Energy Efficiency Training Week

What are the steps?
Set targets and develop policies

Buildings: Session 7

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1. Where to start: Understanding building energy use
2. Where to start: Energy efficiency potential in buildings
3. Toolkit: Building technologies for low energy buildings
4. Toolkit: Linking buildings energy efficiency policy to investments and finance
5. Toolkit: Building energy codes and standards
6. Toolkit: Building energy efficiency policies
7. What are the steps: Set targets and develop policies
8. Did it work: Evaluating the multiple benefits of energy efficiency in buildings
9. Did it work: Tracking progress with energy efficiency indicators
10. Energy Efficiency Quiz: Understanding energy efficiency in buildings

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Trainers: Adam Hinge, Jennifer Layke and Ksenia Petrichenko

Purpose: To teach emerging professionals in the emerging economies about how targets and policies can be used in tandem to meet energy and development goals. This course will provide examples of how targets have been created to meet targets and how country goals can be met by setting targets and complimentary building energy efficiency policies.

Scenario: You have the opportunity to consult with key stakeholders on prioritising energy efficiency policies for buildings. How do you go about it?
Setting Targets Through Implementation Roadmaps

Global Policy Priorities

NZEB Roadmaps: Eastern EU

Rating & Disclosure: USA

Source: www.gbpn.org

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More than 80% of energy efficiency potential in buildings are currently unrealised in existing policies.
In 2007, US Congress directed US DOE to support efforts to reduce energy use in new buildings by at least 30% by 2010.

In October 2010, final voting confirmed code improvements that resulted in 32% energy savings.

2007 Target: resulted in 32% improvement. More energy savings than any period since 1975.
Setting National EE Targets
(Examples)

- **Europe Energy Performance of Buildings Directive**
  - Application of a cost-optimal methodology for setting minimum requirements for both the envelope and the technical systems

- **Europe Energy Efficiency Directive**
  - Individual country level regulations and targets
1. Space cooling, lighting and appliances offer minimal savings globally today, but significant savings in 2050.

2. Space heating offers significant energy savings throughout the entire period to 2050.

What would it take to achieve this in your country?
1. Energy efficiency in space heating, water heating and cooking generate direct and indirect emission savings.

2. Electric-based technologies generate significant indirect emissions savings.

Source: IEA ETP 2015
Hands on Tool for Policy Assessment

Visioning

Establish Current Policy Status

Assess Policy Importance and Difficulty in Implementation

Determine Short and Long-term Priorities

Next Steps and Action Planning

Source: Institute for Building Efficiency

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Policy Assessment Tool

Roles

PRIVATE SECTOR - INDUSTRY

PUBLIC SECTOR - GOVERNMENT

NGOs - ACADEMIA - CONSUMERS

Source: Institute for Building Efficiency
Policy Assessment Tool Sample

Building Energy Codes

Building energy codes require minimum thresholds for energy efficiency and serve as a common policy instrument for improving the efficiency of new buildings. Within this category we include whole building design and construction requirements, performance requirements, as well as appliance, equipment and lighting efficiency requirements.

Data Collection
Building Energy Codes
Risk Mitigation
Building Efficiency Targets
Energy Performance Disclosure
Technical Capacity Building Programs
Tax Incentives, Grants or Rebate Programs
Building Rating Systems
EPC Enablers
Government Leadership

Source: Institute for Building Efficiency