

Energy efficiency of public buildings

How energy efficient are public buildings?

Summary of audit results

What did we audit?

Energy saving, which is aimed at reducing the emissions associated with the use of fossil fuels and dependence on imported fuels, and increasing the competitiveness of the economies in the Member States, has become one of the most significant building blocks for the climate and energy policy of the European Union (EU). The EU has set the target of achieving 20% energy savings by 2020 and 30% for 2030.

The energy consumption of buildings comprises approximately 40% of the total consumption of energy in the European Union and the potential for energy saving is vast, because a third of the buildings were built more than 50 years ago. The use of energy efficient solutions is economically feasible considering the life cycle of a building as a whole, but the readiness of building owners for reconstruction is rather small due to the large initial investment required.

At the same time, improving the energy efficiency of buildings promotes technological development and innovation on the construction market. This is why requirements for the energy efficiency of buildings have been set and an example-setting role has been provided for states with European Union directives in order to the improvement of the conditions of buildings. Only the construction of buildings that need very little energy, i.e. nearly zero-energy building, will be permitted as of 2020 and states are obliged to renovate at least 3% of the area of central government buildings every year to make them energy efficient.

In the course of the audit, the National Audit Office of Estonia assessed whether and how state has guaranteed the achievement of the goals and the compliance with the obligations and recommendations set in EU directives in respect of public buildings. The National Audit Office of Estonia conducted the audit as part of the joint audit of the energy efficiency of public buildings of the EUROSAI (European Organisation of Supreme Audit Institutions) Working Group on Environmental Auditing.

Why is this important to taxpayers?

The public sector uses more than 9 million square metres of building area, which is more than 6.7% of the area of all buildings located in the territory of Estonia. The expenses related to the use of the state's property comprise a significant part of the state budget. In many public buildings, it would be possible to improve the overall condition and inner climate of the building and reduce the building's energy consumption and maintenance costs by renovating them in such a manner that they would comply with at least the minimum energy performance requirements established.

What did we find and conclude on the basis of the audit?

In the opinion of the National Audit Office, the energy efficiency of the buildings owned and used by the public sector should be improved. Many public buildings are not energy efficient or their condition is unknown, because some of them don't have energy performance certificates. More attention should be given to the energy efficiency of buildings owned and occupied by the public sector upon developing and managing public property and during the drawing up of the state budget.

The most important findings made as a result of the audit are as follows:

- **In the opinion of the National Audit Office, it is unlikely that Estonia can comply with the requirement set in the Energy Efficiency Directive of the European Union, which is to renovate 3% of the area of central government buildings every year to meet minimum energy performance requirements, if it continues on the same course.** Pursuant to the directive, Estonia has to reconstruct 25,000 m² of the floor area of the buildings owned and occupied by the central government every year to at least the level of minimum energy performance requirements. Although Estonia has fulfilled the 3% requirement successfully so far, the Ministry of Finance estimates that only 10,000 m² of floor area per year will be renovated on the basis of the investments decided for the period from 2017 to 2021. No plan or budget has been prepared for complying with the 3% requirement. According to the Ministry of Finance, energy efficiency has been highlighted as one of the criteria to follow when investments in property are made, but in practice, political and sectoral policy priorities have been more important in decision-making than construction criteria.
- **Many public buildings have no energy performance certificates and their energy consumption and condition are unknown.** 38% of central government and 49% of local government buildings didn't have the energy performance certificate required for the assessment of energy consumption in 2017, which means that the energy consumption and energy efficiency of these buildings are unknown. Many buildings with energy performance certificates are not energy efficient. There are gaps in the information about energy performance certificates and the renovation of buildings in the Register of Buildings, which is why the state has no comprehensive overview of the energy consumption and condition of public buildings. Having an overview would improve the planning of measures for making buildings more energy efficient.
- **The investments made in the improvement of the condition of local government buildings should be better thought-out.** Local governments have planned 680 million euros for investing in the renovation of buildings in the budget strategies prepared for the period from 2017-2021. However, the actual investment capacity of local governments is smaller in the opinion of the National Audit Office: approximately two-thirds third of the planned amount. Local governments hope to receive support from the state for the renovation of the buildings. When planning investments for renovating buildings, local governments should first decide which buildings they plan to use in the long term, and optimise the use of the buildings before making any investments.
- **Entrepreneurs must be ready to build nearly zero-energy buildings earlier than initially planned.** All public buildings that will receive a building permit as of 2019 and private buildings to which a building permit will be granted from 2020 onwards must be nearly zero-energy buildings. Proceeding from the position of the European Commission, the deadline for when a private building that is issued a building permit must be nearly-zero energy was brought closer by a year: the initial deadline was 2021. Although, according to the directive, a plan for increasing the number of nearly zero-energy buildings should have been prepared, the Ministry of Economic Affairs and Communications has not prepared one. However, the Ministry has supported the development of design standards for nearly zero-energy buildings and the construction of prototype buildings. In the opinion of the National Audit Office, the Estonian construction sector, the procurers of buildings and local governments as the authorities responsible for issuing the necessary permits may not be ready to transfer to nearly zero-energy buildings by the new deadline.

What did we recommend as a result of the audit?

The National Audit Office of Estonia advises the Minister of Entrepreneurship and Information Technology and the Minister of Economic Affairs and Infrastructure to develop the Register of Buildings in such a manner that it could be used as the basis for analysing the energy efficiency of public buildings and to plan the achievement of energy efficiency strategically. The National Audit Office also advises them to develop measures for making public buildings more efficient, including options for including private financing, on the basis of comprehensive information.

The Minister of Entrepreneurship and Information Technology explained the objectives of various registers – the Register of Buildings, the Land Register and the State Real Property Register – and found that the State Real Property Register would be the most suitable for analysing the transactions and contracts related to public property. The minister explained that duplicating data in the state's databases is prohibited, which means that the development of the capacity of the Register of Buildings recommended by the National Audit Office of Estonia would not be practical. The minister emphasised that the data in the Register of Buildings are public and the ministry is always prepared to give information about the technical details of the buildings entered in the register, including the data concerning the energy efficiency of buildings.

The minister agreed with the National Audit Office's opinion that consultations and guidelines have an important role in the transfer to nearly zero-energy buildings. This is why the Ministry of Economic Affairs and Communications and the Technical Regulatory Authority are organising information days for local governments and the plan is to publish the explanatory memoranda to the legislation that regulates energy efficiency as guidelines on the ministry's website.

The minister also admitted that the obligation to develop measures for the inclusion of private funds also arises from the new version of the Energy Efficiency Directive, which was approved by the European Parliament on 17 April 2018. The respective renovation strategy will be developed after the publication of the new version of the directive.

Comment of the National Audit Office of Estonia: The National Audit Office points out that the State Real Property Register that the minister considered the most suitable for collecting data about the energy efficiency of buildings includes data about the majority of buildings owned by the central government, but there is no information about local government buildings. Thus, the data in the State Real Property Register are insufficient for obtaining a comprehensive overview of the condition of buildings in the entire public sector and for making informed decisions about reconstruction and financing.

The fact that the data of the owners of buildings exist in the Land Register has also been highlighted by the National Audit Office of Estonia in point 50 of the audit report, but the problem is the lack of data exchange between the registers. The explanations of several parties about the deficiencies of the Register of buildings are also included in the audit report. In the opinion of the National Audit Office of Estonia, the Register of buildings could be the register from which all kinds of information about all buildings could be obtained without duplicating the other registers.

The National Audit Office of Estonia advises the Minister of Public Administration to make sure when planning the state's property investments that the requirement to renovate 3% of central government buildings is complied with, and to plan investments in the energy efficiency of central government buildings regularly and as a priority in the system of public property management.

The Minister of Public Administration responded that in his opinion, complying with the energy efficiency requirements is, among others, important for reducing the state's property expenses. Compliance with the energy efficiency criterion is also currently analysed when investment applications are assessed, but the Government of the Republic also proceeds from other criteria when making its decisions, incl. sectoral needs and construction-related factors. The Ministry of Finance is changing its decision-making processes in such a manner that the criteria that make it possible to reduce costs (incl. energy costs) would gain more attention than before and the overview of the possibilities for using property and energy more efficiently would improve.

In April 2018, when planning the state budget strategy for the period from 2019 to 2022, the government decided to form an optimisation reserve by Riigi Kinnisvara AS for the flexible funding of investments that make it possible to reduce property expenses and that will, among others, be used to finance the implementation of projects aimed at the reduction of property expenses (incl. energy costs) that arise from management plans. Thus, the minister finds that money for the implementation of the prepared plans has been allocated in the state budget strategy as of 2019.