Financing Energy Efficiency

Promoting Energy Transition

Input to the 5th International Forum on SE4All, Tunis, 4-7 November 2014

Florian Ziegler, Principal Energy Economist
Sector and Policy Division
KfW Development Bank
KfW – Who We Are
> More than 65 years of KfW
> Financing with a public mission

› Promotional bank of the Federal Republic of Germany
› Founded in 1948 as Kreditanstalt für Wiederaufbau
› Shareholders: 80% Federal Republic, 20% federal states
› Headquarters: Frankfurt am Main
› Branches: Berlin, Bonn and Cologne
› Representative offices: around 70 offices and representations worldwide
› Balance sheet total as at December 2013: EUR 464.8 billion
› Financing volume 2013: EUR 72.5 billion
› 5,375 employees (2013)
› Best rating: AAA/Aaa/AAA
A bank with a wide array of functions

**Domestic promotion**

- **We promote Germany**
  - Business Area Mittelstandsbank: Promotion SMEs, business founders, start-ups
  - Business Area Privatkundenbank: Promotion construction of new housing and modernisation as well as education
  - Business Area Kommunalbank: Financing municipal infrastructure projects and global loans Germany/Europe agency business for Federal Government

**International business**

- **We ensure internationalisation**
  - Business Area Export and Project Finance: International project and export finance

- **We promote development**
  - Business Area Promotion of Developing and Transition Countries: Promotion of developing and transition countries

**Promotion of environmental and climate protection**
Environmental Protection and Climate Protection
KfW is One of the Leading Financiers in the World

Central pillar for KfW’s activities.

Decided increase of commitments in recent years.

Main focus on renewable energies and energy efficiency.

Continuance on high level in future: 2/3 of total commitments
KfW's contribution in 2013

Total credit commitments for environmental projects and climate protection: 27.8 bn. EUR

Renewables (Germany): 4.8 bn. EUR

Energy efficiency (Germany): 16.7 bn. EUR

Example: „Energy efficient construction and renovation“

› Secured or created jobs for one year: 440,900
› Reduced greenhouse gas emissions by 0.8 million tons
› High leverage: 1 Euro of public subsidy triggers private investments of 12 EUR (average value over last years)
Financing instruments of KfW Development Bank 2013
Tailor-made Financings for Every Partner Country

Financial Cooperation (FC) (4,862 Million EUR)

Budget Funds
- 2013: 1,816 Mio. EUR

KfW Funds
- 2013: 3,046 Mio. EUR

Concessional Finance

1 Budget Funds only
- 1,750 Mio. EUR

2 FC-Development Loans:
- Budget Funds: 66 Mio. EUR
- KfW Funds: 911 Mio. EUR

3 FC-Promotional Loans:
- 2,135 Mio. EUR
FC commitments 2000-2013 Total Energy/ Total KfW
Energy Efficiency

Unlocking the Potential
The Dilemma: Some thoughts on the usual fallacies

- The technical and economic potential is high, but the business case is not always given.
  - Unrealized market potential

- Cheap money appears to be unlimited available but financial crisis and increased regulation has led to a shortage of long-term + structured finance.
  - Financing has to be tailor-made
The Dilemma: Complex decisions – Procrastination – Behavioural Limitations – Market Flaws

- private households / enterprises
  - other priorities
  - liquidity problems
  - lack of specific know-how

- private equity funds / institutional investors
  - short-term orientation / leverage ratio
  - very high profit expectations

- municipalities / utilities
  - lack both: liquidity and long-term orientation

- commercial banks / insurance companies
  - missing technical know-how
  - increased regulation + less long-term finance
How to Promote Energy Efficiency?

Tambourine

Carrot

Stick
To stimulate the demand for energy-efficiency investments we need a smart combination of...

- „Information and Consulting“
- „Promotional Financing Programmes“

**INCENTIVES**

Legislation, Rules and Regulations, Technical Standards

- Energy efficiency requirements
- for production, services, new and existing buildings
The German model for energy efficiency financing

Funding by KfW and on-lending through private banks

- **State liability**: Institution owned by Federal Republic and federal states
- **German Government or KfW**: mainly interest subsidy, repayment bonus
- **Promotional mandate defined by KfW Law**: Promotional mandate defined by KfW Law
- **Capital market**: Funding AAA Rating
- **KfW**: Refinancing loan to customer
- **Customer’s bank**: Margins for credit risk and handling
- **Loan to customer interest rate**: Loan to customer interest rate
- **Customer**: Interest rate

**Advantages:**
- No distortion of competition
- Concentration on core competences
- Diversification of risks
Development of Energy Efficiency in Buildings (domestic)

Development of regulatory minimum requirements of energy efficiency of new constructed houses compared to best practice and research.
Quality Assurance (model case)

Quality matters!

- Quality at entry
  - Qualification/certification of advisors and architects
  - Quality of materials and appliances
  - Quality of software

- Quality of Application
  - Simple and clear promotional criteria
  - Screening and sampling of calculations
  - Checking tool

- Quality of Process
  - Transparent Processing
  - 4-eyes-principle
  - Self learning processes

- Evaluation
  - Ex-Post Evaluation
  - Implementation
  - External evaluation of effects
Working in emerging economies
What could be different?

› Lack of awareness
› Inappropriate institutional landscape
› No legal framework
  › (Codes, standards, regulations, certificates, …)
› No expertise (auditors, software, craftsmen,…)
› No appropriate materials
  › Insulation, appliances,…
› No (grant) funds for promotional programmes
› Financial sector underdeveloped
Working in emerging economies
What do we have in our toolbox?

<table>
<thead>
<tr>
<th>Sector Level</th>
<th>CapDev Level</th>
<th>Programme Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy dialogue</td>
<td>TA Measures</td>
<td>Preparatory studies</td>
</tr>
<tr>
<td>International seminars</td>
<td>Institutional development/Support</td>
<td>Interest subsidized loan programmes (private investors)</td>
</tr>
<tr>
<td>Study Tours</td>
<td>Capacity development of Governmental bodies, auditors, builders, auditors</td>
<td>Conventional FC loans or investment grants (public investors e.g. public buildings)</td>
</tr>
<tr>
<td>Knowledge sharing of our experiences in the domestic promotional programmes</td>
<td>Software development and introduction of tools</td>
<td></td>
</tr>
<tr>
<td>Sector studies</td>
<td>Demonstration / pilot schemes</td>
<td></td>
</tr>
</tbody>
</table>

This table outlines various strategies for working in emerging economies, categorized under different levels: Sector, CapDev, and Programme. Each level contains specific measures and activities to support economic development and infrastructure projects.
KfW Development Bank
Palmengartenstrasse 5 – 9
60325 Frankfurt am Main

Visiting Adress:
Senckenberganlage 30 - 36
60325 Frankfurt am Main

Telefon: 069 7431–3300
Fax: 069 7431-2944
www.kfw-entwicklungsbank.de

Florian Ziegler
Principal Energy Economist
Telefon: +49 69-7431-8706
E-Mail: florian.ziegler@kfw.de
This document is provided for information purposes only. This document may not be reproduced either in full or in part, nor may it be passed on to another party. It constitutes neither an offer nor an invitation to subscribe or to purchase securities, nor is this document or the information contained herein meant to serve as a basis for any kind of obligation, contractual or otherwise. In all legal systems this document may only be distributed in compliance with the respective applicable law, and persons obtaining possession of this document should familiarise themselves with and adhere to the relevant applicable legal provisions. A breach of these restrictions may constitute a violation of US securities law regulations or of the law applicable in other legal systems. The information contained in this document is historical and speaks only as of its date. KfW disclaims any intention or obligation to update or revise the information contained in this document. By accessing this document you acknowledge acceptance of these terms.
www.kfw-entwicklungsbank.de
www.deginvest.de

Annual Report on Cooperation with Developing Countries: http://www.kfw-entwicklungsbank.de/ebank/DE_Home/I/Download_Center/Jahresberi.jsp

Evaluation report on the effectiveness of cooperation with developing countries: http://www.kfw-entwicklungsbank.de/ebank/DE_Home/I/Download_Center/Evaluierung.jsp

Special publications / Online Library in the Internet: http://www.kfw-entwicklungsbank.de/ebank/DE_Home/I/Download_Center/index.jsp
Thank You for Your Attention!