

## Model 23

# KredEx Revolving Fund for energy efficiency in apartment buildings

## Estonia

OWNERSHIP	PUBLIC
<b>Program authority</b>	Estonian Ministry of Economic Affairs and Communications
<b>Program Delivery unit</b>	Kredex Foundation
<b>Implementation Model</b>	N/A
<b>Operating Services</b>	Marketer Assessor Financier
<b>Projects Financed</b>	Energy Efficiency Renewable Energy Sources
<b>Ambition/targets</b>	To renovate at least 1000 buildings by the end of 2013 and to target energy savings of at least 20% for buildings with a net area of less than 2000 m <sup>2</sup> and at least 30% for buildings with a net area of more than 2000 m <sup>2</sup> .
<b>Beneficiaries</b>	Housing associations (apartment associations and building associations) and communities of apartment owners of buildings constructed before 1993 and local authorities (owners of social housing)
<b>Funding Vehicle</b>	Financial Institutions Investment Fund Risk Guarantee Fund Project/Property owners
<b>Financial Instruments</b>	Loans Grants Equity Guarantees

## Summary

The 'KredEx Revolving Fund', or 'KredEx Fund', a revolving energy efficiency fund founded in 2009, is part of the KredEx Foundation, a government owned non-profit provider of financial services established in 2001 by the Estonian Ministry of Economic Affairs and Communications (MoEAC). The revolving Fund's funds have been provided by the European Regional Development Fund (ERDF), the Government of Estonia, the Council of Europe Development Bank (CEB) and by the KredEx Foundation.

The KredEx Fund aims at providing revolving project finance, under the “Apartment building renovation loan programme” to multi-family apartment building owners and housing associations in Estonia who wish to improve the energy performance and living conditions of their homes, achieve substantial energy savings and reduce their energy consumption. It also administers grants in the energy efficiency and housing sector on behalf of the Estonian national and local authorities.

The establishment of the KredEx Fund renovation loan scheme in 2009, whose conception goes back to dialogues and collaboration in 2007 between the MoEAC, KredEx Foundation and representatives from KfW Bankengruppe, the German development bank, marked the switch of the Estonian government’s energy efficiency support strategy from a focus on a grant-only scheme –such as the one in place from 2003 through 2007- to a more adequate support system based on a combination of loans, loan guarantees and grants. This strategy responded to the Estonian government’s wish to align with the EU policies and directives set forth in the EU 2020 climate and energy package as laid down in the following plans and policies:

- the National Housing Development Policy adopted in 2008 with specific objective, among other things, to create a high-quality, energy efficient and sustainable residential building stock
- the Energy Conservation Target Plan for 2007-2013 specifically foreseeing the increase in energy efficiency in residential buildings
- and the National Development Plan for the Energy Sector until 2020.

This new strategy was also in full alignment with the European Commission’s wish to have an alternative use of the available ERDF (European Regional Development Fund) funds for sustainable urban development which were before mainly used as a grant instrument by the regions.

Setting up a support system for the renovation of the low quality and low energy efficient apartment buildings was a key measure of the Estonian Government in achieving its energy efficiency objectives. The rationale was to be found in the fact that, at that time, the Estonian building stock accounted for up to 50% of the total national final energy consumption, significantly above the average of 37.5% across all EU countries, that around 60% of the Estonians were living in apartment buildings built primarily between 1961 and 1990 (30% even before 1960) and that energy efficiency and indoor climate were especially in need of improvement.

KredEx Fund’s objective is to incentivise apartment building owners to reduce energy consumption and increase the energy efficiency of their homes by at least 20% and to use renewable energy by providing access to preferential loans and grants under certain conditions.

In 2009, its ambition was to renovate at least 1,000 buildings by the end of 2013 and to target energy savings of at least 20% for buildings with a net area of less than 2000 m<sup>2</sup> and at least 30% for buildings with a net area of more than 2000 m<sup>2</sup>.

KredEx Fund serves basically as a lending institution, through its financial intermediaries Swedbank and SEB, it provides financial products such as preferential loans and loan guarantees (for renovation of apartment buildings).

Through KredEx Foundation it has two additional roles: it acts as an intermediary for reconstruction grants and grants related to efficiency audits, expert evaluation and project design documents and as promotor or marketer of energy efficiency it has put considerable effort in promoting a more efficient use of energy resources and in raising energy efficiency awareness in Estonia.

KredEx Revolving Fund got funding for a total of 72M € to be allocated as renovation loans to multi-family apartment building owners and housing associations. The available grants for renovation are not paid from the KredEx Revolving Fund but from a separate budget coming from the ERDF (€ 3 M) and from the Green Investment Scheme, which is the sale of CO<sub>2</sub> emission allowances by Estonia to Luxembourg and in the European trade market (about 40M €).

As of today the whole funding (72M €) has been exhausted. Notwithstanding its depletion the KredEx Fund is still taking applications in the hope that it can secure new funding. The loan scheme has been successful in promoting the take-up of innovative solutions to improve energy efficiency in buildings often by as much as 40%. The fund has not really yet begun its revolving potential as it is still reimbursing the obtained loans from some of its funders (CEB and Estonian Government).

## How does it work?

KredEx Foundation (“KredEx”) is a legal person governed by private law and operates independently in the form of a foundation though manages and allocates the dedicated financial resources to energy efficiency projects in building apartments in line with the Estonian government’s energy efficiency support strategy and the objectives of the “Apartment building renovation loan programme”. It operates by the principles of a credit insurance provider, earning profit from guarantee fees and interest, and investment income from which losses as well as administration expenses are covered. In addition, KredEx provides for the Estonian state the administration service of available grants in the housing area.

Its financial experts worked out the design of the renovation loan scheme (terms, beneficiaries, etc.), ran negotiations with the partners (CEB, ERDF, local commercial banks) and managed the relations with the beneficiaries of the dedicated Fund (Union of Housing Associations, Builders Associations,...), together with representatives from MoEAC

- Three main sources provided initial funding of about 49M € (766M Estonian Kroon) to the KredEx Fund:
  - Council of Europe Development Bank (CEB), chosen through international bidding: loan of 28,8M €, guaranteed by the Estonian Government
  - European Regional Development Fund (ERDF) through Regional Operational Programme ‘Living Environment’ (Management Authority Ministry of Finance): grant of 17,0M €
  - KredEx Foundation: 3,2M €

KredEx Fund has the obligation to pay out all funds received from ERDF to projects by 31 December 2013.

In May 2013 the revolving Fund secured additional funding of 16,0M € from the Estonian Government (loan) and 7,0M € from Kredex, thus achieving 72,0M € funding.

The funds have been used to provide soft loans to two intermediary commercial financial institutions, Swedbank (2/3 of the funds) and SEB (1/3 of the funds) chosen through public

tendering to administer the renovation loan scheme and to provide further lending to the intended beneficiaries.

- Kredex Foundation has a Council whose main task is to make strategic decisions related to the Foundation's operations and the approval and amendment of documents most important for the operations (budget, strategy, activity goals, risk management, cooperation principles with credit institutions). The council also approves all projects for which the individual total amount of the loan or guarantee issued by KredEx exceeds one million euro. The council consist of maximum 7 members including representatives from MoEAC and the Ministry of Finance.
- The Board is the managing body of the Fund. It is responsible for managing the daily activities of the foundation, ensuring the implementation of the council's decisions and taking responsibility for the fulfilment thereof.
- KredEx Fund supports only renovation and reconstruction projects of multi-apartment buildings where at least three apartment owners want to make use of the loan possibility, preferably represented by a housing association. A minimum commitment of 20% energy savings is required in buildings up to 2000 m<sup>2</sup>, while in larger buildings this increases to 30%.
- As a lender, KredEx Fund has been providing renovation loans at fixed 10-year term interest rates of between 3,5% and 4,5% (the latter interest rate was applied at the beginning), the average being approximately 4,0%, for up to 20 years. For the period 2009 - 2014 the average maturity of the loans is about 17 years.

A minimum own contribution of 15% is required from the beneficiaries (this can be own funds, or grants or any other loan) and the maximum amount has been capped to 1,35M € per building.

There is no collateral required and the loans are mostly being reimbursed with the achieved energy savings. The building has to be insured during the whole term of the loan.

The applied interest rates by KredEx Fund are below commercial-market interest rates and these favourable conditions have been possible because it received (zero cost) grants from ERDF and favourable interest rates from CEB and because, as a not for profit organisation, it does not distribute profits.

The KredEx Fund only applies 0,5% to 0,75% of the loan amount as contract fee which is also below commercial market terms.

- Grants are available through KredEx for those housing associations who wish to undertake deep retrofit or reconstruction.
  - a. Beneficiaries can obtain grants of 15%, 25% or 35% depending on the level of energy savings achieved:

- For 15% grants the beneficiaries must meet the terms for renovation loan, achieve energy savings of 20% for buildings up to 2000m<sup>2</sup> or 30% for buildings with a size of more than 2000m<sup>2</sup>, obtain energy label E and limit energy consumption to less than 250 kWh/m<sup>2</sup>;
- For 25% grants the beneficiaries need to include roof, facade, windows (U-value 1,1) heating system, achieve energy saving of at least 40%, obtain energy label D and limit energy consumption to less than 200 kWh/m<sup>2</sup>;
- For 35% grants the beneficiaries need to include roof, facade, windows (U-value 1,1) heating system, heat-recovery ventilation system, achieve energy saving of at least 50%, obtain energy label C and limit energy consumption to less than 150 kWh/m<sup>2</sup>

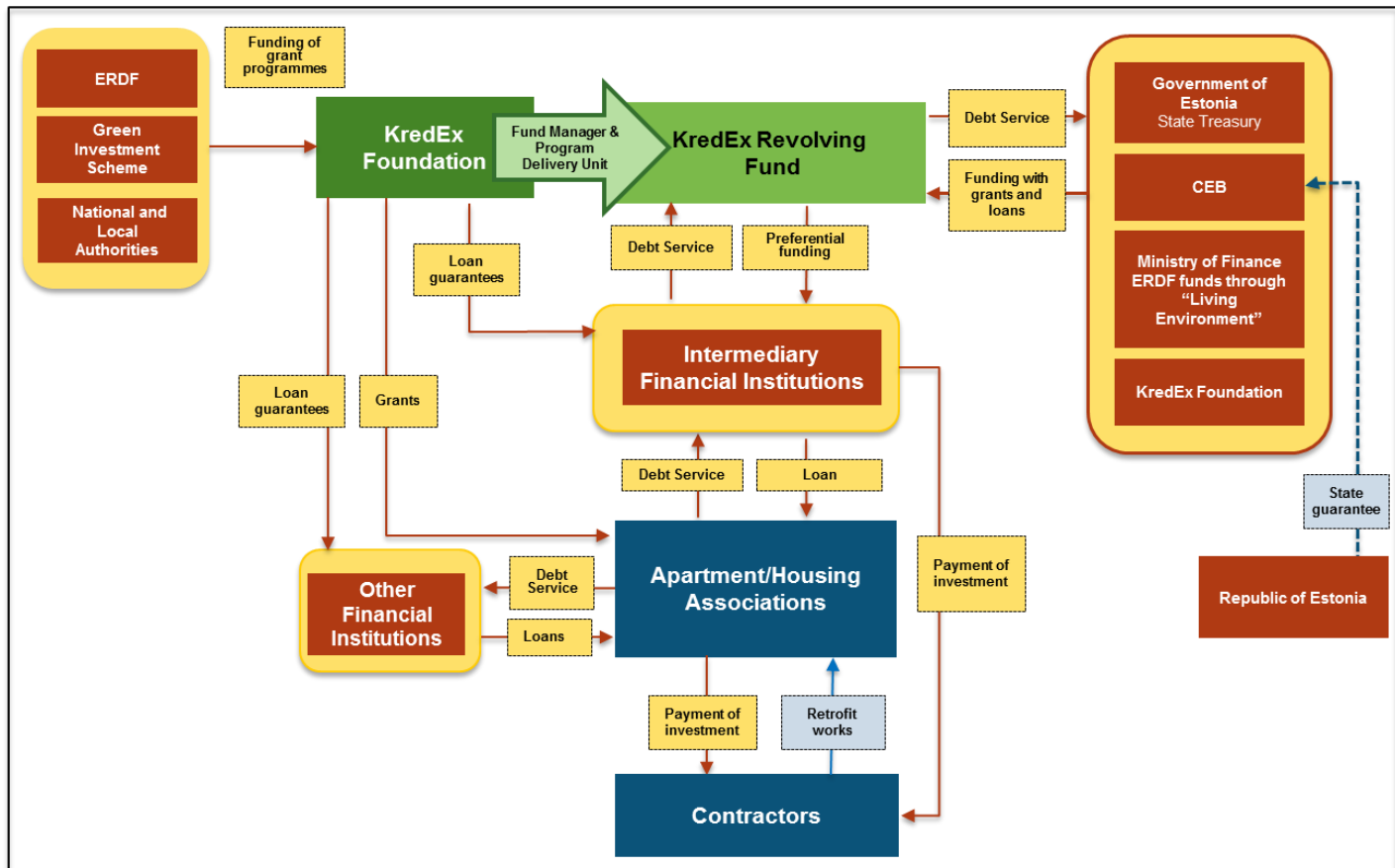
**b.** Beneficiaries can obtain grants up to 50% of the expenses for energy audit and building expert evaluations and project design documents. The purpose of these grants is to motivate representatives of apartment buildings to consult with an expert before planning and performing any reconstruction work, and to have the works carried out in accordance with the expert's suggestions and the Estonian Building Act.

- KredEx provides also apartment building loan guarantees covering up to 75% of the loan amount with no collateral requirement. These guarantees are intended for higher risk rated building apartments (number of debtors, rural area, low market value, payment risk) and when reconstruction cost per m<sup>2</sup> is higher due to complex reconstruction. Guarantee fee charges of 1,2% - 1,7% apply.
- The loan or grant application process includes basically the following steps:
  1. Apartment building associations wishing to undertake retrofit need first to contract an energy audit. Up to 50% of the cost of the energy audit can be financed by grants through KredEx.
  2. Based on the energy audit the beneficiary needs to prepare the project design or building design documents (energy audit, energy consumption reports, selected energy efficiency measures, feasibility, required budget, building permit,...). Up to 50% of the building design costs can be financed by grants through KredEx.
  3. Request for price quote is being organised by the beneficiary. At least 3 formal price quotes for the works to be carried out are required.
  4. Submission of the project and related documents to the intermediary bank and application for loan and/or grants.
  5. Project appraisal and creditworthiness assessment by the intermediary banks
  6. Formal decision on approval for financing by intermediary banks
  7. Forwarding of grant application by intermediaries to KredEx.
  8. Formal decision on approval of grants by KredEx
  9. Signatory of loan agreement with intermediaries and grant agreement with KredEx
  10. The service suppliers (works contractor, project management, supervision,...) are being chosen and contracted by the beneficiary

11. During the works phase the invoices related to the works and the related services are being financed by the bank (funds made available to the beneficiary or paid directly to the service providers).
12. At the end of the works the construction grants (15%- 35%) can be paid out to the beneficiary.

The KredEx Fund's final financing or grants recipients are cooperative housing associations and communities of apartment owners (built before 1993) and local governments (as owner of social housing).

Fig 1. Operational and funding model of KredEx Revolving Fund



## The program delivery unit

KredEx Foundation ("KredEx"), in its capacity as Fund Manager of the dedicated KredEx Fund, is the programme delivery unit of the Estonian Government's "Apartment building renovation loan programme". It acts as marketer, assessor and financier. It coordinates the functioning of the revolving fund and operates in accordance with the tasks laid down in the agreement with the Ministry of Economic Affairs and Communications.

It provides regular feedback on the management and performance of the fund and the individual projects progress to the MoEAC..

KredEx also manages the relations with the intermediary banks and the CEB

On a monthly basis KredEx receives specific information from the intermediary banks including information about the building and beneficiaries, description of the investments, the number of dwellings concerned, date of energy audit and possible savings, investment amounts, loan amount and terms and information on additional loans.

KredEx engages into energy efficiency awareness raising activities and public campaigns to promote building renovation and the renovation loan programme. It has organised information days and events , training seminars, and workshops for end beneficiaries, builders, energy auditors, project designers and municipalities and disseminates information through several campaigns in public places and advertisements in different media.

KredEx has two staff dedicated to the programme through its Housing and Energy Efficiency Division, the Department Head and a Project Manager. This division is being assisted by other disciplines and departments of KredEx Foundation, especially by the internal audit unit and financial division who follow up on the implementation of the supported projects.

KredEx has been able to keep the KredEx Fund’s running and administrative costs rather low, firstly because nearly all expertise is available in-house and also because a lot of the work during the loan application process is being done by the intermediary banks.

The intermediary banks are indeed taking investment decisions regarding apartment building investment projects and initiatives of final beneficiaries and handle most of the required administrative formalities of the loan application process up to the drafting and signing of the loan agreement with the final beneficiary.

The KredEx costs related to the setting up of the Fund are estimated to be 200K €, the yearly operational costs are below 100K € and the scheme promotional costs are about 150K € per year.

<b>Legal structure</b>	Legal entity
<b>Shareholder description</b>	N/A
<b>Equity</b>	N/A
<b>Shareholders</b>	N/A
<b>Program dedicated staff</b>	Low
<b>Program operational costs</b>	Low

## Organization and partnerships

### **Government of Estonia through the Ministry of Economic Affairs and Communications**

**(MoEAC):** program owner and political initiator. Provided funding to the KredEx Fund by means of a loan. Steers the general progress of the loan programme.

**KredEx Foundation “KredEx”:** a government owned non-profit provider of financial services established in 2001 by the Estonian Ministry of Economic Affairs and Communications (MoEAC). Is responsible for coordinating the functioning of the revolving fund and reporting progress to the MoEAC. Acts as the programme delivery unit. Offers the program delivery unit services: marketer assessor and financier.

**KredEx Revolving Fund “KredEx Fund” :** Is the energy efficiency fund established in 2009 by the Government of Estonia to provide revolving finance to multi-family apartment building owners and housing associations in Estonia who wish to improve the energy performance of their homes, achieve substantial energy savings and reduce their energy consumption

**European Regional Development Fund (ERDF):** aims to strengthen economic and social cohesion in the European Union by correcting imbalances between its regions. ERDF provided funding in KredEx Fund through funds made available to Management Authority Ministry of Finance and Operational Programme “Living Environment”.

**Council of Europe Development Bank (CEB):** Through the provision of financing and technical expertise for projects with a high social impact in its member states, CEB actively promotes social cohesion and strengthens social integration in Europe. It contributed to the initial funding of the KredEx Fund by means of a loan. Was selected out of several international financial institutions’ offers.

**Local Commercial Financial Institutions:** SwedBank and SEB provide financing to the beneficiaries, take decisions on the projects that will be financed, bear the full financial risk together with the beneficiaries. Have been chosen through a tendering process.

**Apartment/Housing Associations:** are responsible for obtaining agreement of all flat owners to implement the renovation works and take up a loan. They prepare all required documentation. They commission the energy audit and contract the construction or building companies. They report annually to KredEx on energy savings and to the intermediary banks on the renovation progress during the works phase. They collect loan reimbursements from the flat owners and forward these to the bank.

## Beneficiaries

<b>Beneficiaries</b>	Housing associations (apartment associations and building associations) and communities of apartment owners of buildings constructed before 1993 and local authorities (owners of social housing)
<b>Type of projects</b>	Energy Efficiency Renewable Energy Sources
<b>Operational support</b>	No operational support
<b>Financial support</b>	Preferential loans (lower than market interest rates), very low guarantee fees, very low credit fees, longer loan terms



## Funding mechanism

<b>Program delivery unit funding</b>	Own resources from guarantee fees, interest and investment income.
<b>Projects Funding</b>	Projects are being funded by the beneficiaries' own funds (at least 15%), by their financial institutions, by KredEx Fund through the intermediary banks and by different grants programmes.
<b>Funding Vehicle</b>	Financial Institutions Investment Fund Risk Guarantee Fund Project/Property owners
<b>Fund size</b>	72M €
<b>Fund type</b>	Revolving fund
<b>Fund sources</b>	Government of Estonia, ERDF, CEB and KredEx Foundation
<b>Financial Instruments</b>	Loans Grants Equity Guarantees

## Achievements

As of 31 December 2014 KredEx Fund has exhausted its 72M € funding providing renovation loans for the renovation or reconstruction of 615 apartment buildings with a total programme investment value of almost 103M €. This compares to an initial ambition of financing at least 1000 buildings. Much of the explanation of this shortfall is to be found in the increase of the average loan amount which in 2010, for instance, was about 75K € and has increased over time to an average of 117K € for the whole period 2009-2013.

The average predicted savings achieved with the reconstruction works is about 40%, way above the initial targets of 20 or 30%.

The renovation loans have been mainly used to carry out the following works: insulation of façades (518 cases) and roofs (320 cases) and renovation of the insulation and ventilation (233 cases) and heating systems (327 cases) .

From 2010 through 31 December 2014 reconstruction grants for a total amount of 35,9M € have been paid to support the renovation or reconstruction of 659 apartment buildings, representing some 135M € of total programme investments value.

During the period 2009-2014 loan guarantees of apartment buildings were issued totalling 18,2M €.

As to the grants related to the costs for energy audit, expert evaluations and project design, a total number of 4.014 grants have been paid-out representing 2,1M €.

Despite the fact that the KredEx Fund has not been able yet to leverage on its revolving capacity it has proven to be a successful fund supporting the Estonian Government's objective of improving the energy efficiency and indoor climate in targeted buildings. Through its focused and intense promotional activities it has been instrumental in increasing the energy efficiency awareness in Estonia.

Some programme details are shown hereafter:

<b>Renovation loan programme</b>	
Number of renovated buildings	615
Number of apartments/flats	22.534
Number of inhabitants	51.828
Total net area in m <sup>2</sup> of apartment buildings	1.492.824
Total loan amount in million € through KredEx	71,97
Total investment amount in million €	102,74
Average loan in thousand €	117
Expected energy savings	40%

<b>Reconstruction grants issued</b>	
Number of reconstructed buildings	659
<i>Grant type 15%</i>	276
<i>Grant type 25%</i>	182
<i>Grant type 35%</i>	201
Total amount grants paid in million €	35,9
Total amount investment in million €	135

<b>Other grants</b>	<b>Number Paid</b>	<b>Amount (thousand €)</b>
Energy audits	2.442	856
Expert evaluations	210	49
Project design (post energy audit)	1.362	1.210
	<b>4.014</b>	<b>2.115</b>

## Contact details

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## Factsheet

### General Info

Country	Estonia
Model Name	KredEx Revolving Fund for energy efficiency in apartment buildings
Date of creation	2009

### Model Description

Ownership	Public
Program authority	Government of Estonia through the Ministry of Economic Affairs and Communications
Program delivery unit	Kredex Foundation
Operating services	Marketer Assessor Financier
Implementation model	N/A
Types of projects financed	Energy Efficiency Renewable Energy Sources
Beneficiaries	Housing associations (apartment associations and building associations) and communities of apartment owners of buildings constructed before 1993 and local authorities (owners of social housing)
Geographical coverage	National (1,3M million inhabitants)

### Financial Mode Description

Project funding	Projects are being funded by the beneficiaries' own funds or by their financial institutions, by ESCOs, by project contractors and by EERSF
Project funding vehicle	Financial Institutions Investment Fund Risk Guarantee Fund Project/Property owners
Financial instruments	Loans Grants Equity Guarantees

Repayment model	Basically based on energy savings
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### Project risk Profile

Performance risk	Unknown
Recourse	None
Financial risk	Financial institutions

### Model Requirements

Staff Requirements	Low About 2 dedicated FTE
Equity or funding Requirements	Moderate Less than 5 million €

### Model Key indicators

Investment volume since creation	72M €
Size of project (or project portfolio)	Unknown
Level of average energy savings	40%

### Development maturity

Development/implementation stage	Mature
Operational development maturity	Mature
Financial development maturity	Mature

### Model Qualification

Level of establishment	Well established
Growth of potential	Moderate
Scalability of the model	High
Replicability of the model	High
Impact on public balance sheet	Moderate

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