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FINANCING ENERGY TRANSITION IN CITIES

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RIGA

Local Study and Action Plan

Co-funded by the Intelligent Energy Europe Programme of the European Union

Summary

Local study and action plan describes the review of the opportunities for house renovation existing in Latvia. Further section of the document describes the required papers in order to proceed with the legal establishment of the Revolving Fund.

1. Energy sector development strategy

The indicative national energy efficiency target for Latvia which was set pursuant to Article 3 of Directive 2012/27/EU and based upon the primary energy savings in 2020 is 0.670 Mtoe (28 PJ), and this corresponds to final energy savings of 0.457 Mtoe (19 PJ).

If the energy efficiency measures are implemented and the savings indicated in the indicative national energy efficiency target are obtained, final energy and primary energy consumption in 2020 in Latvia will reach the values shown in the table below:

	2010	2015	2020
Primary energy consumption, PJ	200.5	223	225
Final energy consumption, PJ	178.5	185	187

1.2. Policy and Measures for Promotion of Building Renovation

The enhancement of energy performance of buildings plays a significant role in reaching the goals set in the field of energy efficiency in the policy documents of the EU and Latvia. The energy performance of buildings policy and goals to be reached has been defined in the following policy documents:

Energy Development Guidelines for 2007–2016 (approved with the Cabinet of Ministers Order No. 571 of 1 August 2006, amended with the Cabinet of Ministers Order No. 246 of 8 May 2008);

Second National Energy Efficiency Action Plan of the Republic of Latvia for 2011–2013 (approved with the Cabinet of Ministers Order No. 460 of 16 September 2011);

Latvia's National Development Plan for 2014–2020 (hereinafter "NDP") (approved with decision of the Saeima of the Republic of Latvia 20 December 2012);

National Reform Programme of Latvia for the Implementation of the "Europe 2020" strategy (approved with the Cabinet of Ministers order of 26 April 2011 (minutes No. 27, § 34));

Informative Report "Latvia's Energy Long-Term Strategy 2030 – Competitive energy for society" (approved with the Cabinet of Ministers order of 28 May 2013 (minutes No. 32, § 59));

Operational Programme "Infrastructure and Services" for 2007–2013 (approved with the European Commission's Decision K (2007) 6381) of 10 December 2007 and Programme Supplement "Infrastructure and Services" for 2007–2013 (approved with the Cabinet of Ministers Order No. 236 of 29 April 2008);

"Concept of the transposition into national law the requirements of the Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC" (approved with the Cabinet of Ministers Order No. 587 of 26 November 2013);

Energy Development Guidelines for 2013–2019 (approved with the Cabinet of Ministers Order No. 496 of 29 October 2013).

Partnership Agreement for the European Union Funds 2014–2020 programming period (approved with the Cabinet of Ministers Order No. 1 of 2 January 2014) and Operational Programme "Growth and Employment" for 2014-2020 programming period (approved with the Cabinet of Ministers Order No. 71 of 17 February 2014) (hereinafter "OP");

Improvement of energy performance and the reduced energy consumption of buildings play a significant role in the National Reform Programme of Latvia for the Implementation of the "Europe 2020" strategy for reaching the interrelated sustainable development targets by 2020 defined therein. The goals defined in the programme are increased energy efficiency, increased percentage of renewable energy and reduction of greenhouse gas emissions. Improvement of energy performance and reduced energy consumption of buildings play a significant role for reaching the interrelated sustainable development targets defined in the "Europe 2020" strategy and the European "Energy 2020" strategy. European Union has defined the quantfied targets for the Member States for 2020, namely to reduce greenhouse gas emissions by 20 %, increased energy efficiency by 20 % and ensure percentage of 20 % of renewable energy sources in the overall gross final energy

consumption. On 10 November 2010, the European Commission adopted Communication ""Energy 2020" – a strategy for competitive, sustainable and secure energy" that defines energy priorities for the coming years and action necessary for energy savings, creation of a secure and competitive market, technology development and effective cooperation with international partners. In accordance with the conditions of the "Europe 2020" strategy, Member States approve national programmes. To meet the conditions, at the sitting of the Cabinet of Ministers of 16 November 2010, the National Reform Programme of Latvia for the Implementation of the "Europe 2020" strategy was approved (minutes No. 64, § 57) defining the following goals: increasing energy efficiency, increasing percentage of renewable energy and reduction of greenhouse gas emissions.

Latvia's Energy Long-Term Strategy 2030 defines the main energy policy goals and directions of action, including improvement of the energy performance of public and residential buildings. As one of the policy performance indicators to be met, the Strategy 2030 envisages that by 2030 the average consumption of thermal energy for heating will be reduced by 50 % against the current indicator, which is approximately 200 kWh/m2/year with climate correction (in 2009 – 202 kWh/m2).

1.2. National strategic objective: Energy Efficiency and Energy Production

1. Energy has now become one of the essential factors in ensuring the competitiveness and independence of the national economy. Latvia is rich in renewable energy resources that are currently under-used for energy production in the country. That is why this Strategic Objective provides for the promotion of the use of indigenous energy resources for energy production. This of course does not imply giving up imported energy resources at once, but it does contribute to a more balanced Energy Mix.
2. Energy must be used efficiently. Therefore, this Strategic Objective provides for measures to improve energy efficiency, which is an important tool in promoting competitiveness. The improvement of energy efficiency is of primary importance in the manufacturing sector. At the same time, the greater energy efficiency of public and residential buildings needs to be encouraged.
3. Ensure the sustainable use of the energy resources required by the national economy by promoting the availability of a market for the resources, a decrease of the energy intensity

and emission intensity in certain sectors, and an increase of the proportion of renewable energy resources in the total consumption, while focusing on competitive energy prices.

1.3. Individual measures to be carried out within the Strategic Objective for buildings

[200] Individual measures to be carried out within the Strategic	Definition of the measure	Responsible institutions	Indicative sources of financing
1.	Development of local government energy plans providing for complex measures to promote energy efficiency and transition to renewable energy resources [Target area: entire Latvia]	MoE (MoEPRD, local governments)	Cohesion Policy funds, state budget, private funding
2.	Energy efficiency programmes in the sector of state and local government public buildings [Target area: entire Latvia]	MoE (all ministries, local governments)	Cohesion Policy funds, state budget and local government funding
3.	Support programmes for the energy efficiency of residential buildings and transition to renewable energy resources [Target area: entire Latvia]	MoE (MoEPRD, local governments)	Cohesion Policy funds, private funding

4.	Support to innovative energy sector and energy efficiency technology projects [Target area: entire Latvia]	MoE (MoEPRD, MoA, MoES)	Cohesion Policy funds, foreign financial instruments and

2. The housing stock of the city and its renovation

There are three types of buildings in Riga:

- pre-war building – built up to 1940;
- post –war buildings – built up to 1940;
- new buildings – built since 1996.

The pre-war buildings are mostly small family houses and private multi-apartment rentals which were first nationalized in 1940s and then, in 1991, resituated to the former owners or their heirs through a targeted denationalization process. The overall heat stability of these buildings is relatively good in the city, even if some of the buildings have few amenities. Renovation of these buildings has been the responsibility of the owners.

Post-war buildings, which were erected mainly on the basis of standardized solutions and – since the middle of the 1960s – also panel technologies, have low heat stability – in line with the construction standards of that time when priority was given to low construction costs. Apartments have all the amenities. These buildings are the city's main concern, since their energy efficiency needs to be increased and energy consumption made lower alongside reducing CO_2 emissions. The buildings house about 60 % of the city's population, and they form the principal part of the housing stock which was privatized when independence was regained. Renovation of the privatized multi-apartment residential houses was started in 2001.

Pursuant to the data of statistical surveys, in 1995 there were 23 035 residential houses with 241 520 apartments and a total area of 16.243 million m^2 in Riga. The

average area of an apartment per capita was 20.0 square meters which is a low figure for Europe.

1996 marked the beginning of a new construction period in Riga related to the adoption of European-level construction standards. The new buildings which have facilitated the formation of a housing market and resulted in spare housing areas are presently outside the scope of priority concerns of the municipality, even though some energy saving measures might be recommended for these buildings.

The main public buildings – theatres, museums, banks, government and municipal administrative buildings, institutions and offices, universities, schools, pre-school educational establishments, hospitals, shopping centres, sports and recreational centres – are also located in Riga. The schools and nursery schools built during the post-war period according to standard solutions have to be placed especially high on the agenda because of their low heat stability. Since 2008 renovation of educational establishments has been in progress.

2.1. Planned volumes of refurbishment in Riga

The majority of the multi-apartment buildings of the city, especially those built during the post-war period and then privatized, i.e. 6 000 buildings with the total area about 12 million m², urgently need renovation. Until 2013 there has been comprehensive renovation of 56 buildings with the total area of 145 043.8 m² or 1.2 % of the total stock, including:

- before 2008: 12 buildings with the total area of 46 987.4 m²;
- from 2009 to 2012: 28 buildings with the total area of 68 807.4 m²;
- in 2013: 7 buildings with the total area of 29 249.1 m²;
- 9 buildings of social housing with the total area of 39 495.4 m².

In 2013 the City Council has additionally concluded about 40 agreements with the Latvian Investment and Development Agency (LIDA) on involvement of EU structural funds in co-financing housing renovation.

The housing renovation data including the addresses of the renovation sites is available on the website of the municipal agency REA www.rea.riga.lv in the “Energy efficiency” section under “Renovation of residential housing”.

The renovated buildings with their well-groomed appearance, high heat stability and growing apartment prices set a good example for the neighbourhood to decide in favour of renovation; this is evidenced by the first clusters of renovated buildings in the city. Heat consumption in the renovated houses has on the average decreased by 50 %. However, not all the residents have chosen to implement all the measures which are technically feasible at a given stage. Decisions have been driven by the total renovation costs negotiated by the owners of the apartments.

Under comprehensive renovation we understand a set of measures for increasing heat stability and energy efficiency of the building, including:

- insulation of the attic or the built up roof, the ground floor or the base of the building, the basement and the external walls;
- replacement of the windows in all the building, replacement or insulation of the external doors to comply with the Latvian building standard LBN 002-01;
- renovation of the ventilation system without heat retrieval;
- renovation or replacement of the hot water preparation system with mains pipeline insulation;
- renovation or replacement of the heating units (in Riga before 2008 all buildings were equipped with modern heat exchangers);
- renovation of the heating system, including replacement of radiators and in case of a single pipeline equipping them with a by-pass, installing temperature controls and allocators and other heat metering devices, if the system is not replaced with a two-pipe system with heat meters for every apartment;
- improvement of the functioning of the single pipe system with temperature controls installed on mains with reverse flow temperature control and an automatic balancing system for uniform temperature distribution to the radiators.

The maximum number of energy efficiency measures has been implemented in 7 of the total number of renovated buildings, which serve as an example of what can be achieved through massive renovation activities in a multi-apartment building. The table below shows the actual energy efficiency data (heating + hot water preparation) for these 7 multi-apartment houses.

Address of the multi-apartment building	Manager of the building	Total utilized are (apartments + non-residential space) m²	Actual specific heat consumption in 2012 kWh/m² *
1. Anniņmuižas Bulvāris 60	OA "AB60"	2200.11	95.75
2. Bebru Street 4	OC "Kurzemes nams 14"	1646.07	96.64
3. Kurzemes Prospekts 14	OC "Kurzemes nams 14"	2342.91	95.09
4. Celmu Street 5	OA "Celmi 5"	2969.3	117.63
5. Rigondas Gatve 7	OA "Rigondas 7"	1916	107.62
6. Ozolciema Street 46 k.3	LTD "Rīgas namu pārvaldnieks"	3955.9	107.48
7. Gaujas Street 29 k.1	OA "Gaujas nams 29"	2160.7	88.92
Average value			101.3

*) This indicator needs to be climate corrected, if used for comparing. The average temperature of the heating season in 2012 was 0.6ºC.

Until 2012 the urban housing stock was renovated only by the apartment owners' associations (OA) or cooperatives (OC). Therefore, the number of renovated houses in Riga was rather small, since the occupants of multi-apartment houses are people of very different standing and professions, and there are few among them which could assume the task of organizing and managing the renovation process on a professional basis. Around 2012/2013 the situation changed significantly, as the private Dutch international company ESCO (energy service company) (also under the name of LTD "RenEsco") entered the local market. The successful activities of LTD "RenEsco" outside Riga have been acknowledged in the EU, and it has won the "European Energy Service Initiative" at "EUSEW 2012" in Brussels. LTD "Ren Esco" has concluded 6 agreements on renovating multi-apartment houses in Riga over 2013 and has already started renovation in some of the buildings.

In 2012/2013 the ESCO principle was implemented also by the municipal company LTD "Rīgas namu pārvaldnieks", which manages around 4 300 privatized multi-apartment buildings in Riga. As of today, the company has concluded about 10 ESCO agreements with the buildings under its management, and is actively engaged in the renovation process of the multi-apartment houses. In 2013, some of the renovation work was started. However, the high number of buildings which need renovation and the relatively short period for completing the work (10-15 years) means that there is a need for about 5-6 ESCO companies. This task requires active government support for ESCOs, since the local Latvian companies do not have sufficient financial savings for making investments into ESCO activities. There is a need for affordable loans and availability of targeted state and municipal energy efficiency funds (revolving funds).

2.2. Support measures planned by the national government

The aim of the housing policy is to promote housing quality and accessibility, ensuring legal framework for the effective management of residential houses, promoting the establishment of a leased residential fund in the territories of local governments and supporting energy-saving activities in residential houses.

In order to ensure qualitative management and administration of residential houses, the Law On Administration of Residential Houses was adopted in 2009. It is based on the following principles:

- continuity of the administration process;
- selection of optimal administration methods;
- preservation and improvement of the surrounding environment of a residential house;
- preclusion of invasion of the safety or health of an individual; and
- preservation of the quality of a residential house.

In order to improve the process of administration of residential houses, the Housing Policy Division of the Construction and Housing Policy Department has developed Cabinet Regulations regarding the requirements for the sanitary maintenance of a residential house; regarding the procedure for keeping and updating house files; regarding the activities to be

performed within the framework of the technical servicing, current repair, renovation and reconstruction; regarding the keeping and updating the Register of Administrators of Residential Houses, as well as regarding minimal requirements for ensuring energy efficiency of a residential house.

The new Law On the Energy Performance of Buildings came into force on 9 January 2013. The Law comprises legal norms arising from the Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings. Along with the entry into force of the said Law, the previous Law On the Energy Performance of Buildings became null and void (13 March 2008). The new Law significantly improves the current regulation of energy performance of buildings, supplementing it with the novelties included in the Directive of the European Union.

In the middle of 2013, regulations subject to the Law On the Energy Performance of Buildings were adopted:

- Cabinet Regulation No. 348 of 25 June 2013 "Regulations Regarding the Methodology for Calculating the Energy Performance of Buildings";
- Cabinet Regulation No. 383 of 9 July 2013 "Regulations Regarding the Energy Certification of Buildings";
- Cabinet Regulation No. 382 of 9 July 2013 "Regulations Regarding the Independent Experts in the Field of Energy Performance".

EU funds planned for 2014 to support energy efficiency in buildings in 2020

EU funds support planned for the period of 2014- 2020 programming period includes number of measures for energy efficiency in buildings is a total 323 million. euro, including:

- Multi apartment houses energy efficiency - 150 million. Euro
- National energy efficiency of buildings - 98 million. Euro
- Industrial energy efficiency in buildings - 32 million. Euro
- Municipal buildings energy efficiency - 43 million. Euro;

In 2015 Ministry of Economy started a financial scheme for multi-apartment building renovation the using as an instrument the national joint-stock company "Latvian development financial institution Altum" (abbreviated - "Altum") established in order to provide loans for building renovation. "Altum" will offer credits with interest rate 2% per year plus "Eirobor" in addition providing also grant scheme (25-35%) related to energy efficieny level acieved. Maturity period up to 20 years. Fund establishment is still in process of development, the starting of the scheme planned in the beginning of June 2015th.

Main results of the Energy Council held in Riga 2015

The Council had an exchange of views on the energy union, addressing in particular issues such as energy security, completion of the internal energy market, energy efficiency, decarbonisation of the economy and competitiveness.

The key elements of the debate will be forwarded to the President of the European Council as a contribution to the March European Council.

The Latvian Minister for Economy, Ms Dana Reizniece-Ozola, said[1]:

"We need an overarching and strong policy upgrade to address the challenges the EU faces on energy security, competitiveness and its path towards a low-carbon economy. The concerns of EU citizens about energy security in difficult geopolitical times, jobs, sustainable mobility or their energy bills must be at the centre of this policy response".

The Council also held a policy debate on developments and priorities for energy infrastructure, as a means to achieve a fully functioning and interconnected European internal energy market.

Ministers addressed in particular regional cooperation, financing of energy infrastructure and measures to end energy isolation in order to achieve the 10% target of existing electricity interconnections by 2020.

The outcome of the debate will serve as contribution from the Energy Council to the Presidency's synthesis report on Europe 2020 strategy.

[1] https://www.em.gov.lv/en/news/4443-main-results-of-the-energy-council

Latvian Minister for Economy, Ms Dana Reizniece-Ozola, stated: "It is urgent to achieve a fully functioning and interconnected European internal energy market to secure the uninterrupted supply of energy throughout Europe. Increased regional cooperation can substantially contribute to ending isolation and achieving the 10% electricity interconnection target by 2020".

The Council also adopted without debate a regulation on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport.

In addition it should be mentioned that in January 14 of 2015, in Riga, the Ministers responsible for Energy Policy in the three Baltic States have signed the Declaration on Energy Security of Supply of the Baltic States.

National government stated the importance of regional cooperation in order to end the isolation of Baltic energy market and further integrate to the internal European energy market.

2.3. Support measures planned by the municipality

In 2007, the Riga Municipality supported by the EU established the Riga Energy Agency (REA) responsible for the management and coordination of energy supply, energy efficiency and the use of renewables in the administrative territory of Riga, as well as for accessibility of information to the residents on the abovementioned issues. Within REA there is an Energy Efficiency Information Centre offering free advice to residents on issues like renovation of buildings, etc.; it also organizes events aimed at informing and educating people: discussions/workshops on the quality of renovation of buildings, open doors at the renovated buildings, etc.

The Riga Municipality has been providing for financial support measures for the renovation of multi-apartment buildings since 2011. The Riga City Council has adopted binding regulations on the procedure for supporting energy-efficiency measures for multi-apartment buildings, including:

1. Binding Regulations No 47 of the Riga City Council “On the Procedure of Providing Support for Energy Efficiency Measures in a Residential Housing Unit” (adopted

September 24, 2013) providing for the support of energy audits and energy certification (organised by REA) co-financed by the Municipality at 80 % of the energy audit costs, as well as sample documentation developed for the 12 most widespread serial multi-apartment residential building types fully (100 %) financed by the Municipality.

2. Financing of the project "Energy Audits of Dwellings - 2013" (PVS ID 3006) of the total cost of 35 571.80 EUR including energy audits performed in the 2013 – 2015 period. They include 70 energy audits finalized in 2014.
3. Financing of the project "Development of Sample Projects for the Renovation of 12 Standard Serial Multi-apartment Residential Building Types" (PVS ID 3007 – organized by REA and SIA "Rīgas namu pārvaldnieks") of the total cost of 62 606.36 EUR. Implementation is delayed mostly because of changes in the regulatory documents and the Latvian Building Standards, and has been projected for 2015.
4. A property tax discount of up to 90 % over a period of 10 years has been set for multi-apartment houses under renovations since 2013.
5. A publicly available data base on energy efficiency of buildings switched to the district heating system has been developed and is available on the REA web-page www.rea.riga.lv. By the end of 2013, the data base included 2 856 multi-apartment houses from the total of 7 423 buildings with 8 079 heating units. For completing and maintaining the database, and performing its advisory function to the owners on ways to reduce energy consumption, REA needs three additional energy inspectors (energy efficiency inspectors) on staff. In 2014-2015 the data base was updated for 2013 and 2014 from financing sourced by a number of international projects.
6. At regular intervals "open doors" events (organised by the REA EIC) are held at the renovated buildings.
7. At regular intervals expert discussion-club seminars (organised by the REA EIC) are held on renovation quality.
8. Since 2012, the municipal company SIA "Rīgas namu pārvaldnieks" has been offering ESCO services for the renovation of the multi-apartment buildings under their management; the company has provided for the renovation of 2 buildings.

2.4. Loans for apartment house renovation and improving of energy efficiency provided by local banks

Swedbank

Loan can be received by any house manager - be it a householder society or an enterprise specialized in house management - if 75% of apartment owners agree with receiving the loan.

Loan conditions:

- Loan amount up to 100% of the project cost;
- Loan currency - EUR;
- Fixed or variable interest rate;
- Repayment period - up to 15 years;
- At least 75% of household owners support the decision to take a loan and increase the monthly bills for public facilities;
- It is necessary to make a deposit in the bank for an amount of the loan repayment for a period of 1-3 months, under a condition that this deposit stays in the bank in the required amount for the whole repayment period;
- Loan repayment is done by increasing the monthly payments for public services for each 1 m2 according to apartment space, loan amount and period;
- Principal amount repayment can be started after the repair works are finished;
- Loan security - future cash flow - monthly payments for public services made on time by household residents.

Evaluating criteria for issuing a loan

- Financial situation of loan receivers and payment discipline of apartment owners. At least 95% of all bills for public services have to had been paid in time during the previous 12 months;

- Loan payments and loan risk by 1 m2. Maximal loan – 100 EUR/m2;
- Technical condition of the building, description and estimate of the planned works.

SEB bank offers loans for repairs, reconstruction, renovation of joint ownership parts in a multi-apartment house, as well as for increasing of its energy efficiency. For instance:

- Replacement of roof
- Repair or replacement of internal communications (sewerage, risers, etc.)
- Heat insulation of external walls
- Repair of staircase
- Repair or replacement of windows or doors
- Heat insulation of basement overhead covers
- Heat insulation of heating system pipelines, etc.

Borrowers are:

- Apartment owner associations (apartment owners co-operative associations, apartment owners union),
- Specialised house management companies (limited liability companies, joint-stock companies, house management office, etc.).

Terms and conditions of loan:

- Loan up to 100% of total expenses
- No maximum support amount
- Maximum term of 15 years
- Loan currency: EUR

- 75% of all apartment owners must agree to making repairs, taking a loan and, if necessary, increase of management fee
- Total debts for house management, heating and water must not exceed 15% of total submitted invoices on average annually
- Source for loan repayment is payments for house management made by apartment owners
- Loan repayment by increasing house management fee per square meter, according to loan amount, interest and term, if current management fee is insufficient to cover loan payments

A loan can be taken out only of at least 51% of flat owners in the building agree. The renovation loan can only be taken out by a legal entity – the association of flat owners (a co-operative or a limited liability company) – or by a building management company.

- Loan amount of up to EUR 280 000;
- Maturity up to 15 years;
- Maximum funding - 78 EUR / m2;
- Interest rate 3.5 to 5.15% + Euribor;

In addition, bank offers expert advice on EU fundraising home renovation.

3. Action Plan

3.1 Requirements

In order to create the revolving fund following documents are required:

1) The legal status of the revolving fund should be determined.
2) The existing regulatory documents should be amended and new legislation drafted. The amended legislation should state:
   - the way how the Revolving Fund and the respective contributions will be reflected in the municipal budget of the Riga City Council;

- which are the Riga municipal institutions and the external institutions to be involved in establishing the Revolving Fund;
- the size of the Revolving Fund in financial terms:
  - the initial and projected future size, its refuelling potential given that the loans are going to be returned at a slower pace compared to that of issuing new loans;
  - sources of financing and their respective shares;
  - projected implementation time and time covered by the initial resources of the fund;
- the potential beneficiaries of the loans from the Revolving Fund (their legal status), the purpose of the loans, the size of the loans and their duration;
- the administration of both the Revolving Fund and the loans, including:
  - organizational structure;
  - administration levels;
  - size of loan payments and the sources from which they going to be covered.

    In view of the legislative gaps on a national level, most of the abovementioned tasks are problematic; therefore, most of our efforts have been focussed on developing a theoretical model which might be significantly modified during development.

3.2 Operation Revolving Fund

International experience shows that a number of EU Member States and municipalities have established Funds for the purpose of financing energy efficiency improvement measures. However, a detailed study of theses financing schemes indicates that no single scheme functions as a revolving fund in a pure sense, since they all include a certain subsidy (grant) component, which may play a more essential or less essential role.

Among the funds which are purely based on the revolving concept there are the funds which have for decades been operating in the USA in a number of important areas, including implementation of energy efficiency measures, recultivation of degraded territories and financing projects of improving the water supply system. In typical cases, the financing for establishing such funds in the USA is sourced from donations, or penalties that

have been collected (for example, penalties inflicted on oil companies for prohibited oil price fixing, etc.). There are also funds based on the municipalities' own contributions. The loans issued by the funds tend to be comparatively small amounts (mostly up to 10 000 $ or 7-8 thousand EUR) offered to a variety of public bodies, educational institutions or residents for achieving specific objectives. Typically, the loans have a rather short repayment period of 2-5 years, this being a period which provides for the loan revolution, i.e. the money is returned relatively early and can be used for new loans. The principle gives the possibility to use the available resources for financing a maximum number of projects. With a 5 years' loan repayment period, 20 % of the loan payments will be returned to the fund during the first year of repayment. With a 20 years' loan repayment period, however, only 5 % of the loan amount will be returned to the Fund in the first (and every subsequent) year of repayment. The result is a rather long waiting period, until there is enough money in the fund for new loans. The US have also State Government established revolving funds which lend more substantial amounts (above 1.5 million $) for a period of 15 years (for example, the Alaska Energy Efficiency Revolving Loan Fund Program), but these are reserved for the institutional borrowers – the universities, other educational establishments and the State's municipalities).

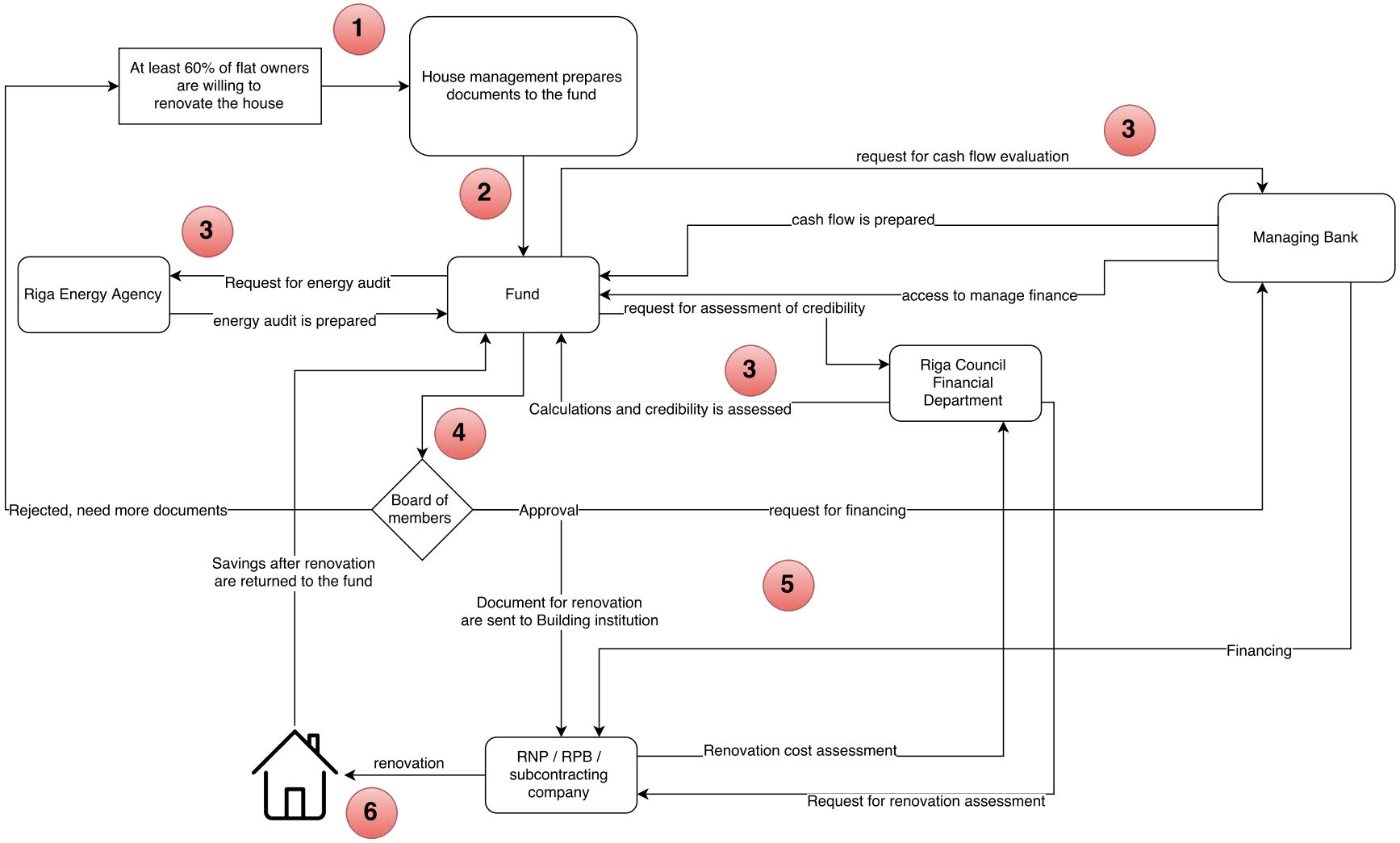
For most of the revolving funds in the US, the administrative costs of the fund are covered from interest and fee payments, which are borne by the borrowers, so that the total size of the Fund should remain unchanged. This means that the borrowers pay market price for the use of the loan. Therefore, these loans are mostly targeted to the areas which are less attractive for the banks.

The financial schemes that operate in Europe are mostly schemes where the municipality or the central government additionally covers the expenses related to the administration of the fund from the fund's own resources or additional contributions from the state or municipal budget. Another wide-spread practice is to offer subsidized interest rates to the residents. The term used in English is "soft loan", which stands to designate a loan at a reduced interest rate. The interest rate can be reduced either by covering the difference between the market price of the money (market rate) and the lending rate from the budget, or by mitigating the risk undertaken by the lending bank or the fund. Risks can

be mitigated through a municipal/ government guarantee requirement or by establishing a separate guarantee fund.

Riga has 6 000 multi-apartment houses which urgently need renovation. The average renovation costs per square meter being about 130 EUR/m^2, with the total of 12 million square metres of housing in need of renovation, the renovation programme in Riga should require 1.56 billion of EUR. Therefore, all the financing resources and financing schemes should be mobilized, and the Revolving Fund to be established by the municipality will also have its role.

Figure 4.2.Operating principle of the Revolving Fund



In order to identify the most applicable model for the Revolving Fund, we have looked at the options with regard to the potential contributors and contributions into the Fund, including the following:

1. The municipality establishes a Revolving Fund for lending purposes based on its own budget.
2. A scheme similar to the one operating in Brussels is established: the Municipality subsidizes the interest rates, whereas the loan is funded by a credit institution.
3. The administrative management of the fund is delegated to ALTUM by establishing a scheme parallel to the state scheme on terms that are identical (with the use of EU structural funds).
4. A Municipal Revolving Fund (for example, 4.5 million EUR) for small-size investments in energy efficiency with a short repayment period is established based on the municipality's own budget.
5. The municipal company SIA "Rīgas namu pārvaldnieks" uses the money of the Revolving Fund on the basis of the ESCO principle for renovating the multiapartment houses it manages. Also the role of the municipal company SIA "Rīgas pilsētbūvnieks" might be increased through services on the MECO (municipal energy services company) principle
6. A Fund for "gap financing" is established. The concept foresees that the residents of a housing unit would apply for a commercial loan from a bank, while the municipality would provide for the so called "down payment", which is another loan to be returned at some stage.
7. Funding from the EIB or another international finance institution (Juncker plan, etc.) is brought in as a source for the loans to be managed via the local banks (similarly to the JESSICA project in Lithuania). Municipality guarantees are still likely to be required, if the EIB rates are lower than the rates offered by the commercial banks.

The overarching question for all the options is about the collateral required by the commercial bank. Usually, it is immovable property or a mortgage. In Riga, a

large share of the apartments in multi-apartment houses have already been acquired on a mortgage loan basis; therefore, these apartments are already mortgaged, and do not qualify for a second mortgage. The solution would be for the bank loan to be issued against future cash flow. However, in Europe such loans are usually issued for a term that does not exceed 5-10 years, or else the bank requires a municipality guarantee. The municipality budget has been operating at a deficit for several years; this means that any money allocated to a new activity should be borrowed from the State Treasury or a credit institution. However, borrowings are limited by the restrictions in the Law on State Budget stipulating that municipalities can borrow money only for the specific purposes listed in the Law and that the amount depends on the municipality's long-term liabilities. According to the Law on State Budget, insulation of buildings does not qualify for a borrowing. The legislation of the Republic of Latvia also restricts the municipalities with regards to the guarantees that can be issued. Following aspect could be resolved through legislative amendments.

Figure 3. Planned financial sources of the fund.