





Policy Packages to Make Energy Savings in Buildings Happen

Authors

Vera Höfele Stefan Thomas

Wuppertal Institute for Climate, Environment and Energy

Döppersberg 19

42103 Wuppertal

Contact

Germany

vera.hoefele@wupperinst.org

INTRODUCTION

- What are the best policies and measures to stimulate energy efficiency in buildings?
 There is still no magic formula ...
- All members of the complex building value chain must act in the right direction, or else the energy efficiency chain will break.
- Therefore, the specific barriers and incentives of all relevant actors must be analysed to understand more thoroughly why they often do not implement energy efficiency.
- Goal: tailored policy packages to remove the barriers and strengthen the incentives identified.
- Cross-check with reality: implemented and successful policy packages

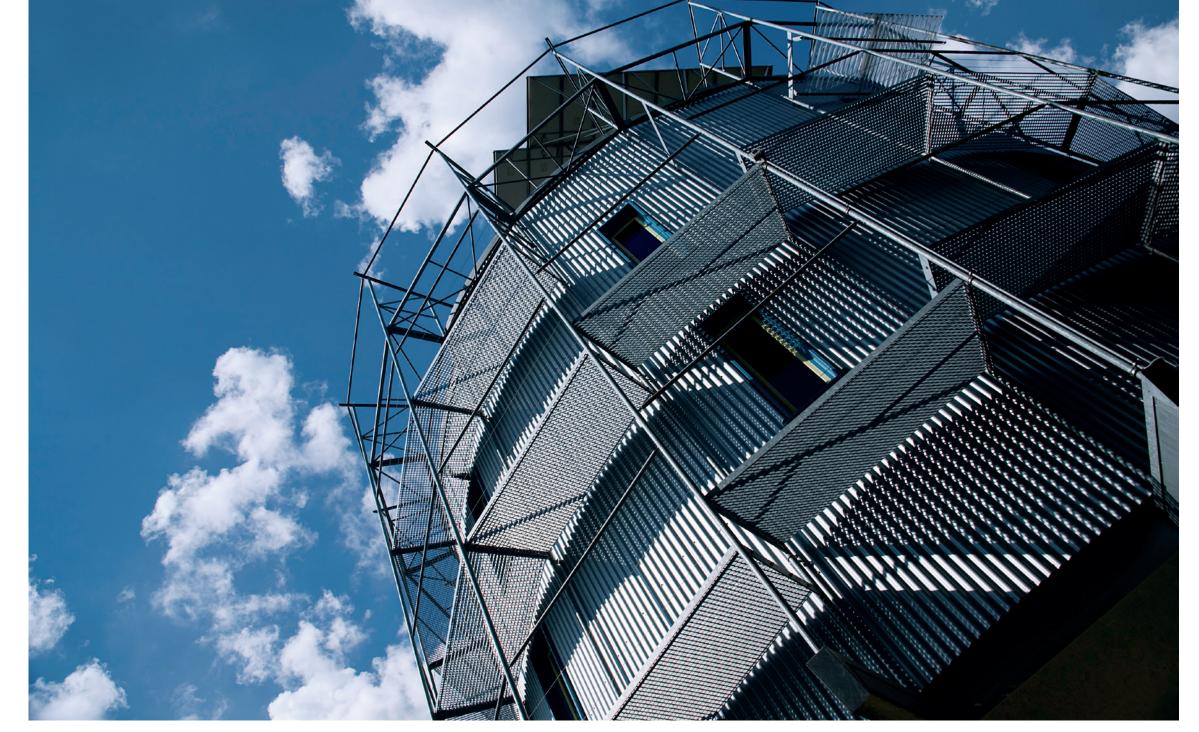


Foto: creativ collection/ccvision

METHODOLOGY

Step 1 – Analysis of actor-specific barriers and incentives A) Identify all actors that are part of or influencing the building value chain B) Examine the barriers and incentives each of these actors is facing Step 2 – Developing strategies to address the barriers and incentives A) Define implementation strategies to tackle barriers and strengthen incentives B) Ensure all actors and barriers/incentives are addressed Step 3 – From implementation strategies to policy packages A) Determine combinations of policies to put each implementation strategy into practice B) Merge the resulting policy packages into a consolidated overall package to induce market transformation Step 4 – Validate the resulting 'ideal package' through empirical evidence A) Define criteria for identifying 'good practice', i.e. countries with advanced and effective policies for building energy efficiency

B) Check whether the combinations of policies used by these model countries match our theoretically derived 'ideal policy package'

Barriers – some examples from the perspective of ...

... an architect:

Will the energy-efficient building offer the same technical functionality and safety as the conventional one so that we won't have to face liability issues and that our customers won't be dissatisfied?

... a financier:

How will the energy efficiency project perform in terms of revenue and risk? We don't have the necessary technical expertise and experience with this kind of projects.

... a building owner:

How much can I save over the lifetime? How can I finance the initial investment? Will I still live in this building 5 or 10 years from now so that I can reap the benefits at all?

RESULTS

- There is not one silver bullet for transforming the building market overnight but the actor-centred analysis can guide policy makers in defining an effective package of policies, tailored to the needs and incentive structures of all relevant actors.
- However, the lack of thoroughly documented and evaluated policies makes it very difficult to identify good practice examples, compare their effectiveness and enable others to learn from them.

Our key message for policy makers is therefore

... it is crucial to consider already in the policy design phase both the incentive structures of the actors concerned and the data needs for monitoring and evaluation.

Policy Package for Energy Efficiency in Buildings

Set of specific P&M for the building sector					
	Information	Incentives & financing	Capacity building & networking	Promotion of energy services	RD&D and BAT promotion
ent)	EPCs & equipment labels Information campaigns, websites, calculation tools Information centres, energy advice & audits Feedback measures (e.g., informative billing) Demonstration buildings	Grants & rebates Tax breaks & 'feebates' Soft loans Revolving EE funds with guarantee mechanisms Co-operation with banks	Education & training for supply chain actors Certification of qualified actors Energy efficiency clusters / networks	Promotion of third-party- financing (e.g., energy performance contracting, on-bill financing) via: — Standardised contracts — Insurance fund against bankruptcy of customers — Provider accreditation	RD&D funding Public sector programmes ('Lead-by-example', EE public procurement) Bulk purchasing & technology procurement Competitions & awards

EE targets and planning EE infrastructure and funding Policy roadmap towards ultra-low energy buildings Energy agencies

Policy roadmap towards ultra-low energy buildings
(i.e., reliable political commitment & long-term strategy incl. quantitative targets and timetable)

Energy-efficient spatial planning and urban district planning

Voluntary Agreements on EE targets and actions with

commercial or public organisations

Regulation

(for buildings & equipa

Other legal requirer

(e.g., inspections, commissioning, energy managers)

tenant laws

Revision of landlord and

Overall coordination and financing via, e.g.:

- Energy efficiency funds

- Energy saving obligations for energy companies

- Voluntary agreements with energy companies

- Feed-in-tariff for certified energy savings

Supportive framework

Internalising external costs
(e.g. energy/CO₂ tax, emissions trading)
Removal/reduction of subsidies on end-user energy prices
Removal/reduction of subsidies on energy supply
Removal of legal barriers
Regulation of natural monopolies



Layout:
VisLab, Wuppertal Institut, 2011