

Efficient buildings: Opportunities for UNECE



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**UNECE's Expert Consultation on Energy Efficiency Standards in Buildings
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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.

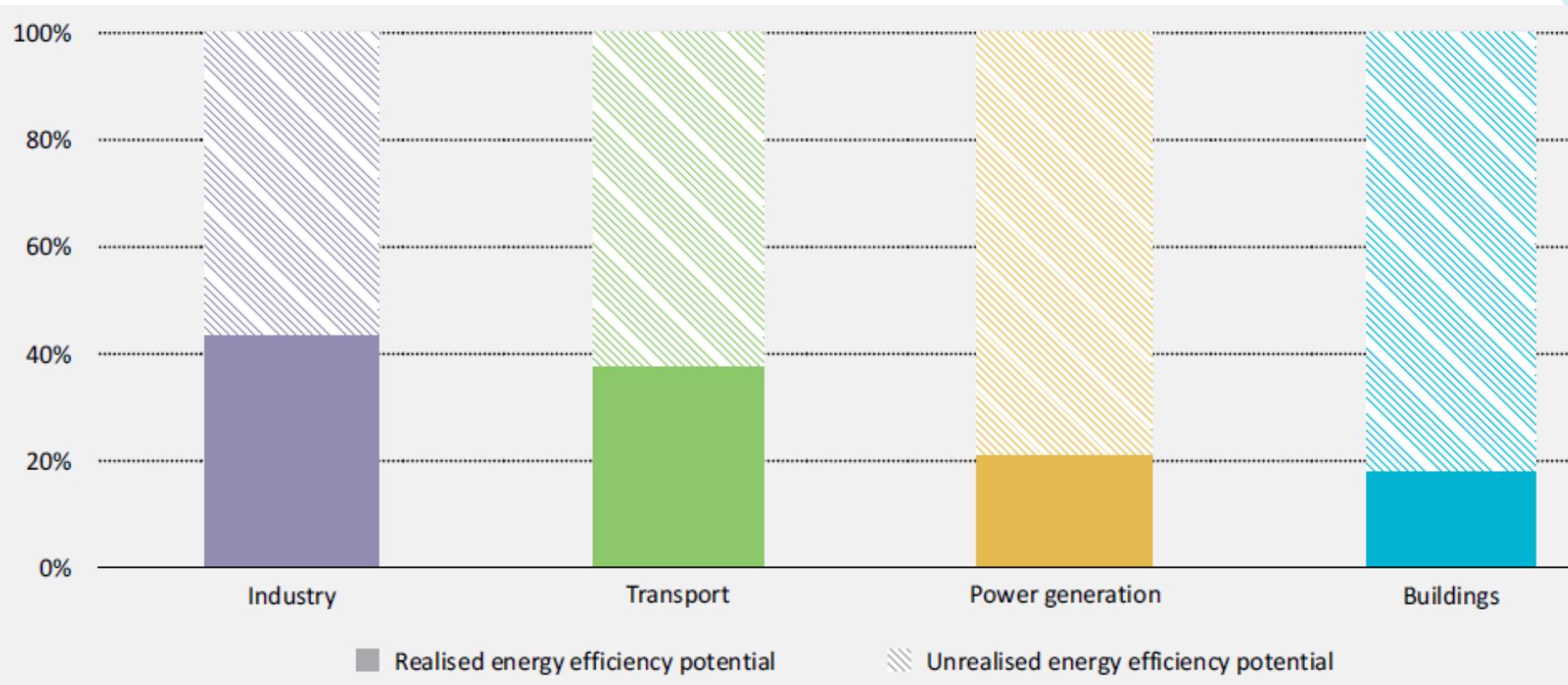


DOUBLING THE GLOBAL
RATE OF IMPROVEMENT IN
energy efficiency.



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

Largest energy efficiency potential in buildings



Source: *World Energy Outlook*, IEA (2012)

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



What is the Building Efficiency Accelerator?

BEA is devoted to help cities and sub-national governments speed up adoption of best-practice policies and implementation of projects on EE in buildings

Goal: to double the rate of energy efficiency improvement by 2030
in each participating jurisdiction

Three pillars of BEA's work

Public-Private
Partnership



Focus on Cities



Policy & Project
Development



Menu of Policy Options

Codes

- Building codes to establish minimum requirements of energy performance.

Targets

- Targets to align interests and spur action in the building sector.

Government Leadership

- Programs to support government efficiency, including public building retrofits and innovative procurement.

Benchmarking & Disclosure

- Policies that generate data, baselines, and disclosure to support transparent building performance to the market.

Financial Mechanisms

- Programs and incentives to provide funding to building efficiency improvements.

Utility Actions

- Planning and programs for utility companies for energy efficiency progress.

Certifications

- Certifications including green buildings that allow market differentiation of key environmental attributes.

City Engagement Process - Light Touch and Deep Dive

Light Touch



Commitment

Assessment

Development

Implementation

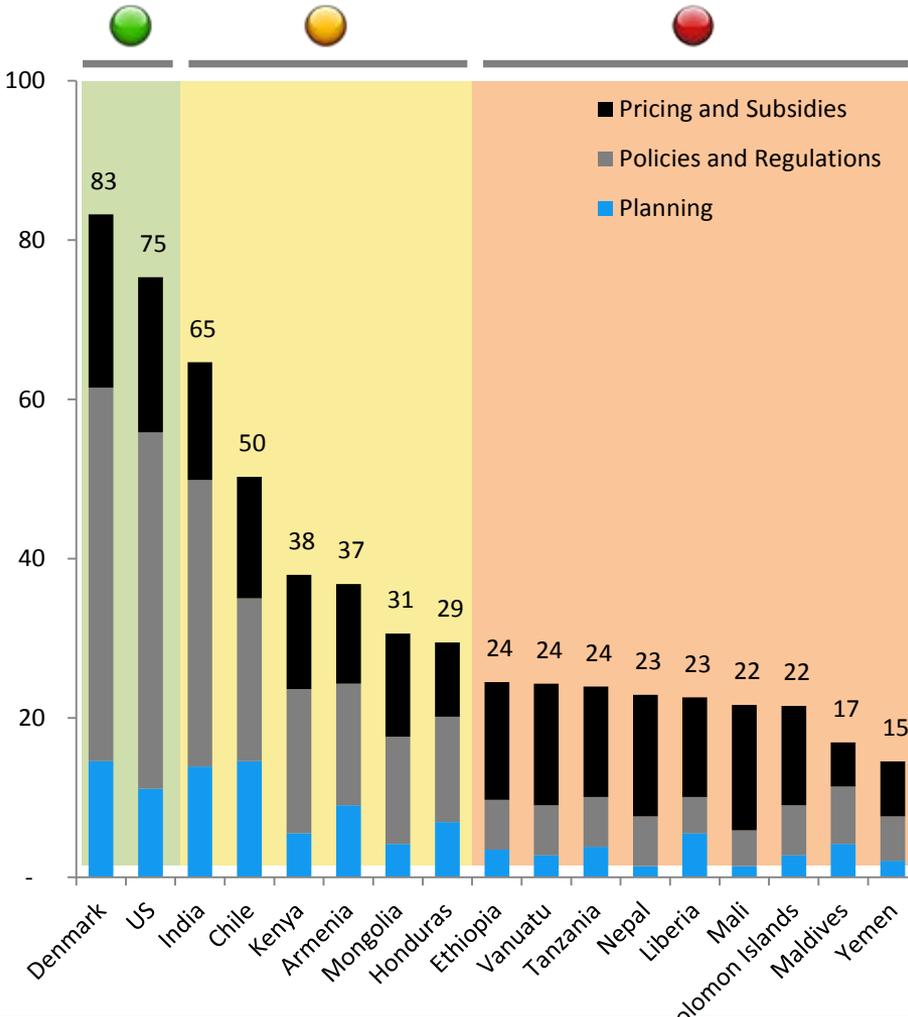
Improvement

Deep Dive

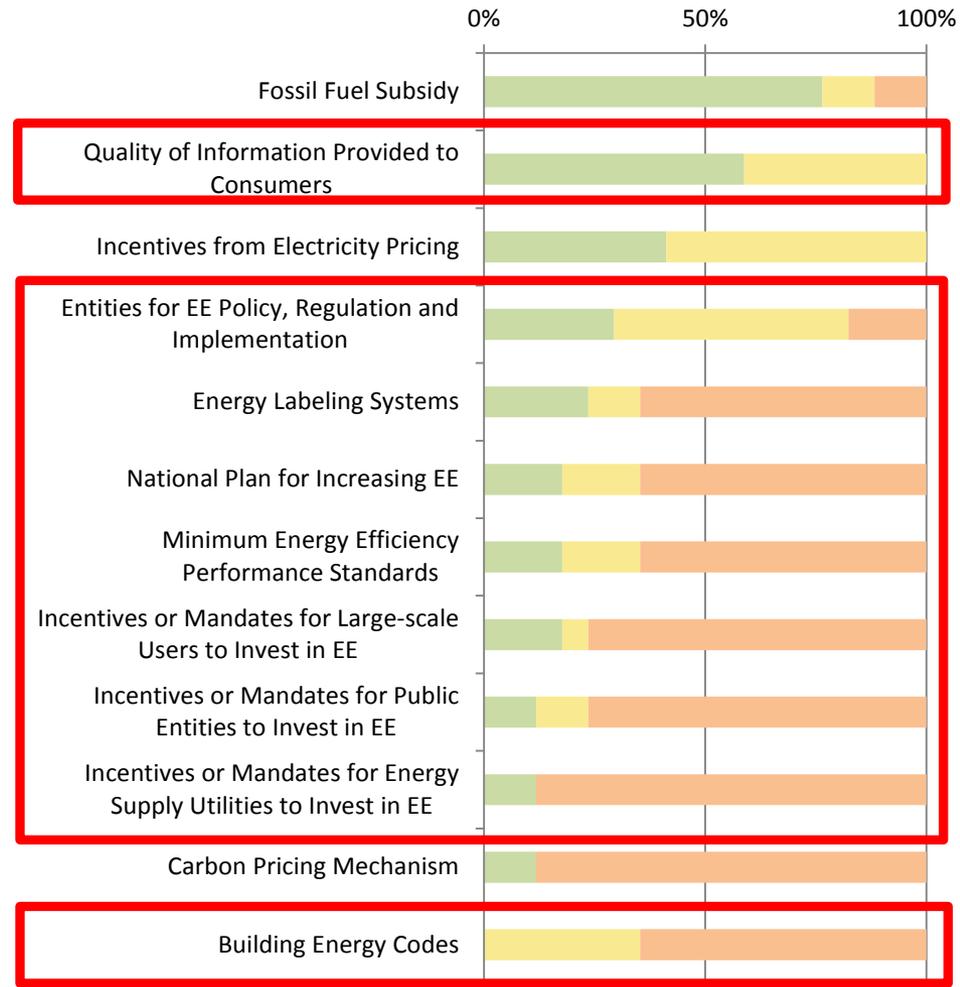


Readiness for Investment in Sustainable Energy (RISE)

RISE energy efficiency score



Proportion of countries in traffic lights



Over time, progress in RISE scores ought to demonstrate relationships with flows of private investment as well as incremental achievements in SE4ALL goals.

Readiness for Investment in Sustainable Energy (RISE)

- A suite of indicators that assesses the legal and regulatory environment for investment in sustainable energy.
- Provide a global reference point that will support decision-making and inform country-level interventions under the SE4ALL initiative
- Pilot phase of 17 countries completed in 2014 with a global rollout in 2015
- RISE encompasses 28 indicators and 85 sub-indicators across four categories.
- Global rollout in 2015 to 110 countries
- Expansion includes 31 UNECE member States, comprising 17 EU and 14 non-EU.

Efficient buildings: Opportunities for UNECE (1)

- Partner with **Buildings and District Energy Accelerators** to increase participation and impact in member States
- Continue to participate in the World Bank's **RISE initiative** and consider the opportunities to improve building efficiency.
- Promote the **menu and associated benefits** of building efficiency measures
 - matchmaking policy to sub-region/country situation
 - encouraging data collection and evaluation
 - promoting relevant tools
 - highlighting best practices etc
- **Mapping of Building Codes** in UNECE member States
 - consider results from UNECE's survey and Worldbank's RISE Initiative
 - identify best-practices and how they can be replicated/adapted in other countries
 - promote strong building codes
 - provide guidance on strengthening monitoring, verification and enforcement
 - infrastructure and capacity requirements

Efficient buildings: Opportunities for UNECE (2)

- Play a key role in helping with **implementation in member States** - informing policy dialogue with government, industry and other stakeholders
- Establish a **model energy building code** on a step level of performance that UNECE could publish as a norm - covering new and existing buildings.
- Identify options for **improving energy efficiency of buildings**:
 - retrofitting programs and policies
 - stringent requirements for energy efficiency during capital repairs
 - accelerated technology adoption in buildings: rapid efficiency feedback, automatic climate control, smart appliances, etc.
 - establishment of a collective among UNECE member States for sharing experiences (good and bad).

Efficient buildings: Opportunities for UNECE (3)

- Encourage **expansion of Standards and Labelling Programs** for appliances and equipment that will improve overall building energy efficiency
- Collect and promote the case studies of where **mandatory disclosure** for residential and non-residential buildings has been successful
- Examine policies and mechanisms that **encourage financial investment** to improve building efficiency
- Promote **net- or nearly-zero** energy consumption in buildings.

Efficient buildings: Opportunities for UNECE (4)

- Lead, develop, contribute and promote the standards, certification and installation of **non-energy using building products**. Potential areas could include:
 - Insulated **flexible ducting systems** - contribute to increased systems efficiency, sealing ducts etc
 - **heat exchange ventilation** certification systems - important for advanced construction
 - **glazing** - installation standards etc
 - **insulation** - r-value requirements, installation standards etc



Thank you

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