ENERGY COMMUNITY WEBINAR SERIES

What role do financial instruments play in the framework of Long-Term Building Renovation Strategies?

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In focus for this webinar

- Financial instruments, which can be used in a Long-Term Renovation Strategy to implement energy efficiency measures and reach targets. Main advantages and disadvantages
- Get the information on the experience in different Europeans countries to use financial instruments in the framework of Long-Term Renovation Strategy
- Q&A session with the expert

Building Stock: Today Situation

- 97% of Europe's existing building stock is inefficient*
- Approximately 36% CO2 emissions and 40% of energy consumption originated by Buildings sector in Europe

! Great potential for energy and emissions reductions !

Long-Term Renovation Strategy (LTRS) is the main policy strategic document in achieving reduction targets

* Buildings Performance Institute Europe (2019)

European Energy Efficiency Legislation for LTRS

- DIRECTIVE 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products
- DIRECTIVE 2010/31/EU of the European Parliament and of the Council of 19 May 2010 **ON THE ENERGY PERFORMANCE OF BUILDINGS (EPBD)**
- DIRECTIVE 2012/27/EU of the European Parliament and of the Council of 25 October 2012 **ON ENERGY EFFICIENCY (EED)**, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC
- DIRECTIVE 2018/844/EU of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency
- DIRECTIVE 2018/2001/EU of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources
- DIRECTIVE 2018/2002/EU of the European Parliament and of the Council of 11 December 2018 amending EED
- REGULATION 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU
- Impact Assessment accompanying the document Communication from the Commission to the European Parliament and the Council Energy Efficiency and its contribution to energy security and the 2030 Framework for climate and energy policy (SWD(2014) 255 final)
- Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank ‘A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy’ (COM(2015) 80 final)
- Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank ‘A Clean Planet for all — a European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy’ (COM(2018) 773 final)

Long Term Renovation Strategy

Aim

- Accelerating the cost-effective renovation of existing buildings
- Ensuring an increase in deep renovations

Scope

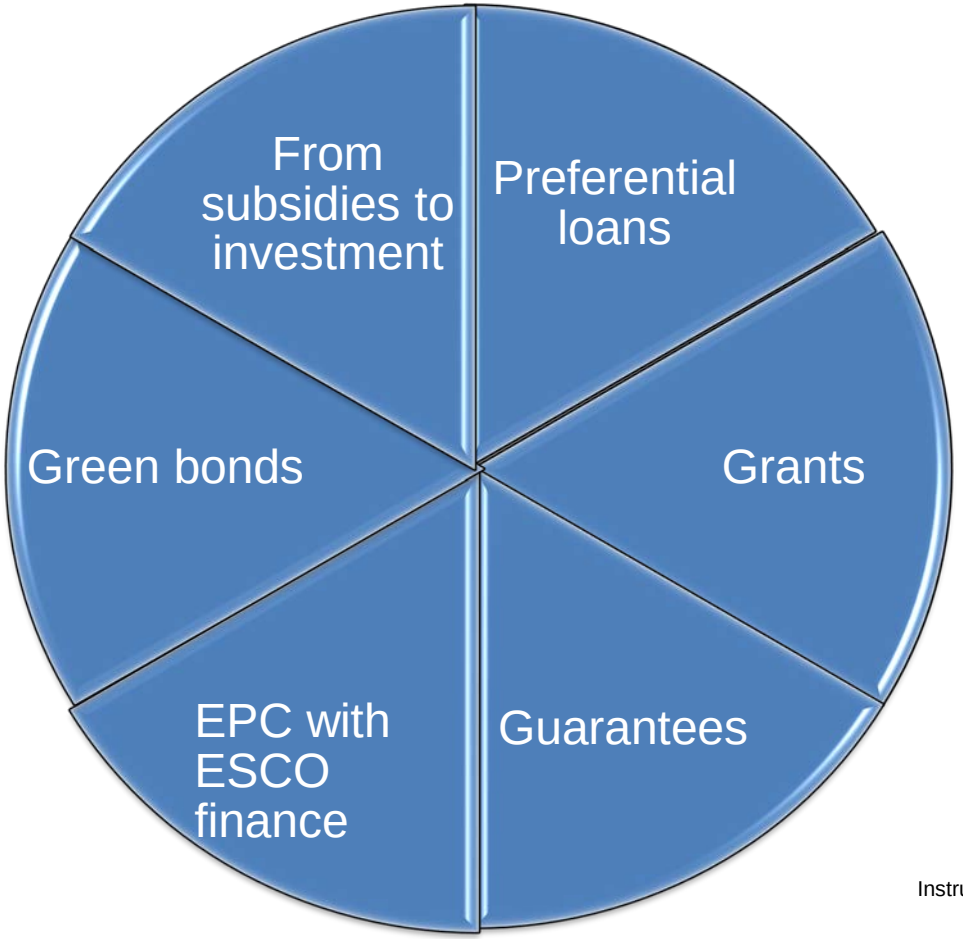
- LTRS should cover all the national stock of public and private, residential and non-residential buildings;
- Establish a comprehensive strategy aimed at achieving a highly efficient and decarbonized building stock by 2050 and cost-effective transformation of existing buildings into NZEBs;
- Set out a roadmap with measures, measurable progress indicators and indicative milestones for 2030, 2040 and 2050;
- Carry out a public consultation on their strategy before submitting it to the Commission and set out arrangements for further inclusive consultation during implementation;
- Facilitate access to mechanisms through smart financing to support the mobilization of investment;
- Submit their strategy as part of their final integrated national energy and climate plan (NECP) and provide information on implementation in their integrated national energy and climate progress reports.

Main types of barriers in building renovation

Financial	Institutional & Administrative	Awareness, advice & skills	Separation of expenditure and benefits
• Access to finance • Payback expectations • Investment horizon • Competing expenditure • Adequacy of price signals	• Regulatory & Planning issues • Institutional • Structural • Multiple stakeholders	• Information • Awareness of benefits • Professional skills	• Landlord-tenant • Investor-society

Source: BPIE study

Instruments to Overcome Financial Barriers



Instrument's pros and cons are adapted from EC. Financing the energy renovation of buildings with Cohesion Policy funding, 2014

Grants: *Description*

Grants are non-reimbursable financial contributions for the implementation of specific measures selected by the final recipient from a pre-defined list. Grants are one of the most common forms of financing for EE projects, particularly where technologies are pre-commercial or in the early stages of commercial deployment or are otherwise prohibitively expensive.

Grants: *Strengths*

- Versatile and can be used to achieve a variety of policy objectives (e.g. to support innovation and technology development, target specific end-users to meet social policy objectives such as fuel poverty).
- Can be used for proof of concept and demonstration activities and to encourage uptake of innovative or beyond cost-optimal measures.
- Enable EE measures identified as priorities by policy makers to be implemented.
- Conditions can be attached to grants to stimulate further private investment (e.g. require the simultaneous installation of other EE measures).
- Represent a flexible mechanism that can be used in combination with other financial mechanisms or technical assistance packages.
- Particularly suitable for economically depressed areas, immature or financially constrained markets

Grants: *Weaknesses*

- Risk that desired outcomes are not achieved.
- Risk of overspend if grant distribution process is not carefully communicated and managed.
- Can only be used once, therefore limiting the utility and sustainability of public funding.
- Limited leverage and impact, tendency towards overpriced solutions.
- Little transparency and performance control.

Grants: *Experience*

Belgium

The program Exemplary Buildings Exemplaires ran in the Brussels Region in Belgium. It is regarded as a success story regarding the implementation of the EPBD in Europe. The programme consisted of a multi-annual demonstration program related to energy and buildings.

Within this program, funds were awarded for the construction or renovation of buildings that are at the forefront in terms of energy and environmental performance.

This resulted in around over 90 public and private renovation projects to (more or less) passive building standards.

Poland

Poland uses non-repayable grants as almost the only form of finance for energy efficiency improvement in buildings.

The high share of grants cause situation that a multiplying/revolving effect of a funding streams is very low.

Moreover, the high level of grants is hindering the creation of more innovative financial tools and, therefore, not triggering energy service companies, especially in the case of public buildings.

Sources: Boosting Building Renovation: What potential and value for Europe? – Study for ITRE Committee, BPIE at all

Guarantees: *Description*

Guarantees refer to a risk sharing mechanism where “the guarantor” entity assumes a debt obligation in case a borrower defaults.
Guarantees can be partial, where the guarantor is only liable for part of the outstanding balance at the time of default, usually defined as a fixed percentage. A loan guarantee allows beneficiaries/final recipients to receive a loan at a preferential rate since the guarantee covers the risk run by the bank in providing the loan.

Guarantees: *Strengths*

- Help bridge the gap between the credit risk perceived by the lender and the actual credit risk. They can provide additional comfort to financial institutions, in relation to technologies or project approaches where they have less experience.
- Help project developers (or loan applicants) to access finance and reduce the cost of capital.
- Increase debt-to-equity ratios, enhancing returns to project developers.
- Guarantees backed by public bodies help to direct the flow of private funds towards EE projects through risk mitigation, and therefore lever higher levels of private financing.

Guarantees: *Weaknesses*

- Guarantees are not appropriate for all market situations and are not necessarily suitable for use in isolation. Where liquidity in financial institutions is considered the main barrier to financing, guarantees are of limited use. However, guarantees can form part of a broader strategy to increase lending among banks with good liquidity but a low risk appetite.
- Partial credit guarantee schemes do not provide an adequate solution to situations where a project investor has insufficient equity.

Guarantees: *Experience*

Hungary

Commercializing Energy Efficiency Finance programme was supported by IFC and GEF.

Among other activities, programme proposed loan guarantee. More than more than 40 project developers/ESCOs have been involved in the implementation of the guaranteed projects.

No guarantees have been called for under CEEF.

Ukraine

Municipal guarantees exist, but procedure for issuing this guarantee is too complicated, long and require the Ministry of Finance approval.

As the results – instrument exists but not working.

Preferential loans: *Description*

Preferential loans refer to the acquisition of funds through borrowing: a lender provides a loan to a borrower for a defined purpose over a fixed period of time. The loan is provided at lower interest rates. Typically the interest rates are fixed over a certain period of time, usually 10-20 years and allow for long-term maturity. The loan configuration varies depending on the borrower, lender and the type of measures taken; however it is usually configured in such way as to take into account real payback time.

In the context of ESI funding, preferential loans can be originated by a financial intermediary with support from an OP based on a risk-sharing arrangement. Under such a setup, the loan packages funding from the financial intermediary at market interest rate and funding from the OP at below market interest rate.

Preferential loans: *Strengths*

- Final recipients are incentivized to select the most appropriate and cost effective measures.
- Well understood mechanism among all parties.
- Since loans are repaid, the money can be reinvested into more projects.
- Provided that the right conditions are present, preferential loan mechanisms are not particularly difficult to administer.

Preferential loans: *Weaknesses*

- EE savings may not always be considered as a cash flow by some financial intermediaries, often extending the payback period for the measure.
- Final recipients do not always see the advantage of a loan with low interest rates and are less incentivized to take part.
- Not very suitable for poorer households who have no income to repay the loan.

Preferential loans: *Experience*

Germany

KfW soft loan scheme whereby public funding decreases the cost of loans, which are then distributed by private banks.

KfW receives a subsidy from the government to lower the interest rate at which it lends to the commercial banks, which can thus propose loans to homeowners under market rates.

United Kingdom

The Green Deal was lunched in 2013. in 2016, National Audit Office published report with negative opinion.

One of the reasons for this failure was that the 7-10% APR interest rate on the loan to householders combined with long repayment period was too high, in fact several percentage points higher than ordinary loans.

Also, scheme complexity played negative role.

Sources: Revisiting the KfW and Green Deal programmes: it's not all about finance! ECEEE SUMMER STUDY PROCEEDINGS

EPC with ESCO finance: *Description*

EPC is an arrangement in which a contracting partner (ESCO) enters into an integrated contract with the end-user and the financing institution to design and implement energy conservation measures with a guaranteed level of energy performance for the duration of the contract. The stream of income from energy savings yielded from the measures is used to repay the upfront investment costs, and payment is based on the achievement of EE improvements and on meeting other agreed performance criteria.

An EPC can be arranged with the ESCO borrowing from banks or investors in order to finance the investment. In such a case, in order to reduce its balance sheet debt, the ESCO may sell future payment streams to a bank in a process called forfeiting.

EPC with ESCO finance: *Strengths*

- Guarantees a certain level of energy savings and shields the client from any performance risk.
- End-user experiences guaranteed project cost, energy and financial savings, and equipment performance.
- The ESCO has expert knowledge of technical requirements, permit legislation and support schemes.
- Enables facility upgrades to be paid for immediately, bringing forward future energy, carbon and operational savings.
- Low interest financing options are often available, including tax-free municipal leases.
- The ESCO represents a single point of accountability, simplifying the upgrade process significantly.
- Annual energy savings can be measured and verified according to the International Performance Measurement& Verification Protocol.
- SE measures improve working and living conditions and increase value of the building.
- Allows organizations to disconnect project debt from the building owner.
- In EPC with ESCO finance, the loan can remain off balance sheet for the building owner and be on balance sheet for the ESCO.

EPC with ESCO finance: *Weaknesses*

- Complex arrangement - establishing an EPC is time-consuming and requires (external) expertise since each project needs to be assessed individually to estimate potential savings.
- After contract is signed the facility owner is tied to one vendor for the term of the contract.
- ESCOs tend to focus on “low-hanging fruit” options that have shorter paybacks and a lower risk exposure. However, properly modelled FIs can de-risk the EPC and motivate ESCOs to take longer-term engagements, going closer to deep renovation. This is particularly interesting in the public sector.
- Measurement and Verification: while the contact is running, the results (energy saved) need to be continuously monitored.
- Any failure or shortfall from the expected result requires reconciliation to recover shortfall.
- EPCs only concern an agreement on savings, not on the measures to be implemented.

EPC with ESCO finance: *Experience*

Ukraine

Implementation of legal reform for public buildings modernization financing through the online procurement platform PROZORRO caused more than 500 contracts for renovation of public buildings using ESCO scheme during last 2 years.

Bulgaria

The ESCO market in Bulgaria has gone through several phases in the last 20 years. It appeared in the late 1990s, but was negligible until around 2005-2006. For now, despite different donor assistance, ESCO projects are not popular.

Financial instructions perceive financing of energy services as high risk business, especially for long-term finance, and neither EPC (as scheme) nor ESCOs (as beneficiaries) are eligible for public funding

Sources: Energy Service Companies in the EU - Status review and recommendations for further market development with a focus on Energy Performance Contracting, Publications Office of the European Union

Green Bonds: *Description*

Green bond is a type of fixed-income instrument that is specifically earmarked to raise money for climate and environmental projects (new and existing) .

An issuer of the bond (borrower) owes a holder (creditor) a debt and is obliged to pay back the amount lent within a certain amount of time and with a certain interest. Green bonds are the bonds where the proceeds are allocated to environmental and climate change projects.

Green Bonds: *Strengths*

- Growing trend
- Global standards
- Detailed impact reporting and greater transparency
- Focusing only on climate and environmental projects
- Bonds tend to be more stable forms of investment, both for the loaner and the loanee, because the value of the money loaned does not fluctuate with the market or the success of the business

Green Bonds: *Weaknesses*

- Lack of ”green” definition
- Green bonds are actually not cheaper
- Only high rating organizations can easily sell green bonds
- Not easy to identify “impact”
- An asymmetry between the minimum size of green bond issuance and project costs within biodiversity conservation. Large supranational investors want to fund large projects but finding conservation projects at this scale can be challenging

Green Bonds: *Experience*

France

Ile de France region issued their first green bonds in March 2012, when in half an hour they reached a 175% subscription rate from investors. While the Region had prepared a Euro 200 million issue, they had to raise their order book to Euro 620 million. Eventually, Euro 350 million were raised and used for sustainable energy projects such as energy efficiency retrofits in social housing.

Sweden

Orebro is the second Swedish municipality that has started issuing green bonds to finance low carbon and environmentally sustainable investments.

The municipality reserved the money it borrowed for environmental projects and deposited it to a transparent account that has been set up for that purpose. The maturity of the bonds was 5 years.

The projects, under the green bonds, were concentrated mostly in passive housing and student hostels renovation.

Sources: Innovative Financing Schemes in Local and Regional Energy Efficiency Policies – http://www.fedarene.org,

From Subsidies to Investment: *Description*

Energy subsidies are measures that keep prices for consumers below market levels or reduce costs for consumers. Subsidies are mainly provided on a monthly basis. Main idea of the subsidies is to eliminate energy poverty among population. But subsidies from a state (local) budget reduce motivation of households to improve energy efficiency in buildings.

Funds, which are allocated for subsidies, could be used as a partly (full) refund of an investment (loan) on EE measures on the same monthly basis.

From Subsidies to Investment : *Strengths*

- A gradual decrease in the amount of subsidy for energy consumption along with the previous level for investment (loan) refund will increase motivation for EE renovation of buildings.
- Resolving the dilemma of the "minimum owner’s co-financing rate" in case of loan or other EE programme - future funds could be treated as owner‘s contribution and not as subsidies from the state.
- Termination of subsidizing by a state without threats of social explosion.

From Subsidies to Investment : *Weaknesses*

- In most cases, households in need of subsidies do not have sufficient funds to invest in EE measures or have a low credit rating to obtain loans.
- Amount of funds transferred from subsidy to refund investment (loan) can be too small to cover this investment (loan) on appropriate level for the exact household.
- The instrument works only with monetized subsidies.
- A real reduction in budget expenditures will occur in a distant future.

THANK YOU
FOR YOUR ATTENTION

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