



## **EIE Project ROSH**

Development and marketing of integrated concepts for energy efficient and sustainable retrofitting of social housing

[www.rosh-project.eu](http://www.rosh-project.eu)

# **Survey on regulatory frameworks and economic conditions**

WP 3: Advanced Tailored Financial Schemes

Task 3.1: Analysis of existing financial mechanisms and economic conditions

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# **1 Introduction**

## **1.1 The ROSH mission**

ROSH – Retrofitting of Social Housing – is a European co-operation project for the development and marketing of integrated concepts for energy efficient and sustainable retrofitting of social housing in the partner regions. For the purpose of the project “social housing” comprises multi-family houses or apartment buildings for low-income households. Running from January 2006 to June 2008, ROSH supports this undertaking with information, training and communication measures as well as helpful tools and materials. Its focus is on social housing providers and on tenants. Within the scope of ROSH, guidelines for the sustainable retrofitting of less privileged houses will be developed as well as financing schemes. ROSH methods will be evaluated by means of demonstration projects.

## **1.2 Advanced tailored financial schemes**

The major obstacle for refurbishment in social housing is well known: lack of financial means. This situation is significant for all EU Member States. The ROSH project team analysed the specific, current situation in the participating EU regions (in Austria, Germany, Ireland, Italy and Poland) in order to research, compile and assess innovative financial schemes. The starting activities have confirmed the problematic status quo but have shown some interesting approaches (e.g. contracting instruments) to improve the situation.

The main results will be presented in the guidebook “Sustainable Retrofitting of Social Housing: Financial Schemes”. The publication will describe regulatory frameworks concerning energy efficiency, subsidy schemes and advanced tailored financial schemes. In addition it will contain planning tools for and good practice examples of successful financing projects. The guidebook is intended for decision makers in housing companies and local authorities as well as energy agencies, consultants and planners and will be published in spring 2007.

This survey describes regulatory frameworks and economic conditions in the partner regions. It is based on the previous research involving experts and key actors and is the basic document for the further elaboration of new tailored financing schemes.

## 2 Summary

Describing the status quo of sustainable retrofitting in general one can say that in cause of emerging / exploding energy costs and political actions refurbishment is on its way to get an important economical factor in Germany. The federal state government is giving approximately 25.000.000.000 € subsidies for energy efficient refurbishment and new energy efficient buildings till 2011. Main barriers for retrofitting social housing is to ensure that house owners and tenants can sustainably profit from saved energy costs. The main drivers to improve the situation for retrofitting of social housing buildings are at this time federal, regional and local government and subsidy programmes, dena - the German energy agency with its campaigns, the public KfW-Bank, ESCOS, some housing companies and last but not least the energy market.

## 3 Overview on housing policy

Housing policy is based on national, regional and local policy documents which have a very big influence on refurbishment activities in general. The most important laws are "Wohnraumförderungsgesetz (WoFG)", "Energieeinsparungsgesetz (EnEG)", „Landesbauordnung (LBauO)", „Baugesetzbuch (BauGB)"

The WoFG- law and its enactments and further by-laws regulate how to manage subsidies in social housing. The density of regulation is enormous: Meanwhile some regulate costs of heating and other specific operational things other regulations refer to conditions how to get encouragements, how to calculate the size of dwellings, administrative details concerning liquid financial resources and last but not least how social public homes have to be used. Restrictions in general refer to features of the "people behind the building", both tenants and investors. In many times the investor and the public authorities conclude a contract that describes how the social home building has to be managed. The acknowledgements regulate rent, increase of rent, overheads and operating costs, define subsidy details, size of dwellings, use of building and other indescribable German distinctions like "Belegrecht", "Fehlbelegungsabgabe" and "Mietbindung". Contracts in general restrain that modernisation costs can not (or just in very small amounts) be turned over the rent increase. The law has no specific reference to technical refurbishment requirements. Via WoFG rent increase is in many cases contractually defined. Article § 28 assigns how rent increase management can be intended in contracts. In Germany we have an additional law that defines the limits of rent increase in general. It is called "Miethöhegesetz (MHG ~ rent increase law)". § 3(1)1 assigns that 11% (maximum) of the modernisation costs are allowed to be turned over.

The EnEG is a law that concerns the conservation of energy in general. In reference to buildings the enactment called EnEV is the arbitrate public regulation. It implements the EU Directive on Energy Performance in Buildings (EPBD) into German legislation. Its content comprehensively describes how buildings have to be built or refurbished in order to save energy for heating and hot water and – may be yet in 2006- cooling and illumination. EnEG and EnEV describe technical details of how to build or refurbish buildings in an energy efficient manner. The EnEG enactments refer to 18 national and international standard documents. The EnEV itself has many detailed obligations for refurbishment activities. Some commandments are specially referring to refurbishment actions (§§ 8-12).

The LBauO and its up to 10 specific enactments exist in 16 different versions, one for each federal state. Its aim is to ensure public safety in buildings and construction process and to guarantee healthful housing conditions and a sustainable building performance. One specific goal of the LBauO is to assure a sufficient fire protection system in buildings. These laws and trailed regulations define how to build save and ordinary in the sense of the goal mentioned above. Furthermore here is clarified who is allowed to build and who can get a building permission, who is responsible, and how the administrative process has to be done. The LBauO refers to any building action both in material and formal affairs. Article § 1 (5) assigns that existing buildings have to be maintained properly. Commandment § 54 assigns that decayed buildings have to be demolished. The article § 99 gives allowance to accept irregular building situations for existing buildings constructed before 1974.

The BauGB is a law that refers to land consumption in general. Every building has to comply with the requirements that are stated in the official building plan for each district or quarter, the so called F- Plan and B-Plan. The requirements define for example the maximal dimensions or the use of buildings. Furthermore there are enactments and regulations concerning specific design characters and formal attributes of buildings. BauGB and in special its local derivatives F-Plan and B-Plan are regulating needs referring to size, form and use of a building. Concerning to the common public interest §§ 175 -179 express city planning bids. § 176 arrogates to build on a certain parcel in some cases, § 177 challenges the house owner to modernize or maintain in some cases, § 179 assigns that in some cases buildings have to be demolished.

## 4 Main institutions and their role

This part describes the institutional framework related to social housing. In particular the role of housing co-operatives, municipalities, national, regional or municipal institutions are shown.

On the national level ("Bund") social housing funds are given annually by the federal government ministry (BMVBS).

The public bank KfW offers permanently refurbishments programmes to investors dealing with loans with reduced interests or even a 10% subsidy on special loans. The loans are issued on environmental (energy efficient) refurbishments or in cause of social disadvantages.

The annually given funds by BMVBS have to be redoubled by each provincial government (f.e. Lower Saxony) which than has to pour this capital into different annually social housing subsidy programmes ("Wohnungsbauförderungsprogramm"). The exact rules how to get and spend the money are set in the specific programme details. Some federal states have additional funds for energy efficient refurbishments (Lower Saxony presently not) These funds do not refer especially to social housing.

Municipalities often have special loan or subsidy programmes wich often are given via the municipality -ruled ESCO. These funds even do not refer especially to social housing.

Housing cooperatives and owners have to make application for public money. They have to accomplish and to finance the refurbishment actions and in the end to verify their refurbishment success in some cases via official certified energy consultants (e.c.).

Main resource for refinancing new projects is rent as a general rule. As mentioned above, rent increase can be 11% of modernisation costs. Project financing by government is done within the scope of the rules of the subsidy programmes in social housing and KfW-bank.

## 5 Existing subsidies and campaigns

This part describes the financial framework for refurbishment of social housing buildings. In particular the financial support for refurbishment activities is considered. Support means e.g. subsidies, grants, tax exemptions or soft loans.

Special charged loan is given by public KfW-Bank in conjunction with following programmes:

- "CO2- GebSan Programme": packaging schemes: certain "combined" efficiency criteria must be fulfilled and in some cases must even be certified by an architect or energy consultant
- "Wohnraum Modernisieren": amount of interest on loan differ depending on ecological refurbishment fraction
- KfW- credit for solar power producing facilities as a redeemable loan.
- Subsidy scheme two: "Teilschulderlass": If Modernisation results reach new building standard 10% of loan does not need to be redeemed.

Specific means on energy efficiency or renewable energy investments (wall & roof isolation, double glazing etc. ) are given by ESCOs, regional authorities and via federal state department called BAFA and do not need to be redeemed. In general these subsidies refer to single refurbishment actions (e.g. special subsidy for a new thermal solar panel facility or wall insulation) not for a complete energetic refurbishment. Subsidies for similar actions in one building may (sometimes) not be doubled.

Subsidy 1: "KfW Wohnraum Modernisieren": Standard and eco+ versions of this loan programme differ: Depending on the specific configuration the amount of interest differentiated. Verification must be done by the investor via account documentation.

Subsidy 3: BAFA and regional ESCO / Municipality programme (see 1.2 b)). As a not redeemable grant on special refurbishment investments the owner generally has to provide evidence. In some cases the proposal has to be signed by an architect or even a energy consultant. In cause of the multiplicity of programmes it is unfortunately not possible to describe them here completely.

In many cases the proposal and / or evidence document contain a public- law valid calculation according to EnEV and standard DIN EN 832 / DIN 4108. Some sponsors ask for quality assurance during or after the building process. Some smaller refurb-

Refurbishment subsidies just need a self-declaration by the investor and a account documentation.

Additionally, there are tax exemptions resp. tax allowances existing refurbishment or certain energy saving activities and technologies.

In case of monument conservation costs exemption is made due to article § 7 i EStG (income tax law), and in case of refurbishment costs in areas according to § 136 f. BauGB exemption is made due to § 7 h EStG

Everyone can reduce his annual income tax amount at 600,- € for craftsmen accounts concerning house or flat refurbishment (owners and tenants also).

Investors can reduce their income tax percentage as follows Monuments: 9 % from refurbishment costs in a 10-year period in case of self-using the building

In case of §136f.-refurbishment: 9 % from refurbishment costs in an 8-year period and then 7 % in a 4-year period .

Klimaschutzagentur, proKlima arrange regional actions like public discussions, local radio and tv-contributions, website and local newspaper advertising. KfW has different PR- campaigns that appear on national level. Also the Dena as the national energy agency is producing nationwide advertising, software support and subsidy information on brochures and websites. Dena and Bafa maintain nationwide lists of energy consultants. The Bafa list contains energy consultants, who can offer their consulting "product" supported by 2/3 subsidy as a not redeemable grant.

## 6 Innovative financing schemes

Some innovative financing schemes have been individuated for the retrofitting of social housing in Germany and in particular in Lower Saxony. In the following their most important characteristics will be presented.

### 1. ESCO

In Lower Saxony there are more than 1000 energy companies which sell electricity and many natural gas selling companies. Especially on local level many public-rule companies exist. These are selling electricity and natural gas. Some (which are called "Stadtwerke" i.e. municipal utility) even sell water and are in charge of the disposal of waste water and of the waste collection. However it has to be noticed that just four energy utility companies (EON, REW, EnBW, Vattenfall) share about 80 % of the whole energy market in Germany.

The services offered by the ESCOs are limited to third party financing like energy performance contracting and delivery contracting. Guarantee models are not used.

In Lower Saxony more than 100 projects have been financed with third party financing models.

### 2. Special bank loans

Banks offer special loan programme for the financing of energy efficiency projects but neither in Germany nor in Lower Saxony there are no special programme for the social housing sector in particular.

The criteria for the authorisation of the loan depend on each different bank loan programme (e. g.: KfW programmes). Usually the financing volume is limited to a certain maximum amounts and the loan must have a financial coverage (e. g. mortgage).

The KfW bank criteria are technical ones: minimal energy efficiency rates and partly a declaration of an energy consultant or an architect is needed.

### 3. Contribution (self-help) of the tenants to the modernisation at WOGÉ

WOGÉ is a co-operative building society which was founded in 1988 in the north city of Hanover by tenants' initiatives and committed residents. The aim was to offer an alternative to the traditional institutions responsible for redevelopment and modernization, and to emphasize the co-operation of the future tenants.

WOGÉ developed a form of self-help which allows the co-operative to finance some modernisation projects. The schema of this model foresees that WOGÉ buy build-

ings which need refurbishment measures from the city or on the free market. The condition that they set for the purchase of a building (to be financed with self-help) is the promise by the city administration of the promotion of the modernisation measures according to the "Städtebauförderungsgesetz" (municipal construction encouragement law). The aid of the city covers maximum 85 % of the modernisation costs, the residual 15 % must be rendered by the future residents in form of membership contribution and self-help. The residents who participate actively to the modernisation measures get a reduction of the rental. Moreover the rental will be fixed for a certain period (about 10 years).

## 7 Needs for social housing retrofitting

- Better information and transfer of KfW loans in Lower Saxony.
- Support and consultancy for private owners.
- Targeted information and training for social housing associations.
- Preparation of financing models for different retrofitting concepts and configurations, also supported by good practice solutions.
- Clarification and advice for (social disadvantaged) tenants concerning energy use und ventilation behaviour.
- Training for the responsible persons in the allocation departments of the housing offices (Vergabestellen der Wohnungsämter) concerning energy efficient retrofitting concepts.
- Changes in the law for the housing support (Wohnraumförderungsgesetz) according to sustainable retrofitting.
- Concept for integrated support materials (energy efficiency, costs, financing, structural engineering) for architects and planners.
- Training for architects and planners about the cost-effective implementation of energy efficiency measures in the housing stock.