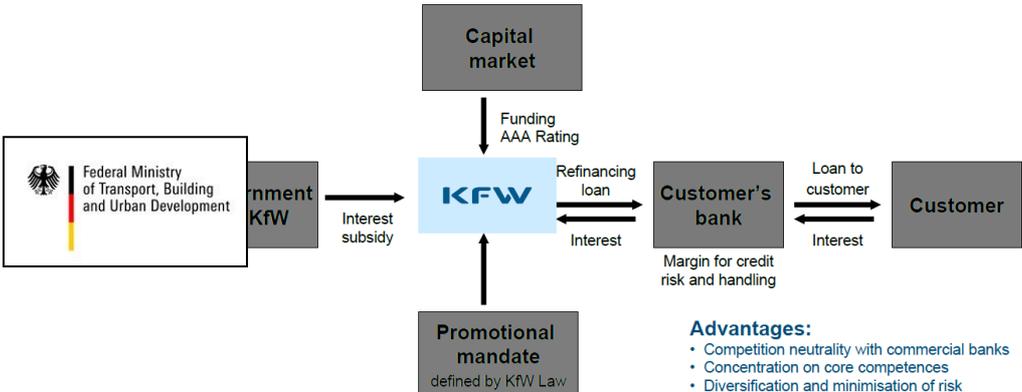
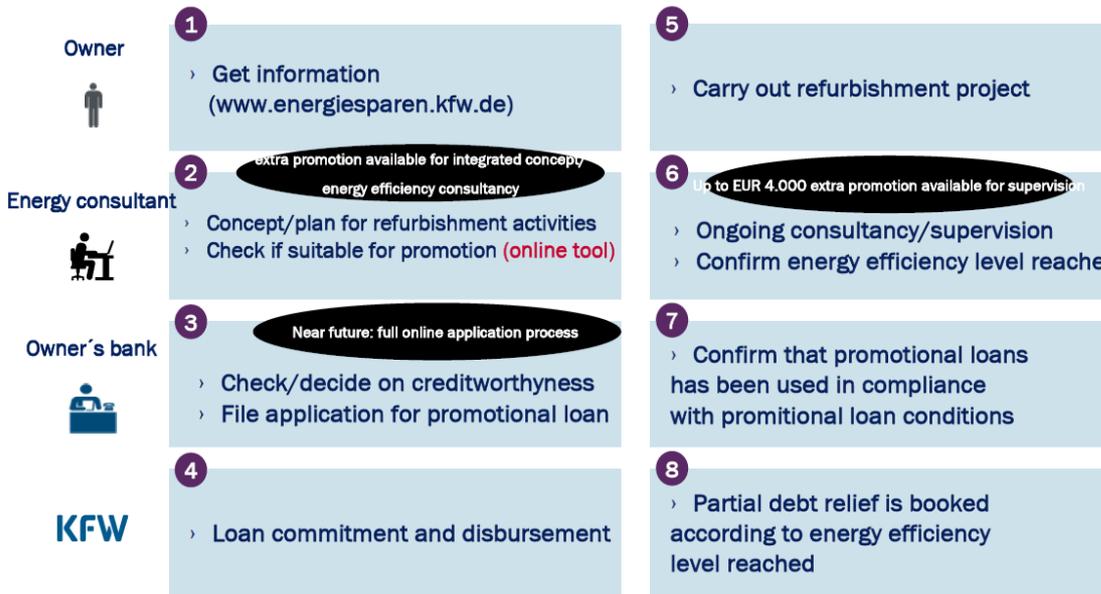


Good Practice Factsheet

KfW Energy Efficient Construction and Refurbishment - Germany

Core Theme and topic	Core Theme 4 - funds and financing for energy efficiency Involving banks in energy efficiency financing
Name of work programme/project	KfW promotional programs for energy efficiency in the residential housing sector. Name of the programme: “Energy Efficient Construction and Refurbishment”
Project scope and description	
Short description of the programme & what it hopes to achieve	<p>KfW is Germany’s state owned promotional bank and is mandated by law to carry out its promotional activities. KfW acts in close cooperation with the Federal Ministry of Building, Transport and Urban Development.</p> <p>The objective of the programme “Energy Efficient Construction and Refurbishment” is to provide financing by way of soft loans and grants for energy efficient construction and refurbishment activities for the German residential sector. The programme targets the reduction of CO₂ emission levels in the German housing sector.</p> <p>Key principles of promotion: In order to benefit from the advantages of promotional financing conditions, it is a precondition that the efficiency standards achieved are better than the requirements as set out in the German Energy Savings Ordinance. The programme reduces the complex legal requirements to two values: First, the annual primary energy demand compared to the demand of a new building (the so called “reference building”) and second, the structural heat insulation (specific transmission heat loss) likewise compared to the reference building.</p> <p>The basis for measuring the level of energy efficiency is the so-called “KfW-Efficiency House Standard”.</p> <p>There are three levels of promotional incentives for energy efficient construction activities expressed as Efficiency House Standards 40, 55 and 70. This means, that the primary energy consumption of the housing unit in question corresponds to 40%, 55% or 70% of what the reference building is allowed to consume according the Energy Efficiency Ordinance.</p> <p>For all levels, the promotional interest rate is equal. The difference consists in the scope of partial debt relief (in percent), in the sense of a repayment bonus which is granted to the borrower in addition to the favourable interest rate of the loan compared to market levels once the targeted efficiency level is reached and proven by an energy expert: For instance, the efficiency House 40 benefits from 10% debt relief. The maximum loan amount is 50,000 EUR.</p> <p>For energy efficiency refurbishment activities, there are in total six promotional levels: starting with Efficiency House 55 as the most ambitious level, followed by Efficiency House 70, 85, 100 and 115 as well as a separate level for monument buildings.</p> <p>The incentive in terms of partial debt relief is even bigger, starting at 2.5% for the Efficiency House 115 and reaching 17.5% debt relief for the most ambitious level Efficiency House 55.</p> <p>For those customers who do not target a deep retrofit of their building or housing unit, KfW</p>

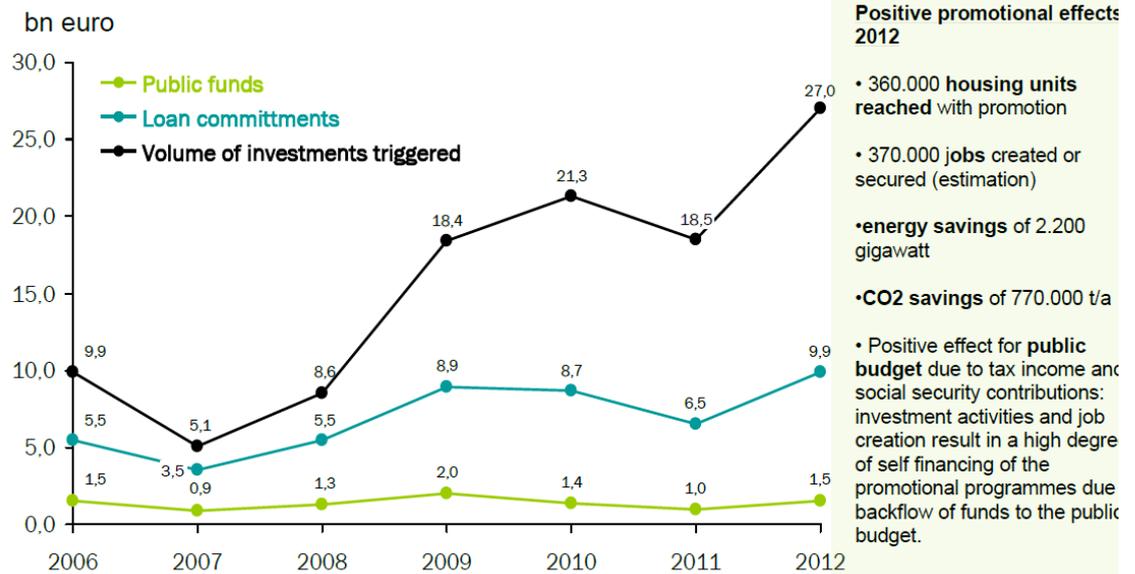
	<p>offers promotional loans for single measures such as windows, heating systems or insulation.</p> <p>And for those customers who do not want to apply for a loan, there is the option to apply for a grant for investment. The amount available is based on the same energy efficiency levels as for the loans and calculated based on the maximum loan amount applicable. It varies between 10% and 25% of the maximum loan amount of 75,000 EUR (i.e. between 5,000 EUR and max. 18,750 EUR).</p>
<p>What is the scope of the project? e.g. - National/regional/local - Building type/owner</p>	<p>The promotional programmes are available for all private investors in the residential building sector in Germany as well as housing companies at equal conditions.</p>
<p>Who are the key people involved? e.g.: - Installers - Local Authorities</p>	<p>The design and product details of the promotional programmes are agreed with the Federal Ministry of Building, Transport and Urban Development.</p> <p style="text-align: center;">Proven and successful business model</p> <div style="text-align: center; border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> Refinancing through KfW and on-lending typically through commercial banks, savings banks, assurance companies (new) </div>  <p>Customers usually file the application for the promotional loans with their usual commercial and savings banks or insurance companies as KfW does not have a branch network (the so called on-lending principle involves financial intermediaries). The application for grants however is processed directly by KfW.</p> <p>The involvement of an energy consultant is mandatory in the process of application for promotional loans or grants. It is his responsibility to check whether the construction or refurbishment project is properly designed to achieve the targeted efficiency level by using an internet-based tool to compare the technical details of the project with the targeted efficiency level.</p> <p>The programmes are managed and the applications for promotional loans and grants are processed at KfW's offices with its own staff and resources.</p>

	<p>How does the promotional scheme work in detail</p> <p>Energy efficient refurbishment - credit</p>  <p>The flowchart details the following steps:</p> <ol style="list-style-type: none"> Owner: Get information (www.energiesparen.kfw.de) Energy consultant: Concept/plan for refurbishment activities; Check if suitable for promotion (online tool). <i>extra promotion available for integrated concept energy efficiency consultancy</i> Owner's bank: Check/decide on creditworthiness; File application for promotional loan. <i>Near future: full online application process</i> KfW: Loan commitment and disbursement Owner: Carry out refurbishment project Energy consultant: Ongoing consultancy/supervision; Confirm energy efficiency level reached. <i>Up to EUR 4.000 extra promotion available for supervision</i> Owner's bank: Confirm that promotional loans has been used in compliance with promotional loan conditions KfW: Partial debt relief is booked according to energy efficiency level reached
<p>Who was the target audience?</p>	<p>The target clients of the promotional programme “Energy Efficient Construction and Refurbishment” are all investors in residential buildings who are aiming to improve energy efficiency levels (including also public companies and bodies as well as social institutions).</p> <p>Contracting companies are also allowed to apply for promotional loans for energy efficient refurbishment if the purpose of the loan is the installation of a new heating system in a residential building.</p> <p>The loan programme however is also available to public companies and bodies as well as social institutions.</p>
<p>How was this work programme/ project financed?</p>	<p>Refinancing for the promotional loans is provided by KfW, via the capital market. The interest rate of the promotional loan is further subsidised by funds provided by the Federal Ministry of Building, Transport and Urban Development.</p>
<p>What was the cost of the work programme/project?</p>	<p>The amount of liquidity required each year to implement the promotional programmes for energy efficient construction and refurbishment on an annual basis is different from the amount of public funds which needs to be committed over the lifetime of the promotional loans.</p> <ol style="list-style-type: none"> Refinancing (cost depends on the source of refinancing/capital market conditions/issuer credit rating) Interest rate subsidy (amount of liquidity required to pay for the interest subsidy portion of the loans depends on the degree of subsidy provided to the loan compared to market conditions and needs to be available in compliance with the outstanding loan amount for a maximum time of 10 years (maximum interest rate period)). Grants (liquidity to pay out the grants is required once the preconditions are met). Cost to pay for processing of the loans and grants at KfW
<p>When did it start and end?</p>	<p>KfW started in 1996 with the promotional programmes for energy efficiency in the housing sector, the programmes were continuously developed further and the Efficiency House</p>

	Standard was introduced in 2009. There is no predefined timeframe for the programmes, as promotional activities for the purpose of climate protection and energetic improvement in the housing sector is by law one of the core activities and targets of KfW as promotional bank.
Project Outcomes & Communication	
What were the key achievements?	<p>Key achievements: For additional information on the promotional effects, please also refer to the next section on outcomes and expected benefits.</p> <p>The “KfW Efficiency House” standard has become a market wide brand for energy efficiency in buildings.</p> <p>The promotional programmes have a proven and very positive impact on climate and economy:</p> <ul style="list-style-type: none"> ● Positive impact on the climate by reduction of CO₂: during the period between 2006 to 2012, the programmes lead to a reduction in total of 5.9 m t CO₂-equivalents per year ● High volume of investment triggered. ● High number of jobs created or conserved. ● Broad reach: the promotional programmes reach a high number of households: In 2012 alone, 240,000 housing units were refurbished to more energy efficient levels, 116,000 energy efficient housing units were newly built with support of the programmes (roughly every second newly built housing unit in Germany). ● Well established programme structure and distribution network. ● Benefit for public households.
What were the outcomes and expected benefits?	<p>Overview of multiple promotional effects: The promotional effects are measured year by year by an independent scientific research institute.</p>

Multiple Leverage Effect

KfW Promotional programmes Energy Efficient Construction and Refurbishment



In addition to the measurable promotional effects of the programmes, for the commercial banks, savings banks and other on-lending institutions (such as insurance companies) who offer promotional loans to their customers, there are the following benefits which are the key motivators for them:

- (1) Reasonable margin as risk-premium/handling fee
- (2) No refinancing cost/additional liquidity available: the refinancing is provided by KfW (i.e. available refinancing volume of the on-lending institution can be used for additional lending purposes), customer needs can be fulfilled without providing liquidity (cost of liquidity highly depends on the bank's financial strengths and general capital market conditions)
- (3) Cross Selling potential: as the maximum promotional loan amount covers in general only part of the financing need for the construction or refurbishment project, the commercial bank/on-lending institution has the opportunity to sell its own products in addition to the promotional loan and by this way round off the financing needs of the customer.
- (4) No up-front cost: offering the promotional loans does not cause any up-front or additional cost to the on-lending institution
- (5) Free-of charge on-going training and information: bank employees are trained on a regular basis with regard to product conditions and application processes.
- (6) Potential disadvantage in case of not offering promotional loan

What were the key lessons learned?

The more transparent and simple the structure of the overall promotional scheme, the better it is to understand for all parties involved and the easier it is to distribute.

The mandatory involvement of an energy expert from the beginning of the application process until completion of the construction or refurbishment project is very important to:

- (1) Provide comfort to the investor regarding his energy efficiency project
- (2) Assure a high degree of quality and reliability regarding energy efficiency level reached
- (3) Assure target-oriented use of public funds
- (4) Assure high degree of reliability regarding the promotional effects.

	The systematic measurement of promotional effects is an important step in order to show economic and climatic impact as well as the contribution to the fulfilment of the goals of the federal government.
Is there anything you would do differently in future?	<p>On-going product development activities: On-going product development activities are carried out on a permanent basis in order to make sure that the technical and financial requirements and conditions meet not only customer demand, but also legal and technical requirements.</p> <p>Process optimisation activities are carried out as well with the objective of improving and speeding up the application process using web-based technology</p>
What makes this a good practice example?	<p>Win-win situation: The promotional scheme provides a win-win situation to all parties involved:</p> <ul style="list-style-type: none"> (a) Customers benefit from very attractive promotional conditions (loans at low interest rate, partial debt relief or alternatively grants) (b) Commercial banks benefit from enhanced product spectrum for their clients which improves cross-selling potential as well as from additional liquidity without refinancing cost and from an attractive margin (c) Public budget benefits from additional income (tax and social security contributions) (d) Economy benefits from job creation particularly in small and medium enterprises due to volume of investment triggered (e) Environment benefits from high volume of CO₂ savings (f) The broad reach: high number of housing units reached and high number of investors incentivised to invest in energy efficient construction and refurbishment measures (g) Transparent and attractive scheme for customers (high and increasing level of demand) (h) Standard setting and wide acceptance (i) Systematic and comprehensive quality control (j) Mandatory involvement of energy experts (k) The continued development of energy efficiency in society.
Web links to further information	https://www.kfw.de/inlandsfoerderung/Privatpersonen/Neubau/Finanzierungsangebote
Contact details of named person for further information	<p>Bettina Dorendorf Kommunal- und Privatkundenbank / Kreditinstitute PKa1 Produktentwicklung Wohnen</p> <p>KfW Bankengruppe Niederlassung Berlin Charlottenstrasse 33/33a 10117 Berlin Tel.: +49 30 20264-3277 bettina.dorendorf@kfw.de www.kfw.de</p>
Please indicate if this case study can be made available to the public?	Yes

