

# **Tools for Building Energy Efficiency: Resources for Policy Development**

- A Sustainable Energy for All Webinar –  
24 November 2015

Organized by The Clean Energy Solutions Center, in collaboration with the Copenhagen Centre on Energy Efficiency (C2E2), the World Resource Institute (WRI) and ICLEI – Local Governments for Sustainability (ICLEI)



# Today's agenda

1. *Welcome and Introduction by moderator (5 min)*
  - Maryke van Staden, Low Carbon Cities Program Manager, ICLEI World Secretariat
2. *Mapping of building efficiency tools*
  - Ksenia Petrichenko, C2E2 & Nate Aden, WRI (13 min)
3. *Tools application case studies*
  - a) *Common Carbon Metric: scoping the situation at the city level on energy efficiency and setting the baseline for the city*
    - Peter Graham, GBPN (15 min)
  - b) *TRACE: identifying and prioritizing priority areas for energy efficiency actions in the city*
    - Christian Daniel Mahler, World Bank (15 min)
4. *Conclusion: how cities can start acceleration of energy efficiency and what support they can get*
  - Jennifer Layke, WRI (10 min)
5. *Question & Answers (20 min)*

# UN Sustainable Energy for All



ENSURING  
**universal access**  
TO MODERN ENERGY  
SERVICES.



DOUBLING THE GLOBAL  
RATE OF IMPROVEMENT IN  
**energy efficiency.**



DOUBLING THE SHARE OF  
**renewable energy**  
IN THE GLOBAL  
ENERGY MIX.

# Energy Efficiency Accelerators

The Accelerator Platform was established to support specific sector-based energy efficiency accelerators

## Lighting

Global market transformation to efficient lighting



## Appliances & Equipment

Global market transformation to efficient appliances & equipment



## Vehicle Fuel Efficiency

Improve the fuel economy capacity of the global car fleet



## Buildings

Promote sustainable building policies & practices worldwide



## District Energy

Support national & municipal governments to develop or scale-up district energy systems



## Industry

Implementing Energy Management Systems, technologies & practices



Power Sector Accelerator is under development



## GLOBAL ENERGY EFFICIENCY ACCELERATOR PLATFORM

# An Introduction to the SE4ALL Building Efficiency Accelerator



SUSTAINABLE  
ENERGY FOR ALL



WORLD  
RESOURCES  
INSTITUTE



wbcsd



# Building Efficiency Accelerator Partners



WORLD GREEN BUILDING COUNCIL



GLOBAL ENVIRONMENT FACILITY  
INVESTING IN OUR PLANET



World Business Council for Sustainable Development



WORLD RESOURCES INSTITUTE

WRI ROSS CENTER FOR SUSTAINABLE CITIES



# Why is the efficiency of buildings important?

## Large impact:

- Buildings consume nearly **40% of energy demand** and account for about one third of GHG emissions globally

## Large potential:

- Global building energy **demand can be reduced by one-third by 2050**, if known EE best-practices are implemented on a large scale across regions

## Long-lasting implications:

- Buildings **last for 30-50 years or more**. Poor choices today can **lock-in** high costs, carbon emissions, and poor urban services

## Multiple benefits:

### Economic

Cost-effective opportunities : each additional \$1 spent on EE avoids more than \$2, on average, in energy supply investments

### Social

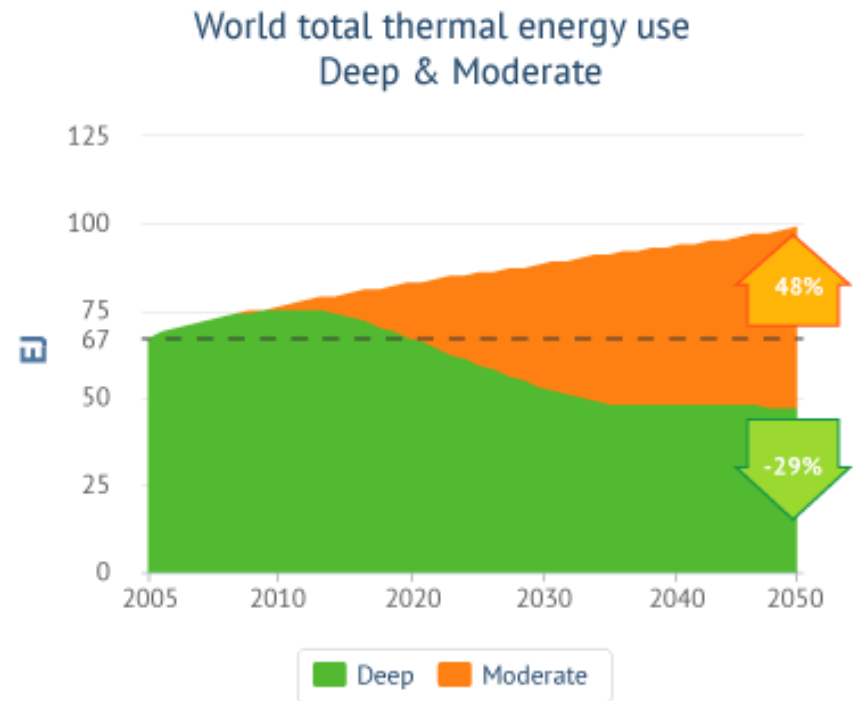
Energy access, Reliability, Security of energy supply, Health & productivity improvement, Job creation

### Environmental

GHG emissions reduction, Sustainable building materials, Water conservation, Climate resilience

# The building efficiency conundrum

- Technologies are available and cost-effective
- *Barriers are behavioral and institutional, not technical*
  - Awareness
  - Technical expertise
  - Performance uncertainty
  - ROI requirements
  - Split incentives
  - Funding
- Diffuse decisions, result in inaction or single-technology approaches
- Must overcome barriers to achieve “deep” efficiency





# Acceleration of policy efforts

New partnerships enable implementation of ambitious projects and policy packages to address barriers, bridge efficiency gap, and avoid lock-in of inefficient building stock.



Source: Institute for Building Efficiency, Johnson Controls Inc.(2011)

# What are BEA cities signing up to do?

## Overarching commitment:

double the rate of building energy efficiency by 2030 in targeted sector within the jurisdiction

Implement one enabling **policy** and one demonstration **project** to be announced at COP21 in Paris

**Interventions**

Create a **baseline** of building energy efficiency performance

**Baseline**

Track, report annual progress, and **share experiences** and best practices with other governments

**Tracking & communication**

## Call to Action

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Ministries, governments, industry, universities, NGOs and international organisations can help support our drive to doubling the global rate of improvement of energy efficiency.

Local governments have a key role to play!

The SE4All Building Efficiency Accelerator and Global District Energy in Cities Initiative welcome your support in achieving system efficiencies in the buildings sector.

**Make your leadership known at the COP21 in Paris, Dec 2015!**

# Join the Initiatives

## **Buildings Efficiency Accelerator**

*World Resources Institute, WRI Ross Center for Sustainable Cities*

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**For local governments interested in more information or to join as a partner, contact:**

*ICLEI- Local Governments for Sustainability*

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