



*Financial instruments in the
framework of the Long-Term
Renovation Strategy*

Online capacity-building material

March 2020

Building Stock: Current status

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

- ✓ Accelerate cost-effective renovation of existing buildings
- ✓ Ensure an increase of the number of 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

- Access to finance
- Payback expectations
- Investment horizon
- Competing expenditure
- Adequacy of price signals

Institutional & Administrative

- Regulatory & Planning issues
- Institutional
- Structural
- Multiple stakeholders

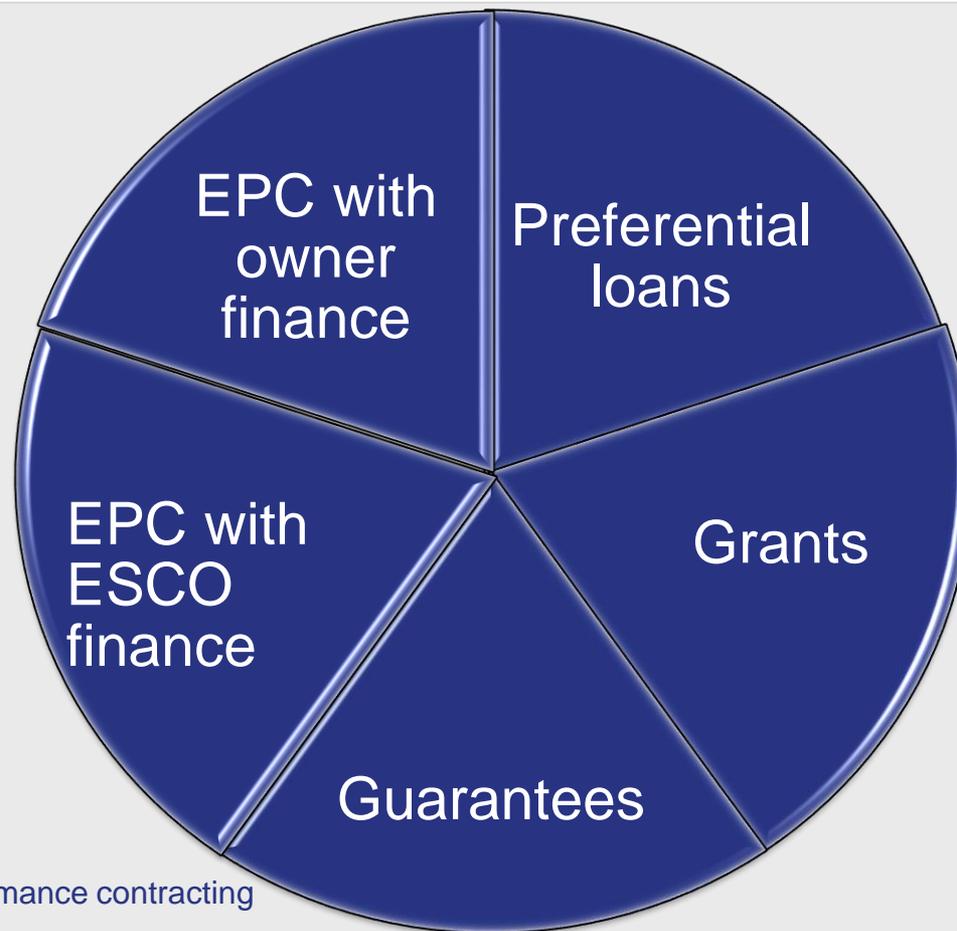
Awareness, advice & skills

- Information
- Awareness of benefits
- Professional skills

Separation of expenditure and benefits

- Landlord-tenant
- Investor-society

Instruments to Overcome Financial Barriers



EPC – energy performance contracting

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 budgetary overspending 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.

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.

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.

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 the 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 contract 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 owner finance: Description

In the case of EPC with owner finance, the contractual arrangement between the ESCO and the building owner regarding EE measure implementation and guaranteed energy performance levels can be the same as for EPC with ESCO finance. The difference is that the building owner provides the money required for the investment (from their own funds or a loan provided by a bank).

EPC with owner finance: Strengths

Generates most of the advantages of an EPC with ESCO financing, including:

- ✓ 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.

Key difference is that the building owner retains a larger share of the savings realized; the building owner can also take over some of the functions that the ESCO might have performed including ordinary operation management or fault clearance. The EPC package can be tailored to the needs and experience of the building owner.

Also, when the building owner has a high credit-rating and the possibility to take on more debt, they may be in a position to get lower interest rates than an ESCO.

EPC with owner finance: Weaknesses

- ✓ Building technology measures can be mostly refinanced from future energy cost savings within a project period of 10 years. However, this is not possible for building construction measures, such as building envelope insulation. Consequently the building owner will be required to make any significant upfront investments.
- ✓ When the building owner finances a EE project with a loan, the loan is capitalized on the owner's balance sheet which then reduces its ability to obtain credit for other projects.

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.