Tools for Building Energy Efficiency: Resources for Policy Development

Clean Energy Solutions Center webinar; November 24, 2015
Today’s Webinar

1. Introduction - Maryke van Staden, ICLEI

2. Mapping of building efficiency tools - Nate Aden, WRI
   Ksenia Petrichenko, C2E2

3. Tools application case studies - Peter Graham, GBPN
   Christian Daniel Mahler, World Bank

4. Conclusion - Jennifer Layke, WRI
Introduction
The Opportunity: tools to link new data, technology, and policy goals

- Policy Goals
- Simulation tools
- Bottom-up data

Low-carbon cities

Options for summary tracking metrics:
- Total city-wide energy use or emissions
- Aggregate building intensity (energy or emissions/m²)
- Number of certified buildings/projects
- CDM methods
- Number of net-zero buildings
- Policy demonstration projects
There are numerous building- and city-level tools...
The challenge is to harmonize existing tools to connect building stakeholders with outcomes.

228 global cities, representing 436 million people, have already set GHG reduction goals and targets.
Project and policy-level tools inform various stages of cities' policy cycles.
Do you have a baseline for EE status?

CCM, GREAT

Can you collect data required for EE baseline?

TRACE, city-level databases

Can you identify barriers to EE?

DTR, IPCC AR4 Chapter 6, IEA Governance Handbook

Can you identify policy instruments to address existing barriers and prioritize them?

Building Policy Assessment Tool, TRACE, BEST, IEA EE Governance Handbook, ENERGYSTAR Energy Treasure Hunt Guide
Policy design

Do you have policy design guidelines and/or information on existing policy practices?

Guidelines:
- Handbook of Sustainable Building Policies, IPCC AR5 Chapter 9
- IEA EE Governance Handbook, DTR
- Existing policy practices: BEEP, GBPN Tool for new buildings, GBPN Tool for renovation, BigEE, Solutions gateway, DTR

Will your policy actions track/include EE co-benefits?

Guidebook ‘The co-benefits evaluation tool for the urban energy systems’, COBRA
Do you have tools for implementation of building EE policies and related projects?

Do you know how to evaluate the impact of policies or projects you are planning?
Additional information on tools & decision tree is available in forthcoming 3rd edition of Driving Transformation report.
Tool application case studies

Tool for Rapid Assessment of City Energy (TRACE)
Supporting cities in tapping their energy efficiency potentials

CHRISTIAN MAHLER (WORLD BANK)
Discussion of Building Efficiency Accelerator

BUILDING EFFICIENCY

The buildings sector accounts for about one-third of global energy use and energy-related GHG emissions. Widespread implementation of progressive policies that encourage the use of best available technologies low-energy building design and energy efficiency renovation can deliver 25-50% reductions in energy demand from new and existing buildings. Achieving such savings would not only significantly reduce GHG emissions, but also reduce costs, create jobs, provide cost-effective energy capacity and improve the comfort, health and environment in communities. Through public-private collaboration, governments can establish effective policies and businesses can deliver current technologies to accelerate investment in energy efficiency and the achievement of benefits.
Thanks!