

EED implementation in Hungary

Summary

The main legislation implementing EU EED Directive:

- LVII. Act on Energy Efficiency;
- 122/2015 Government Regulation on Implementation of Energy Efficiency Act;
- 123/2015 Government Regulation on modification of some government regulations related to energy efficiency;
- 24/2015 Ministry of National Development Regulation on modification of 110/2007 Economic and Environmental Ministries Regulation on the method of calculating the amount of useful high efficiency CHP electricity and heat;
- 25/2015 Ministry of National Development Regulation on energy efficiency information provision;
- 26/2015 Ministry of National Development Regulation on detailed rules for the energy auditors' data provision and the registration bodies' annual report;

Strategic documents the implementation on energy efficiency:

- 5/2015 Parliament Resolution on modification of the 77/2011 Parliament Resolution on National Energy Strategy. The government has a new obligations to review every two years and update, if necessary, the forecasts for energy demands in the Energy Strategy and arrange the publication;
- 1160/2015. (III. 20.) Government Decision on the update of energy consumption forecasts in the National Energy Strategy

unit, PJ/a	2012	2020		2030	
		BAU	joint efforts	BAU	joint efforts
Primary energy consumption	992	1101	1009	1217	1028
End use energy consumption	677	766	693	840	692

- 1261/2015 Government Decision on adoption of Hungary 2015 National Reform Programme. the National Energy Strategy: In line with the Europe 2020 Strategy the announced new national energy efficiency target: 92 PJ primary energy savings, which means 73 PJ final energy consumption savings.
- 27/2015. (VI. 17.) Parliament Decision on the National Environmental Programme for the period between 2015-2020: The main goals of the Programme related to energy efficiency: (1) In the next period - in the context of climate change - must pay particular attention that in parallel with the increase in income it does not increase again the household energy consumption. (2) To develop an efficient, green and competitive economy. (3) To achieve a 10% overall energy savings based on environmental considerations. (4) To reduce the motorized traffic transportation needs, and facilitate the personal, non-motorized forms of transport. (5) To reach a greener the tax system with reduction of environmentally harmful subsidies. The Government presents the summary report to the Parliament in every two years.
- 1601/2015 Government Decision on the III. Hungarian National Energy Efficiency Action Plan: This action plan is a general report based on the requirements from the 2012/27 EU Energy Efficiency Directive (EED). This is a complex strategy about the energy efficiency situation in Hungary and the main directions of development and the proposed measures relating to the transposition of EED.

- 1602/2015 Government Decision on Energy and Climate awareness Raising Action Plan: The purpose of the Action Plan is to spread the awareness of energy and climate. Therefore, the Plan of Action accordingly identifies the achievable within a short time - the majority by 2020 - governmental measures which are capable of significantly to contribute to changing attitudes about climate change and energy efficiency. It concerned the following five main areas: (1) energy efficiency and energy conservation; (2) renewable energy use; (3) transport energy saving and emission reduction; (4) a resource-efficient and low-carbon-intensity of economic and social structures; (5) accommodation.
- 1487/2015 Government Decision on the legislative tasks related to Jedlik Ányos Plan: The Jedlik Ányos Plan aims to promote the domestic spread of electro mobility. The main measures of ongoing planning, preparation-type tasks with several ministries and regulatory co-operation, for example: (1) Planning the deployment of charging infrastructure. (2) To develop the measurements and accounting system for electricity used to charge the vehicles (3) to ensure the operation of household charging appliances (4) Establishing direct and indirect-tax incentives, so on.
- 1215/2015 Government Decision on some government tasks necessary to achieve energy savings.
- 1073/2015 Government Decision on National Building Energy Strategy.
- 82/2015 Interior Ministry Decision on support for an centralized management appropriation called Modern Cities Program

Summary of the principal new measures related to the EED

1. National Building Energy Strategy 2015 - 2020

The main topics of the Strategy: EU and international environment National policy background The energy situation of domestic buildings Refurbishment versions The strategic vision, priorities and goals Toolkit Financial and employment benefit of the implementation Monitoring Annexes The 2015 - 2020 primary energy saving targets (PJ/a) by buildings in the Strategy: Residential and public buildings refurbishment: 40 PJ/a Enterprises buildings refurbishment: 4 PJ/a Other energy savings in buildings 5 PJ/a, so the total is 49 PJ/a. The strategy includes a detailed action plan for the government between the period 2015-17 in the following tasks: Achieve energy savings in existing buildings Standards for new buildings and building renovations Research, development, dissemination, innovation, knowledge, training and information.

2. Building energy requirements according to the (20/2014 (III.7.) Ministry of Interior (BM) Regulation

Stricter standard regulations must be used for any significant refurbishment with EU or national support, and for new building construction or major renovations. The U-values are stricter for example for facade walls: the old value is 0.45 W/m²K, the new value is 0.24 W/ W/m²K; for windows with glass: the old value is 1.6 W/m²K, the new value is 1.15 W/m²K, for flat roofs the old value is 0.25 W/m²K, the new value is 0.17 W/m²K, and so on. (22 U-values are defined). The cumulative primary energy performance is also stricter. The primary energy conversion factor for district heated buildings also changes, so the CHP origin of the district heating could be evaluated also by labelling of buildings, if the CHP ratio is more than 50%.

3. The independent inspection system of the Buildings energy audits and upload information in the central electronic database

The independent control system and structure has been secured by the buildings energy audits. In addition, all documentations of building energy audits have to be filled into a new electronic database. All audit data will be available for many purposes. The e-certification databases made in 2013, the application aims to upload energy certificates. The e-system provides an opportunity to consult the complete list of energy certificates, and certify professionals to record the certificates. Inspection for the building certificate was agreed between LLTK and HCE. The 0.5% of the building's audits will be checked by on-site inspection (full inspection) and by 2 % only through calculations. All building's audits data have to be uploaded on the LLTK database.

4. Creating a new building energy databases (NÉER 1, NÉER 2) of public buildings

Through this project the most precise possible building energy data collection was made for public-sector buildings. In addition, it developed an action plan selected by the government building ensemble (approx. 50-100 pcs) for preparing, under technically, budgetary and development concept. NÉER 1 contains the results of the full survey for the central government buildings. NÉER 2 contains the results of a continuously voluntary survey on local government owned or used building. The NÉER database is not yet open to the public.

The supported project name: Development of annual development program and action plan for public buildings' energy efficiency renovation in 2014-2020. Support: 1.196.243.500 HUF. Project owner: Pro Regio Central Hungary Regional Development Company Ltd.

5. Energy Efficiency subsidies for public and local governmental buildings

Against the previous years there is a strategic change in the government policy by the public sector and municipal buildings refurbishment. The main purposes: (1) Deletion or minimize the own resources by the public sector and the local government sector. (2) Avoid the non-eligible success fee type costs (which earlier could reach 5 - 10% / project) (3) Reduce the risk of the success of the proposal to avoid unnecessary costs (4) Improving cost efficiency by avoiding the excessive costs in the feasibility studies. Thus, already in 2015 they appeared in subsidies where the subsidy rate is 100%, but the eligible projects are defined by specific legislation.

In 2015 the KEOP-2015-5.7.0 (Building energy development of the Public Buildings measure has a budget of HUF 150 million and 100% support intensity. Supportable entities and projects had been decided in 1290/2015. (V.5) Government Decree. No. 1. Annex. The maximum support is EUR 150 million/project. Normally, those activities can be supported to ensure required levels for a building envelope constructions (U values) achieve. The support energy efficiency projects are expected mainly from two EU - Hungary co-financed program will be provided (KEHOP, TOP) between 2016-2020. The TOP (Regional development Operational Programme) selection of projects is based on a multi-stage process, in which a key element produced by the county governments development plans and concepts which already made in 2014. The KEHOP is managed by Ministry of National Development the TOP is managed by the Prime Minister's Office.

6. Introducing a new energy audit obligations for the large enterprises and public institutions before their ESCO contracts

According to the Act on SME's every company does not qualify as an SME enterprises are obliged to carry out a complex energy audit in every 4 years in accordance with the EU Energy Efficiency Directive. Specific characteristics of the Hungarian legislation: (1) Authority (Hungarian Energy and Public Utility Regulatory Authority) provide the control and registration function. (2) The intermediate organizations (the Hungarian Chamber of Engineers) prepare the auditors to pass the compulsory exam, organize the exams and hold the direct communication with the auditors. The Authority decides on an individual decision on the licensing of energy auditing by auditors. (3) The registered energy auditor has to be an MSc. graduated engineer in energetics field, has to prove 5 years of engineering experience and has to pass the auditor exam. (4) Authority may check and sanction the companies, the auditors, the registration bodies and the qualities of the energy audits. (5) Exemptions from the obligation: the existence of ISO 50001 certification or by linked enterprises to be lower consumption than 5% of the biggest consumption of a company within the company group. (6) The quality of own energy inspection by ISO 50001 is not verified by the authority. The existence of an ISO 50001 certificate is sufficient criteria to get existence. So it is consciously encouraging the adoption of the ISO 50001 (7) The owners of the buildings fundamentally obliged, but jointly and severally tenant also would be obliged if it had more than 50% leased part in the building.

Additional new requirement that public institutions are also required to be made energy audits before the conclusion of an ESCO agreement.

7. New obligation to provide information and to give awareness-raising by the energy regulator

The Hungarian Energy and Public Utility Regulatory Authority is obligated to create and operate the public information website (as a state owned website) about energy efficiency. The energy consumers and market participants must be implemented for information on energy efficiency and energy saving methods, as well as financial and legal frameworks related to energy efficiency. Information subjects of the information: a) legislation related to energy efficiency; b) energy efficiency services, financing of investments and financial instruments available to support; c) to improve energy efficiency information

about awareness-raising and trainings; d) practices on energy efficiency, energy efficiency behaviour patterns; e) energy efficiency service contracts; f) the application of energy efficiency-based contracts; g) Certification schemes of the energy efficiency service providers, international best practice examples; h) financial institutions on energy efficiency services; i) energy labelling schemes for energy providers and products. The target groups for information: a) the population; b) businesses; c) construction professionals, engineers, planners, energy specialists; d) financial institutions; e) energy efficiency services; f) public institutions. Furthermore, it should be given information to the small and medium enterprises as well as to the residential sector about the energy audit and the benefits associated with conducting energy audits.

8. Complex 100% supported programs by KEOP 7.9.0 / 12 to establish national energy efficiency action plans. 6 high priority projects.

1. project: Analysis of energy management tools in the public-sector and develop an extensive program. Support: 599.740.000 HUF. Project owner: ÉMI Non-Profit Llc. / 2. project: Establish a sustainable urban energy management model and development program for the cities over 40,000 population. Support: 599.144.000 HUF. Project owner: ÉMI Non-Profit Llc. / 3. project: Survey of the residential building energy efficiency potential. Support: 1.196.019.189 HUF. Project owner: Pro Regio Central Hungary Regional Development Company Ltd. / 4. Project: A national survey of industrial energy efficiency potential for the 2014-2020 support planning. Support: 500.000.000 HUF. Project owner: Virtual Power Plant Program Nonprofit Ltd. / 5. Development of the 2014-2020 budget period CO2 savings-clearing model concept version. Support: 800.000.000 HUF. Project owner: Virtual Power Plant Program Nonprofit Ltd. / 6. Development of annual development program and action plan for public buildings' energy efficiency renovation in 2014-2020. Support: 1.196.243.500 HUF. Project owner: Pro Regio Central Hungary Regional Development Company Ltd.

9. Energy Efficiency subsidies for residential EE purposes

There are three main sources actually: EU structural subsidies, state revenues from the EU Emission Trading System related and the state budget law. The EU support for residential sector will be available by the Environment and Energy Efficiency Operative Programme KEHOP (KÖRNYEZETI ÉS ENERGIAHATÉKONYSÁGI OPERATÍV PROGRAM), which is a Co-Financed program by EU Funds and national sources. According to the new decision of the government the programs will be available only from KEHOP supported energy efficiency funds with repayable supports. This is against all the earlier usual non-repayable support and will be a significant and probably positive effect, because only minimum own resource will only need. The amount of available KEHOP resources is 100 billion HUF which will be available between 2015-2020. The Green Economy Financial System (ZFR) managed by the Ministry of National Development, which mainly used for energy efficiency purposes in residential sector. The ZFR get support from the state budget. In 2015 this means 654.5 million HUF from the Building Energy and Energy Efficiency indicative target and 4886.3 million HUF from the ZFR indicative target. This sources increase with the 25% of the state revenue of the EU Emission Trading Systems according to the new act. The next programs were implemented in 2015: ZFR-TH / 2015 Modernization program for apartment buildings with 10 billion HUF budget (non-repayable support). The subsidy is depends on the verified saved carbon dioxide unit and it is between 750 - 950 HUF/CO2 kg. Replacement of windows and doors, insulation and the combination of refurbishment with renewable energy utilization is supported. MGCS/15 Large household appliances (washing machine) replacing action with 500 million HUF frame. By the replacing of household appliances minimum 10% energy savings, or a minimum 20 kg/year CO2 savings needed to achieve. The maximum grant is 50% non-refundable, but this maximum is depend on the class of the machine (by A+ class is 25,000 HUF/appliances, by A ++ class is 40,000 HUF/appliances and by A +++ class 45,000 Ft/appliances).

A new element was a voluntary agreement with commercial banks. According to the contract in 2015 with the Erste Bank Hungary the bank is required to start a new Energy Efficiency Loan Program with 100 million euros worth between 2016-2018. In addition, the Ministry of National Economy manage more residential housing modernization support programs. The purpose is not primarily the energy efficiency, but this is the overall renovation of the buildings. It has the main target by helping more

young families to get the first home and families with more children. However some key objective, as accessibility or energy efficiency is also displayed. The achievable subsidy is basically an interest subsidy with 5 year duration. The subsidy is 50% of the government bond yield.

There is another popular operating public support which is an additional support by own savings for housing purposes. It is necessary to open by a commercial bank a special savings account and take a regular voluntary payment for 4 years at least (and for 10 years maximum). The government gives an additional payment (+30%, but maximum 72,000 HUF/year) to this account in every year. So if the monthly payment is 20,000 HUF the guaranteed rate of return can be achieved 12.72%. This savings can be used for every costs related to housing, including for energy efficiency purposes or buying new home, so on. One time one person can have only one special account, but in one family every person (parents and the children) can have an own special account. It is freely allowed to use more contracts by one project. Another useful possibility is that the employer can provide tax-free support to its staff members for residential purposes in the cafeteria system.

Budapest, 15. 06. 2016.
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