

Mechanisms to Encourage Private Sector Participation in Low-Carbon Development

a case study of Germany's building sector

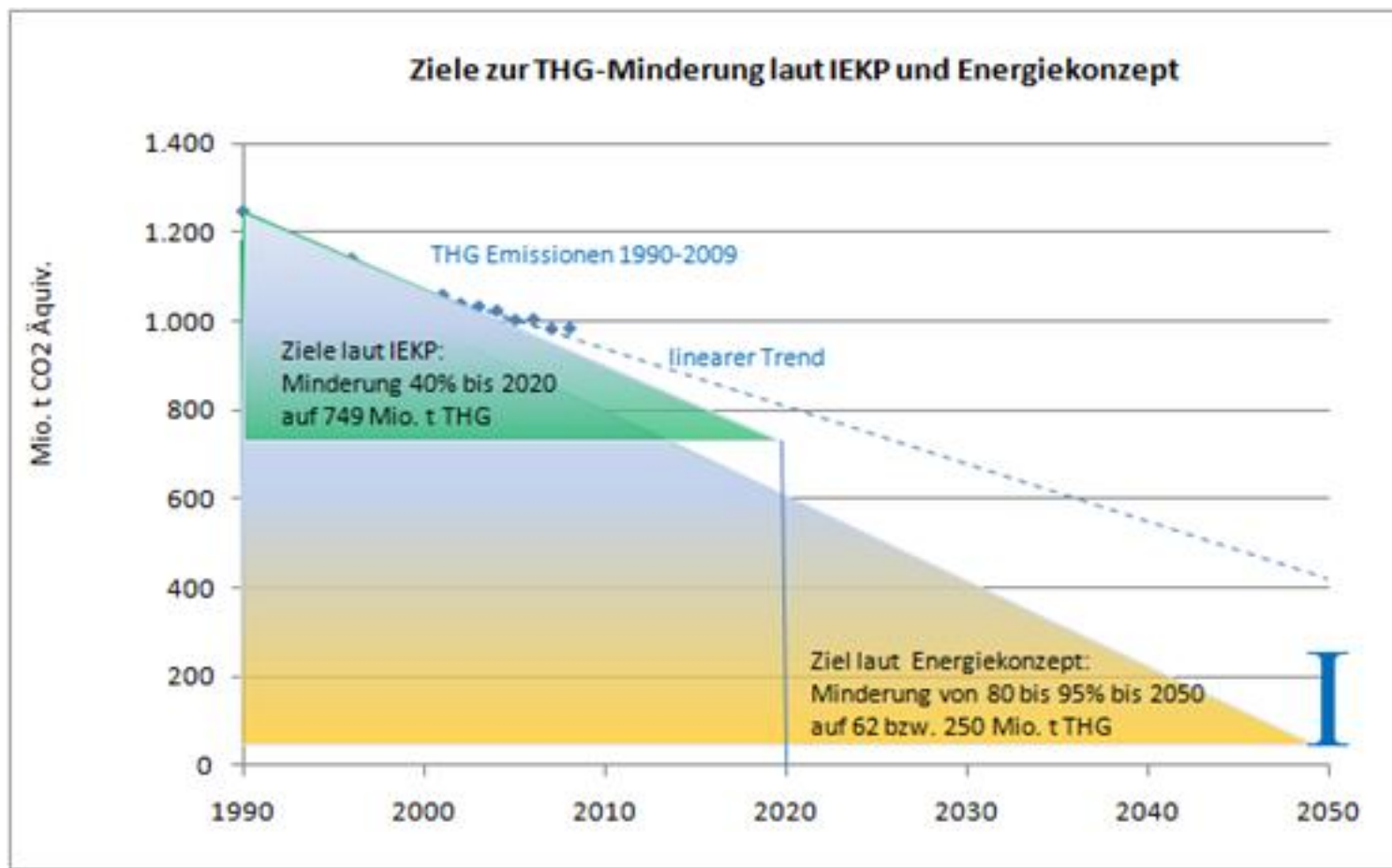
Dr. Kerstin Pfliegner/
Diana Nissler/Jens Schuberth,
Federal Environment Agency, Dessau

Gudrun Gumb
KFW
Frankfurt

Part 1
The German policy framework
for
low-carbon investments

Part 2
Promoting low carbon investments

Strategic goal setting: GHG emission reduction



Targets set by the German Energy Concept 2050

Year	Climate Target	Renewable Energies Target		Energy Efficiency Target			
	Green house gases (vs 1990)	Share Electricity	Share total	Primary Energy (vs 2008)	Electricity consumption (vs 2008)	Energy Productivity	Building Renovation
2020	-40%	35%	18%	-20%	-10 %	Increase by 2.1% p.a.	Doubling rate from 1 to 2%
2030	-55%	50%	30%				
2040	-70%	65%	45%				
2050	-80-95%	80%	60%	-50%	-25 %		

Regulatory context and monitoring

- Legal review
 - Renewable Energy Sources Act (EEG)
 - Energy Savings Ordinance (EnEV) for buildings
 - Combined Heat and Power Act
 - Renewables Energies Heat Act (EEWärmeG)
- Transparency and public acceptance
- Monitoring

The building sector

- 40% of Germany final energy consumption
- 1/3 of CO₂ emissions
- Large potential for energy savings and CO₂ reductions
- Target: climate neutral building stock by 2050
 1. reducing primary energy demand of buildings by 80% by 2050
 2. doubling the energy-saving building renovation rate from 1% to 2% p.a.
 3. covering the remaining energy demand predominantly with renewables
- Long term road map for buildings (Sanierungsfahrplan)

The building sector

- Instrument mix consisting of:
 1. Providing regulatory framework:
 - EU Energy Performance of Buildings directive (EPBD, 2010/31/EU)
 - German Energy Savings Ordinance (EnEV)
 2. Public funding:
 - 2012-2014 up to €1,5 billion government support programme
 - CO2 building renovation programme (KfW) supports energy efficiency measures
 - Market incentive programme to increase renewable energies for heat generation in buildings
 3. Tax incentives:
 - deductability of building renovation negotiated between Federal government and Länder

Part 2

Promoting low-carbon investments

»» How to Promote Energy Efficiency?

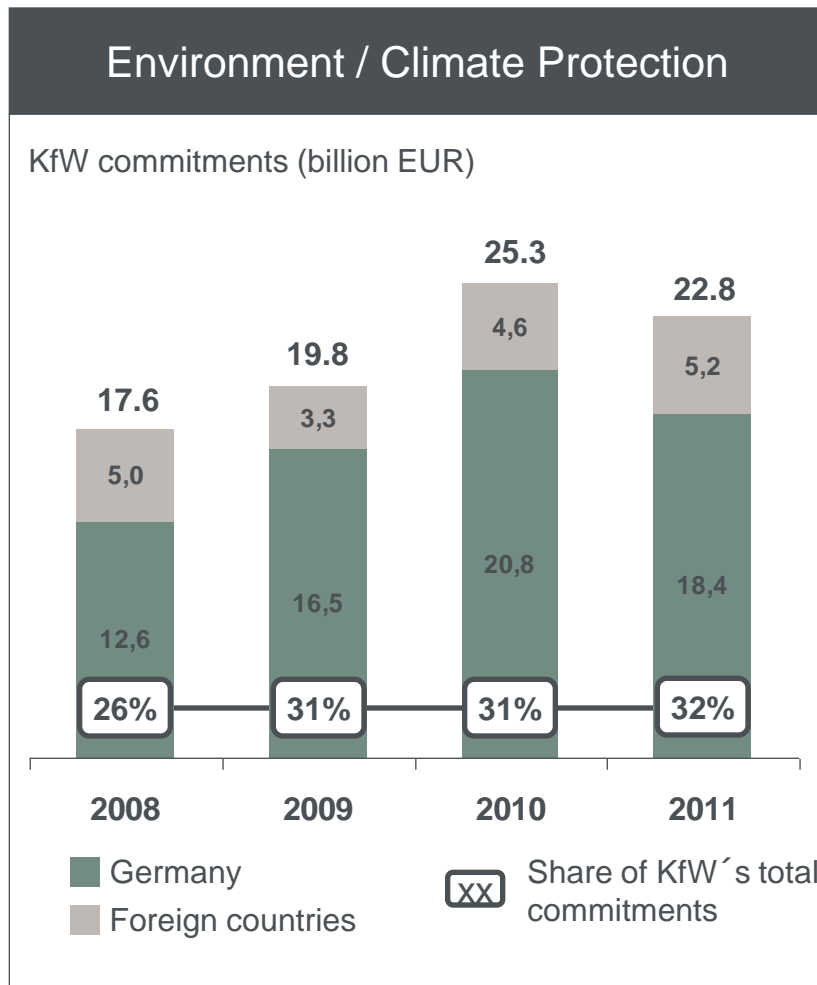
Tambourine



Carrot

Stick

»» Environmental Protection und Climate Protection



Central pillar for KfW's activities.

Ambitious increase of commitments in recent years.

Main focus on renewable energies and energy efficiency.

Continuance on high level in future.

KfW is one of the largest financiers worldwide.

»» Energy Efficiency Promotion in Housing

KfW's Key Principles



KfW-70

Effizienzhaus

German Energy Conservation Ordinance (EnEV) is the baseline

- + Harmonizing of legal framework and promotion
- + promotional incentives require higher efficiency standards than legal framework

KfW's promotion is focussed on a holistic approach

- + Focussing on energy efficiency and renewable energies
- + Technological neutral (heating system or building envelope)
- + Cost efficiency and reduction of energy consumption is crucial

KfW-Efficiency House as standard and brand for energy efficiency

- + consistent standard for construction and refurbishment approved by an energy auditor
- + makes a difficult regulation easy to understand:
“The smaller the number the higher energy efficiency.”
- + creates high transparency

Higher energy efficiency means higher promotional incentives

»» Promotional Effects Housing

Volume impact

- Start of programme in 2001
- More than 740.000 loans committed so far
- Aggregated commitment volume of 45 billion EUR
- 2,1 million housing units promoted

Macroeconomic impact

- CO2 reduction sums up to 156 billion tons since 2006
- On average 200.000 jobs per year safeguarded or created
- Accumulated savings in heating costs of 1.5 million EUR

Budget impact

- High leverage ratio investments/budget funds
- Job effects create additional tax revenues



»» Conclusions

- Information, Regulation and Promotion are instruments of German government to promote investments in energy efficiency and renewables
- Key targets in KfW's domestic activities are the residential sector and SMEs
- KfW has a clear promotional mandate from the government to stimulate these investments
- German energy turn around provided an additional push for KfW's promotional activities
- Promotional incentives are
 - Long term loans
 - Favourable or preferential interest rates
 - Risk mitigation where needed
- Promotional activities have a significant impact on CO2 reduction and job creation

Remaining challenges

- EU building energy-efficient directive for 2020
- Retrofitting the existing building stock
- Reaching building owners without public subsidies
- Sun set clauses
- Landlord-tenant dilemma and comparative, location specific rental prices
- Alignment across different government levels

***THANK YOU
FOR YOUR ATTENTION***

Dr. Kerstin Pfliegner
Federal Environment Agency
Tel: +49-340-2103-2409
Kerstin.pfliegner@uba.de

Gudrun Gumb
.....