

Title of the measure:	LV26 LOW ENERGY BUILDINGS: Reduction of GHG Emissions, 2016-2019 (Emission Allowances Auction Instrument) <i>Siltumņīcefekta gāzu emisiju samazināšana - zema enerģijas patēriņa ēkas</i>
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General description

26 January 2016 the Cabinet of Ministers had adopted the Governmental Regulation No69 (2016) on GHG emissions reduction by Low Energy Building. **The measure is co-financed by the national Emissions Allowances (EU ETS) Auction Instrument (EAAI) [1].**

Responsible ministry for implementation – Ministry of Environmental Protection and Regional Development (MEPRD), responsible institution for implementation supervision and monitoring – state ltd. “Latvian Environmental Investment Fund” [LEIF, 2]

The Open Tender had been announced in March 2016, the applications might be submitted up to 17 May 2016 [3]. According the contracts, the approved projects will be finished in the period January 2018 – October 2019 [6].

Applications within the open tender might be submitted by the self-government or self-governmental institution, or by state central administration institution. Both new low energy buildings and renovation of existing buildings to correspond low energy building criteria might be submitted. The project shall be implemented not later than 3 years after the data of contract signing. Implementation of the project shall be based on the principles of sustainable building and green procurement procedures shall be applied.

The following buildings are eligible:

- (1) museums and libraries,
- (2) building, if the use functions of their area corresponds to defined requirements, at least 60% of total area shall be occupied by schools, universities and research institutes, and at least 20% of the total area shall be used for wide-scale entertainment activities.

In case of renovation of existing building, the building shall be at least 20 years old and at least during last 2 years the functions of education, culture or entertainments shall be performed within it.

Financing. The total *co-financing* allocated by EAAI is ~23 MEUR. The total costs of all approved projects is ~ 47 MEUR (the EAAI grant shall cover not higher than 85% of the project’s total eligible costs) [6].

If the building is classified as the building of commercial activities, the grants are provided and co-financing intensities are determined in accordance with the Commission Regulation No 651/2014.

In case of museums and libraries, these buildings are not considered as buildings of commercial activities if at least 85% of their clients are Latvia inhabitants and thus for these buildings the section 53 of the given Regulation No651/2014 is not applied.



Activities supported to improve energy efficiency and provide GHG emissions reduction:

- construction works for the increase of energy efficiency
- renovation, reconstruction or establishment of ventilation system,
- renovation, reconstruction or establishment of building's engineering systems to provide effective use and recovery of heat energy,
- purchase and installation or renovation of lightning and electricity supply system,
- purchase and installation of smart management & control technologies,
- purchase and installation of heat production equipment which utilise renewables
- dismantling costs of fossil fuels heat production technologies

The dissemination and demonstration activities shall be fully financed by the beneficiary

Building's energy certificate or energy consumption calculation (for new buildings) shall be submitted together with the application.

Table 1. Financing and energy efficiency requirements

	New buildings	Renovation of existing buildings
Financing		
Total allocated co-financing by EAAI	15 MEUR	7.999 MEUR
Minimal and maximal co-financing for 1 project	7 – 15 MEUR	0.4 – 2 MEUR
The maximal share of EAAI co-financing	85% of project total eligible costs ¹	
Annual specific energy consumption		
Annual heat energy consumption for heating after implementation of the project	Not higher than 35 kWh/m ² ²	Not higher than 40 kWh/m ² ²
Annual total energy consumption (heating, hot water, mechanical ventilation, cooling, lightning)	Not higher than 95 kWh/m ²	
Energy efficiency requirements for building elements: specific heat penetrability coefficients [1, Annex 3]		
Triple glazed windows	$U_w < 0.8 \text{ W/m}^2\text{K};$	
Roofs and covers	$U_w < 0.15 \text{ W/m}^2\text{K};$	
Other delimiting constructions	$U_w < 0.20 \text{ W/m}^2\text{K};$	
Air exchange coefficient	$n_{50}(\text{h}^{-1})$ not higher than 0.6	
Ventilation system provides	at least 75% of ventilation heat recovery	

Beneficiary responsibility. The project implementation contract contains values of annual heat energy consumption for heating and CO₂ emissions savings (the latest – for renovated buildings only). A beneficiary is responsible for achievement of these results. Energy and emissions savings monitoring

¹ The given rate is applied if the project is classified as non-commercial. If the support is classified as commercial activity support, the highest co-financing rate is 80% in case the total support does not exceed 1 MEUR.

If the project is classified as commercial support, the costs are eligible if at least 80% of building area or 80% of annual working hours are utilised for culture activities.

² Recalculated if rooms are highest than 3.5 metres



shall be done annually during 5 years after project implementation. If after completion of the project the responsible supervising authority (Latvian Environmental Investment Fund) determines that the planned specific heat energy for heating consumption or reduction of CO₂ emissions per year specified in the project contract has not been achieved in comparison with the values indicated in the monitoring report submitted by the beneficiary, the responsible authority shall calculate the scope of non-conformity. A beneficiary shall submit the plan (approved by the independent expert) for elimination of non-conformity, the responsible authority, if necessary, provide the appropriate recommendations. A beneficiary shall implement the plan, using his own resources, within a time period of one year. If the responsible authority determines repeatedly that the planned specific heat energy for heating consumption or reduction of CO₂ emissions per year specified in the project contract still has not been achieved, the responsible authority has the right to take a decision regarding recognition of resources of the EAAI disbursed for the project as ineligible and commence recovery of them. In order to determine the amount of ineligible resources to be recovered, the real reduction of CO₂ emissions shall be divided by the reduction value specified in the project contract; the obtained value shall be subtracted from the value "1". The same formula is applied to determine the non-conformity in case of specific heat energy for heating consumption.

Table 2. Criteria and their share in applications' quality evaluation [1, Annex 6]

Criteria	Max points	Min points
specific heat energy for heating consumption	5 (if at least 5 kWh/1m ² below eligibility threshold)	3 (if eligibility threshold)
RES use in heating renovation new building	5 (if at least 20% of heat supply) 5 (if at least 90% of heat supply)	0 0
Planned annual visits in building	10 (if at least 100000)	0
Correspondence with municipal or sectorial strategic planning documents	3	0
Publicity and demonstration activities	3 (if in international scale)	0
Technical Preparadness of application	10 (if purchase for works is already published)	0
Co-financing by beneficiary	4 (if at least per 15% higher than minimum requirement)	0 (if minimum requirement fulfils)
TOTAL	40	

Results of the tender. As a result of the tender it was approved 7 projects [6]:

- one new low energy building³ (project's total costs 31.8 MEUR, EAAI financing 15 MEUR), and
- six renovations to low energy buildings (projects' total costs 15.4 MEUR, total EAAI financing ~ 8 MEUR).

Impact evaluation

Latvia national Plan of the Alternative Measures of Energy Efficiency Policy to Reach the Target of Energy End-Use Consumption Saving 2014-2020 [4] envisages 48.2 GWh cumulative savings in 2020 due to implementation of described measure.

As the dominating part of projects (~ 80% of EAAI finances) will be finished in 2019 [6], according this implementation shedule, corresponding to cumulative target the annual 2020 savings should be at least 0.115 PJ.

³ new Musical Secondary School with the function of concerthall, in Ventspils city



The final energy consumption in Latvia Tertiary sector in years 2010-2015 varied in the range 23.4-26.1 PJ (average ~ 25 PJ) [5]. Thus, the impact might be attributed as medium.

Interaction of measures

The given measure has the value of technical demonstration regarding the implementation of new building standards. It is introduced by the new Governmental Regulations six (A-F) energy efficiency classes of non-residential buildings. The highest class A corresponds to 45 kWh/annually/1m² of maximum specific energy consumption for heating (see the Latvian Tertiary sector measure of MURE database TER-LV15 “Energy Certification of Non-Residential Buildings”).

Thus, the buildings’ energy efficiency requirements defined within the described EAAI programme is higher than the requirements of A class building.

Historical data

In 2011-2013 the financial support for low energy buildings had been provided by the national green investment scheme under UNFCCC Kyoto protocol⁴.

In 2015-2016 the financial support for low energy buildings had been provided by the EEA Financial Mechanism for years 2009-2014 programme “National Climate Policy”.

For both programmes see the Latvian Tertiary sector measure of MURE database TER-LV10 “Low Energy Buildings 2011-2016”.

References

1. Cabinet of Ministers (Governmental) Regulations No 69 (2016) “Regulations of the Open Tender “Greenhouse Gas Emissions Reduction – Low Energy Buildings” for the Projects Financed by the Emissions Allowances Auction Instrument” (*Ministru Kabineta Noteikumi Nr. 69 (2016) “Emisijas kvotu izolīšanas instrumenta finansēto projektu atklāta konkursa “Siltumnīcefekta gāzu emisiju samazināšana – zema enerģijas patēriņa ēkas” nolikums*), adopted 26 January 2016, in force 13 February 2016. Published in Latvian: “Latvijas Vēstnesis”, 30 (5602), 12.02.2016., available <http://likumi.lv/ta/id/280234>
2. LEIF, website http://www.lvif.gov.lv/?object_id=460
3. Ministry of Environmental Protection and Regional Development. EAAI website (in Latvian), http://varam.gov.lv/lat/fondi/ekii/projekti/siltumnicefekta_gazu_emisiju_samazinanas_zema_enerģijas_paterina_ekas/
4. Ministry of Economics. Latvia national Plan of the Alternative Measures of Energy Efficiency Policy to Reach the Target of Energy End-Use Consumption Saving 2014-2020 (*Enerģoefektivitātes politikas alternatīvo pasākumu plāns enerģijas galapatēriņa ietaupījuma mērķa 2014.–2020. gadam sasniegšana*), approved 24 May 2017 (Cabinet of Ministers Order No 257). Available in Latvian <http://polsis.mk.gov.lv/documents/5921>
5. Central Statistical Bureau of Latvia. The Statistic Database ENG02 “Energy Balance”, http://data.csb.gov.lv/pxweb/en/vide/vide_ikgad_enerģetika/?tablelist=true&rxid=cdbc978c-22b0-416a-aacc-aa650d3e2ce0

⁴ Latvia, due to active participation in the GHG emissions trading mechanism, has the revenues from the sale of GHG emissions under procedures pursuant to Article 17 of the UNFCCC Kyoto Protocol. Part of these revenues had been allocated as the national CCFI programme for CO₂ emissions reduction by both (i) existing buildings’ (older than 10 years) reconstruction to reach low energy consumption, and (ii) construction of new buildings corresponding low energy consumption criteria.

6. LEIF. Website of contracted projects.
http://ekii.lv/index.php?mact=Konkurs,cntnt01,fe_konkurs_detail,0&cntnt01current_id=2&cntnt01returnid=25 (see *Projektu saraksts*)

