



 **GLOBAL ENERGY EFFICIENCY ACCELERATOR PLATFORM**

An Introduction to the SE4ALL Building Efficiency Accelerator

23 June 2015 webinar



WORLD RESOURCES INSTITUTE



Today's agenda

1. Angie Fyfe, ICLEI USA – *Welcome*
2. Jennifer Layke, World Resources Institute – *Introduction of the Building Efficiency Accelerator*
3. Erick Shambarger, City of Milwaukee, USA – *Milwaukee's building efficiency activities*
4. Oscar Vázquez Martínez, Ministry of Environment, Mexico City, Mexico – *Mexico City's building efficiency activities*
5. William Sisson and Roland Hunziker, World Business Council for Sustainable Development (WBCSD) – *Energy Efficiency in Buildings project (EEB 2.0) and buildings at COP21 Paris*
6. Angie Fyfe, ICLEI – *Summary*
7. Q&A

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Supporting partners to **create local solutions** by adapting, learning, course correcting

Using **evidence and measurement** to shape action

Through **systematic learning**, building consensus **to shift local and national policies**, and the global agenda

200 staff
in 9 offices in 6 countries

55 cities
of active engagement

36
major outcomes

8 practice areas

Building Efficiency, Energy & Climate, Health & Road Safety, Urban Mobility, Urban Development, Resilience, Governance, Water



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UN Sustainable Energy for All

One Goal:

Achieving Sustainable Energy for All by 2030

Three Objectives:



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

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

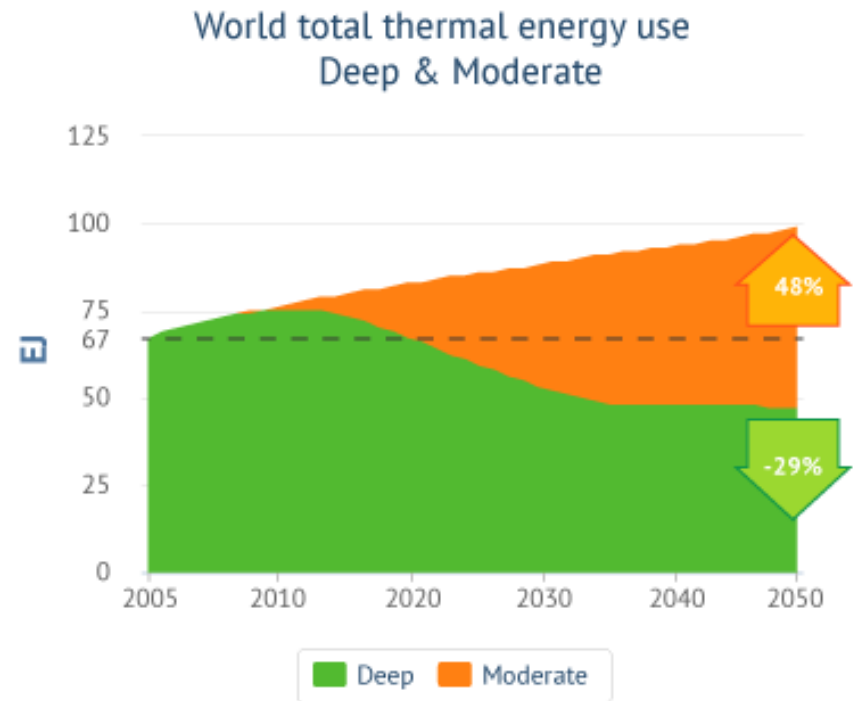
Energy access, Reliability, Security of energy supply, Health & productivity improvement, Job creation

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)

BEA City Engagement Process

Light Touch



Commitment

Assessment

Development

Implementation

Improvement

Deep Dive



Partners

Coordinating partner:



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Cities:

Mexico City (Mexico), Milwaukee (United States), Science City of Muñoz (Philippines), Toyama (Japan), Warsaw (Poland)

NGOs/Associations:

Global Buildings Performance Network
Global Green Growth Forum
ICLEI - Local Governments for Sustainability
UN Environment Programme
UN Foundation
US Green Building Council
World Business Council for Sustainable Development
World Green Building Council

Companies:

Accenture
Alstom
China Energy Conservation and Environmental Protection Group (CECEP)
Danfoss
Johnson Controls
Philips
Saint-Gobain
TECNALIA

What are 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

How does the BEA benefit cities (and countries)?

- New partners for implementing efficiency in buildings
 - Development of shared vision and agenda
 - Private sector commitments to local efficiency improvement
 - Collaboration across government ministry “silos” (horizontal) and between national and subnational government (vertical)
 - Knowledge exchange with peer cities and global partners
- Technical assistance
 - stakeholder engagement
 - policy and project prioritization
 - tracking progress
 - identifying funding for policies and projects
- International recognition

Menu of Policies and Mechanisms for Building Efficiency

Codes & Standards	<ul style="list-style-type: none">• Building codes to establish minimum requirements of energy performance.
Targets	<ul style="list-style-type: none">• Targets to align interests and spur action to improve efficiency in the building sector.
Performance Info & Certifications	<ul style="list-style-type: none">• Data, baselines, disclosure and certifications for market differentiation of building performance or attributes.
Finance & Incentives	<ul style="list-style-type: none">• Programs and incentives to provide funding to building efficiency improvements.
Government Leadership	<ul style="list-style-type: none">• Programs to support government efficiency, including public building retrofits and innovative procurement.
Utility Actions	<ul style="list-style-type: none">• Planning and programs by utility companies for energy efficiency improvement.
Efficiency Industry & Workforce Capacity	<ul style="list-style-type: none">• Market development and skilled workforce for private providers of building construction, services & equipment
Building Owner & Occupant Actions	<ul style="list-style-type: none">• Building operations, occupant behavior.

Government Leadership

Codes & Standards

Targets

Information &
Certification

Finance &
Incentives

**Governmental
Leadership**

Utility Actions

Industry &
Workforce capacity

Building owner &
Occupant actions

Public building and facility energy improvement programs

- Programs aimed at improving energy efficiency of public buildings with the aim to demonstrate the efforts, raise awareness and encourage energy efficiency initiatives also in other building types, through communication to relevant stakeholders.
- Aim is to promote energy efficient behavior and decisions, while creating savings in the public budget, demonstrating viability of energy efficiency improvements and policies



Procurement regulations

- Regulations for organized purchase by public bodies following pre-set regulations, which include provisions for energy efficiency.
- Aim is to increase the energy efficiency of the buildings owned or used by public authorities or used for provision of public services

Accelerator Partnership in Mexico City

- Commitment from city to:
 - Implement a building energy code
 - Retrofit public buildings
- Launch event and workshop for common vision – 19 March
 - 100 Participants – including 25 city government, 5 federal government, 20 businesses, 8 finance, 21 consultants
- Action plan now underway: 4 workgroups chaired by Mexico City staff and an SE4All partner, project managed by WRI/CTS EMBARQ





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An Initiative of the United Nations

Building Efficiency Accelerator