

»»» National implementation of EU's strategy for energy efficiency - Germany's experience

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>>> Energy – What is your perception?

What could you do with 1 kWh? [1 kWh = 1 * 1,000W * 3,600s = 3.6*10⁶Ws]

› Lift 1t?

› Accelerate 1t?

› Heat 1t of water?

»» Content

Energy – What is your perception?

KfW Promotional programs for energy efficiency in buildings - Germany

KfW Promotion of Energy Efficiency in WB6



>>> KfW Promotional programs for energy efficiency in buildings
Main elements and success factors

»» KfW is one of the largest global financiers to support environmental protection



KfW Group	
KfW Domestic Promotion	55.1
SME clients	21.4
Public and private clients / financial institutions	33.7
Financial markets	1.3
Export and project finance	16.1
Promotion of developing countries and emerging economies (incl. DEG)	7.9
Total Commitments (billion EUR) 2016	81.0

Approx. 70% (EUR 55 bn) dedicated to domestic promotion
Approx. 10% (EUR 8 bn) dedicated to developing countries and emerging economy

In 2016, 44% (EUR 35 bn) committed to address megatrends climate change and environment
Key areas: building sector and promotion of SMEs

Action Plan for implementation of German Energiewende launched by KfW in 2012 –
since then EUR 103 bn (by year end 2016)

Energy Efficiency – key pillar of promotional activities: EUR 21.5 bn in 2016; (RES: EUR 5.1 bn)

»» KfW plays a key role in implementing the German energy efficiency strategy

National Energy Efficiency Action Plan (NEEAP): Making more out of energy

Gefördert durch:



Target: 20 % reduction in primary energy consumption by 2020 compared to 2008 and halve it by 2050

“**Efficiency First**” is the guiding principle of the German energy efficiency policy
The **NEEAP** sets out the Energy Efficiency Strategy of the Federal Government

Essentially, the NEEAP defines cross-sectoral energy efficiency measures for the benefit of all stakeholders:

1. Stepping up energy efficiency in the building sector

- › Stronger stimulation for energy efficient residential and non-residential buildings

2. Establishing energy efficiency as an investment and business model

- › Improve energy efficiency in production processes

3. Increasing individual responsibility for energy efficiency

»» KfW promotion for the building sector – a success story



KfW-Bildarchiv / Rüdiger Nehmzow

Residential Buildings



KfW-Bildarchiv / -

Commercial Buildings



KfW-Bildarchiv / Torsten George

Public Buildings

- ✓ Support for 4m housing units since 2006
- ✓ Every 2nd constructed housing unit supported
- ✓ KfW Efficiency House setting market standard
- ✓ EUR 260 bn investments triggered over 10 years
- ✓ Mandatory involvement of an energy expert (quality management)
- ✓ Products contribute 17% to accomplishment of national efficiency goals



»» Non-residential buildings – public sector clients

Energy-efficient **Construction and refurbishment** for non-residential buildings

(introduced in 10/2015)

	Promotional Level based on the Energy Efficiency Ordinance		Promotional Loan	
			Interest Rate	Partial Debt Relief
Construction	KfW-Efficiency House 55	Up to EUR 25m per investment	Risk-adjusted interest rate from 1% p.a. effective*	5% max. 50 EUR/sqm
	KfW-Efficiency House 70			--
Refurbishment	KfW-Efficiency House 70	Up to EUR 25m per investment	Risk-adjusted interest rate from 1% p.a. effective*	17.5 % max. 175 EUR/sqm
	KfW-Efficiency House 100			10 % max. 100 EUR/sqm
	KfW-Efficiency House Monument			7.5% max. 100 EUR/sqm
	Single Measures			5% max. 50EUR/sqm

Promotion available for

- ✓ Comprehensive refurbishment
- ✓ Single measures

Promotional elements

- ✓ Subsidized interest rate
- ✓ Partial debt relief

- ✓ Grant for project development assistance



»» KfW Promotion of Energy Efficiency in WB6

»» KfW provides expertise for energy efficiency to the WB6 countries



Residential Buildings

Commercial / SME

Public Buildings



Implemented through direct investments with the governments, via financial institutions and the GGF

››› KfW's approach for direct investments is always holistic

The public sector is key in changing awareness

- › Investments in improved public infrastructure create tangible impacts that create awareness for energy savings

No „pure“ energy efficient refurbishment

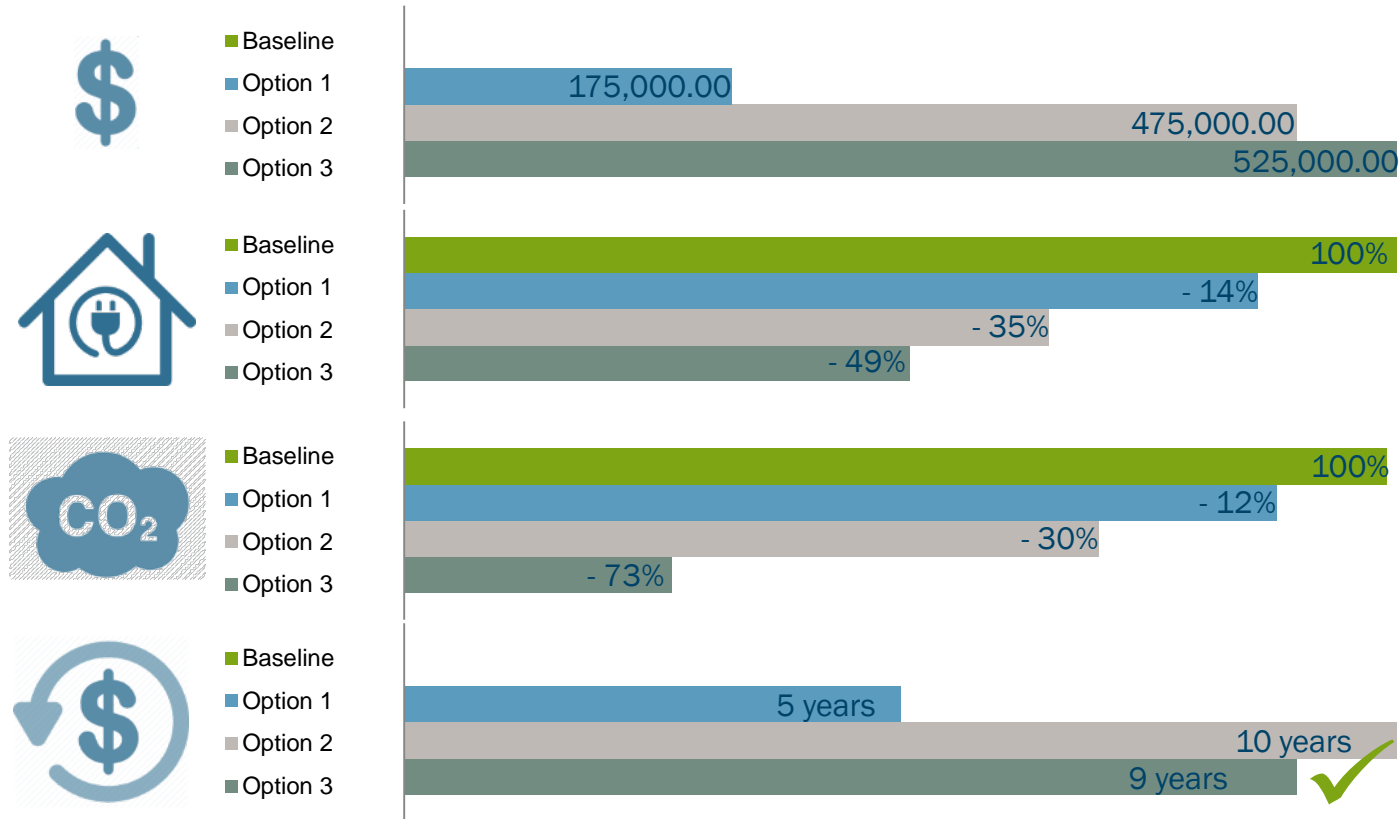
- › We focus on refurbishment programmes that optimize energy efficiency

Thinking beyond investments

- › Energy management: controlling, operation and incentive systems have to complement the investments

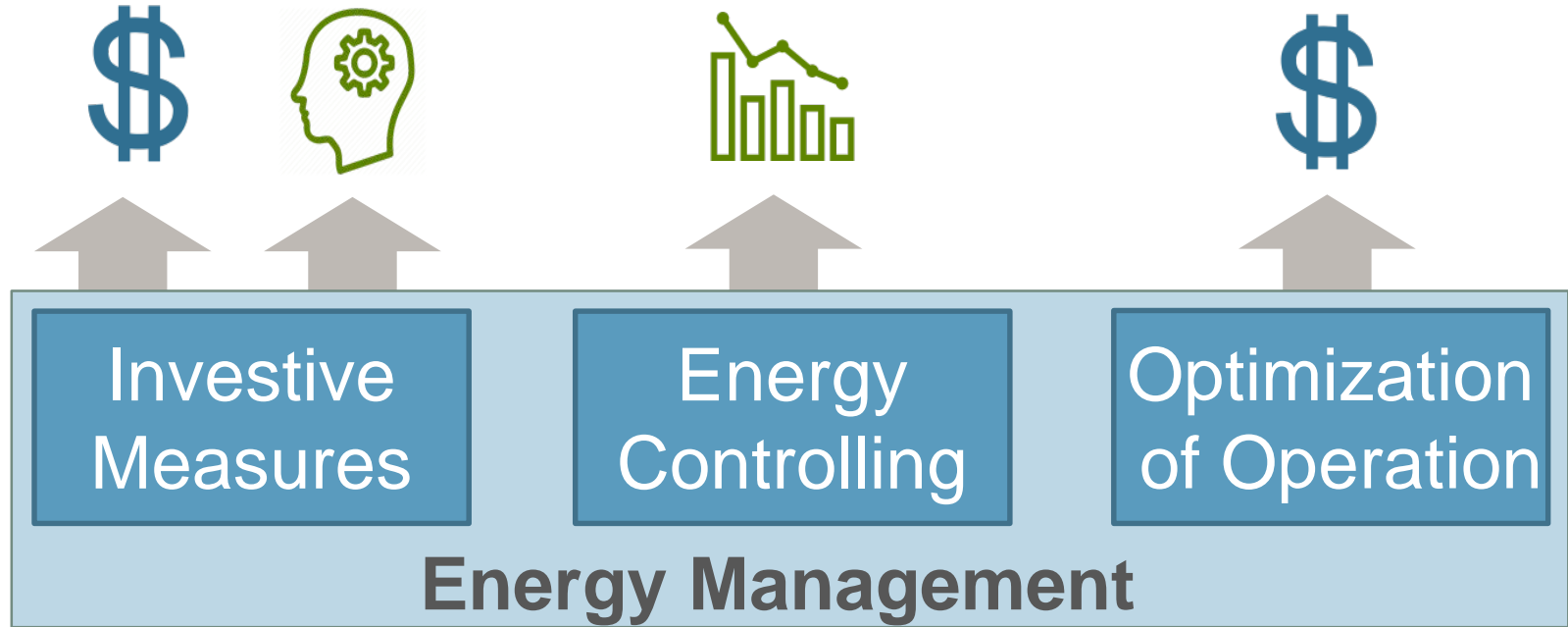


»» KfW opts for the optimal refurbishment solution

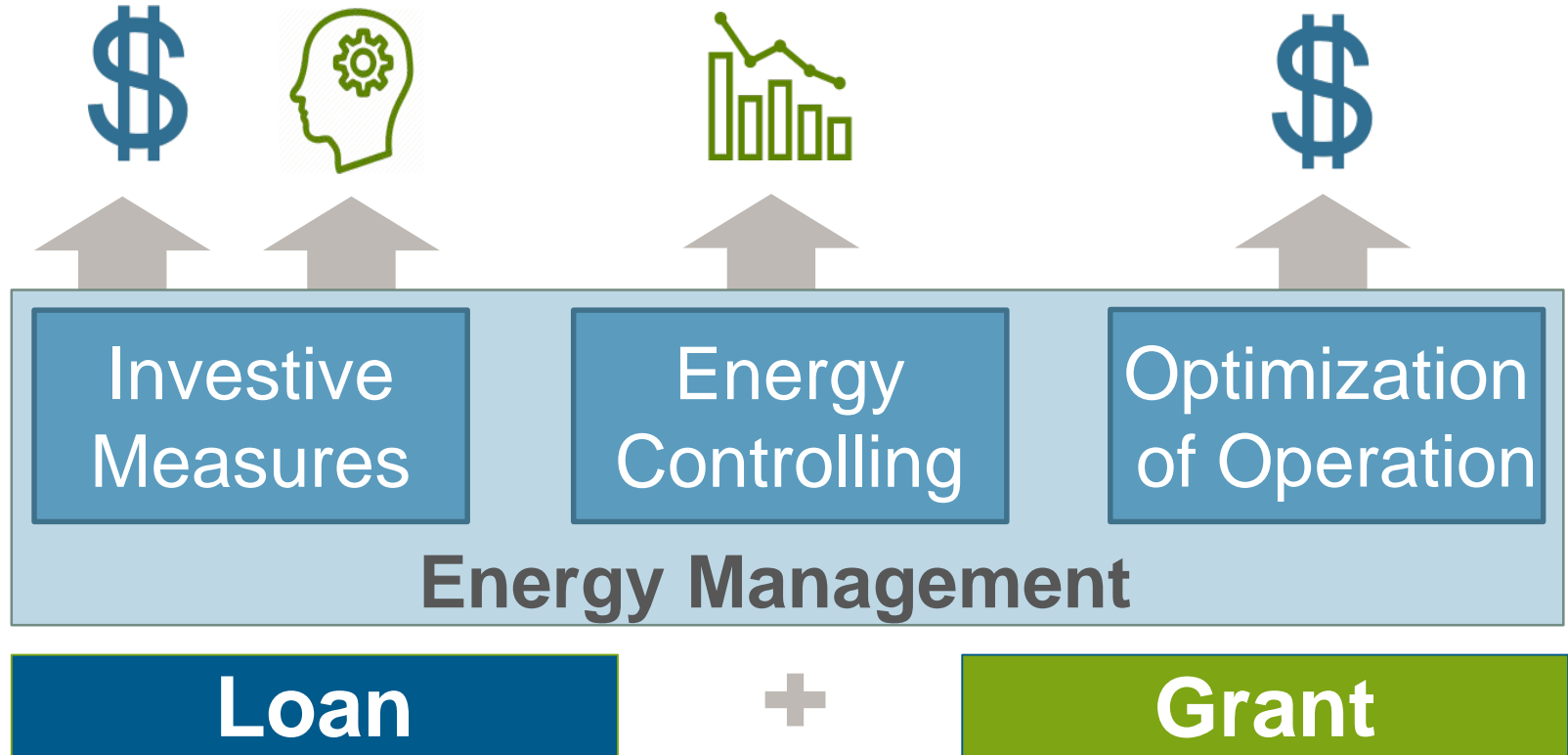


Based on a typical energy audit. Opt.1: roof insulation. Opt. 2: + exterior walls insulation, windows. Opt. 3: + replacement of boiler

»» KfW's holistic approach creates multiple wins...



»» ... but not all of them pay off in the short term



»» The measured impacts confirm KfW's approach



positive employment effects



raise of public awareness



improved learning and working conditions



sustainably refurbished buildings



»» In conclusion

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KfW as one of the largest global financiers in energy efficiency has

- **a wide range of experiences and different approaches to increase energy efficiency**
- **developed best practice promotional schemes to finance energy efficiency in the building sector**

Focus on a holistic approach

Multiple wins - beyond mere CO₂-reductions





»» **Thank you for your attention**