



NAVARRRE, A REGION SUPPORTING THE SUSTAINABLE ENERGY

Benchmarking study of other national and
European novel models of public tenders
for rehabilitation works of rented social
housing of public buildings

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1 Introduction

The European Union through different programmes is seeking the decarbonisation of our cities. If one has a short look back, 2010 would probably be a turning point. On the one hand, the Global Financial crisis, which put housing sector, and in particular renovation of the existing stock, as one of the main recovery axis. On the other hand, the European Directive on Energy Performance of Buildings not only showed the need of a sustainable construction of new dwellings, but also set the incentives for the renovation of existing dwellings.

Today, the importance of energy renovation of the existing stock seems clear if the climatic objectives set in the Paris Climate Agreement are to be achieved. However, there is a lack of detailed understanding about the drivers for energy renovation, because lot of economic, social or legal problems have to be faced, and the replicability through different Member States is not so straightforward.

However, another challenge, which housing policy makers have to face, is the people living in the buildings and their incomes. Demographic change also represents a key challenge to housing supply. A large part of the housing stock is not adapted to the needs of an ageing population. For example, it is estimated that 60% of those over 65 years old live in buildings without an elevator.

Beyond residential buildings, the housing sector must target accessible, inclusive, and safe environments and neighbourhoods. This development could also contribute to financial feasibility through lower medical costs. Finally yet importantly, construction and renovation must include modern, efficient and affordable energy systems. As energy poverty increases, a priority for public housing companies is to find new ways to manage energy costs for tenants. Housing cooperatives are also increasingly focusing on energy efficiency projects, including the use of renewable energy sources such as geothermal energy.

During these years, attempts have also been made to develop lot of funding mechanisms to comply with climate objectives through energy renovation sustainable projects, both public and private.

Focusing in Spanish social housing it can be said that, according to the document "The State of Housing in the EU 2019" by Housing Europe¹, 2.5% of the occupied housing is under social rental regime, which means some 250,000 homes. In addition, in 2017, 340 more social rental homes were built. During the same year, 43,900 public rental dwellings were renovated.

Within the *tenure regime*, the promotion of protected housing in the entire region of Navarra has been devoted in the majority to the purchase regime. Therefore, the stock of protected rental housing only accounts for 8.8% of the protected dwellings in the region, despite the fact that demand in recent years has been increasing. It is made up of 4,994 homes, of which 633 follow a leasing scheme. There are 224 youth rental homes, 82 youth rental purchase

¹ <http://www.housingeurope.eu/resource-1323/the-state-of-housing-in-the-eu-2019>

homes and 6 supervised apartments. The Government of Navarra has 40 additional rental homes of its own located in Pamplona (4 dwellings), Villava (12 dwellings) and Zizur Mayor (24 dwellings). Rental housing accounts for 9% of the total protected housing stock, a somewhat higher proportion in the Ribera de Tudela area (11%) and in the Pamplona area (10%).

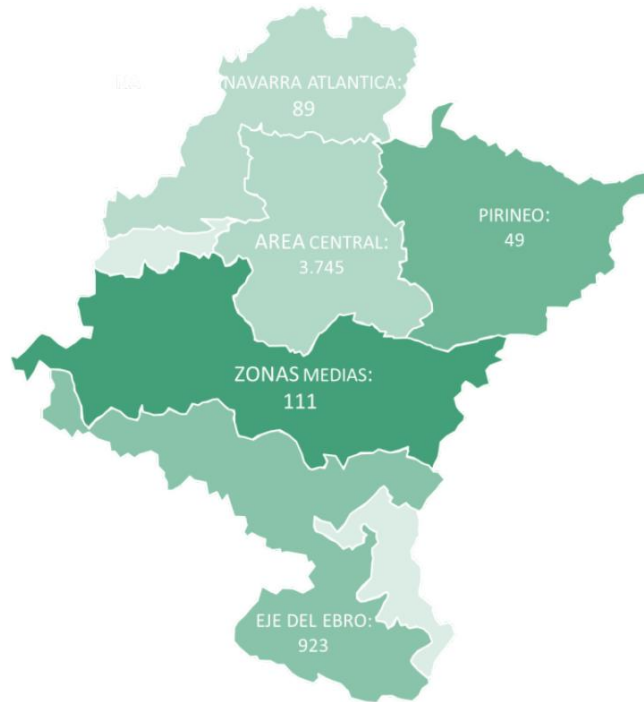


Illustration 1 Number of rental social housing

This public stock of social housing belongs to different agents. The Government of Navarra (three housing promotions) owns a minority part of these homes. There are also housing promotions whose owner is the public company belonging to the Government of Navarra, Nasuvinsa, these add up to approximately 1,000 homes. Among the public owners, local entities also have rental homes within their heritage, with approximately 500 homes. However, the vast majority of these housing promotions belong to private entities, amounting to approximately 3,500 homes.

For this reason, the residential building stock is facing characteristics who differ not only from the merely constructive, but also in the property regime and its legal and debt requirements.

We can affirm that thanks to *Decreto foral 25/2011, de 28 de marzo, por el que se regula el censo de solicitantes de vivienda protegida*, in Navarra, there is a single census of applicants for social housing. In addition, this Decreto foral describes the conditions of access to social housing, the functioning of the Census and the process of awarding it.

Nasuvinsa, as an instrumental public company of the Government of Navarra, manages this census, which would allow to establish new efficient renovation financing measures if new methods for social rental income are articulated.

2 Energy performance certificate and energy rehabilitation concepts

This benchmark study relies on information sources gathered from different countries. They refer to terminologies specific for their country. Therefore it is necessary to have common definitions of the used terms.

2.1 Energy performance certificate (EPC)

This is a certificate that rates the building in terms of its energy efficiency, based on the energy consumption needed under normal operation and occupancy conditions of the building. The building is given a rating between A (Very efficient) and G (Inefficient). The EPC will also include tips on the most cost-effective ways to improve the energy rating of the dwellings.

EPC is a requirement established in European Directive 2002/91/EC of the European Parliament and of the Council, of 16 December 2002, on the energy performance of buildings. The directive obliges to make available to the buyer or the user of the building, an energy performance certificate.

Royal Decree 47/2007, of 19 January, endorses the Basic procedure for energy performance certification of new buildings.

2.2 Energy renovation

Renovation is an umbrella term that normally describes a variety of interventions in a building: from modernisation, retrofit, restoration and rehabilitation to simple maintenance, repairs and routine upgrades. An energy renovation is often “behind the scenes” of many of these actions, with each action delivering different level of energy savings. ²

² <https://e3p.jrc.ec.europa.eu/articles/energy-renovation>

3 Funding and procurement solutions

The following lines describe a range of funding solutions including, whenever possible, the procurement process, developed throughout several European Member State.

3.1 Rent provision (Austria)

3.1.1 Legal aspects and procurement process

Legislation with regard to renovation in Austria is based on incentives rather than on compulsory instruments. Obligations concerning renovation are covered by OIB (Austrian Institute of Construction Engineering)³ guidelines, which state energetic standards in case of major renovations.

OIB guidelines

- For this reason, all bidding documents must go down the OIB guidelines, ensuring energy objectives are met at the outset.

3.1.2 Economic aspects

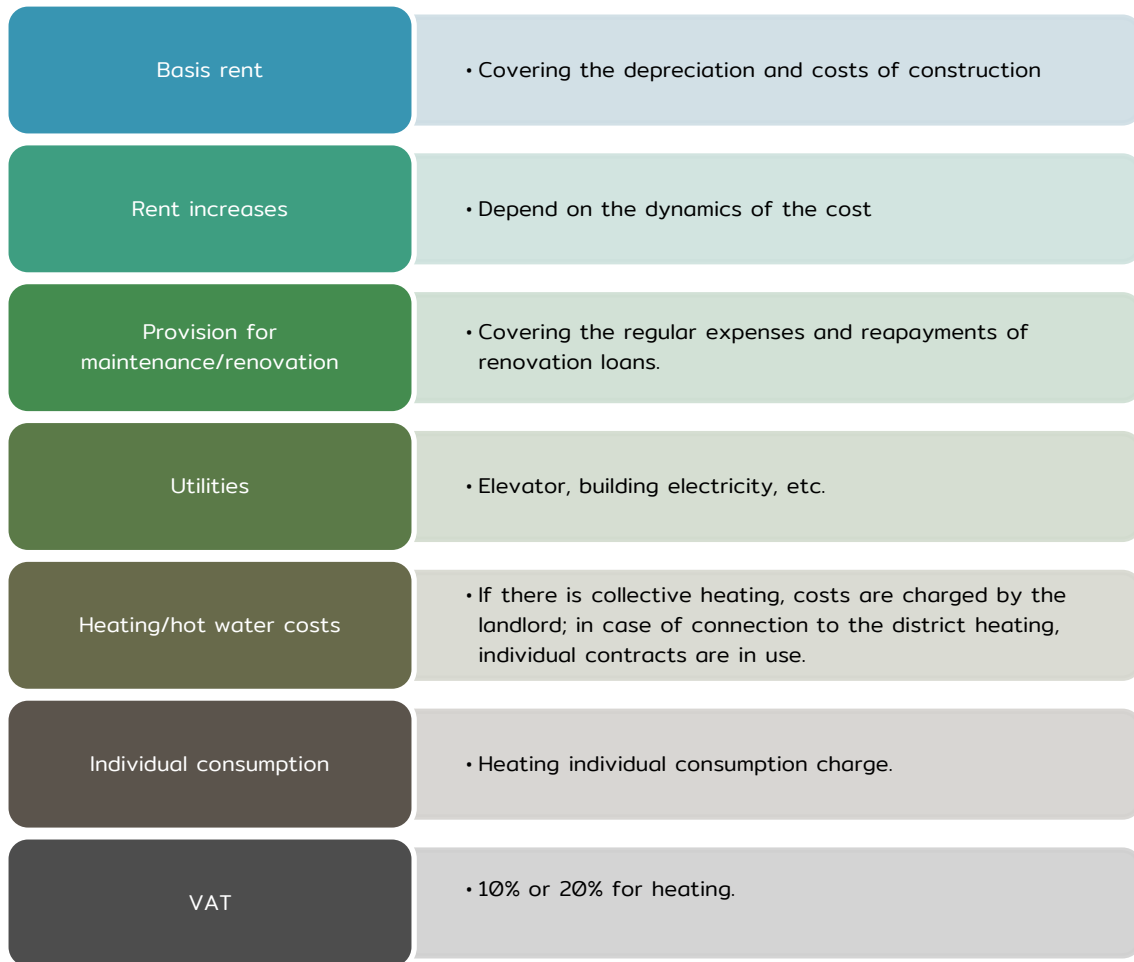
Austrian limited profit housing act regulates the energy renovation action with a specific rent regulation.

Rents in the limited profit sector are cost-based and include a compulsory provision for regular and extra maintenance, repair renovations and modernisation. This provision has to be invested, otherwise it must be repaid to tenants. This means there is a regular income also for major (energetic) improvement operations. This rent system was introduced in 1970, so the dwellings built before that year have not this provision.

In general terms, the rent provision for maintenance and future renovation is collected from the beginning of the rent contract. The part of the money not used is saved for the future; either to pay directly for operations or to be spent for repayments of loans when the saved means do not cover the expenses.

³https://ec.europa.eu/energy/sites/ener/files/documents/at_2018_cost-optimal_en_version.pdf

The following graphic shows the different rent components, which have to be analysed separately:



3.1.3 Obligations related to the financing of renovation measures.

There are different financing schemes in terms of Austrian grants. In general terms, these grants are based on the intensity of the operations. In this sense, energy ratings are required and in some cases a monitorisation of the works and consumption. The higher efficiency raised, the higher amount of money to be received.

3.2 Ecolan (France)

3.2.1 Legal aspects and procurement process

The French Parliament adopted in 2015 an overarching legislation aiming at boosting the energy transition⁴. This law had important impact on the renovation of residential housing stock, in particular social housing.

The following graphic highlights the main obligations of that law:

Obligations of the new law	Renovation of 500,000 dwellings per year since year 2017.
	Retrofit of 70,000 social rental dwellings per year, financed by Ecolan through <i>Caisse des Dépôts</i> .
	Obligation by 2025 for all landlords to renovate dwellings with an energy performance rating of F and G.
	Reinforcement of the requirements related to renovations in order to be similar to the newly ones.

There are 5.3 million social dwellings in France. Having in mind that the dwellings' average age is 50 years, because the peak construction of social housing was recorded in the 1960s and 1970s, the French social housing stock needed to be renovated. That is why Caisse des Dépôts in 2009 created a specific loan for these works, the well-known *Ecolan*.

TH-C-E-ex method

- In order to be a financiable work by Ecolan, an energy audit based on TH-C-E-ex method is necessary.

4

<https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000031044385&categorieLien=id>

3.2.2 Economic aspects

In France, each social housing provider negotiates with State civil servants their renovation goals for a period of 6 years; that is to say, the number of social dwellings they have to retrofit in the period.

Ecolan and other loans finance almost all the renovation works. The first one has different interest depending on the energy label to be achieved.

3.2.3 Obligations related to the financing of renovation measures.

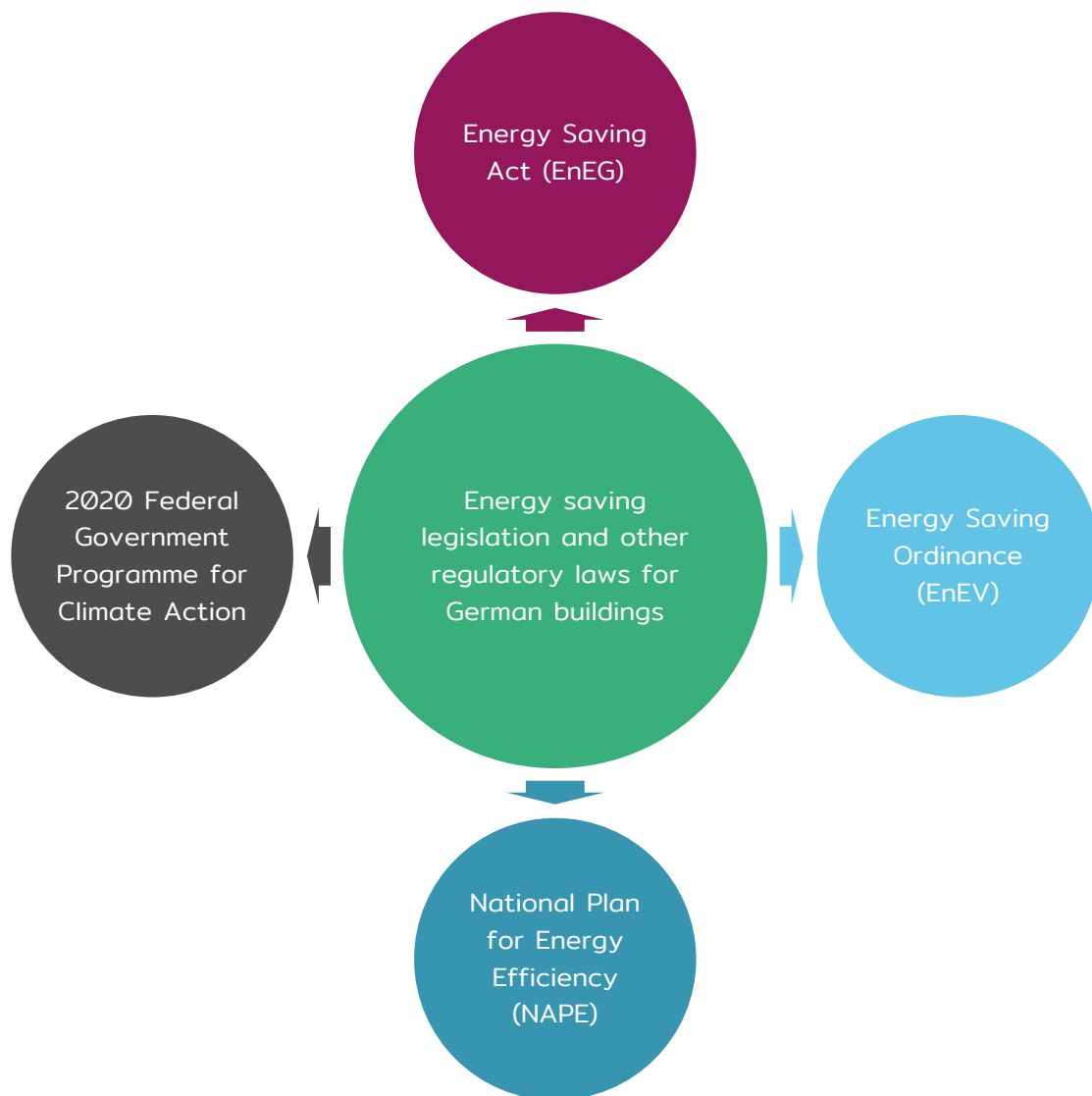
There are different obligations depending on the works, in order to be awarded an Ecolan. However, an energy performance certificate of the building or the dwelling is always compulsory. Contrary to other European countries, in France neither consumption monitorisation, nor installation of renewable energy sources are compulsory, except in the case of nZEB (nearly-zero energy building) standard renovations.

3.3 Bank programmes based on national energetic framework (Germany)

3.3.1 Legal aspects and procurement process

Germany has a strong energy efficiency framework, not only for new construction, but also for renovation works.

The following graphic shows the laws that regulate this field whose final objective is to comply with the recent European Directive:



The new building standard of the Energy Saving Ordinance, which is valid since 2016, transposes a key requirement of the EU’s Energy Performance of Buildings Directive into German law and forms the basis for the National Action Plan on Energy Efficiency (NAPE) and the Federal Government’s Climate Action Programme 2020. It is a step towards the nearly zero-energy building whose standard – i.e. the technically and economically feasible minimum requirements

– will be introduced in order to transpose the EU’s Energy Performance of Buildings Directive into German law.

3.3.2 Economic aspects

The KfW programmes “Energy –efficient Refurbishment” (Energieeffizient Sanieren) and “Energy-efficient Construction” (Energieeffizient Bauen), funded by federal grants, are the most significant providers of financial incentives for more energy efficiency in the German housing sector. The two programmes aim to promote energy savings and greenhouse gas reductions as well as encouraging investments and creating or safeguarding jobs.

KfW makes use of a scaling system on which the amount of funding is tied: the more energy efficient (based on theoretical calculation, not real consumption), the higher is the grant. Therefore KfW programme sets a reference model, the called *KfW efficiency House 100* (70kWh/m²/year), which is based on ENEV legislation.

A financing plan in Germany does not include rent increase, but soft loans (and or normal loans) and own means, that is to say that that the financing plan in Germany must be developed at the time when the measure is going to be implemented, without any previously-established provision or savings plan. The whole rent, including the rent increase, is used to repay the cost of the loans (interests) and the equity return. In a complete finance plan, the rent and the rent increase are revenues and the interest payment is an expenditure.

However, after a renovation, the legislation allows housing companies to increase the yearly rent by an amount equivalent to a maximum of 11% of the investment cost related to the energy modernisation. Nevertheless, for the social housing sector this increase is capped to a maximum of 0.50€/m² per month, but when it is applied, there is no time-limit.

3.3.3 Obligations related to the financing of renovation measures.

In this sense, Germany limits through its legal framework the energy conditions that allow obtaining the related financing support..

3.4 Energy index (the Netherlands)

3.4.1 Legal aspects and procurement process

The Housing Law 2015 is the most important law for social housing associations. The local community makes a residential vision of 4 years, which includes the renovations to be done.

The quality of a dwelling is expressed in points limiting the maximum rent allowed. The more energy efficient the dwelling is, the higher the maximum rent allowed. The rent is limited to maintain the dwelling affordable for social tenants. Therefore, lots of social housing companies do not invest. Energy efficiency investments are not profitable for them because the financial gap for housing associations increases as the investment in the energy efficiency increases. Therefore, the Dutch Government has approved a new law where the concept *energy fee* is defined. The energy costs the tenant spends for renovation are an energy fee after renovation to cover up the investment of the housing association. The law regulates the affordability so that the tenant is guaranteed to have equal or lower costs after zero transition renovation.

Energy fee

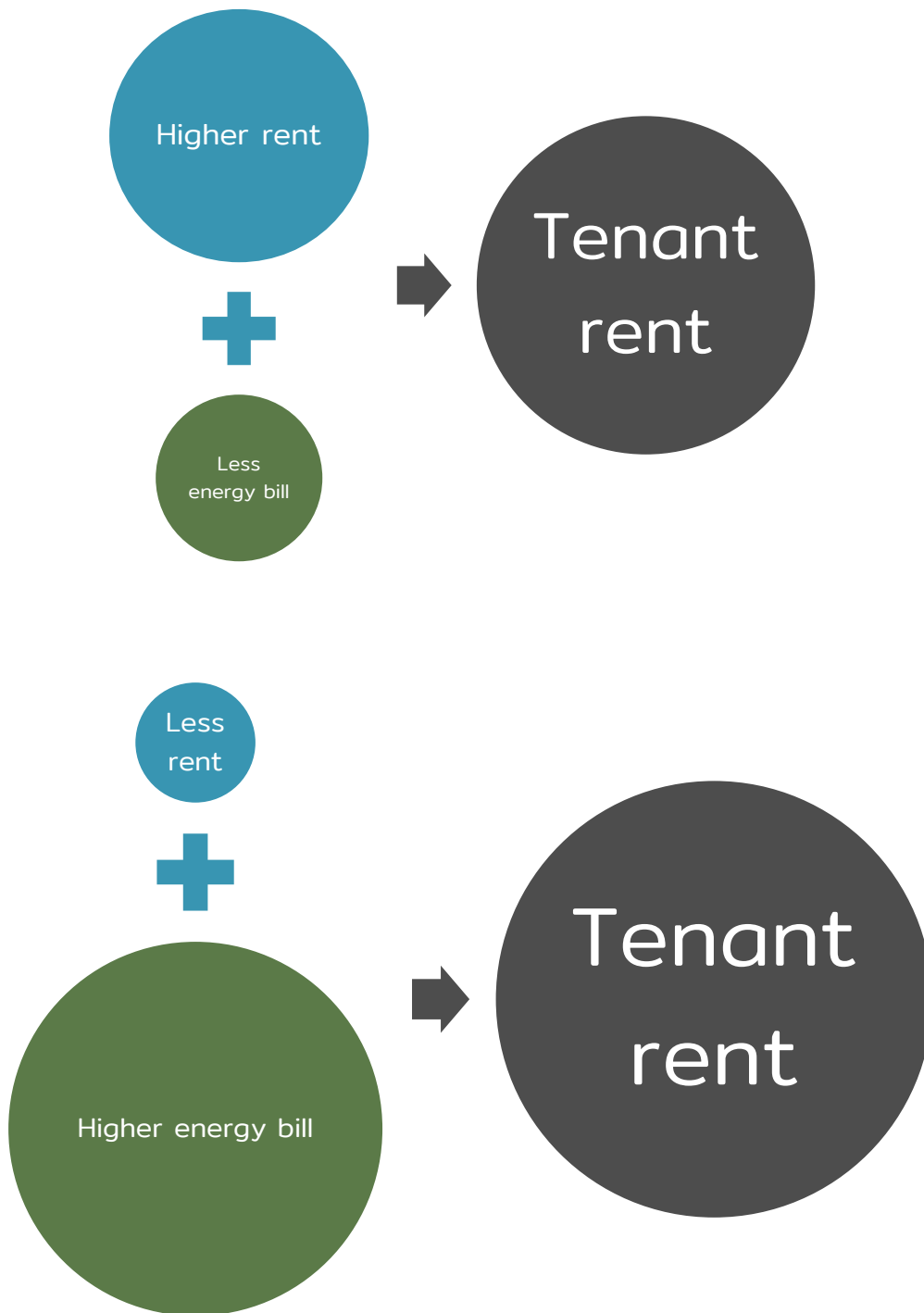
- The works to be carried out have to comply with the affordability parameters named in the Housing Law 2015. The works have to be borne by the tenants as an "energy fee" that will cover the whole costs of the works.

3.4.2 Economic aspects

Most investments in energy efficiency in social housing are financed through the housing associations (mostly rental income) and through the Dutch Government in the form of the so called "STEP subsidies".

Regarding the contribution of tenants, the government has a Property Valuation for social housing measured in points (Energy Index), which sets the maximum rent following the principle of the higher energy efficiency performance, the higher rent. That is to say, the energy efficiency renovation of the building gives more quality and therefore the social housing association can ask the tenant a higher rent.

Most of the Dutch social housing associations calculate the increased rent after the energy measures according to the theoretical decrease of the energy bill of the tenants, as it is showed in the following graph:



3.4.3 Obligations related to the financing of renovation measures

The obligations related to the possible financing are again determined by the future energy certification to be achieved.

4 Applications to tender specifications for energy renovation in Navarra

Taking all of this into account, the energy renovation tender specifications in Navarra have to include specific energy clauses, both in the administrative specifications sheet and in the technical specifications sheet for contracting.

In the first one, an express mention must be made to the objectives to be achieved, specifying which energy certification is targeted, according to the conditions and energy consumption values established in the technical specifications sheet. Notably, since 2019 nearly zero energy consumption conditions are required. In addition, tender sheets must specify the requirement of adequate energy demand calculations based on and validated with UNE-EN-13790: 2011 standard.

In any case, the contracting entity can also request controls and tests during the works execution, in order to verify compliance with the project data.

Furthermore, in addition to all the necessary sections to for the correct implementation of the project, the technical specifications sheet will include a section on Energetic design criteria with the following points.

- ✦ General criteria:
 - Orientation
 - Thermal envelope characteristics.
 - Tightness
 - Building Energy efficiency
 - Conditioning system
 - Fundamental energy compliance requirements → Energy label A.
- ✦ Other design criteria
 - Passive design
 - Carbon footprint
- ✦ Quantification of efficiency and comfort
 - Monitoring of consumption
 - Data handling

Despite not having the knowledge considered in this study, the contracting specifications for the drafting of the renovation projects of the rental social housing promotions in WP3, considered the general criteria and the quantification of the efficiency and comfort conditions described above.

5 Conclusions

Among this benchmarking study, the question of rental social housing stock renovation remains in the good relation between the public and the private sector. It is necessary a right mix between private finance, public support and own capital, but also it is necessary a stable energy legal framework.

Regarding the contracting specifications, after searching on this project, no relevant innovations have been found to mention regarding the typology of the bidding documents have to define when launching the tender and selecting the offers to draft and execute the renovation project.

However, it is important to highlight Austrian and Dutch cases, where rental contract consider a rent increased provision with the aim to be used for maintenance and renovation works. In any case, bidding documents will specify energetic objectives, which normally are verified during or after the works execution thanks to an energy audit or another energy performance certificate.

Moreover, it is important in terms of financing that bank entities are aware of what it means a renovation work, which type of project may exist and how can they scale them up in order to offer an adequate financing.

Finally, we cannot forget citizens, since as it has been seen in some examples, tenants are really aware of what energy efficiency is at the time they have to pay more or less rental income, as well as a higher or lower energy bill.

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