











Lithuania key statistics:

Average temperature: -5°C in winter 17°C in summer population < 3 millions

66% of population live in multi-apartment buildings built before 1993

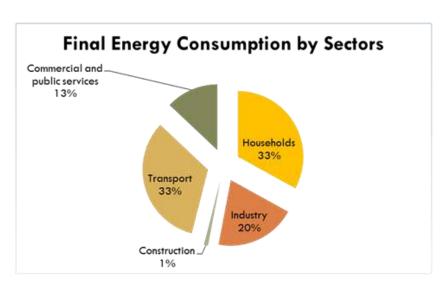
(>38,000 multi family buildings and >800,000 apartments)

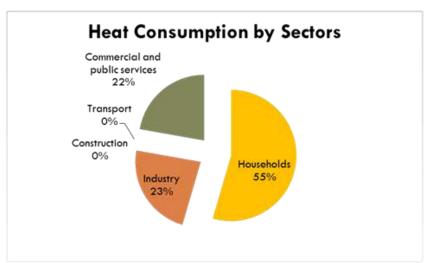
97% privately owned, only 3% municipal rental stock

65% of buildings supplied by district heating



Energy Consumption in Lithuania





Multi-apartment buildings:

100% heat, hot and cold water meters installed consume about 9,5 TWh/year energy saving potential - around 50%

Energy Prices for households:

Heat in average - 6,3 ct./kWh Electricity - 12,4 ct./kWh Gas for households - 66 ct./m³





NATIONAL:

Ministry of Environment, Ministry of Finance (Investment Committee) - regulatory environment Housing Energy Efficiency Agency (BETA) - program planning, supervision and implementation Energy Efficiency fund (Jessica) - funding Financial institutions - SEB, SWEDBANK, Šiaulių bankas and Public Investment Development Agency Central Procurement Office (CPO) - tenders

LOCAL:

Municipality (inefficient building selection, Program preparation, appointing Program administrator, supervision) - local planning and organizing

Program/ project administrator (appointed by Municipality or homeowners) - designated project administration

Engineers consultants (preparation of investment projects, support on procurement and supervision of works) - quality and legal supervision

Contractors

Owners of apartments



Multi - apartment buildings renovation (modernisation) Programme approved by the Government of the Republic of Lithuania in 2004

The Programme aimed to:

increase energy efficiency in multi-apartment buildings; ensure that cumulative annual heating costs + loan repayment after the renovation do not exceed the heating costs before



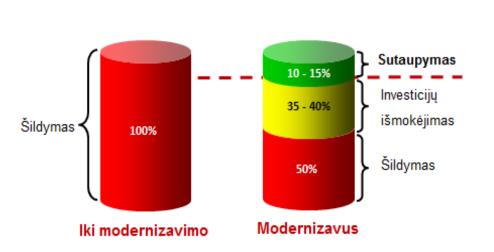






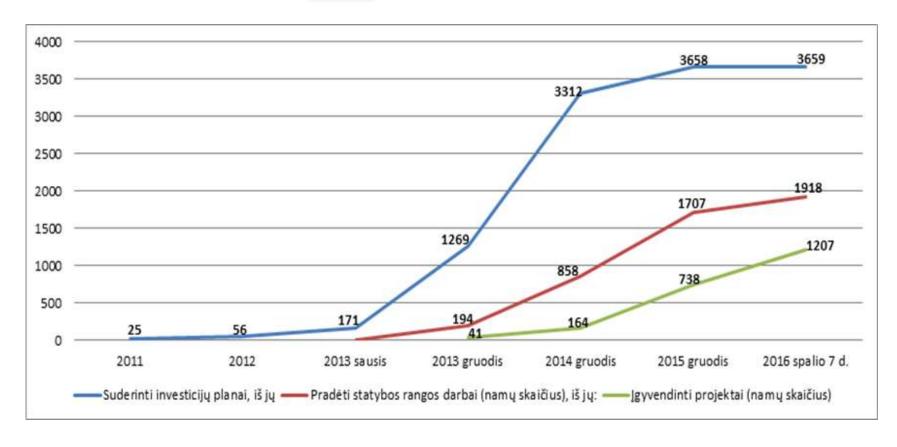


1. Home owners draft investment projects, take loans and implement modernisation on their own initiative



- 2. Investment projects are based on the Energy Efficiency Programmes approved by the municipalities:
 - investment projects are prepared on the municipal initiative;
 - projects are implemented by the Programme administrators appointed by the Municipality;
 - loans are taken by the Programme administrators;
 - programme administrators are responsible for procurement, implementation and financial management





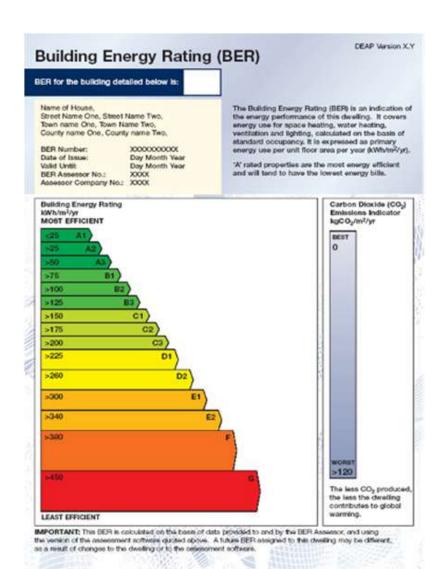
More than **3.650** renewal projects approved since 2013 **About 700** multi-apartment buildings are being upgraded **1250** projects completed since 2013

Before the new model - only 50 projects annually



Funding Conditions

- Constructed before 1993
- Energy audit + energy performance certificate + investment project required
- Majority of owners vote for modernisation (50%+1)
- At least Energy Efficiency Class C
- 100% off costs for technical documentation
- Soft loans with fixed interest rate at 3% through a commercial banks for the max. period of 20 years
- 15% off modernisation costs if energy savings
 20%
- Additional 20% off modernization costs if achieved energy savings 40% or more (Climate Change Programme)
- 100% of all costs for low income households





Built in 1964

Number of apartments: 101

Heated area: 5.670 m²

Investment: EUR 0,608 mill.

Implemented: insulation of walls, roof, windows replacement, glazing of balconies, modernization of heating system

Results:

- energy savings 70%
- class D before, class B after
- energy consumption 60 kWh/m²





Municipalities are encouraged to prepare programs for energy efficiency of urban areas by combining different measures and instruments:

- renovation of multi-apartment buildings
- renovation of public buildings
- modernization of street lightning and other engineering infrastructure





Area of 8,8 ha 41 multi-apartment building:

- renovating all
- energy efficiency >50 %
- investment 140 Eur /m²

1 public building (kindergarten):

- renovation
- energy efficiency >50%
- investment 150,4 Eur /m²

Street lightning ~ 1960 meters:

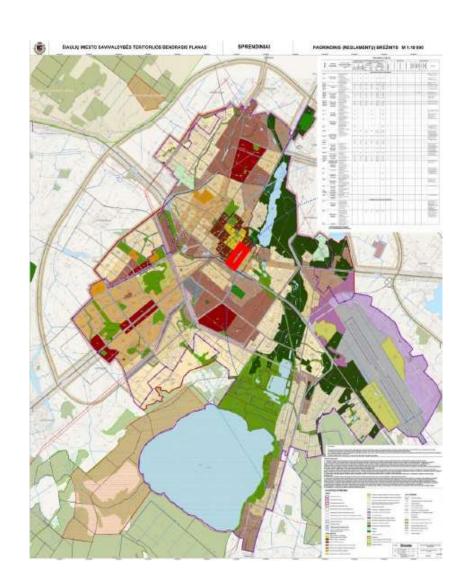
renovation and installation of LED

Heat supply:

renovated in 2015

Green Areas:

renovation





Plans for innovative projects:

Passive house or "plus" house achieved after the renovation of kindergarten Implementation of alternative energy sources in other renovation

What is already done:

Feasibility study, economical evaluation

Urban area Energy Efficiency Program approved by the City Council and administrators appointed

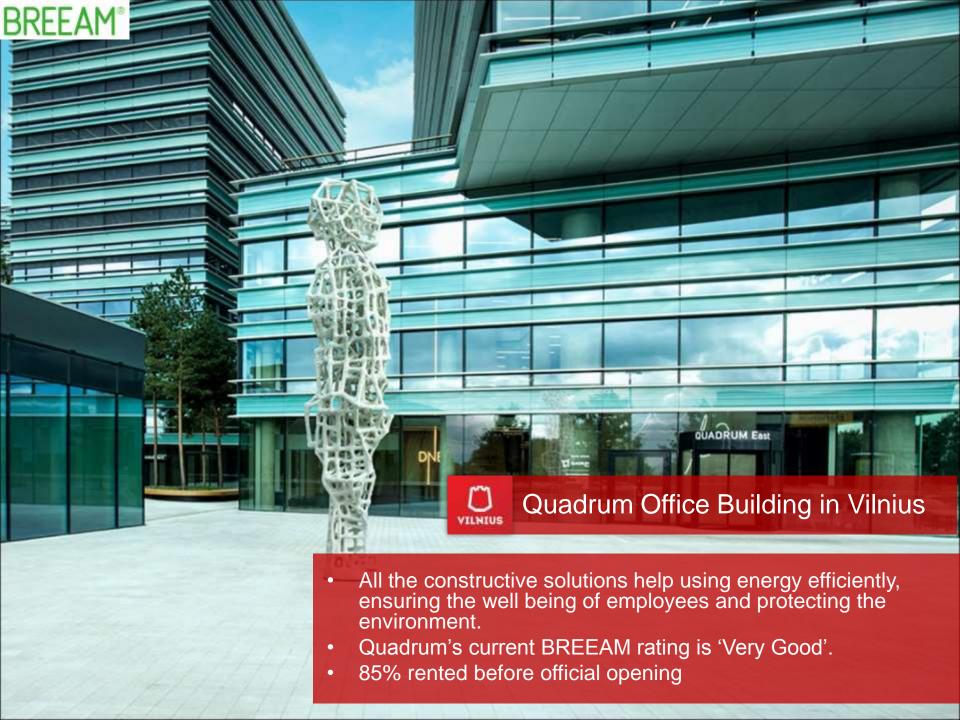
Program started in 2016, to be completed in 2022

Total investment demand: 15,3 mln. EUR

Expected energy efficiency:

Energy consumption in the urban area will be reduced by 5,9 GWh/ year (approx. 50%) Energy consumption per one consumer will be reduced by 2550 kWh/ year







Opportunities for Dutch Companies



Renovation:

Participation as contractor Supply of new technologies Supply of materials

Contacts:

Beta: http://www.betalt.lt/en/

New buildings:

Real Estate development Sustainable building technology supply

Contacts:

Go Vilnius





Global SSC and Business Service Centers

"Most Dynamically Developing City in CEE for Shared Services And Outsourcing"

Award in 2016 and in 2017

Newcomer in ICT – Macaw

