Case Studies of the EU Energy Poverty Observatory (EPOV) showcase successfully implemented energy poverty measures in the Member States. They highlight best practices that can be used as models for energy poverty action.

KEY RESULTS:

- Number of households with improved energy consumption classification (as of March 2018): 47,000
- Total annual reduction of greenhouse gas emissions: 81,000 tCO₂ equivalent
- Number of loans provided for renovation of multi-apartment buildings: 2,070

CHALLENGE

In 2010, the energy efficiency of housing had been improving significantly in Lithuania over the previous ten years in part as a result of the JESSICA I program to implement energy efficiency renovations. However, the energy consumption was still much higher than the average in the EU or old Member States. Around 60% of the more than 38,000 multi-apartment buildings in Lithuania still required some form of energy refurbishment due to having inefficient heating systems and equipment, and poor building insulation.

About 66% of the population lives in multi-apartment buildings that were built before 1993, and 97% of those multi-apartment buildings are privately owned. This means a majority vote by the home-owners is needed to begin renovation of the building. In addition, homeowners often lacked the experience or financial capacity to implement renovations. This created challenges wide-scale renovation efforts to gain momentum.

Low income home-owners also did not have sufficient incentive to improve energy efficiency, because these households were eligible for heating costs compensation. Although the Lithuanian Government had attempted to implement renovation programmes, these were relatively expensive and were discontinued.

An assessment report in 2014 identified the need to renovate approximately 7,000 multi-apartment buildings, which would cost more than €1.3 billion. Public funds alone are not sufficient to meet such a financial demand, so that an instrument that uses public funds more efficiently was required.

Finally, a key challenge of setting up a new renovation programme was to raise public awareness of the benefits of renovations, so that home-owners would become more engaged.

About the EU Energy Poverty Observatory

The EU Energy Poverty Observatory (EPOV) is an initiative by the European Commission to help Member States in their efforts to combat energy poverty. It exists to improve the measuring, monitoring and sharing of knowledge and best practice on energy poverty. EPOV has been developed by a consortium of 13 organisations. This report was produced by Ecofys.

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EU ENERGY POVERTY



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Jessica II Fund AT-A-GLANCE

Type of measure: promoting energy efficiency and the use of renewable energy

Duration: 2009 - 2020

Location: Lithuania

Target group: home-owners in multi-apartment buildings

Organisations involved:

- European Investment Bank
- Financial intermediaries (commercial banks and public agency)
- Ministry of Finance and Ministry of Environment
- National housing cooperatives and home-owners

Funding method: ERDF funds, private resources and JESSICA reflows

Financing method: preferential loans

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Additional Benefits:

- Reduced energy consumption significantly (up to 60% energy savings on average)
- Achieved higher energy efficiency potential (at least Classification C)
- Lowered energy bills
- Improved living conditions

OBJECTIVES

The modernisation of multi-apartment blocks built during the Soviet era is one of the overarching priorities of the Lithuanian Government to improve energy efficiency. The renovation of multi-apartment buildings could potentially achieve around 30 to 60% of the energy efficiency potential. As a result, the Lithuanian Government aims to save 2.7 TWh through the modernisation of multi-apartment buildings by 2020.

In addition, national energy efficiency programmes should also aim to:

- Improve the living standard of population
- Revive the Lithuanian construction sector
- Reduce Lithuania's dependency on a single energy supplier
- Leverage public funds in a way that attracts maximum contributions from the private sector

From the point of view of the home-owners, the main objectives of the renovations are to lower heating expenses, increase thermal comfort, improve the appearance of buildings and their surroundings and increase real-estate values.

DESCRIPTION

The multi-apartment Buildings Modernisation Programme ("the Modernisation Programme") is one of the main instruments of the Lithuanian Government to implement energy efficiency renovations. During the 2007-2013 programming period it was financed by JESSICA Holding Fund Lithuania ("JESSICA I"). JESSICA I was a revolving financial instrument, which blended EU and national funds to bridge the financing gap for energy efficiency projects in Lithuania. JESSICA I primarily offered preferential loans for energy efficiency modernisation.



Photo from: Housing Energy Efficiency Agency (www.betalt.lt)

The preferential loans were issued at a 3% fixed interest rate with maturity of a 20 years. In addition, homeowners were initially eligible for up to 40% subsidy upon reaching certain energy efficiency goals after the renovation. Eventually the size of the subsidy decreased as the Modernisation Programme gained popularity. Furthermore, low income households benefited from additional support from municipalities that covered their monthly loan payments.

Under JESSICA I, €265 million (consisting of EU structural funds, Lithuanian national funds, private contributions and revolved reflows) has been fully committed and over 1,000 multi-apartment buildings across Lithuania have completed energy efficiency modernisation renovations. All of Lithuania's 60 municipalities have participated in the Modernisation Programme.

JESSICA I enjoyed wide public support at national and municipal level, and attracted domestic attention and international recognition as a successful financial instrument for energy efficiency in housing. The Modernisation Programme was recognised as strategically important in view of the impact of energy efficiency measures on energy demand reduction and thus indirectly on energy security and independence. In addition, the programme had a positive effect on job creation and economic growth. Hence, the Lithuanian Government was eager to continue with the Modernisation Programme.

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DESCRIPTION CONT.

In May 2015, Jessica II was established as a follow-up fund to JESSICA I with €150 million of 2014-2020 European Structural and Investment Funds. Jessica II closely follows JESSICA I's objective, form and product, namely to finance energy efficiency projects in residential housing in Lithuania through preferential loans.

One important priority for Jessica II was to maximise the leverage of its assets through private finance in order to minimise national public contributions to the scheme. To this end, the fund manager (the European Investment Bank) created a specific instrument called 'pre-financings', which are secured by the future re-flows from the Jessica II portfolio. This instrument was used to attract €180 million of resources from financial intermediaries, including commercial banks and a public agency. This was the first time that these institutions took risks on these type of loans in Lithuania. As a next step, the European Investment Bank has developed a first-loss portfolio guarantee instrument, which aims to attract even more private funding.

As of March 2018, nearly 700 multi-apartment buildings have successfully finished modernisation renovations, while renovation of another 400 multi-apartment buildings are expected to be financed with the available funds.





Photos from: Housing Energy Efficiency Agency (www.betalt.lt)

SUCCESS FACTORS

• Factor 1: Close cooperation between the fund manager (European Investment Bank), the provider of the fund and financial intermediaries, such as commercial banks.



- Factor 3: Constant monitoring at the administrative level and the level of financial intermediaries to assure that funds are used in compliance with EU rules.
- Factor 4: Market-driven approach that focuses on identifying and meeting existing needs through assessments and market tests.
- **Factor 5:** Flexible investment strategy allows for an appropriate financial instrument to be developed that can fill the market gap and swiftly respond to changes in the market.

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LESSONS LEARNED

• Access to loans: in multi-apartment buildings, renovation works will only be carried out if everybody in the building has access to a loan. This may require aggregation of credit risk by lending to housing associations/administrators rather than to individual apartment owners.

• **Clarity:** Private households need a clear and understandable subsidy scheme in order to enter into energy efficiency investments.

• **Complexity:** As energy efficiency is not necessarily cost-covering within an acceptable timeframe and the benefits to individuals are not always trusted, complex structures with audits before and after the investments are often not acceptable.

• **Information:** Any energy efficiency programme needs to be well publicised and documented, and guidance needs to be readily available. Governments need to be persuasive, transparent and supportive when informing their citizens.

• **Procurement:** Investors need to have easy-access to reliable energy efficiency builders, equipment installers and auditors, such as through pre-qualified/licensed contractors.



Photo from: Housing Energy Efficiency Agency (www.betalt.lt)

TRANSFERABILITY & SCALABILITY

In order to replicate the model in other countries, the following elements are crucial:

- Strong support from the public sector at regional or national level the product or programme may need to be customised in order to better bridge the market gap.
- Subsidised loan support scheme the initiative must be affordable to the home-owners and they have to clearly see a payoff in a reasonable timeframe,
- Existence of dedicated housing cooperations or housing providers required to facilitate the mobilisation of home-owners to engage in the programme.
- Expertise from the public sector side, the housing cooperations and the financial intermediaries efficient project pipeline management, project preparation, procurement processes and financing procedures.
- Trust between participants assurances aid developing trust in the programme, which leads to higher interest from the public to participate, and increased private sector invests which leverage the available public funds.

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SOURCES

- Eurostat
- Housing Energy Efficiency Agency in Lithuania (www.betalt.lt)
- EIB internal data
- European Commission, DG REGIO, Unit on Estonia, Finland, Latvia and Lithuania







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