

Title of the measure:	EST24	Construction of sample buildings on the territories of local authorities in compliance with the standard for low-energy buildings
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General description

The measure has been indicated in the 2nd NEEAP as a measure under implementation. It is an informative measure targeted to local authorities (public sector).

By today, the target to construct nearly zero-energy pilot buildings (nZEB) instead of low-energy houses has been set.

An initial proposal for minimum requirements for energy performance, applicable to nearly zero-energy buildings in Estonia, was made in May 2011. It was commissioned by the State owned foundation KredEx, the implementing body of the policy on the energy performance of buildings. According to the initial proposal, the efficiency coefficient for nearly zero-energy buildings would be 50–140 kWh/(m²·a), depending on the type of the building. It was estimated that in Estonia the cost-optimal energy performance levels of minimum requirements range from 120 to 200 kWh/(m²·a), but then current minimum requirements ranged from 150 to 300 kWh/(m²·a). Therefore, the changes in the minimum requirements for energy performance of buildings were needed.

Taking into account the estimations described above together with financial assessment (construction of a nearly zero-energy building in Estonia is not yet cost-optimal), the target for nearly zero-energy buildings in Estonia is limited to construction of nZEB pilot buildings in all regional centres of Estonia. At least 10 publicly accessible nearly zero-energy buildings of various types with total usable area not less than 5000 m² are planned to be constructed in Estonia.

The 2nd NEEAP2 describing the strategy for increasing the number of nearly zero-energy buildings provides that the following steps will be taken to increase the number and area of nearly zero-energy buildings:

- defining the concept of nearly zero-energy buildings in detail. The initial proposal on the definition of and requirements for nearly zero-energy buildings has been developed but it requires more extensive public discussion. The discussion will be conducted simultaneously with the discussion on the new level of minimum requirements for energy performance of buildings;
- devisal and application of support schemes to the first public buildings that meet the requirements set for nearly zero-energy buildings. The support scheme will be used to finance additional investments that ensure compliance with the requirements for nearly zero-energy buildings in new public buildings to be built. The type of support will be decided upon during the devisal of the scheme;
- information activities are used to encourage the private sector to construct nearly zero-energy buildings.

KredEx organises a public procurement procedure to contract the preparation of standard building design documentation of residential buildings (4–5 different buildings, including small houses and apartment buildings), which the private sector can use for construction of dwellings and thus save on design costs. In view of the obligation assumed by Estonia under the EU Energy Performance of Buildings Directive to ensure that from 2019 all public buildings and from 2021 all new buildings will be constructed as nearly zero-energy buildings (nZEB), it is necessary to encourage residential owners to order low-energy houses at least in the period 2015–2018, to ensure a smooth transition and stimulate the market demand.

In Estonia the first pilot nZEB was constructed at the campus of TUT in 2013. The building is used for research and measurements. In 2015, the first nZEB in public sector was commissioned in Rakvere city. It is an office building accommodating Rakvere City Government and also Rakvere Smart House Competence Centre – a regional competence centre in Estonia that focuses on smart house / intelligent

building technologies.

At present, there are several nZEBs (schoolhouses, kindergartens, etc.) construction processes in progress. Also, some private family houses as nZEB have been built during a couple of last years.

In 2012, in frames of the Estonian-Swiss Cooperation Programme new guidelines for designing low and nearly zero-energy small residential houses was compiled by two Estonian experts – T. Kalamees and T. Tark.

In January 2016, the Ministry of Economic Affairs and Communications announced that the financial support (290 thousand euros) is available for preparing standard design solutions for five types of residential houses (see measure EST 39).

NEEAP

The measure is mentioned in the 2nd NEEAP as the measure B.27.

Impact evaluation

No quantitative impact evaluation of the measure is available.

Interaction of measures

TER_EST28 – Construction of sample nearly zero-energy buildings

HH_EST39 – Grant for design of construction projects of nearly zero-energy buildings in residential sector

References

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