



Executive summary of the public audit report

MAINTENANCE OF HEATING AND HOT WATER SYSTEMS IN APARTMENT BUILDINGS

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DEFINITIONS

Abbreviations:

CHS refers to centralised heating supply.

AAHO refers to an association of apartment house owners.

LDHA refers to the Lithuanian District Heating Association.

LHS refers to the Law on Heat Sector.

SEI refers to the State Energy Inspectorate.

NCECP refers to the National Commission for Energy Control and Prices.

Definitions:

Boiler room refers to a heating unit, which prepares hot water for more than one apartment building.

Operation of energy equipment refers to the technological management, technical maintenance, reparations, measurements, tests, launching and adjustment works of energy equipment. The list, scope and periodicity of the maintenance works is determined by the Procedures of Building Heating and Hot Water System Maintenance¹.

Group heating unit refers to a heating station, which distributes (supplies) or transfers heat carrier to heating equipment of several (at least two individual) objects².

Individual heating unit refers to a heating station, which supplies heat carrier to heating, ventilation and other systems in a building, which use heat³.

Independent system refers to a heating, ventilation or a different type of system, which contains heat carrier separately from the hot water or steam supplied by heat supply networks using a heat exchanger partition impermeable to liquids and gases⁴.

Heating and hot water system of a building refers to a complex of technical equipment, the purpose of which is to supply the heat and (or) hot water, which was transferred to or produced in the building, to the premises. It is separated from the supplier's networks by a separate building inlet line⁵.

Operator of heating and hot water system in the building refers to a person meeting the established qualification requirements for the operation of heating and hot water systems of buildings and providing maintenance services of the system⁶.

¹ The description was approved by the order of Minister of Energy of the Republic of Lithuania No. 1-229 "Regarding the approval of the Procedures of Building Heating and Hot Water System Maintenance".

² Pt. 6 of the Installation Regulations for Heat Supply Networks and Heating Stations. The Regulations approved by the order of the Ministry of Energy of the Republic of Lithuania No. 1-160 of 17-06-2011 "Regarding the approval of the Installation Regulations for Heat Supply Networks and Heating Stations."

³ Ibid.

⁴ Ibid.

⁵ The Law on Heat Sector of the Republic of Lithuania, No. IX-1565 of 20-05-2003 (amendment of the Law on Heat Sector of the Republic of Lithuania, No. X-1329 of 20-11-2007), (amendment No. XII-492 of 02-07-2013)), art. 2, pt. 22.

⁶ Ibid. Art 2, pt. 23.

Dependent system refers to a heating, ventilation or another type of a system, which receives not only heat, but also heating water or steam from the heating networks⁷.

Heat carrier refers to specially prepared water, drinking water, steam, other liquid or gas used for transporting heat energy⁸.

Heating unit refers to the equipment of heating and hot water system connected to the heat feeder, transforming the heat energy transported by the heat carrier and delivering it to the heating appliances in the building. Heating unit equipment of an apartment building, necessary for appropriate operation and use, is an inseparable part of the building and the general partial ownership of the owners of the apartments and premises of the building, which cannot be transferred to the third parties (which are not owners of apartments and premises of the building)⁹.

It should be noted that prior to the amendment of the Law on Heat Sector of 2011, the concept of a "heating unit" was defined as follows: **heating unit** refers to the equipment of heating network connected to the heat feeder, transforming the heat energy transported by the heat carrier and delivering it to the heating appliances in the building¹⁰.

Heating unit maintenance refers to actions, which include heating and hot water system control, regulation of parameters, technical inspection and small-scale reparations.

Heating unit operation refers to actions, which include heating unit maintenance, large-scale reparations and renewal.

⁷ See fn. 2.

⁸ The Law on Heat Sector, art. 2, pt. 28.

⁹ The Law on Heat Sector, art. 2, pt. 38.

¹⁰ The Law on Heat Sector of the Republic of Lithuania, No. IX-1565 of 20-05-2003 (the amendment to the Law on Heat Sector of the Republic of Lithuania, No. XI-250 of 12-05-2009), art. 2, pt. 37.

EXECUTIVE SUMMARY

The increase in efficient use of energy and energy resources is one of the major directions of energy development, which can make a significant contribution in increasing energy independence and the competitiveness of the country's economy. According to the national strategy of sustainable development, one of the priorities of Lithuanian sustainable development is modernisation of apartment buildings and significant reduction of heating energy costs in housing sector.

According to the Lithuanian District Heating Association, during the period of 2012-2013, the residents of apartment buildings connected to centralised heating networks used approximately 36% of the entire heating energy produced in Lithuania. Thus, increasing the efficiency of heat consumption in apartment buildings is one of the ways to increase the efficiency of energy use. According to the National Energy Strategy, the Ministry of Energy was appointed to prepare the directions for the development of heating sector and promote efficient use of energy and its resources¹¹.

The modifications of the Law on Energy Sector introduced in 2011 resulted in essential changes in the environment of the heat suppliers and heating unit operators: the services of heat supply and heating unit maintenance were separated, the residents became responsible for the condition of the heating units of their buildings and efficient heat consumption, while the operators remained as contractors hired by the residents. In order to ensure service quality and acceptable price, there were plans to develop the competition between heating unit operators (including small-scale operators).

During the audit and the evaluation of the current situation in the area of heating unit maintenance, we followed the attitude that the new way of organising heating unit maintenance in apartment buildings could enable the consumers to receive appropriate heating unit maintenance and operation services, on a condition that:

- the services of heat provision and heating unit maintenance are separated;
- the procedure of heating unit maintenance ensures that this maintenance is useful for the residents of the apartment buildings (reduced heating costs, no additional obligations, etc.);
- there are conditions for competition in the area of heating unit maintenance (operation);
- the activity of the entities operating (maintaining) heating units will be efficiently monitored.

The information and results of several recent heating seasons (2011-2012, 2012-2013 and 2013-2014) shows a risk of the provisions regarding the changes in heat provision and maintenance defined by the Law on Heat Sector being improperly implemented and thus resulting in failure to achieve all of the objectives.

The purpose of the public audit is to determine, whether the maintenance of heating and hot water systems in apartment buildings, adopted as of 1 November 2011, created conditions for appropriate heating unit maintenance and operation services for the customers.

¹¹ Art. 6.3.2 and 6.3.12 of the provisions approved by the Ministry of Energy of the Republic of Lithuania by the resolution No. 86 "Regarding the approval of the provisions of the Ministry of Energy" of 11-02-2009 (amendment of the resolution of the Government of the Republic of Lithuania No. 1479 of 13-10-2010).

The subject of the audit is the Ministry of Energy of the Republic of Lithuania, one of the functions of which is to develop and ensure the implementation of the state policy in the area of efficient consumption of heat and energy.

The object of the audit is the maintenance of heating and hot water systems in apartment buildings.

The audit period includes 01-01-2011 to 01-06-2014.

The information for the audit was gathered from different independent sources. The data and information was gathered in written and electronic form or by talking to the specialists, using the procedures of confirmation, verification, survey, calculation and analysis.

CONCLUSIONS

1. After the adoption of the amendments to the Law on Heat Sector, according to which heating or hot water prices cannot include any costs, related to the modernisation of the internal heating (including heating units) and hot water systems, resulted in losing the source of modernisation funds, but there were no provisions to ensure that all dependent heat supply systems are reorganised into independent. Thus 20% of these systems remained not reorganised, which means that the separation of the heat supply and hot water consumption processes remains incomplete. These remaining 20% of the heating units do not ensure efficient heating consumption, the centralised heat supply networks cannot operate in the most efficient regime and thus the consumers do not receive the entire benefit and experience additional costs regarding inefficient heat use (subchapter 1.1).
2. The provisions of the Law on Heat Sector regarding the dependence of heating units remain unimplemented, because about 50% of the heating units were not transferred to the ownership of the residents of the apartment buildings. The Law on Heat Sector does not authorise the Government of the Republic of Lithuania to adopt a legal act, which would regulate the civil legal issues of transferring the heating units or their equipment to the owners of apartments and premises in apartment buildings, and thus the procedure of transferring heating units to the residents, which could speed up the process, remains undefined (subchapter 1.2).
3. Unless all heating units are transferred to the heat consumers, there are no possibilities to finance the modernisation of the remaining 6 000 heating units or the renewal of heating units that were already modernised, but need a modernisation update. Prior to the amendments to the Law on Heat Sector, the heating tariff included costs, required for heating unit maintenance, reparations and renewal, thus the payment was equal for all the residents of all the municipalities, despite the factual costs. However, after the adoption of the amendments to the law, there were no measures to prevent the residents from entering into a disadvantage by payments made for the installation of modernised equipment, because now they have to take care of the modernization of these heating units and accumulate additional funds for this purpose (chapter 2).
4. The procedure of accumulating, calculating and protecting funds for heating unit renovation and maintenance according to the mandatory building use and maintenance requirements is undefined. Only some of the residents of apartment buildings accumulate funds for this purpose, which puts the appropriate operation of the heating units and timely removal of unplanned malfunction at risk (chapter 3).
5. The elimination of the principle of solidarity in covering the heating unit operation and renewal costs puts some of the residents in disadvantage: the costs for heating unit maintenance were not reduced; additional problems regarding the major reparations and renewal of the heating unit appeared and these costs for the residents of small apartment buildings have significantly increased (chapter 2).
6. The provisions of the Law on Heat Sector, stating that a heating provider cannot also be the operator of a heating unit, applies for suppliers of centralised heat, which provide services for approximately half of the citizens in the country. Therefore, not all heat users in Lithuania have equal opportunities to choose their heating unit operators (chapter 4).
7. There is no defined procedure of transferring the functions of heating unit operator to the new operators, the new heating unit operators do not always receive all the operational documents of the entire building and heating units, the condition of these heating units is not always defined and this results in failure to ensure appropriate operation of these units (subchapter 1.3).

8. Balancing the heating systems of apartment buildings is not one of the mandatory house maintenance works that can be performed without the agreement of the residents. Therefore, operators cannot ensure proper maintenance of the heating systems when they are imbalanced and the residents prevent the operators from fixing them. Operation of such systems leads to ineffective use of heating (chapter 5).
9. Municipalities and other controlling institutions do not have an access to the heat supply data using remote management systems and thus cannot reduce the risk of excess heat supply (chapter 4).
10. The provisions of the order of the Minister of Energy of the Republic of Lithuania No. 1-264 of 27 October 2011 "Regarding the approval of the rules of application of fines and their size", were also not coordinated with the Law on Heat Sector. Therefore, the specialists of the State Energy Inspectorate cannot use their right to apply a fine for violations of the heating system maintenance regulations (chapter 6).

RECOMMENDATIONS

In order to increase the efficiency of heat consumption in apartment buildings, to improve the maintenance of heating units and the control of this process, we recommend the following:

To the Government of the Republic of Lithuania

1. To define and implement measures for solving the issues identified during the audit, caused by:
 - unfinished separation of heat supply and heat consumption processes (conclusion 1 and 2);
 - the unequal situation of the residents according to the ownership of heating units, payments for installation and renewal of modernised units, as well as the possibility to choose the heating unit operator (conclusions 1, 3, 5, 6).
 - the maintenance of heating units and heating systems of apartment buildings, their imbalance and the residents preventing the reparations (conclusions 7, 8);
 - increased control of heat supply to consumers (conclusion 9);

To the Ministry of Agriculture of the Republic of Lithuania

2. To coordinate the provisions of the order of the Minister of Energy of the Republic of Lithuania No. 1-264 "Regarding the approval of the rules of application of fines and their size" with the Law on Heat Sector (conclusion 10).

To the Ministry of Environment of the Republic of Lithuania

3. To adopt the procedure of accumulating funds for the purpose of the building renewal according to the obligatory requirements of building use and maintenance, which define the accumulation of funds for heating unit maintenance, reparation and renewal (conclusion 4).