

Title of the measure:	LV42 Increasing Energy Efficiency in Multi-Apartment Buildings: EU programming period of 2014-2020 <i>(Energoefektivitātes pasākumi dzīvojamās ēkās: 2014-2020)</i>
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General description

The low energy efficiency in the final consumption sectors is the challenge stated by the Latvian National Reform Programme for Implementation of „Europe 2020” Strategy (NRP). The Latvian NRP sets the following target for 2020: total savings of primary energy 0.670 Mtoe, savings of final energy - 0.457 Mtoe.

The particular measure contributes in achieving a cumulative end-use energy savings target of 1.5%, determined in accordance to the Article 7 of the Directive 2012/27/EU [1].

Multi-apartment housing stock in Latvia includes ~ 36.6 thsd buildings with total area 50.4 million m². The dominating share (95.5% of total area) was built before the year 1993 [5, Annotation] thus having a low EE level (in year 1993 more strict thermal technical requirements for the structures covering the building were imposed which were strengthened in 2014¹). According experts’ estimates, 60-70% of the Latvian buildings sector can be renovated in a cost effective way² – in the residential sector that would mean about 25 thsd multi-apartment buildings with total area of 38 million m² ([3, section 318; 5, Annotation]). The investments for the increase of EE of housing sector are crucial for the promotion of resource efficiency and overall welfare, EE measures have a significant impact on household spending on energy.

Improvement of EE in multi-apartment buildings is defined as one of the priority tasks of the Strategic Objective “Energy Efficiency and Energy Production” of the National Development Plan for 2014-2020 financial planning period. The goal of this Strategic Objective states ensuring the sustainable use of the energy resources required by the national economy by promoting the availability of a market for the resources, a decrease of the energy intensity and emission intensity in certain sectors, and an increase of the proportion of renewable energy sources in the total consumption, while focusing on competitive energy prices [2, sections 191-207]. The measures to be implemented are in line with “Latvian Energy Long Term Strategy 2030 - Competitive Energy for Society”[4], in which the increase of EE is set as national priority.

Increasing of EE in multi-apartment buildings is supported within the framework of the National Operational Programme 2014-2020 “Growth and Employment” [3]: Thematic Objective No4 “Supporting the shift towards a low-carbon economy in all sectors”, Investment Priority 4.2. “Support energy efficiency, smart energy management and use of renewable energy sources in public infrastructure, including in the public buildings and in housing sector”, Specific Objective 4.2.1. “To increase energy efficiency in public and residential buildings”. Investments will ensure conformity to the EU Council Recommendations in the area of EE.

15 March 2016 the Cabinet of Ministers had adopted the Cabinet of Ministers (Governmental) Regulations No160 (2016) on Energy Efficiency Measures in Residential Buildings co-financed by the EU ERDF [5].

The Amendments to the Regulation had been adopted:

- 01 November 2016 (Cabinet of Ministers Regulations No 710)
- 18 July 2017 (Cabinet of Ministers Regulations No 410),
- **13 March 2018** (Cabinet of Ministers Regulations No 161),

The latest Amendments are highly beneficial for the perspective beneficiaries, as it is shown in the description below.

Responsible ministry for implementation – Ministry of Economics.

¹ see the measures HOU-LV37 and HOU-LV32 of the MURE database Household sector.

² The EE improvement project is considered as cost-effective if pay-back time of investments is up to 30 years [5, Article 52.1].



The stock company “**ALTUM**” as the state development financing institution proceeding with the implementation of current state aid programmes according to the Governmental mandate [6], are responsible for implementation of the given ERDF co-financed programme. To implement the programme ALTUM establishes the cooperation with other financial institutions. Important, the Amendments of the Regulations [5], adopted in July 2017, introduce two new Sections regarding procedures of involvement of ESCO companies (Section X¹) and involvement of building manager as the other financier (Section X²). The consultative cooperation with the social partners (Latvian Union of Self-Governments, and others) is established as well. The Informative Campaign “Let’s Live Warmer” is continued³.

Target group/beneficiaries - community of flat owners of multi-apartment buildings. Eligible territory – the whole territory of Latvia.

If EE improvement measures will be implemented in the building, in which one or several flat owners perform commercial activities, these owners may pretend to the support according the rules of the Regulation No. 1407/2013.

Important, the renting of flats owned by municipalities to provide (i) assistance in solving apartment matters for certain groups of inhabitants (in accordance with the Law on Assistance In Solving Apartment Matters), (ii) social housing (in accordance with the Law on Social Apartments and Social Apartment Houses), (iii) renting of flats which are not privatised during the privatisation process is not considered as the commercial activity.

Also commercial activity is not considered the use or delegation for use of non-residential premises in the residential building if it relates to the fulfilment of municipality or state functions and delegation of them⁴.

Activities supported to improve EE of multi-apartment buildings [5, Article 33]:

1. construction works for the increase of EE: works performed in the building’s delimiting outer constructions and in building’s parts which are joint ownership of flat owners,
2. renovation, reconstruction or establishment of engineering systems of multi-apartment building,
3. purchase and installation of heat production equipment and hot water production equipment which utilise renewables⁵
4. author’s supervision, supervision of construction works of energy efficiency improvement measures,
5. costs of energy efficiency improvement measures management⁶
6. VAT (if cannot be re-paid according the existing legislative basis)
7. costs of building’s energy certificate, building technical inspection documentation, construction project⁷

³ see the measure HOU-LV29 of the MURE database Household sector.

⁴ including the delegation of use to public benefit organisations, if they do not realise commercial activity there

⁵ if such high efficiency technologies implementation is technically and economically justified and decreases the total costs of the energy,

⁶ up to 3% of the total eligible costs of energy efficiency improvement measures

⁷ **Important. Point 7 of Article 33 is included by the latest Amendments, adopted in 13 March 2018** and is eligible for projects’ applications submitted from 01 January 2018. This point had not been included in the basic version of the Regulations. The reason why these costs had not been included in the basic version of the Regulation was that had been expected active participation of municipalities to co-finance these costs.

Although to help in the preparation of the technical documentation, a number of Latvia self-governments are providing financial assistance for covering these costs according to the Law “On Assistance in Solving Apartment Matters” (see the MURE Database Measure HOU – LV30. E.g., Ogre municipality covers 80% of the energy auditing costs and up to 7000 EUR for one building; Ogre municipality by-law No16, 2015), the activity of municipalities in this issue appears not as high as expected. Thus it was decided to amend the Regulations more beneficial for final beneficiaries.

Total costs of technical documentation, author’s supervision and supervision of construction works shall not increase 10% of the sum of construction contract.

To avoid double-financing, the ALTUM is responsible to check whether the beneficiary has not received for this position the support from the municipality.

[Annotation of the 13.03.2018 Amendments].

The following requirement regarding the eligibility of multi-apartment building is stated: [5, Article 31.1]: one owner owns no more than 20% of the total number of flats of the building or 20% of the property (undivided share in the common property building). This restriction does not relate to flats owned by state or municipalities.

Renovation of residential buildings for the increase of EE shall be done accordingly to the economically justified EE improvement measures indicated in building's energy audit report (done by the independent expert) which shall be submitted together with the application for the programme's support. Building's energy certificate should be submitted as well. The costs of EE improvement measures shall correspond to the average market prices.

ALTUM shall provide consultative support for potential beneficiaries and supervise/evaluate the prepared technical documentation (energy audit, technical inspection report, technical project, etc.) of the EE improvement project before the granting the financial assistance to particular beneficiary. The financial assistance is contracted to the person authorised by the community of flat owners of multi-apartment building.

The annual heat energy consumption for heating after renovation of the building **shall not exceed 90kWh/m²** [5, Article 31.3].

The return of the invested funding is set as the main criterion for the support of EE improvement projects. Namely, the implementation of the project shall be economically justified: **IRR for 30 years period shall be above zero** [5, Article 52.1].⁸

The applications are evaluated by ALTUM according the order of their submission. There is not foreseen competitive comparison of applications. Each application, which will correspond to the defined criteria, will receive the support.

To provide high quality of EE improvement works, "ALTUM" establishes the Competence Centre, which provide: financial consultations related to EE project's planning, preparation and implementation; consultations regarding preparation of the technical documentation; experts' prepared guidelines for the preparation of necessary technical documentation; agreements' standard forms; evaluation of technical documentation for the renovation; conclusions regarding the compliance of project documentation with the requirements of given financial assistance programme; supervision of the projects implementation quality, if necessary by visiting *in-situ* as well as summarize and provide public information regarding implemented projects.

Financing

The programme's total planned public financing is around 166 million EUR, see Table 1. In addition, the Amendments of the Regulations No 160, adopted 01 November 2016, states the providing to "ALTUM" the state loan in the form of credit line from State Treasury of 23 446 500 EUR for 20 years.

⁸ **Important.** In the basic version this period had been stated 20 years. The change to 30 years period is done by the Amendments, adopted March 2018. The reason for this change is as follows, Ex-ante evaluation of the programme had taken into account rather large heat energy tariff, average for the state – 53.57 EUR (without VAT). The actual district heating tariffs in a range of municipalities are considerable lower (e.g., in capital city Riga 44.39 EUR/MWh). Thus, the experience has showed that due to relatively low district heat costs which directly impacts the pay-back time there already have been large number of projects which were thus forced to increase the non-eligible costs part of the project or even to refuse the submission of the project. Also there have been several cases when commercial banks refused the loan due to large amount of non-eligible costs. Due to these reasons, it was decided to increase the pay-back period from 20 years to 30 years [Annotation of the 13.03.2018 Amendments].

Table 1. Planned amount of financing for the measure [5, Articles 9 &10], in EUR

	Available	Planned (Might be increased after 01.01.2019* up to)
ERDF	130 084 962	141 493 317
State budget	22 956 176	24 969 415
TOTAL	153 041 138	166 462 732
Notes:		
<ul style="list-style-type: none"> the ERDF maximal contribution is 85% of total planned financing the increase of financing might be done after evaluation (by European Commission) the implementation performance of the programme [5, section 11] 		

The financial assistance (see Table 2 below) is provided in the following forms [5, section 36].

- (1) subsidy (grant),
- (2) repayable loan,
- (3) guarantee for the loan

Table 2. Split of planned public financing [5, Articles 9 & 10], in EUR

	Available	Might be increased after 01.01.2019 up to
For energy efficiency improvement grants, consultancies, overall programme management		
ERDF	104 584 962	114 387 317
State budget	18 365 062	20 063 592
TOTAL	122 950 024	134 450 909
For financial instrument to be implemented by "ALTUM" (repayable loans, guarantees for the loans, management costs of the instrument)		
ERDF	25 500 000	27 106 000
State budget	4 591 114	4 905 823
TOTAL	30 091 114	32 011 823

Loans.

The Regulation [5] foresees two approaches for repayable loans: (1) from "ALTUM" or from (2) other financial institution. At first, the loan's application shall be submitted to other financial/crediting institution. However, it might be buildings with higher risk or the situation in which only low interest rate might provide EE measures to be economically justified. According the evaluation, done by "ALTUM" [Annotation of Amendments of the Governmental Regulations [5], November 2017], there might be up to 23% of applicants which will not be able to attract the market-based financing. In such a cases the loan might be provided by the "ALTUM". It is planned that "ALTUM" will ensure the low interest rate (2%+12 months EURIBOR) loans, however it may change if the costs of attracted outside funds will rise. To apply for the ALTUM loan, the total amount of building's owners debts for the services (waste management, district heat, water supply, sewage treatment and others) shall not exceed 10% of the total annual sum of the services for the last year.

Grants (subsidies).

The grants are still necessary to decrease the pay-back period of the EE measures. The maximum amount of the grant for the building's EE improvement project is determined depending on the loan institution. According the 13.03.2018 Amendments of the Governmental Regulation [5], the share of subsidy is as follows:

- (1) if loan is issued by ALTUM – 35%,
 (2) if loan is issued by commercial institution – 50%⁹

Taking into account that loans of crediting institutions will have higher interest rate, in this case the share of grant in financing EE project shall be higher.

In its turn, ALTUM has right to decrease the amount of the grant, if, as a result of project implementation, the obtained energy savings (expressed in money units) will be enough to repeat after 30 years the buildings' EE renovation without attracting co-financing from public financial sources.

Guarantees. In case of loans' guarantees, issued by "ALTUM", the guarantee will cover up to 80% of the financial service, the annual premium constitute 0.65%. The total guaranteed sum for the building shall not exceed 3 MEUR, the time period of the guarantee – not longer than 20 years.

Impact evaluation**Table 4. ERDF specific result and output indicator [5, section 5]**

Indicator	Unit	Baseline value	Planned value (2023)
ERDF specific result indicator			
Average heat consumption for heating	kWh/m ² / year	150 (2012)	120 (2023)
ERDF specific output indicators			
Number of households with improved energy consumption classification, <u>at least</u>	number		14286 (on 31.12.2023)**

⁹ **Important.**

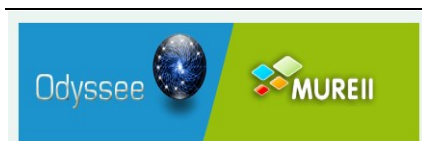
The unified level of co-financing is introduced by the 13 March 2018 Amendments.

The basic version of the Governmental Regulations [5] had stated the subsidy depending on energy efficiency level to be reached.

Table . Amount of subsidy depending on the crediting financial institution and energy efficiency level to be reached [5, Basic version section 57]

Specific heat energy consumption for heating, kWh/1 m ² annually	Share of subsidy	
	"ALTUM"	Other financial institution (on the basis on contract with "ALTUM")
81 - 90	25%	36%
71 - 80	30%	43%
Not higher than 70	35%	50%

The reason for introduction of unified level, not depending on energy efficiency level to be reach, has been the following. In most of cases the owners of buildings want to receive the maximum support intensity meaning reaching at least 70 kWh/1m²/annually specific heat energy consumption for heating. However in most of cases it needs performing the complex renovation of the building which increase costs of renovation and financial responsibilities of flat owners. Cancelling the subsidy gradation depending on planned energy efficiency level, the subsidy programme becomes available also for those buildings which, ebeb after increase of pay-back time up to 30 years, cannot perform the complex renovation due to different reasons. Due to noted Amendments, these buildings now can receive maximum subsidy intensity for performing partial renovation, e.g., renovation of engineering communications, insulation of edge walls. The costs of such projects will be considerably lower compared to complex renovation. This is particularly important for large multi-apartment buildings, for buildings in which flat owners want to implement EE measures step-by-step (as they have not yet experience in implementation of EE projects) and also for the buildings which had already partially implemented EE measures. It has to be noted, the subsidy is provided only for those projects whose IRR for 30 years period are above zero [Annotation of the 13.03.2018 Amendments].



Average heat consumption for heating in residential buildings after implementation of energy efficiency measures	kWh/m ² /year		Not higher than 90*
Additional RES capacity installed	MW		2.74
Evaluated CO ₂ savings	tons/year		12582
<p>Note:</p> <p>* The specific heat energy consumption for heating corresponds to Liepaja city climate conditions. For other Latvia territory, the given value shall be re-calculated according to the <i>Governmental Regulations No.338, 30.06.2015</i> on Latvian Construction Standard LBN003-015 „Construction Climatology (<i>Būvklimatoloģija</i>)”</p> <p>** According the evaluation, done by “ALTUM” [Annotation of Amendments of the Governmental Regulations, November 2017], it is anticipated the implementation of energy efficiency projects in <u>1030 multi-apartment buildings</u>.</p>			

Impact Calculation Methodology for ERDF impact

The methodology is developed by the Ministry of Economics:

Output indicator passports of specific measures of the Operational Programmes “Growth and Employment 2014-2020” [7, published 03 May 2016]).

Important, the evaluation, presented below does relate to available ALTUM co-financing only. Taking into account the beneficiaries contribution, the total sum of the measure is envisaged at least 2 times higher than the ERDF co-financing. Thus, the total impacts regarding energy savings and CO₂ emissions, presented above, will also at least double.

Basic data

- average specific costs of multi-apartment buildings renovation = 150 EUR/1 m²
- total amount of available ALTUM co-financing, directly invested in energy efficient renovation ~120 MEUR
- total amount of renovated area: 120*000*000 EUR / 150 EUR/1m² = 800000 m²

Energy Savings

- anticipated specific energy savings 60 kWh/ 1m² renovated
- total anticipated energy savings: 60 kWh/1 m²* 800000 m² = **48 GWh (0.173 PJ) annually**

New Renewable Capacity

- for this purpose ~1%of total measure budget is anticipated. The specific costs of RES technologies is expected 600- 700 thsd/1MW. Thus installation of 2.74 MW new RES capacities are anticipated.

CO₂ savings

CO₂ savings due to energy efficient renovation

- the specific CO₂ emission factor for heat produced by using natural gas is applied, 0.201 tons CO₂ / 1 MWh
- the total CO₂ emissions savings are anticipated: 0.201 tons CO₂ / 1 MWh * 48000 MWh = 9648 tons CO₂ annually

CO₂ savings due to new RES capacity

- annual load 4870 hours,
- new heat energy produced by RES: 2.74 MW * 4870 hours = 13344 MWh
- the assumed efficiency of natural gas heat boiler = 90%
- the anticipated CO₂ savings = 0.201 tons CO₂ / 1 MWh * 13344 MWh / 0.9 = 2980 tons CO₂

Total CO savings

- 9648 tons + 2980 tons = 12628 tons annually

Comment (IPE). The key data for the methodology is the cost for renovation of 1m². In the initial ex-ante [7] it has been assumed costs of 140 EUR/1m². According the information provided in the Annotation to Amendments (March 2018) to Governmental Regulation [5], in the additional ex-ante evaluation these costs has been increased up to 150 EUR/1m²; as well as it is noted that currently submitted projects indicate this value 180 EUR/1m². On the other hand, there is no expected threats to reach the indicated target values.

The Latvia national Plan of the Alternative Measures of Energy Efficiency Policy to Reach the Target of Energy End-Use Consumption Saving 2014-2020 [9] envisages the 2020 cumulative energy savings of 249.6 GWh (0.9 PJ) due to implementation of the measure. Thus, assuming the main impact period 2018-2020 it might be estimated 2020 annual savings up to 0.5 PJ.

For comparison, the overall final energy consumption in Latvia residential sector, average in years 2012-2015 (i.e., before the start-up of the impact of the measure) constituted ~ 52 PJ [8]. The semi-quantitative impact evaluation may be attributed as “high”.

Interaction of measures

In April 2014 the amendments to the Latvian Construction Standard LBN 002-01 “Thermotechnics of Building Envelopes” had been adopted defining further more strict thermal technical requirements for the structures covering the building - see the measure HOU-LV37 of the MURE database Household sector.

In 2013 it has been introduced by the Cabinet of Ministers (Governmental) Regulations six (A-F) energy efficiency classes of residential buildings, see the Table 2 in the measure HOU-LV30 “Energy Audits and Energy Certification of Buildings” of the MURE database Household sector.

The Informative Campaign “Let’s Live Warmer” is continued – see the measure HOU-LV29 of the MURE database Household sector.

The investments in 2014-2020 financial programming period in energy efficiency of residential buildings are supplemented with the investments to improve efficiency of district heating systems, foreseen by the [3, sections 334-345].

Historical data

Up to year 2009 the energy efficient renovation of multi-apartment buildings in Latvia was implemented only in the form of the pilot projects. In year 2009 the significant scale of energy efficient renovation had started using the ERDF co-financing - as a result in the programming period 2007-2013 of EU Structural Funds it has been renovated ~2% of the total number of multi-apartment buildings. Two support programmes were implemented for improvement of energy efficiency of residential buildings:

- (1) Increasing energy efficiency in multi-apartment buildings, see the measure HOU-LV41 of the MURE database Household sector,
- (2) Increasing energy efficiency in social-apartment buildings, see the measure HOU-LV33 of the MURE database Household sector.

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4. Latvian Energy Long Term Strategy 2030-Competitive Energy for Society. Ministry of Economy of the Republic of Latvia, approved by the Latvia Government on May 28, 2013. <http://tap.mk.gov.lv/mk/tap/?pid=40263360> (in Latvian).



5. Cabinet of Ministers (Governmental) Regulation No160 (2016) “Regulations regarding the 4.2.1.1. specific target “Energy Efficiency Measures in Residential Buildings” of the Specific Objective No4.2.1 “To increase energy efficiency in public and residential buildings” of the Operational Programme “Growth and Employment” (*Ministru Kabineta Noteikumi “Darbības programmas “Izaugsme un nodarbinātība” 4.2.1 specifiskā atbalsta mērķa “Veicināt energoefektivitātes paaugstināšanu valsts un dzīvojamās ēkās” 4.2.1.1. specifiskā atbalsta mērķa “Veicināt energoefektivitātes paaugstināšanu dzīvojamās ēkās” īstenošanas noteikumi*). Adopted 15 March 2016, in force 06 April 2016. Published: “Latvijas Vēstnesis” 65 (5637), 05.04.2016,

Amendments adopted:

- 01 November 2016, the Cabinet of Ministers Regulations No 710, <https://likumi.lv/ta/id/286397>
- 18 July 2017, the Cabinet of Ministers Regulations No 410, <https://likumi.lv/ta/id/292336>
- 13 March 2018, the Cabinet of Ministers Regulations No 161, <https://likumi.lv/ta/id/297805>

Actual consolidated version of the Cabinet of Ministers Regulation No160, in Latvian,

<http://likumi.lv/doc.php?id=281323>

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