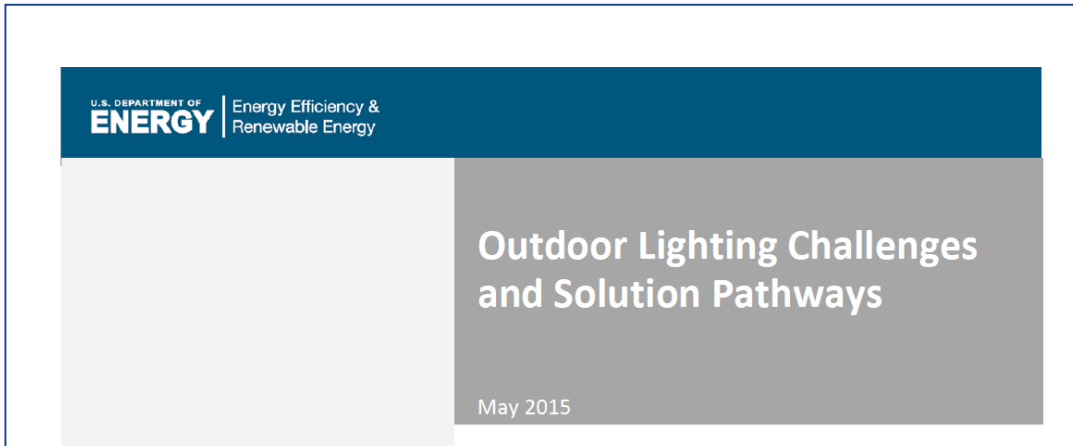
January 12, 2016

Michael Poplawski, Pacific Northwest National Laboratory

The video, presentation slides and transcript are posted in the Solutions Center – please watch for updates at <http://betterbuildingsolutioncenter.energy.gov/webinars-list>.



# Outdoor Lighting Report – In process



- High level assessment of barriers to deployment
- Examples of how cities, states, municipal groups, and utilities address LED street light transitions
- Currently, the greatest opportunity for conversion is with municipally-owned lights
- Where an LED tariff does not exist, municipalities are pursuing buyback options or a suitable LED tariff
- Small to mid size cities find greater success in collaborating with other municipalities of similar size

Barrier/Challenge	Solution	Example (Municipally (M) or Utility (U) Owned)
Financing	Debt	Infrastructure Bonds <ul style="list-style-type: none"> <li>• State of Massachusetts (M)</li> <li>• San Diego, CA (M)</li> <li>• Brookhaven, NY (M)</li> </ul>
		Tax Exempt Lease Purchase (TELP) <ul style="list-style-type: none"> <li>• Tarentum, Pennsylvania</li> </ul>
	Government Funded	Municipally Owned Utility <ul style="list-style-type: none"> <li>• Seattle City Light (M)</li> <li>• Columbus, WI (M)</li> <li>• Iowa Association of Municipal Utilities (M)</li> </ul>



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# 2016

# SAVE THE DATE

## BETTER BUILDINGS SUMMIT

WASHINGTON, DC ■ MAY 9-11



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U.S. DEPARTMENT OF  
**ENERGY**

<http://www1.eere.energy.gov/buildings/betterbuildings/summit/>

# Contact Information

For more information on

## OLA Partnership Better Buildings Initiatives DOE Lighting Programs

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# Appendix

# DOE Energy Efficiency Lighting

- Outdoor lighting consumes a significant amount of energy—about 1.3 quadrillion Btu annually—costing about \$10 billion per year.
- In the last five years, a number of municipalities have switched to new LED technologies which can reduce energy costs by approximately 50% over conventional lighting technologies and provide additional savings of 20 to 40% with advance lighting controls.
- Beyond cost and energy savings, the higher efficacy of LED lights provides other benefits, including reduced carbon emissions, helping cities reach carbon reduction goals, reduced light pollution from less light being directed into the night sky due to optical control, and greater perceived public safety because of improved visibility through better color rendering and more uniform lighting distribution.
- DOE has developed tools and resources to assist public and private organizations through the following efforts:
  - [Better Buildings Outdoor Lighting Accelerator \(OLA\)](#)
  - [Municipal Solid-State Street Lighting Consortium \(MSSLC\)](#)
  - [Lighting Energy Efficiency in Parking \(LEEP\) Campaign](#)
  - [Interior Lighting Campaign \(ILC\)](#).

# DOE Energy Efficiency Lighting Initiatives

- [Better Buildings Outdoor Lighting Accelerator \(OLA\)](#)
  - OLA is designed to accelerate the adoption and use of high efficiency outdoor lighting in the public sector, replacing over 1,500,000 poles over the next two years starting in May 2014, while developing best practice approaches to municipal system-wide replacement for this period and the longer term.
  - It applies to all categories of outdoor lighting for which local governments or states pay the energy bills (i.e., street/roadway, parking facility, and parks and recreation lighting) and will focus on addressing issues that limit investment in high-efficiency technologies such as financing and metering/utility tariff-rates. A state or region may also join in a collaborative and supportive role, working with three or more cities in their state/region.
- [Municipal Solid-State Street Lighting Consortium \(MSSLC\)](#)
  - The DOE MSSLC shares technical information and experiences related to LED street and area lighting demonstrations and serves as an objective resource for evaluating new products on the market intended for those applications. The goal is to build a repository of valuable field experience and data that will significantly accelerate the learning curve for buying and implementing high-quality, energy-efficient LED lighting.
- [Lighting Energy Efficiency in Parking \(LEEP\) Campaign](#)
  - The LEEP Campaign offers free guidance and recognition for installing high-performance, cost-saving lighting in parking lots and garages. Joining gives you access to tools and expertise to lower new and existing parking facilities' operating costs as well as technical expertise of the Department of Energy.
  - As of September 2015, LEEP members saved over 120 million kilowatt-hours and over \$10 million annually. That's equivalent to saving the electricity consumed by 11,000 homes each year! So far, LEEP participants have improved 430 million square feet of high-performance lighting. And we've set a goal of embracing at least 750 million square feet of parking by May 1, 2016.
- [Interior Lighting Campaign \(ILC\)](#)
  - The ILC is a recognition and guidance program designed to help facility owners and managers take advantage of savings opportunities from high efficiency interior lighting solutions. The initial campaign focus is on troffer lighting, with a goal of documenting the completed or planned replacements (or newly installing for new construction) of 1 million standard troffers with high efficiency troffer solutions by May 2016.
- [Global Lighting Challenge](#)
  - To solve these immense problems, the Clean Energy Ministerial (CEM) is launching the GLC, a race to deploy 10 billion high-efficiency, high-quality, and affordable lighting products (like LEDs) as quickly as possible. The GLC was launched formally during COP21 in Paris on December 7, 2015.
  - Including the U.S., 13 country countries and the European Commission have already endorsed the GLC and are actively contributing to achieve the 10-billion goal. The initiative is now looking for participants to make commitments to stock, sell, promote, finance, or implement supporting policies encouraging the sales of advanced lighting products. (The OLA commitment will count towards the US contribution.)