CONCERTED ACTION
ENERGY EFFICIENCY
DIRECTIVE

National EED Implementation Report (NIR) 2021

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

National EED Implementation Report (NIR) 2021

Introduction

The Concerted Action of the EED

The Concreted Action of the Energy Efficiency Directive (CA EED) was set up to facilitate and enhance the effective implementation of the Directive. This is achieved through knowledge exchange between the implementing authorities in each participating country.

By sharing good practices, lessons learnt and updates on progress, Member States and Norway can learn from one another and strengthen the implementation of the EED. To facilitate this exchange of knowledge, the CA EED convenes a number of meetings, conducts studies and produces a number of outputs and reports to support the sharing of information between Member States.

National Implementation Reports

This set of National Implementation Reports, has been published by the CA EED to capture the current status and the progress towards the implementation of the Directive in each participating country.

Within the National Implementation Reports, each Member State has recorded the progress against the EED Articles, including how they have been transposed into national legislation, as well as giving an overview of the non-legislative measures and programmes they have enacted.

Background and context

The Energy Efficiency Directive aims to help the EU reach its 32.5% energy efficiency target by 2030, which contributes to achieving the greenhouse gas emission reduction goal of 40% by 2030. The Commission has recently put forward proposals to increase this target to 50% by 2030, compared to 1990 levels[1], to ensure the Union is on track to achieve carbon neutrality by 2050. For further information on the new target see the 2030 Climate Target Plan.

To achieve these goals, each Member State is required to develop a national long-term strategy on how they intend to achieve their goals by 2050 and a National Energy and Climate Plan (NECP) which covers activity up until 2030.

In their national long-term strategies Member States outline how they plan to reduce greenhouse gas emissions, between 2021 and 2050. These national strategies have been developed and communicated to the European Commission in accordance with the Regulation on the governance of the energy union and climate action.

[1] State of the Union: Commission raises climate ambition and proposes 55% cut in emissions by 2030, press release, 17 September 2020.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

To meet the EU's energy and climate targets for 2030, Member States need to establish a 10-year integrated national energy and climate plan (NECP) for the period from 2021 to 2030. Introduced under the Regulation on the governance of the energy union and climate action (EU/2018/1999), the rules required the final NECP to be submitted to the Commission by the end of 2019. The areas covered by the NECPs in which Member States outline how they intend to address the challenges set by legislation are:

- energy efficiency
- renewables
- greenhouse gas emissions reductions
- interconnections
- research and innovation

This approach requires a coordination of purpose across all government departments. It also provides a level of planning that will ease public and private investment. The fact that all Member States are using a similar template means that they can work together to make efficiency gains across borders.

In the National Energy and Climate Plans (NECP), each Member State outlines their plans on improving energy efficiency, increasing energy produced by renewable sources and reduction of greenhouse gas emissions between 2021 and 2030. The individual NECPs are available to view and download here and the European Commission's assessment of these plans can be viewed here. The Joint Research Centre also produced a technical report assessing the heating and cooling related chapters of the national energy and climate plans (NECPs) which can be viewed here. Each country will submit a report every two years, summarizing the progress made on the implementation of their plans and the Commission will produce a report on the EU's progress as a whole.

Contents

EED implementation in Austria 1
EED implementation in Belguim 6
EED implementation in Bulgaria 14
EED implementation in Croatia 26
EED implementation in Cyprus 30
EED implementation in the Czech Republic 38
EED implementation in Denmark 42
EED implementation in Estonia 48
EED implementation in Finland 52
EED implementation in France 58
EED implementation in Germany 61
EED implementation in Greece 70
EED implementation in Hungary 81
EED implementation in Ireland 90
EED implementation in Italy 97
EED implementation in Latvia 110
EED implementation in Lithuania 115
EED implementation in Luxembourg 119
EED implementation in Malta 126
EED implementation in the Netherlands 131
EED implementation in Poland 142
EED implementation in Portugal 164
EED implementation in Romania 168
EED implementation in Slovakia 173
EED implementation in Slovenia 176
EED implementation in Spain 181
EED implementation in Sweden 196

National EED Implementation Report (NIR) 2021

EED implementation in Austria

Introduction

The implementation of the Energy Efficiency Directive (EED) is the responsibility of the Federal Ministry of Climate Action, Environment, Energy, Mobility, Innovation and Technology. Other important public authorities in the implementation of the EED are the nine Austrian Federal Provinces who have many legal competences as regards energy efficiency policy.

The Austrian Energy Agency was appointed as the National Energy Efficiency Monitoring Agency observing and evaluating the progress of Austria in the implementation of the EED.

1. Legal context

The Federal Energy Efficiency Act, which was enacted in 2014, is the main instrument to transpose the EED. The Energy Efficiency Act introduces an EEO for energy retail sales companies and defines, among others, requirements for public buildings and non-SMEs. The legal text can be found here: https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20008914

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 4	An evidence-based estimate was carried out on the basis of the national building stock and the ongoing activities of the federal states and the federal government, particularly in the context of residential building subsidies. This estimate (not taking into account any additional, as yet undefined future measures) produced an annual renovation rate relevant to energy savings of approximately 1% of the total old building stock. It should be expressly noted that this is merely the first version of an estimate of expected energy savings, which in subsequent years will be supplemented and refined by additional information on current developments in the building sector, at least with regard to: • the development of the provisions in building law for major renovations • new financing models • changes in the energy mix • rebound effects • changing rates of increase in the use of solar thermal systems and heat pumps in the building stock. This estimate indicates a potential of 2,185 GWh/a for residential buildings and 1,130 GWh/a for non-residential buildings after 2020.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

EED Article	Implementation status
Article 5	In relation to Article 5 of the EED, Austria chose the alternative approach. The determination of savings to be achieved started with an analysis of the building stock owned and occupied by the central government. This analysis eventually resulted in the creation of a building inventory. Public bodies are starting to enter data into this centralised database. It was decided to start with buildings over 250m^2 from the beginning. The analysis resulted in a cumulative energy savings target of 48.2 GWh until 2020. In the year 2014, 4.018 GWh of energy savings mainly coming from contracting projects could be reported.
Article 6	The obligation contained in Article 6 EED requiring certain contracting authorities to purchase only products and services with a high energy-efficiency performance was transposed into Austrian law with the amendment to the Federal Procurement Act (BVergG). Pursuant to paragraph 95, BVergG, the central contracting authorities, must, when awarding supply or service contracts in the upper threshold region, ensure that the purchased goods or services comply with certain requirements on energy efficiency, insofar as this is consistent with the basic principles of the procurement procedure (in particular the principles of free and fair competition and cost-effectiveness). The requirements on energy efficiency contained in Annex III of the Directive were transposed into Austrian law in Annex XIV of the Federal Procurement Act. https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20010295 In addition the Federal Energy Efficiency Act foresees in §16 that the Federal Government, when purchasing or leasing immovable property, must pay increased attention to the impact on energy efficiency and include energy consumption values in the purchasing or leasing decision.
Article 7	Austria implements Article 7 with a mix of an EEO and alternative measures. **The EEO** Each energy retail sales company with energy sales of more than 25 GWh has to achieve savings at final customers in Austria that amount to 0.6% of energy sales of the preceding year between 2015 and 2020. 40% of these savings have to be achieved in households. The EEO was introduced with the enactment of the Federal Energy Efficiency Act and is formulated in §10. **Alternative measures** The alternative measures comprise housing subsidies of the Federal State and Federal Provinces, energy taxes and investment subsidies for companies.
Article 8	The Federal Energy Efficiency Act foresees in §9 an obligation for non-SMEs to conclude a regular external energy audit or to implement an energy management system including a regular internal or external energy audit. The minimum criteria for external energy audits are defined in Annex III of the Federal Energy Efficiency Act. The Federal Energy Efficiency Act also defines quality criteria for energy auditors.

EED Article	Implementation status
Articles 9-11	The Electricity Act 2010 lays down the rules for smart meters. In principle, all information, promotional material and bills from energy suppliers must be transparent and customer-friendly. Bills must also show the meter readings used for the bill, as well as information on how the meter was read. It should therefore indicate whether the meter was read by the network operator, the customer supplied his/her own reading, the meter was read remotely or the meter reading was estimated. The information provided to the final consumer on the details of the roll-out of smart meters includes in particular technical aspects of the smart meter, the timing of the roll-out, consumer rights etc. In addition §22 of the Federal Energy Efficiency Act contains provisions on the installation of meters for heat and cooling.
Articles 12, 17	There is a comprehensive range of consumer information and education programmes available in Austria. These programmes are aimed at both private individuals and professionals. Measures relating to education, training, information and awareness-raising are in principle offered by the Austrian Government and the federal states. At federal level, klimaaktiv (the Austrian Climate Initiative) is one of the most important information and awareness-raising programmes. Under the umbrella of klimaaktiv, a large number of programmes have been launched to promote the topics of climate protection, energy efficiency and renewable energy sources, in the personal, commercial and public spheres, by means of information, advice, education, training, quality standards and networking. See www.klimaaktiv.at/ The energy agencies of the federal provinces offer a comprehensive range of information and services. This includes educational programmes for members of the public on a more efficient use of energy (evening events and excursions) as well as advanced training courses for professionals (ranging from one-day seminars to training courses). In addition, numerous activities are provided to inform the public about the careful use of energy. These activities include special events, appearances at trade shows, newspaper ads, brochures, website info etc.
Article 13	§31 of the Federal Energy Efficiency Act defines penalties for non-compliance with the EEO.
Article 14	For the comprehensive assessment, a scientific study by the Vienna University of Technology involving all relevant stakeholders was used. The study can be accessed here: https://ec.europa.eu/energy/sites/ener/files/documents/Austria_MNE%282016%2950514.pdf In 2021 an update of the study was carried out, which is available under the following link: http://www.austrian-heatmap.gv.at/fileadmin/user_upload/FW_KWK_Endbericht.pdf

EED Article	Implementation status
Article 15	A study on energy efficiency potentials in energy transformation, transmission and distribution was performed but is currently not accessible online.
Article 16	See also text on auditors in the section on Article 8. §17 of the Federal Energy Efficiency Act define quality criteria for energy service providers. A public list of qualified energy auditors is available here: www.monitoringstelle.at/index.php?id=708 A list for other energy service providers is under development.
Article 18	In 2013 the association of 'Austrian Energy Efficiency and Performance Contractors – DECA' was established, which plays a networking function in the further dissemination of high-quality energy services. In addition, the federally funded klimaaktiv contracting portal provides interested parties with information on the topic of energy performance contracting. www.deca.at/view_site/site.php?nid=1&lang=de www.contracting-portal.at/show.php For the quality assurance of contracting projects, the Ministry of Agriculture, Forestry, Environment and Water offers the Energy Performance Contracting Eco-label in Austria. This certificate formulates the requirements on the contractor, the course of the project and the energy performance contract necessary for awarding of the 'Energy Performance Contracting' ecolabel. www.umweltzeichen.at/cms/de/produkte/gruene-energie/content.html?rl=33 In the public sector, the market for energy services is supported by the comprehensive Federal Property Contracting programme for the renovation of more than 200 federal buildings since 2001. As part of this programme, more than 600 buildings have been optimised and modernised in terms of energy efficiency. This makes the Contracting programme one of Europe's largest contracting authorities for energy performance contracts. https://www.metrologie.at/energie-und-gebaeudemanagement/ergebnisse-und-jahresberichte/
Articles 19-20	With regard to the measures required by Article 19(1a) EED, the work programme of the Austrian Federal Government 2013–2018 includes a section on affordable housing. The two planned measures are: • Changes in the rules to form funds to reserve which make it easier to carry out renovations. • Changes in the decision-making process in the residents meeting.

2.2. Non-legislative provisions

None.

2.3. Implementing bodies

Federal Ministry of Climate Action, Environment, Energy, Mobility, Innovation and Technology.

The Austrian Energy Agency was appointed as the National Energy Efficiency Monitoring Agency observing and evaluating the progress of Austria in the implementation of the EED.

3. Implementation of revised EED articles

A revision of the Energy Efficiency Act is currently in progress.

4. Relevant information

The energy efficiency section on the website of the Federal Ministry of Climate Action, Environment, Energy, Mobility, Innovation and Technology: Energy efficiency (bmk.gv.at)

National EED Implementation Report (NIR) 2021

EED implementation in Belguim

Introduction

In Belgium the implementation of the EED is mainly the responsibility of the three regions, which are competent for the rational use of energy. But the federal level has also certain competences, such as fiscal policy and products standards, which support the regional policies in this topic.

1. Legal context

Brussels Capital Region

To meet all the challenges related to energy efficiency, renewable energy, climate, and air quality, the Brussels-Capital Region has developed an integrated approach which has already been declined into a regulation document (Brussels Air, Climate and Energy Code – COBRACE). The COBRACE came into force 2 May 2013 and has been evolving ever since. It aims to:

- bring together regional air, climate and energy policies;
- minimise energy needs;
- reduce our dependence on non-renewable energy sources;
- use energy from renewable sources;
- promote the rational use of energy;
- improve the energy performance and indoor climate of buildings;
- reduce the environmental impact of mobility needs;
- set an example for public authorities in the field of energy performance of buildings, transport and energy efficiency.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

The "COBRACE" deals with these different subjects while taking into consideration both the social implications and the various aspects of sustainable construction.

In the building sector, this legislation thus aims to exploit the enormous existing potential in terms of energy savings. The Climate Ordinance of 17th June 2021 significantly strengthens regional climate governance by incorporating new provisions into COBRACE. These changes include:

- the setting of targets for the reduction of direct and indirect regional greenhouse gas emissions. The Region must achieve carbon neutrality by 2050, by reducing direct regional emissions by a minimum of 40% in 2030, 67% in 2040 and 90% in 2050 compared to 2005. The Government will be responsible for establishing the regional policy for reducing indirect emissions in order to achieve a trajectory comparable to that of direct emissions by 2050. The methodological framework will be proposed by Brussels Environment by 1st January 2023 at the latest. This ambitious work is currently being developed;
- the formulation of principles to guide climate policy (cf. Article 1.2.5 of COBRACE);
- the creation of an independent Climate Experts Committee. Its mission is to assess the adequacy of regional policies and measures with regard to climate objectives, by producing an annual report and issuing opinions, at the request of the Government;
- a ban on the installation of coal and oil heating installations from September 2021 and June 2025 respectively.

Some other legislation related to the EED are:

- Ordonnance relative à l'organisation du marché de l'électricité en Région de Bruxelles-Capitale.
- Ordonnance relative à l'organisation du marché du gaz en Région de Bruxelles-Capitale.

Wallonia

2012/27 EED was transposed in June 2014 and implemented in various existing or new legislations in Wallonia. The most relevant are the Environment Code, the spatial planning code, the housing code, the energy performance of building decree, the decree on the rational use of energy, the Climate Decree, the Heat Decree and the energy market legislation, along with their application orders, but there are plenty of other regulations that cover specific areas or measures from the EED scope.

The revised EED 2018/2002 complete transposition was notified in October 2020. The Walloon contributions to the new 2030 EU targets were defined in the Walloon contribution to the 2019 final Belgian NECP. This contribution is embedded in the Walloon Air-Climate-Energy Plan according to the climate decree.

Flemish Government

Energy efficiency policies were implemented after the previous EU-directives in Flanders. The EED implementation induced changes in several already existing decrees and application decisions, like the Energiedecreet (the Energy Decree of 8 May 2009), the Energiebesluit (the Energy Decision of 19 November 2010), technical regulations for the distribution of electricity and natural gas, the environmental licensing regulations (VLAREM), technical specifications (STS), etc. The EED implementation also impacted existing non-legislative tools like, for example, the Agreements with the industry, communication or financial instruments.

The transposition of the revised EED 2018/2020 was completed and notified in January 2021. The Energy Decree and the Energy Decision were amended on several points. The contribution of the Flemish Government to the Belgium 2021-2030 target was defined in the Flemish Energy and Climate Plan, which was incorporated in the Belgian NCEP.

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 3	The Belgian contribution to the 2020 and 2030 EU target has been notified through the final Belgian NECP end of 2019.
Article 5	**Federal government:** Several federal actors are involved in the implementation: the "Régie des Bâtiments" as the real estate expert of the Federal State (https://www.regiedergebouwen.be/nl/energie-efficientie-gebouwen), together with FPS which own their own buildings, such as Defense and Health Ministries. The users of the federal government buildings themselves gather within the EMAS network. Pursuant to the choice of an alternative approach, the federal government has several tools available: a combination of investments, rationalisations and behavioural changes. **Brussels Capital Region:** Alternative approach chosen: notified to the Commission at the end of December. The measures taken are the PLAGE[1] and NRClick[2]. **Wallonia:** Alternative approach was notified in 2013 and consists of collecting the actual energy consumption data of the obliged public building park and thus measuring the energy savings actually achieved each year. **Flemish Region:** The Flemish Region chose the alternative approach for the period 2014-2020. The Flemish Region aims to also make use of this option for the 2021-2030 period.

[1] Local Action Plans for Energy Management (PLAGE). Organisations and enterprises with real estate bigger than 100,000m² are obliged to put in place a PLAGE project for their buildings. Federal and regional administrations with a real estate in Brussels bigger than 250m², and other public administrations with a real estate bigger than 50,000m², have to implement a PLAGE.

[2] NRClick is a programme accompanying public entities in their energy management. This programme relies on three complementary services: an energy accounting tool, a central purchasing service and support in the organisation and the monitoring of projects to improve the energy efficiency of public buildings.

EED Article	Implementation status
Article 6	**Federal and regional competence** Wallonia supports the federal action in the public procurement procedures through the Walloon Sustainable Development Strategy, including technical specifications for buildings, formal notes on sustainable purchase, and inclusions of environmental, social and energetic clauses... There is a guide for public procurement of supplies and services available for the contracting authorities of the Federal Public Services. In this guide voluntary guidelines and technical requirements are included to promote and improve energy efficiency. This guide can be found in Dutch or French on the following website: http://www.gidsvoorduurzameaankopen.be/nl/federale-regelgeving Federal buyers can use this guide as a tool for implementing (voluntary and mandatory) sustainable procurement under the framework described in the circular of 16th May 2014: "Integration of sustainable development, including social clauses and measures in favour of SMEs, in the framework of public procurement by federal buyers." Energy efficiency is seen as one of the themes of sustainability.
Article 7	An alternative approach was chosen by all four Belgian entities. The **Federal government** contributes within its own competences through supporting measures (cfr. NECP). Three federal measures were notified on 8th September 2021: reducing traction losses (Railway); eco-driving course; and energy efficiency savings following from a reduced VAT (6%) for demolition and reconstruction. **Brussels Capital Region:** The effort required in the Region has been estimated at a cumulative energy saving from 2021 to 203.0 of 8747 GWh. **Wallonia:** 2014-2020 Article 7 scheme was notified in 2013 and its follow-up was made in the EED annual reporting. 2014-2020 target for Wallonia was 25.675 GWhcum – of which 90% was already achieved acc. monitoring till end 2018 (cfr EED annual report 2020). 2021-2030 target: 53.342 GWhcum, as notified in Belgian 2019 NECP. **Flemish Region** The Flemish Region notified a contribution of 87,89 TWh to the Belgian target.

EED Article	Implementation status
Article 8	**Wallonia:** A specific AGW "large Entreprise audit" under the rational use of Energy Decree covers the mandatory audit scheme for large enterprises since 2016. The 2nd generation of voluntary audits scheme with industry 2013-2020 (covenant under the Environmental Code) has been extended till 2023 with upwards revised targets. The AGW Amure (under the rational use of the Energy Decree, too) sets the audit methodology and accreditation criteria for auditors for all audit schemes (mandatory, voluntary agreements and incitatives for SMEs). **Flemish Government** Large companies have to submit an energy audit every four years. In 2020 an update of the four-yearly audit had to be submitted.
Articles 9-11	**Wallonia:** Articles 9-11 have been transposed in the energy market legislation, and in the Heat Decree. **Flemish Region** The changes in the revised EED directive were transposed in October 2020 through an amendment of the Energy Decree and the Energy Order.

EED Article	Implementation status
Article 12	**Federal Government** has a series of new actions • National information campaign on new energy labels, in close cooperation with stakeholders (cfr. https://economie.fgov.be/nl/themas/energie/energiebeleid/europese-context/energiebeleid-van-de-eu/energie-efficientie/energielabels) For the promotion of the modal shift, two new actions were added: • Action plan for Cycling Promotion from the Belgian Federal Government (implementation 2021-2024) • Mobility budget: All workers who, within the framework of the wage system applicable at their employer's premises, have a company car or who are eligible to do so, are taken into consideration for the mobility budget. The principle of this mobility budget rests on three pillars: Pillar 1: Environmentally friendly company car; Pillar 2: More sustainable modes of travel or intervention in the costs of housing (rent and interest on a mortgage loan) close (5 km) of the residential workplace; Pillar 3: Cash allowance. In **Wallonia**, there are many incitative schemes (households renovation grants – SMEs subsidies, voluntary agreements...) **Flemish Government** Regarding information provision, the Flemish Government distributes information on measures and subsidy schemes for energy efficiency via the website energiesparen.be and through various communication campaigns.
Article 13	**Federal Government:** Belgium opted for the alternative measures under in Article 7, and each policy measure notified foresees the necessary corrective measures if applicable and necessary. **Wallonia:** Every alternative measure for Article 7 implementation includes a verification and sanction mechanism. Moreover, the annual monitoring allows the Walloon Government to take corrective measures in case the trajectory towards the target were lower than expected. **Flemish Region** Every alternative measure includes a verification and sanction mechanism.
Article 14	Belgium communicated its 2015 and 2020 comprehensive assessment of potential for efficient heating and cooling.
Annex IV footnote 3	A Belgian PEF value of 2.5 has been notified to the Commission on 6th July 2021.

2.2. Non-legislative provisions

There is national cooperation between the Federal Government and the Regions in ENOVER/CONCERE working groups to enhance EED implementation.

Brussels Capital Region

On 2nd June 2016, the Brussels Government adopted the Regional Air-Climate-Energy Plan (PACE) during a special government session dedicated to the climate. The PACE has its legal basis in the COBRACE.

This plan proposes 64 measures and 144 actions that aim to enable the Region to reduce its emissions by 30% by 2025 (compared to 1990), as well as to achieve its air and energy objectives.

PACE targets the sectors that emit the most greenhouse gases and air pollutants (buildings, transport, etc.) encourages the production of renewable energy, and integrates air, climate and energy issues into Brussels' policies.

This plan in currently under revision in order to increase our target.

Wallonia:

The Walloon contribution to the 2019 Belgian NECP is embedded in the Walloon Air-Climate-Energy Plan according to the Climate Decree.

More information on the Walloon energy efficiency measures can be found either in the last 2017 Energy Efficiency action Plan, or in the 2019 NECP.

Flemish Region

The Flemish Energy and Climate plan contains the main priorities of the climate and energy policy for the next 10 years. In November 2021 additional climate measures were decided (https://www.energiesparen.be/sites/default/files/atoms/files/VR%202021%200511%20DOC.1237-1%20Visienota%20VEKP%20Bijkomende%20maatregelen.pdf)

2.3. Implementing bodies

For the **Federal Government** the following services are involved:

- FPS Economy, DG Energy
- FPS Finance
- Régie des Bâtiments
- FPS Health
- FPS Mobility
- Federal Institute for Sustainable Development

In **Brussels Capital Region** the implementation of the EED is coordinated by Bruxelles Environnement.

In **Wallonia**, the implementation of the EED is coordinated by the Walloon Public Service (SPW-TLPE), a department of Energy & Sustainable Building.

In the **Flemish Region** the implementation of the EED is coordinated by the Flemish Energy and Climate Agency.

3. Implementation of revised EED articles

Belgium notified a PEF value under Annex IV footnote 3.

The Federal Government has notified three measures under the revised Article 7 (EED 2018/2002).

Brussels Capital Region has completed the implementation.

By 20/10/2020, Wallonia notified the complete implementation of the revised articles.

The major new legislative act is the Heat Decree.

The major non-legislative act is the Walloon contribution to the final 2019 Belgian NECP as adopted by the Walloon Government in autumn 2019. It streamlined all energy and climate measures aiming at reducing the GHG emission, for which EE measures are a major delivering pillar.

The Flemish Region has completed the transposition of the revised EED. The legislative provisions have been transposed through amendments of the Energy Decree and the Energy Order.

4. Relevant information

More info on transposition details can be found in the transposition notification to the Commission

More info for the Federal Government

FPS Economy: https://economie.fgov.be/nl/themas/energie/energiebeleid/europese-context/energiebeleid-van-de-eu/energie-efficientie

Régie des bâtiments: https://www.regiedesbatiments.be/fr/efficacite-energetique-des-batiments

More info for Wallonia: https://energie.wallonie.be/fr/index.html?IDC=6018

More info for the Flemish Region: www.energiesparen.be

National EED Implementation Report (NIR) 2021

EED implementation in Bulgaria

Introduction

The implementation of the Energy Efficiency Directive (EED) (2012/27/EU) is the responsibility of the Ministry of Energy. The activities implementing the State energy efficiency improvement policy are carried out by the executive agency under the Minister of Energy – Sustainable Energy Development Agency (SEDA). SEDA is also responsible for the monitoring and evaluation of the energy efficiency at national and sectoral level and for the control over the observance of legislation in the field of energy efficiency. SEDA is the monitoring body of the national cumulative target according to Article 7 EED.

This National Implementation Report (NIR) of the Directive 2012/27/EU of the European Parliament and of the Council on energy efficiency (EED) builds on the 2016 NIR. This version includes the implementation of the amendment of this Directive (Directive (EU) 2018/2002 of the European Parliament and of the Council of 11th December 2018 amending Directive 2012/27/EU on energy efficiency) and Governance Regulation (Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11th December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) and Directives, among which 2012/27/EU (NECPs and reporting/Energy Efficiency dimension related to EED).

1. Legal context

To implement the EED, changes have been made to several national laws:

- Energy Efficiency Law, last amended March 2021
- Energy Law, last amended March 2021

In Bulgaria the EED obligations are also subject to secondary legislation under the Energy Efficiency Law as follows:

- Ordinance for the methodologies for setting the national energy efficiency target, the setting of the total cumulative target, the setting up of an energy savings obligation scheme and the allocation of the individual energy savings targets to the obligated parties.
- Ordinance for the eligible measures for obtaining energy savings in final consumption, the manner of proving the energy savings obtained the requirements to the methodologies for evaluation of energy savings and the manner for confirming energy savings.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

- Ordinance for the cost-optimal levels of minimum energy performance requirements for buildings or parts thereof, the energy efficiency technical requirements and indicators, as well as the method/ standards for determining annual energy expenditure in buildings, including of nearly zero-energy buildings.
- Ordinance for the circumstances subject to entry of the qualified energy auditors into the public register, the procedure for entry into the register and for obtaining information, as well as the terms and procedure for the attainment of qualification of the auditors.
- Ordinance for the terms and procedure for performing an energy efficiency audit and certification of building, of parts of buildings, as well as the terms and procedure for preparing an energy savings evaluation.
- Ordinance for the terms and procedure for performing the energy efficiency inspection of heating systems with hot-water boilers and of air-conditioning systems, the terms and procedure for preparing an energy savings evaluation.
- Ordinance for the indicators of energy expenditure, the energy performance of enterprises, industrial systems and outdoor lighting systems, as well as the terms and procedure for performing an energy efficiency audit and preparing an energy savings evaluation in industrial enterprises.

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 3	National Energy Efficiency Target is set in the Integrated Energy And Climate Plan of the Republic of Bulgaria 2021-2030. In 2030, Bulgaria plans to achieve a decrease in the consumption of primary energy by 27.89 % and a decrease by 31.67 % in final energy consumption as compared to the PRIMES 2007 reference scenario. As regards the target for energy consumption in 2030 expressed in absolute terms, Bulgaria has set a target of 17,466 ktoe for primary energy consumption and a target of 10,318 ktoe for final energy consumption.
Article 4	Long-term National Strategy to Support the Renovation of the National Building Stock of Residential and Non-residential Buildings by 2050 was adopted in January 2021. It includes an overview of the national building stock (housing and public buildings), packages of economically efficient approaches to improving the energy performance of buildings and policies and measures structured in groups of strategic priorities. In the Strategy there is an evaluation of the investments needed for the renovation of the building stock as well as an analysis of the possible financial programmes and instruments (existed and planned).

EED Article	Implementation status
Article 5	According to Bulgarian Energy Efficiency Law, to help reach the national energy efficiency target, measures to enhance the energy performance of at least 5% of the total floor area shall be taken annually in all heated and/or cooled State-owned buildings occupied by the State administration. For these purposes, the State bodies shall develop and adopt energy efficiency programmes and are bound to implement energy efficiency management, including submitting annual reports on energy efficiency management and the energy efficiency programmes to SEDA.
Article 6	The central government and the local authorities have been purchasing sustainably since 2010 when "Instructions for implementation of the requirements for energy efficiency and energy savings in public procurement for the supply of equipment and vehicles to minimize costs for the duration of their exploitation" were adopted. The Instructions were developed jointly by SEDA and Public Procurement Agency. On the Public Procurement Agency web page are also published: Practical guide for green public contracting; calculators, List of product groups suitable for the inclusion of "green" criteria in public procurement, Guide to Green Public Procurements, Information on environmentally friendly criteria for certain product groups.
Article 7	The mandatory energy savings for the period 2014 to 2020 inclusive amounted to 1,942.50 ktoe, in accordance with the Energy Efficiency Act and the National Energy-Efficiency Action Plan. The total cumulative target for the 2014-2020 period is set as a cumulation of new energy savings each year of at least 1.5 per cent of the average annual value of the total volume of energy sales to final customers within the territory of the country in 2010, 2011 and 2012, excluding the volume of sales of energy used in the transport sector, under Eurostat Code B_101900. For the period of 2014-2020 Bulgaria opted to take mixed approach – Energy efficiency obligation scheme and alternative measures. The mandatory energy savings for the period 2021 to 2030 amount to 4,357.55 ktoe are set in the Bulgarian NECP. The target is again subject of mixed implementation of EEOS and alternative measures. The alternative measures are the grant programs for households, services and industry that continue after 2020.

EED Article	Implementation status
Article 8 (1)	Energy Efficiency legislation in Bulgaria provides a set of very strict criteria ensuring the qualification of the energy auditors. They should be listed in SEDA's public register only if they meet the criteria set in "Ordinance № Е-РД-04-01/03.01.2018 for the circumstances subject to entry of the qualified energy auditors into the public register, the procedure for entry into the register and for obtaining information, as well as the terms and procedure for the attainment of qualification of the auditors" (in Bulgarian). Subject of mandatory audits are: • All buildings in use with a total floor area of over 250 square meters (Article 38 EE Law) • Industrial systems and buildings that are not part of the industrial systems of production or services enterprises other than small and medium enterprises (Article 57 EE Law) • Industrial systems with annual energy consumption exceeding 3,000 MWh (Article 57 EE Law) • Outdoor lighting systems, located in a nucleated settlement with a population exceeding 20,000 residents (Article 57 EE Law) All large enterprises, the industrial systems with annual energy consumption exceeding 3,000 MWh and the outdoor lighting systems shall repeat their energy audit at least every four years.
Article 8 (5)	The energy audit's requirements, the indicators of energy expenditure, the energy performance of enterprises, industrial systems and outdoor lighting systems, as well as the terms and procedure for performing an energy efficiency audit and preparing an energy savings evaluation are subject to special ordinance under EE Law. A set of very strict criteria ensure the qualification and accreditation of the energy auditors and guarantee the quality of the audits. Audits and energy auditors are subject to quality control, performed by the SEDA and regulated in the EE Law.

EED Article	Implementation status
Article 8 (6)	Article 8 (6) of the Directive states that enterprises that are not SMEs and that implement an energy or environmental management system – certified by an independent body according to the relevant European or International Standards – are exempt from the requirement to carry out an energy audit once every four years under the Directive. According to Article 57 (7) of the National EE Law, large enterprises and the industrial systems with annual energy consumption exceeding 3,000 MWh, which implement an energy or an environmental management system subject to certification by an independent body for conformity to European or International Standards, shall be exempted from the requirements for mandatory energy efficiency audits, provided that the management system implemented thereby meets the minimum requirements to energy audits stipulated by the ordinance under EE law – Ordinance № Е-РД-104-05/08.09.2016 for the indicators of energy expenditure, the energy performance of enterprises, industrial systems and outdoor lighting systems, as well as the terms and procedure for performing an energy efficiency audit and preparing an energy savings evaluation in industrial enterprises (in Bulgarian).
Article 8 (7)	Article 8 (7) of the EED states that Member States may implement incentive and support schemes for the implementation of recommendations from energy audits and similar measures. Operational Program "Innovation and Competitiveness" offers up to 50% grant for energy efficiency measures implementation both for SMEs and non-SMEs.
Articles 9-11	**Electricity:** The 2003 Energy Act stipulates that for the purpose of measuring quantities of electricity, the TSOs and operators of distribution networks in accordance with the issued licences provide: 1. technical and metrological provision, development and modernisation of the commercial metering devices; 2. maintaining database registration of commercial metering devices. **District heating:** One of the main approaches for reading the consumed heat energy in households, the so called "heat accounting" system, was introduced in Bulgaria with the Energy Act in 1999. By using the devices for shared distribution – valves, water meters, apartment meters – the total energy for heating and hot water can be divided between individual properties. The shared distribution of heat in the building condominium (multi-residential buildings) is subject to a special methodology – application of Decree № 16-334 for Heating. The DH substations in Bulgaria are equipped with meters, which are reported at the end of each month by a representative of DH Company. The reported heat is distributed between customers on the basis of consumption of each property from the previous heating season. Each month DH Company sends to their consumers invoices reflecting these data. After reading the data at the end of the heating season, the heat accountant prepares a balance bill. It is calculated based on actual consumption for each property.

EED Article	Implementation status
Articles 9-11	**Natural Gas:** Reporting of quantities of natural gas transported in the gas network is carried out in gas measuring points owned by the transmission company, located on the transmission network complied with the statutory requirements for the network's design, construction and operation. The quantity of natural gas transported through the gas distribution network is measured by a gas metering device placed before the user, but owned by the gas distribution company. The servicing of the commercial metering of gas transmission and distribution network is the responsibility of the operator of the network in accordance with the regulations for commercial measurements. Also according to the Energy Efficiency Act the obligated parties under EEOS, jointly with the owners of commercial metering devices of the energy supplied to final customers may provide, as a competitively priced energy service for the purpose of ensuring traceability of energy costs by final customers, replacement of the existing commercial metering devices by intelligent measurement and control systems or other technical solutions visualising the current energy consumption; the previous bill and the momentary energy load. The methods and conditions for billing the end users are regulated by the Energy Act. According to the law the energy companies are obligated to provide their customers energy services information for: 1. Methods of payment, prices for suspension or restoration of supply, prices for services which provide for maintenance and other service charges associated with the licensed activity. 2. The procedure for switching and information that users of energy services do not owe additional payments when changing supplier. 3. Actually consumed quantities and costs incurred with no obligation for extra payment for this service. 4. Preparation of a final closure account following any change of supplier. 5. The share of each source of energy in the total energy supplied by the provider during the preceding calendar year in an understandable and clearly comparable manner. 6. Existing sources of publicly available information on the environmental impact in terms of at least emissions of carbon dioxide and radioactive waste – resulting from the production of electricity from different energy sources in total energy supplied by the provider during the preceding year. Also the Energy Act obliges the end supplier to inform the customer every six months together with the invoice when the reported consumption of electricity or natural gas by this final customer for the period is higher than 50% of the reported consumption for the corresponding period of the previous calendar year.

EED Article	Implementation status
Articles 12 and 17	The energy suppliers publish on their websites energy saving advice and, in some cases, information about the estimated consumption of the most frequently used household appliances. The internet pages of almost all energy suppliers provide an energy calculator which customers can use to calculate the energy consumption in their homes. SEDA distributes information via the internet about financial instruments for EE measures, training and information campaigns, FAQ on the legislation or other policy aspects, calculators for energy savings in households, guidelines for EEOS implementation, analyses and various other related information. In 2020 and 2021 SEDA organized series of training courses for energy managers in industrial enterprises from all Bulgaria. Up to 800 energy managers are already trained.
Article 14	The development of the comprehensive assessment of the potential for the application of high-efficiency cogeneration and efficient district heating and cooling is required by the Energy Act. Bulgaria made the Assessment in 2016. Comprehensive assessment update 2021 was published for public consultations in August 2021.

EED Article	Implementation status
Article 15	For efficient use of energy in terms of its production, transmission and distribution, the Energy Act provides for requirements which the Energy and Water Regulatory Commission (EWRC) takes into consideration in establishing the prices of electricity, heat and natural gas. In the exercise of their authorities under this Act, EWRC: • establishes the maximum value of process costs in the production, transmission and distribution of electricity, in the production and transmission of heat, and in the transmission, distribution and storage of natural gas, which may be recognised in pricing according to the methodology or guidelines adopted by the Commission; • demands from electricity and gas network operators to assess the energy efficiency potential of the respective networks by reducing process costs, including analysis of load transmission, distribution and management, efficient network operation and the capability of joining distributed generation facilities; • an obligation is imposed on network operators, when drawing up network development plans, to include measures and plan the corresponding investments for energy efficiency improvement in gas and electricity grids, as well as a schedule for their implementation. In addition, the Energy Act ensures that by exercising their regulatory powers in the field of energy efficiency, EWRC is guided by the following general principles: promoting energy efficiency improvement in the production, transmission, distribution and final consumption of energy and natural gas, and creating stimuli for the operators of transmission and distribution networks to provide system services to end-users which enable them to implement energy efficiency improvement measures by introducing smart grids, taking into account the costs and benefits associated with each measure to ensure the security of the system. With regard to price regulation, EWRC sets as its objective that electricity transmission and distribution prices should not be a restrictive factor militating against any of the following: energy efficiency improvement in the production, transmission and distribution of energy; the inclusion of demand response in efforts to balance markets; the provision of ancillary services and the incorporation in network tariffs of reduced network costs achieved by consumers; the optimisation of energy consumption, the decentralisation of production, the lowering of the cost of delivery or of network investment; optimisation of network operation. In terms of demand response, EWRC is guided by the principle that electricity transmission and distribution prices should allow increased end-user involvement in the improvement of efficiency of the power system by optimising consumption. Moreover, it makes efforts to encourage transmission and distribution system operators to offer system services for electricity demand response, demand management and distributed generation on organised electricity markets and to improve efficiency in networks' design and operation.

EED Article	Implementation status
Article 16	The level of competence, objectivity and reliability of energy auditors in Bulgaria is very high. The qualification and certification process of the auditors is ensured by the control activities of SEDA covering all the aspects of the qualification and the competence of the energy auditors and the reliability of the companies they represent. The needed technical education of the energy auditors is ensured by the Bulgarian technical universities and is as follows: **For buildings:** 1. Architecture or industrial and civil construction, or construction of buildings and facilities. 2. Heating technology or power systems. 3. Electrical power engineering and / or electrical power. **For Industry:** 1. Power systems. 2. Heating technology. 3. Electrical power engineering or electric equipment engineering and/or electrical power supply and electric equipment engineering. In addition to a university or college education, qualification for energy efficiency audits of industrial systems is acquired after full workload training according to a certain curriculum and after passing an exam in Bulgarian higher technical schools specialising in professional directions "Energy" and "Electrical Engineering". The minimum requirements for the curriculum is regulated in a special ordinance by the EE Law. The list of universities that deliver training for certification of buildings and energy efficiency auditing of an industrial system is published on SEDA's web page.
Article 18	The provision of energy services is regulated by the Energy Efficiency Law. According to the law, energy services aim to combine the supply of energy with an energy efficient technology and/or an action encompassing the operation, maintenance and management necessary for the delivery of the service, and leading to verifiable, measurable or estimable energy efficiency improvement and/or saving primary energy resources. The EE law also defines the persons who can perform energy services – natural or legal persons who are merchants within the meaning given by the Commerce Act or within the meaning given by the legislation of another Member State of the European Union, or of another State which is a Contracting Party to the Agreement on the European Economic Area, or of the Swiss Confederation. A vital role in stimulating the market for energy services is the implementation of energy performance contracts (ESCO). On SEDA's web page are published: Template for ESCO contract, example of ESCO contract, guidelines for ESCO contracting and other supportive materials.

EED Article	Implementation status
Article 20	In Bulgaria Energy Efficiency and Renewable Sources Fund (EERSF) was established pursuant to the Energy Efficiency Act, with intergovernmental agreements between the Global Environment Facility (through the World Bank), the Government of Austria and the Government of Bulgaria. The fund operates according to the provisions of the Energy Efficiency Act and the Energy from Renewable Sources Act. EERSF has the combined capacity of a lending institution, a credit guarantee facility and a consulting company. It provides technical assistance to Bulgarian enterprises, municipalities and private individuals in developing energy efficiency investment projects and then assists their financing, co-financing or plays the role of guarantor in front of other financing institutions. The underlying principle of EERSF's operations is a public-private partnership. According to the requirements in Article 20 (6) of EED, the Bulgarian Energy Efficiency Act foresees the opportunity for the EEOS obligated parties to make contributions to the Energy Efficiency and Renewable Sources Fund or to other financial intermediaries for financing energy efficiency activities and measures in the amount of the investments necessary to implement measures to reach the individual targets of the said obligated parties.

2.2. Non-legislative provisions

In Bulgaria there are several financial instruments under the EU Structural funds. The instruments are offering grant support for EE and RES measures. The previous period ended in 2020 and currently the new operational programmes for the period 2021-2027 are under preparation:

- Competitiveness and Innovation in Enterprises Programme is directly aimed at achieving intelligent and sustainable growth of the Bulgarian economy, as well as the implementation of industrial and digital transformation. The main target group of the programme is enterprises with a focus on small and medium enterprises. The programme is structured in two priorities: Priority 1 "Innovation and Growth" and Priority 2 "Circular Economy", each of which is aimed at addressing challenges in specific areas that are key to economic development and in respect of which the country follows to make an effort.
- Regional Development Programme is a continuation of the programme "Regions in Growth" 2014-2020. A specific priority of the programme is to ensure better development of economic potential, mobility and an attractive living environment with opportunities for access to adequate housing, quality and affordable health, education and social services, culture, entertainment, sports, work and leisure in order to increase standard of living and to help tackle the problem of demographic imbalances as well as the serious consequences of the crisis caused by the spread of COVID-19.
- Strategic plan for development of agriculture and rural areas is a continuation of the Rural Development Programme 2014-2020. It aims to ensure fair conditions and a stable economic future for farmers; setting more ambitious targets for environmental and climate action; maintaining the central place of agriculture in European society.
- Transport Connection Programme is a continuation of the Operational programme on "Transport and Transport Infrastructure" 2014-2020. The realisation of the programme will contribute to the policy objective "A greener, lower-carbon Europe by promoting a clean and equitable energy transition, green and blue investments, a circular economy, climate change adaptation and risk prevention and management" with a specific objective: "Promoting energy efficiency and reduction of greenhouse gas emissions".

The main programme in Bulgaria that aims to the energy efficiency measures in households is the National Programme for Energy Efficiency of Residential Buildings. One billion BGN under the programme are provided by the Government in the form of a bank guarantee, which the Council of Ministers provides to the Bulgarian Development Bank to attract the resources and secure the financing for the programme's activities. The programme ended in 2020. Its continuation is planned as an investment in the (draft) National Resilience and Recovery Plan (up to September 2021 the Plan had not yet been adopted).

Another programme directly aimed at energy efficiency measures is Renewable Energy, Energy Efficiency and Energy Security Programme financed by the Financial Mechanism of the European Economic Area 2014-2021. The programme accepts project proposals for efficient use of hydropower potential; utilisation of geothermal energy for heating or cooling, as well as for industrial purposes; rehabilitation and modernisation of municipal infrastructure; improving energy efficiency in buildings; training in energy management and others. The programme's financial resources amount to nearly 33 million euros, of which 28 million euros are grants.

Fund Manager of Financial Instruments in Bulgaria EAD (FMFIB) operates as a Fund of Funds (FoF); it allocates targeted public funds from European Union programmes and national co-financing, using special financing schemes (financial instruments). FMFIB's mission is to ensure efficient use of EU financial resources, to support business competitiveness and sustainability, to assist projects with a growth potential, and to improve the quality of life in towns and regions.

2.3. Implementing bodies

The implementation of the EED is regulated in the Energy Efficiency Law with provisions on the different institutions' responsibilities.

The state energy efficiency policy shall be implemented by:

1. The Ministry of Energy: in the field of energy efficiency in energy production, transmission and distribution, as well as in final energy consumption.
2. The Ministry of Economy: in the field of improvement of energy efficiency in small and medium-sized enterprises, as well as in energy use by industrial systems.
3. The Ministry of Regional Development and Public Works – in the field of development, harmonisation and implementation of technical rules and standard specifications for the energy performance of buildings, implementing projects and programmes related to renovation of the residential building stock and improvement of energy efficiency in residential buildings in the Republic of Bulgaria.
4. The Ministry of Transport, Information Technology and Communications: in the field of energy efficiency in the transport sector.

The activities implementing the state energy efficiency improvement policy are entrusted by the EE Law to the Sustainable Energy Development Agency (SEDA).

3. Implementation of revised EED articles

The full transposition of the EED revised in 2018 is regulated in the last amendment of the Energy Efficiency Law and the Energy Law (both adopted March 2021). Most of the policies and measures were already announced with the NECP and the National LTRS in 2020. The main enhancement is envisaged for Article 7 EED policies, more specifically on the alternative measures for the national cumulative target implementation. One of the completely new policies is the National Decarbonisation Fund. Structuring the Fund is envisaged in the NECP, the LTRS and is included as a reform in the (draft) National Resilience and Recovery Plan.

Organised as a consolidated and clearly identifiable fund, it will include a wide range of stakeholders and will successfully address the need for funding for a wide group of beneficiaries in order to maximise the objectives to be set. The Fund will operate at national level and will be managed by an independent manager (fund manager). It will consist of three separate sub-funds, according to the type of final beneficiaries: (i) Public Sector Sub-Fund ("SubF1"), (ii) Commercial Sub-Fund ("SubF2") and (iii) Residential Buildings Sub-Fund ("SubF3"). Such a structure provides the necessary flexibility with regard to future (legal and regulatory) requirements for specific recipients or future implementation of more detailed national segmentation. The Fund will be used to offer grants and financial instruments, including credit lines and guarantees and/or a combination thereof. Last but not least, the Fund will provide a single point for technical assistance to applicants through one-stop shops or similar mechanisms. As regards targeted measures, the Fund will encourage investment in energy efficiency packages of measures by providing a more comprehensive approach leading to greater energy savings.

The plans are for the Fund to become operational in 2022-2023.

4. Relevant information

Integrated Energy and Climate Plan of the Republic of Bulgaria 2021–2030

Long-term National Strategy to Support the Renovation of the National Building Stock of Residential and Non-residential Buildings by 2050

Energy Efficiency Law

Ordinances to the Energy Efficiency Law (in Bulgarian only)

National EED Implementation Report (NIR) 2021

EED implementation in Croatia

Introduction

The implementation of the directive on Energy Efficiency (EED) (2012/27/EU) is the responsibility of the Ministry of Economy and Sustainable Development. In addition, Ministry of Physical Planning, Construction and State Assets is involved in the implementation of the EED. The Environment Protection and Energy Efficiency Fund is the main institution for financing energy efficiency projects using domestic financial instruments. The Ministry of Economy and Sustainable Development is national administrator for SMIV – System for Measuring and Verifying Energy Savings.

1. Legal context

To implement the EED several new laws have been introduced. The main law governing energy efficiency in Croatia is "Zakon o energetskoj učinkovitosti – Act on Energy Efficiency National Gazette 127/14". Since its introduction the law has been updated on several occasions, and most recently in 2021. Laws derived from Energy Efficiency Act are:

- Act on biofuels for transportation act
- Act on the gas market
- Act on the electricity market
- Act on the heat market

Ministry of physical planning, construction and state assets passed a new law on the construction "Building act (National Gazette 80/13, 14/14, 95/15)" so the EED obligations have been fully transposed into national laws in Croatia.

Also respective ministers had introduced several subordinate regulation acts:

- Regulation on Contracting and Implementation of Energy Services (National Gazette 11/15)
- Ordinance on the Methodology for Monitoring, Measurement and Verification of Energy Savings (National Gazette 98/21)
- Ordinance on the Requirements of the Energy Efficiency of Energy-Related Products in Public Procurement Procedures (National Gazette 70/2015)
- Ordinance on the Environmental Protection Label in the European Union – EU ECOLABEL (National Gazette 110/2014)
- Ordinance on Determining Ecodesign Requirements for Energy-Related Products (National Gazette 50/2015)

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

- Ordinance on the Systematic Energy Management in the Public Sector (National Gazette 18/2015, 6/2016)
- Ordinance on the Method of Local Distribution and Billing of Thermal Energy (National Gazette 99/14,027/2015, 124/2015)
- Ordinance on Energy Audit of a Building and Energy Certification (National Gazette 17/17)
- Ordinance on Energy Audits for Large Companies (National Gazette 97/21)

National strategies brought:

- National strategy to combat climate change (NECP)
- Strategy to combat energy poverty and social exclusions
- Long-term buildings renovation strategy
- Strategy of energy development of the Republic of Croatia until 2030 with a look at 2050

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 4	Article 4 of the EED requires European Member States to establish a long-term strategy for the renovation of buildings. On 11th June 2014. The Croatian Government has introduced the National Long-term Strategy for Renovation of the National Fund of Buildings. In Croatia several strategic documents were brought, the government introduced four programmes for energy renewal of buildings (public buildings, commercial, non-residential buildings, family houses and multi-apartment buildings). In each of those programmes, the Environmental Protection and Energy Efficiency Fund participated with financial support either to the investor or to the energy service provider.
Article 5	Croatia has chosen an alternative approach for the target of Article 5, in an amount of 0.00489 PJ annually. A significant contribution to achieve results was the implementation of the integral restoration of buildings through the Government's Programme for Energy Renovation of Public Buildings.
Article 6	To ensure that central governments purchase only products, services and buildings with high energy-efficiency performance, insofar as that is consistent with cost-effectiveness, economic feasibility, wider sustainability, technical suitability, as well as sufficient competition, on 24th June 2015 the Minister of Economy introduced the Regulation on the Requirements of the Energy Efficiency of Products Related to Energy in Public Procurement Procedures.

EED Article	Implementation status
Article 7	Croatia has chosen the combined approach to the Article 7 target. This target amounts 54.25 PJ cumulative or 1.938 PJ annually. The combined approach consists of: • Energy efficiency obligation schemes in part of: 22,156 PJ (49 %) • Implementation of alternative EE policy measures in part of: 32.094 PJ (51 %) This target and approach was officially notified to the European Commission on July 2014 within the notification of the 3rd National EE Action Plan.
Article 8	Energy audits for buildings have been conducted since 2009 in compliance with EU directive 2002/91/EC (EPBD), latest change happened with the new Building Act (2013) and Regulation on Energy Audit of the Building and the Energy Certification (2015). On 11th November 2015 the Minister of Economy had brought Regulation on Energy Audits for Large Companies which completes EED Article 8 obligations.
Article 9-11	Several laws and bylaws that precede EED concerning the real-estate ownership and billing of energy and water are prescribing that each unit in new multi-apartment building has its own meter for energy and water consumption. For existing multi-apartment buildings connected to district heating, the *Act on Thermal Energy Market* requires mandatory installation of equipment for individualised heat consumption. *Regulation on the Method of Local Distribution and Billing of Thermal Energy* describes a standardised way of distributing the cost of heating per dwelling. Legislation concerning supplying, distributing and billing of the energy and water enables each consumer to have exact data about the amount of energy and water consumed per month. Additionally, *Act on Energy Efficiency* through Article 18 prescribes detailed obligations for all stakeholders in final energy consumption. For the public sector, *Act on Energy Efficiency* proscribes even stricter rules concerning monitoring of energy water consumption: in accordance to *Act on Energy Efficiency* and *Regulation of Systematic Energy Management in the Public Sector. National Information System for Energy Management (EMIS)* enables public sector institutions to keep track of energy consumption on an hourly basis. Equipment for hourly reading of meters is mandatory for all the buildings included in Government's *Energy Renewal for Public Buildings Programme*.
Article 12	In compliance with the National Energy Efficiency Action Plan, fiscal incentives and access to finance, grants or subsidies for small energy consumers are shared to both commercial and domestic small energy consumers. Also national and local information campaigns are supported.
Article 16	Technical competence, objectivity, and reliability are ensured by law and bylaw legislation. Registers for providers of energy audits are administrated by respective ministry (the Ministry of Economy and Sustainable Development and the Ministry of Physical Planning, Construction and State Assets), and are public. Conditions to gain accreditation for energy auditor are transparent and publicised on the respective Ministry web page.

EED Article	Implementation status
Article 17	Transparency and information dissemination are ensured by national and local institutions responsible for planning, public procurement and financing. Respective institutions are publishing all relevant information on their websites and are organising various thematic workshops.
Article 18	The energy services market started with energy services contracts between state and contractor chosen in compliance with the national Public Procurement Act, after the first energy service contracts were signed within the Programme of Energy Renovation of Public Sector Buildings.

2.2. Non-legislative provisions

In addition to legal implementation of EED, the Croatian Government initiated programmes to facilitate investments in energy efficiency.

The programmes are as follows:

- Programme of energy renovation of public sector buildings 2014-2015
- Programme of energy renovation of family houses 2014-2020, and 2021
- Programme of energy renovation of multi-apartment buildings 2014-2020
- Programme of energy renovation of commercial buildings 2014-2020
- Programme of energy renovation of public sector buildings 2016-2020

2.3. Implementing bodies

The main implementing bodies are:

- Ministry of Economy and Sustainable Development
- Ministry of Physical Planning, Construction and State Assets
- Environment Protection and Energy Efficiency Fund

3. Implementation of revised EED articles

As a result of EED, revision of the 2018 amendments to existing laws have been adopted.

4. Relevant information

https://www.enu.hr/

https://mingor.gov.hr

http://www.fzoeu.hr/

http://www.mgipu.hr/

http://www.apn.hr/

NECP: https://mingor.gov.hr/UserDocsImages/UPRAVA%20ZA%20ENERGETIKU/Strategije,%20planovi%20i%20programi/hr%20necp/Integrirani%20nacionalni%20energetski%20i%20klimatski%20plan%20Republike%20Hrvatske%20%20_final.pdf

National EED Implementation Report (NIR) 2021

EED implementation in Cyprus

Introduction

In Cyprus, the implementation of the EED is under the responsibility of the Energy Service of the Ministry of Energy, Commerce, Industry (MECI). For transposing the provisions of the Directive, several laws have been amended and secondary legislation has been adopted. Also, the Department of Public Works and the Department of Electrical and Mechanical Services are involved in the implementation of Article 5 of EED. In addition, Cyprus Energy Regulatory Authority is responsible for the implementation of various provisions related to Article 15.

1. Legal context

For transposing the Directives 2012/27/EE and 2018/2002/EE (amendment) to the national legislation, several laws have been amended in the years 2014, 2015 and 2021. These include: the amending Law for Energy Efficiency in End-Use and Energy Services (N56 (I)/2014, N.149 (I)/2015, 109(I)/2021), the amending Law for the Promotion of Combined Heat and Power Generation (N.150 (I)/2015, 108(I)/2021) and the amending Law for Regulating the Electricity Market (N. 206 (I)/2015). Secondary legislation for transposing some provision of the Directive has also been adopted (K.D.P. 436/2015, K.D.P. 437/2015, K.D.P. 438/2015, K.D.P. 208/2015, K.D.P. 210/2014, K.D.P. 184/2012, K.D.P. 185/2012, K.D.P. 155/2012).

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 3	Following the amendment of the EED in December 2018, Cyprus has set and notified to the Commission its indicative contribution to the EU 2030 energy efficiency target through the National Energy and Climate Plan (NECP) as follows: • 17% reduction in primary energy consumption, compared to the respective projection for Cyprus in 2007 in the EU PRIMES 2007 Reference Scenario and; • 13% reduction in final energy consumption, compared to the respective projection for Cyprus in 2007 in the EU PRIMES 2007 Reference Scenario.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

EED Article	Implementation status
Article 4	The national Long-Term Building Renovation Strategy was issued in April 2020. The Strategy highlights with quantitative and qualitative indicators the problems caused by the energy situation of the building stock, but also the opportunities offered by a greater mobilisation of investments in the field of radical renovations. Obstacles are identified and how they can be overcome. The preparation of the Long-Term Building Renovation Strategy was based on studies carried out in the framework of technical assistance to the Ministry of Energy Statistics, the National Energy and Climate Plan, and on public consultation.
Article 5	Law N.149 (I)/2015 provides for the exemplary role of the buildings owned and used by central government. Cyprus has opted for the alternative approach as it provides more flexibility in implementing effective energy-saving measures. The annual energy saving that should be achieved for the 2014-2020 period has been calculated at 3.31 GWh or 0.285 ktoe. The annual target was estimated assuming that 3% of the public building will be renovated from energy class E to energy class B. Primary energy consumption prior to and after the renovation is considered to be the one calculated for a typical building, as this has been set in the calculation of the cost-optimal levels of minimum energy performance requirements. A relevant report has been submitted to the European Commission, which mentions and quantifies the measures to be taken. By virtue of the Decision of the Council of Ministers of 14th April 2016, a Committee was set up for upgrading the energy performance of buildings used by central government authorities. The Committee comprises representatives of the Directorate of the Energy Service, of the Ministry of Energy Commerce and Industry (MECI), the Department of Public Works, the Department of Electrical and Mechanical Services and the Directorate of Control of the Ministry of Transport, Communications and Works. It is charged with the planning of the implementation of energy-saving measures based on the technical data and funds available. For the renovation of buildings owned and used by central government authorities, €20 million has been secured from European and Structural Funds for the 2014-2020 period, as the main objective of the Committee is to fulfil the obligation of Article 5 of Directive 2012/27/EC. The same approach will be followed for the 2021-2030 period, but the annual energy-saving target has been recalculated on the basis of the changes to the central government building stock. The total floor area and the energy saving that could be achieved if 3% if the total floor area was renovated annually. The new annual energy-saving target for the 2021-2030 period is 1.31 GWh or 0.11 ktoe.

EED Article	Implementation status
Article 5	The target for the 2021–2030 period is scheduled to be implemented mainly through the following measures: a. Deep renovation: Under the EU Cohesion Funds of the period 2021–2027 a total amount of 45 million euros is expected to be allocated for the deep energy renovation of buildings used by Central Government Authorities; b. Individual measures: Measures identified as being more optimal in terms of cost efficiency, as well as measures that can be combined with maintenance works, will be carried out by the Department of Public Works and the Department of Electrical and Mechanical Services and are financed mainly from national resources; c. Behavioural measures: The Energy Saving (ES) Officer, appointed in each public building, will be responsible for recording energy consumption and promoting energy efficiency mainly by means of behavioural and information measures. He/she plays a central role in changing the behaviour of civil servants towards a more rational use of energy. More information available on the link: https://energy.gov.cy/assets/entipo-iliko/Long%20-%20Term%20Strategy%20for%20Building%20Renovation.pdf
Article 6	Law N.109 (I)/2021 provides for the purchasing by public bodies, taking into account energy efficiency. A circular was sent to all contracting authorities in the public sector, indicating to them the new purchasing framework related to energy efficiency and guidance on the methodology that can be used by them. A methodology has been agreed between MECI and other competent governmental authorities, for setting the energy efficiency criteria that must be fulfilled for new rental agreements for public building. More information is given in section 3.2.1.4. iv of the NECP.

EED Article	Implementation status
Article 7	Law N.109(I)/2021 and N.149 (I)/2015 provides for the development of a National Energy Efficiency Programme (NEEP), for setting the national measures for achieving the national mandatory 2020 target under Article 7. For Cyprus the mandatory cumulative amount of end-use energy savings for the period 2014 – 2020 is 241.58 ktoe. The NEEP was prepared and communicated to the European Commission in 2014. The measures that are implemented each year are described in the Annual Progress Reports submitted to the European Commission. More information about the Annual Progress Reports can be found on the link: https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/national-action-plans-and-annual-progress-reports_en#previous-energy-efficiency-action-plans For the period 2021 – 2030 Cyprus is planning to implement a mix of Energy Efficiency Obligation Scheme (EEOS) and alternative policy measures for achieving the mandatory cumulative amount of end-use energy savings under Article 7. The cumulative amount of end-use energy savings to be achieved in Cyprus for the period 2021 – 2030 is 243.04 ktoe. The policies and the measures that will be implemented to achieve the mandatory target is explained in detail in Appendix 3 and in section 3.2.1.1. i. of the NECP. The law for regulating the Energy Efficiency Obligation Scheme (EEOs) has been submitted to the House of Representatives and is expected to be adopted in 2021. The total annual savings expected to be achieved by the operation of the EEOs during the period 2021-2030 is 100 ktoe.
Article 8	Laws N.109(I)/2021, N.149 (I)/2015, N.56(I)/2014, N.31(I)/2006, N53(I)/2012 and Regulations K.D.P. 436/2015, K.D.P. 437/2015, K.D.P. 184/2012 regulate issues related to energy audits and energy management systems. MECI has approved educational training programmes for energy auditors for buildings, industrial processes and transport and provided licences to 67 energy auditors and 9 energy service providers. Non-SMEs are obliged by law to perform energy audits and repeat them every four years. In this framework, MECI has prepared a list of non-SMEs and is monitoring the implementation of this obligation. The Energy Service of MECI, in collaboration with the Structural Reform Unit of the European Commission is developing a methodology for the quality control of energy audits in accordance with the requirements of the National Legislation. SMEs are encouraged to perform energy audits. For this purpose, informative measures and financial schemes are available for promoting energy audits, energy management systems and energy efficiency investments in SMEs. The access to the energy services market is transparent and non-discriminatory since registers of the licensed energy auditors and energy services provider are publicly available in the official web page of the Energy Service of MECI. According to the legislation, enterprises that are not SMEs that implement an environmental management system certified by an independent body in accordance with relevant European and international standards may be exempted from the requirements of subparagraph 8.4 of the directive, provided that the system includes an energy audit carried out by licensed energy auditors. More information is given in section 3.2.1.4. iv of the NECP.

EED Article	Implementation status
Article 9,10,11	Laws N.108 (I)/2021 and N. 206 (I)/2015 and K.D.P. 208/2015 regulates issues related to metering, billing information and the allocation of cost to metering and billing information. The study conducted by MECI, examining the economic feasibility and technical suitability for the installation of individual meters or heat cost allocators in multi-apartment and multi-purpose buildings, concluded that it is not technically feasible and/or economically viable to install individual meters or heat cost allocators in such buildings. For the purpose of billing for the thermal energy in the case of multi-apartment and multi-purpose buildings served by a central heating or central cooling source, allocation rules were developed and were made publicly accessible on the website of the Energy Service (www.energy.gov.cy).
Article 12 and 17	Law N.149(I)/2015 provides for information and training issues. Various measures are being taken by MECI and other organisations, such as the Cyprus Energy Agency, the Electricity Authority of Cyprus etc, aiming to enhance the dissemination or adequate information to schools, households, enterprises and to financial institutions. For increasing public awareness on the benefits of energy efficiency, the measures that are being implemented annually by MECI include information campaigns on media (TV, radio, social media), billboards and daily press. Legislation has been implemented for the licensing of Energy Auditors for buildings, processes and transport, as well as for the licensing of energy service providers. Educational programmes and examinations for energy auditors in buildings and industry were carried out by organisations approved by the Competent Authority (Energy Service – MECI). More information is given in section 3.2.1.4. iv of the NECP.
Article 13	Laws N.109(I)/2021 and N.108 (I)/2021 provide for penalties for any non-compliances to the provisions of the Law and the relevant secondary legislation.
Article 14	Laws N.108(I)/2021 and N206 (I)/2015 regulate issues related to the promotion of efficiency in heating and cooling. The second cycle of national comprehensive assessment of potential for efficiency in heating and cooling has been completed and notified to the Commission according to the revised Annex VIII of Directive 2012/27/EE (Commission Delegated Regulation 2019/826).
Article 15	Laws N.108 (I)/2021 and N. 206 (I)/2015 regulate issues related to energy transformation, transmission and distribution. Trade and Settlement Rules (amending version 2.0.1) allow for the participation of Demand Response Aggregators (DRAs) that represent portfolios of loads of cumulative absorption capacity greater than or equal to 300 kVA each. Participation of DRAs is permitted at the Day Ahead Market, the Real Time Balancing Market and the provision of ancillary services.

EED Article	Implementation status
Article 16	Laws N.109(I)/2021, N.149 (I)/2015, N.31(I)/2006, N53(I)/2012 and Regulations K.D.P. 184/2012, K.D.P. 210/2014 and K.D.P. 344_2016 regulate issues related to qualification, accreditation and certification schemes. Such schemes are already in place for energy auditors, energy service providers and energy managers. Registers are publicly available for energy auditors and energy service providers. For all above cases, provisions for licensed professionals from other MS practising in the Republic are made in the legislation.
Article 18	The Energy Service of MECI website distributes information to promote the market for energy services and access of small- and medium-sized enterprises to this market. Laws N.109(I)/2021, N.149 (I)/2015, N64(I)/2014 and K.D.P. 210/2014 regulate issues related to energy services. The legislation in place sets, amongst others, the qualification scheme for energy service companies (ESCOs), minimum elements to be agreed at the energy performance contracting and the procedure that has be followed for verifying savings. Standard energy service contract documents, the registry of the licensed energy service companies as well as an ongoing grants scheme for carrying out energy audits in SMEs are available on the website of the Energy Service (www.energy.gov.cy) More information is given in section 3.2.1.3 iii of the NECP.
Article 19	Laws N.109(I)/2021 and N.149 (I)/2015 regulate issues for other measures to promote energy efficiency. In 2016 the technical report titled 'Split incentives and energy efficiency in Cyprus' was prepared by the JRC for the Ministry of Energy, Commerce and Industry, which examines, amongst others, the split incentives between tenants and owners and in buildings with multiple owners. Based on the above-mentioned study, measures have already been adopted, such as the revision of the methodology for calculating the energy performance of buildings and establishing a registry of technical building systems and small-scale installers RES systems. In addition, the Support Scheme 'Save & Upgrade' for enterprises and households that operated in the period 2014-2020 attempted to give solutions to the obstacles that prevent the energy upgrading of buildings rented and those owned by several owners. Buildings that were rented could also be eligible for finance. In the case of SMEs, the SME that was using the rented building was the applicant and beneficiary, regardless of whether it owned or rented it. In the case of households, rented buildings could also be included, but the application could be filed only by the owner. Moreover, there was special provision for including a multi-apartment building in the plan, whereby a management committee was the applicant and beneficiary of the grant. Similar provisions will be included in new financing schemes during 2021-2030. Additional measures to address split incentives will also be examined.
Article 20	Its provisions are being implemented since they are in line with existing legislation (Laws N112(I)/2013,121(I)/2015, 157(I)/2015, 62(I)/2018).
Article 21	K.D.P. 438/2015 regulates issues related to the conversion factors. For the purpose of converting final energy to primary energy, the conversion factors set out in Annex IV are applied apart from the electricity coefficient where the conversion factor is determined in the framework of the NECP, where modelling results had been used.

2.2. Non-legislative provisions

The major non-legislative measures currently in place are:

1. Implementation of energy efficiency measures in the buildings occupied and used by the central government including deep renovations, utilising EU structural and cohesion funds. A working group has been established between the Ministry and the Public Works Department (Ministry of Transport and Works) for this purpose. More information on Article 5 is provided in paragraph 2.1 above.
2. Operation of the financing scheme "Save – Upgrade", which is the main incentive in upgrading the energy efficiency of the existing private sector's buildings. It is co-financed by EU funds and it targets deep renovation of households. The scheme promotes simultaneously all policy objectives, such as the involvement of qualified experts and auditors, extensive use of the Energy Performance Certificates by the market, the promotion of NZEBs, as well as higher subsidies for vulnerable consumers.
3. Promotion of projects of energy efficiency in street lighting utilising national funds.
4. Implementation of pilot projects for energy efficiency in public buildings in the framework of the co-funded EU programmes.
5. Implementation of measures in transport sector, utilising EU structural and cohesion funds.
6. Installation of smart meters.
7. Provision of information and training to the public sector aiming to raise awareness on more efficient energy use.
8. Certification of professionals in the field of energy efficiency.
9. Provision of information / education to energy professionals and final consumers about energy efficiency. This is done through the publication of promotional material and workshops, as well as the organisation of exhibition fairs, with the participation of all companies and organisations who are actively involved in the energy efficiency sector.
10. Promotion of buildings with higher energy efficiency than what's legally demanded, by providing the incentive of an increase of the maximum space allowed by the building permits. This measure is implemented in collaboration with the Ministry of Interior.
11. Support Schemes operated by RES and Energy Conservation Fund. On the basis of the Support Schemes, financial incentives are provided in the form of subsidy or state grants to both individuals and businesses for investments in the field of RES and Energy Efficiency. The Support Schemes are approved by the Council of Ministers, after a proposal by MECI. Currently the available Support Schemes are: roof thermal insulation in dwellings, roof thermal insulation indwelling in combination with the installation of PV, installation of PV systems in dwellings using the Net-Metering method, installation of PV systems in dwellings of vulnerable electricity consumers using the Net-Metering method, installation of PV systems and smart meters in households for charging electric or hybrid vehicles and promotion of Energy Audits in small and medium-sized enterprises.
12. Promotion of Energy Efficiency in Enterprises, through voluntary agreements under the "Business 4 climate" initiative. Enterprises (other than those involved in the ETS) participating in the project have to sign off a voluntary declaration, to reduce greenhouse gas emissions by more than 8% by 2030.
13. Supporting Scheme for promoting energy efficiency investments in small and medium-sized enterprises, municipalities, communities and the wider public sector through the European Structural and Investment Funds (Programming Period 2021-2027).

14. Energy Fund of Funds (EnergyFoF) providing soft loans for energy efficiency. As part of the National Operational Programme "Competitiveness and Sustainable Development 2014-2020", the Directorate General for European Programmes, Coordination and Development (DG EPCE), has dedicated resources to the implementation of an Energy Fund of Funds (EnergyFoF) managed by European Investment Bank. The financial product that will be offered through the EnergyFoF is loans to legal or natural persons to materialise investments aiming to increase the energy efficiency.

15. Cyprus has included projects of more than 560 million euros in the field of green energy for funding under the Recovery And Resistance Mechanism and the European Cohesion Funds. The majority of the energy-related reforms and investments included are part of the key policies and measures of the National Energy and Climate Plan (NECP), aiming at the optimal attainment of the national energy and environmental objectives and considering the "energy efficiency first" principle. More specifically the measures and policies prescribed in the energy sector aim to trigger green investments in households, enterprises as well as in municipalities, communities, the wider public sector (including schools, hospitals, army buildings) and NGOs, in order to make buildings, other facilities and processes become more energy and resource efficient. Through improvement of the energy efficiency of the building stock and the financial support of green investments in housing, SMEs, NGOs and the wider public sector will enhance the country's growth potential, stimulate sustainable economic activity and job creation, as the economy transitions into more digital and less carbon-intensive activity, both directly through the implementation of the required investments and indirectly through the resulting increased competitiveness of the economy.

2.3. Implementing bodies

MECI is responsible for the overall implementation of the EED in Cyprus. However, the Department of Public Works and the Department of Electrical and Mechanical Services are responsible for the implementation of the measures under Article 5. In addition, Cyprus Energy Regulatory Authority (CERA) is the implementing authority of the various provisions related to energy transformation, transmission and distribution (Article 15). The implementing bodies of the measures under Article 7 of the EED are described in Appendix 3 of the NECP of Cyprus.

3. Implementation of revised EED articles

The NECP includes information on implementing the revised EED articles. Moreover, legislation amendments took place in 2021. For full information on the changes see the EED notification to the Commission of 25th May 2021, notifying full harmonisation with revised EED articles. The information already given in sections 2.1 and 2.2 above is also relevant to this section.

4. Relevant information

Relevant information can be found on the websites of Energy Service (www.energy.gov.cy) and Ministry of Energy, Commerce and Industry (www.meci.gov.cy). More information on Support Schemes can be found on website of RES and Energy Conservation Fund (https://resecfund.org.cy). In addition, there is more information about the energy efficiency policies and the measures that will be implemented in the coming years in Cyprus Integrated National Energy and Climate Plan 2021-2030 (https://ec.europa.eu/info/energy-climate-change-environment/implementation-eu-countries/energy-and-climate-governance-and-reporting/national-energy-and-climate-plans_en).

National EED Implementation Report (NIR) 2021

EED implementation in the Czech Republic

Introduction

The competencies are divided mainly between three ministries: The Ministry of Industry and Trade which is the main coordinator of activities for the fulfilment of the obligations and the responsible entity for the implementation of the Energy Efficiency Directive, the Ministry of Environment and the Ministry of Regional Development.

1. Legal context

The EED was transposed into the Czech law. The main national laws, within which the EED was transposed, are Act n. 406/2000 Coll., on Energy Management and Act n. 458/2000 Coll., on business conditions and public administration in the energy sectors. The main materials outlining the Energy Efficiency obligations can be found for the obligation period 2014-2020 within The National Action Plan and for the obligation period 2021-2030 within the National Energy and Climate Plan.

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 5	The Czech Republic has opted for an alternative approach, i.e. it will take other cost-effective measures to achieve savings in the buildings owned and occupied by the central government. This approach was chosen due to the fact that buildings owned and used by central government are mainly buildings officially protected as part of a designated environment or because of their special architectural or historical merit. The Ministry of Industry and Trade in cooperation with other stakeholders prepared the Building Renovation Plan pursuant to Article 5 of the EED which was approved by the Czech government. The plan includes a specification of buildings being included into the inventory and not meeting the minimum energy performance requirements. A report that summarises the progress in building renovation is being annually submitted to the Czech government. In the view of an alternative approach, annual energy consumption monitoring has been introduced (Act n. 406/2000 Coll., on energy management) in order to assess the impact of non-investment measures such as implementation of energy management systems. Renovation of central government buildings

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

EED Article	Implementation status
Article 6	Since November 2010, 'Rules for the application of environmental requirements in central and local government procurement procedure and purchasing' have applied in the Czech Republic. These rules were adopted by the Government to promote green procurement in the public sector. The rules only define basic parameters, i.e. they state the bodies for which they are binding, and how and when evaluations of their implementation are to be evaluated. Selected product groups are regulated by more detailed methodologies. These methodologies establish environmental requirements for products and services procured, and also include detailed instructions on how to incorporate these requirements into public procurement. Act No 406/2000 on energy management defines new special technical conditions that central institutions must observe in the public procurement procedure.
Article 7	The alternative approach is used in order to fulfil the energy savings obligation. Therefore, the state takes full responsibility over achieving said obligation. Details for the obligation period 2014-2020 are included in the National Action Plan on Energy Efficiency available here. For the period 2021-2030 are the details included within the National Energy and Climate Plan available here. For the new obligation period, the Czech Republic retains the use of an alternative approach, however it introduces the voluntary agreements for private subjects. These agreements allow for private subjects to participate without the necessity for implementing Energy Efficiency Obligation Scheme.
Article 8	Energy Management Act 406/2000 Coll. fully transposes the requirements of Article 8 of the EED. Decree 140/2021 Coll. lays down the details for energy auditing and Decree 141/2021 Coll. lays down the details for energy assessments. Under the Energy Management Act the obligation for the energy audit is stated under specific conditions, such as the number of employees, the yearly revenue or the total annual balance sheet. The Czech Republic further obliges companies which are not classified under the previous conditions but exceed the threshold of 5000 MWh of annual energy consumption (it must be exceeded in two consecutive years).
Article 9-11	Metering and billing systems in the Czech Republic are well established and provide sufficient information to final customers on actual consumption over a given period. Metering and billing requirements under Articles 9, 10 and 11 has been implemented by Act. n. 458/2000 Coll., on business conditions and public administration in the energy sectors, Act n. 406/2000 Coll., on Energy Management and Decree n. 359/2020 Coll., on electricity metering. Obligation to install meters for district heating and cooling is set in Act n. 406/2000 Coll., on Energy Management and specified in Decree n. 194/2007 Coll., on rules for district heating and hot water supply and metering. Decree n. 269/2015 Coll., on heat and hot water billing specifies the way how to derive the bill in case owners do not set their own way of deriving the bill.

EED Article	Implementation status
Article 12 and 17	Article 12 requires Member States to promote and facilitate an efficient use of energy. The Czech Republic uses for these purposes the EFEKT programme (State Programme on the Promotion of Energy Savings) and does so since 1999. Projects focused on increasing the public awareness are supported. The program EFEKT is defined by act 406/2000 Coll., on energy management. The aim of the EFEKT Programme is to achieve energy savings by raising awareness among customers, by increasing the quality of energy services, and by supporting the public sector in the economic management of energy. It focuses on raising awareness and disseminating information (with a stress on energy-saving measures). The examples of supported activities: • energy consulting provided by energy consultation and information centres (EKIS); • courses and seminars about the energy sector; • publications, guides and informative materials about the energy sector. Information about the supported projects are available here.
Article 16	Act No 406/2000 on energy management, transposes the article's requirements. Energy specialist qualification scheme is available in the Czech Republic. Energy specialists are natural or legal person holding an authorisation granted by the Ministry of Industry and Trade to: a) perform an energy audit and an energy assessment; b) produce an energy performance certificate; c) inspect boilers and thermal energy distribution systems in operation; d) inspect air-conditioning systems. To obtain an energy specialist certification it is necessary to fulfil obligations under Act No 406/2000 on energy management, such as passing exams. The Examination Committee consists of representatives of ministries, universities and professional organisations. For the person who already holds the energy specialist certification, it is obligatory to complete a training course and to pass a test to prove their expertise. The register of energy specialists is publicly accessible on the Ministry's website.
Article 18	Transposed by the Act 406/2000 Coll., on energy management. List of energy services providers is publicly available on the Ministry's website. Energy services and energy performance contracting in the Czech Republic are promoted on the aforementioned website as well, for example by publication of EPC template contracts.

EED Article	Implementation status
Articles 19	In the area of split incentives, the Czech Republic applies subsidy programmes to support the renovation of apartment buildings, including those with rented apartments. With regard to the voting rules in the SVJ (building owners' association), not everyone has to agree with the renovation of the building, i.e. owners of rented flats have practically no blocking right and an apartment building can be insulated on the basis of a decision of the SVJ, reaping benefits for tenants as well.
Article 14	Requirements under this Article have been implemented by Act. n. 458/2000 Coll., on business conditions and public administration in the energy sectors, Act n. 406/2000 Coll., on Energy Management and Act No. 165/2012 Coll., on Promoted Energy Sources. Development, construction and linking the existing networks of district heating are supported. The comprehensive assessment is made public on the Ministry's website.
Article 15	Requirements under this Article has been implemented by Act. n. 458/2000 Coll., on business conditions and public administration in the energy sectors.

2.2. Non-legislative provisions

Further information can be found on the IAE website, and the Czech Republic undertook an energy policy review in 2020.

2.3. Implementing bodies

The Ministry of Industry and Trade is the main coordinator of activities for the fulfilment of the obligations under the Directive 2012/27/EU. Furthermore, the ministry administers measures helping the private sector to increase its energy efficiency (e.g. through the Operational Programme Enterprise and Innovation for Competitiveness). The Ministry of Environment administers several measures falling under the Directive 2012/27/EU fulfilment with the focus on efficient renovations within public (citizens) and state sector (e.g. through the Operational Programme Environment). The Ministry of Regional Development also administers measures falling under the Directive 2012/27/EU focusing for example on transport (e.g. through the Integrated Regional Operational Programme).

3. Implementation of revised EED articles

Changes shall be dependent on the upcoming revision of the EED. In the near future, the State Energy Policy shall be updated as well as the National Energy and Climate Plan.

4. Relevant information

All relevant information can be found on the website of the Ministry of Industry and Trade of the Czech Republic.

National EED Implementation Report (NIR) 2021

EED implementation in Denmark

Introduction

The Ministry of Climate, Energy and Utilities is responsible for implementing the Directive on Energy Efficiency (EED) (2012/27/EU and 2018/2002) and the responsibility for implementation of the Directive lies with the Danish Energy Agency, which is a part of the Ministry. The Ministry of Interior and Housing is responsible for the implementation of select provisions.

This report of the EED builds on the 2016 National Implementation Report. This version includes the implementation of the amendment of EED 2018/2002, amending Directive 2012/27/EU on energy efficiency, and the Governance Regulation (2018/1999), amending among other directives, Directive 2012/27/EU.

1. Legal context

Denmark has fully implemented the EED (including amendment 2018/2002). The implementation necessitated the entry into force of several national legal acts – the Promotion of Savings in the Energy Consumption Act being the key piece of legislation implementing the EED. The act promotes energy savings and energy efficiency actions for energy consumers, taking into account considerations on economy, climate and environment, and the security of energy supply.

Section 2.1's successive presentation of the articles makes reference to the main national legal acts that implement the EED provisions.

In addition to new national legal acts, the implementation of the EED resulted in changing several existing ones, including; the Electricity Supply Act, the Natural Gas Supply Act, the Heat Supply Act, and the Act on Subsidies to Promote Renewable Energy in Enterprises' Production Processes.

The political and legal background is decisive for the direction of the implementation of the EED as well, as it sets the stage for Denmark's overall efforts to reduce GHG emissions and forms the policies on energy and climate. The timeline below pinpoints the most recent developments to establish a broader legal context for the implementation of EED.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

In Denmark, there is a history of striking broad political energy agreements, which set the foundation for energy policies and initiatives. The 2018 **Energy Agreement**[1] is currently under implementation, however some of the initiatives were already reinforced before its implementation and prolonged with the 2020 **Climate Agreement for Energy and Industry**[2]. Together, the two agreements launched energy efficiency initiatives such as large subsidy schemes to spur energy efficiency actions and investments in industry and buildings, and they detail efforts to raise energy efficiency awareness through campaigns and informative websites, as well as other initiatives. The current agreements are valid until new agreements steer the energy policies.

Following the requirements of the EU Regulation on the Governance of the Energy Union and Climate Action (2018/1999) Denmark delivered its National Energy and Climate Plan (NECP) in 2019. **Denmark's NECP** outlines the pathway towards meeting the EU energy efficiency target, and connects the dots between Danish energy policy and the EU targets. The NECP plays a key role in relation to the EED, as it carries the requirements for reporting to the EU, on the progress of the implementation.

The **Climate Act**[3] is legally binding and thereby commits the government to set milestone targets and develop annual Climate Programmes, which outline concrete policies to reduce emissions. The milestone targets should pave the way for the 2030 target of 70% reduction in GHG emissions (compared to 1990 levels), to reach net zero emissions by 2050 at the latest. To reach the target, the Climate Act also stipulates that every five years a Climate Action Plan must be drawn up.

As prescribed by the Climate Act, every five years the government must develop a **Climate Action Plan**. The Climate Action Plan of 2020 is the first to be developed, and it focuses on a 10-year perspective. It is the action plan together with government agreements, which help steer and realise Denmark's energy efficiency efforts. The *agreements* below are all instrumental in implementing the EED and focus on specific actions and initiatives:

- *Agreement for Green Housing*. The agreement ensures green renovation of the social housing sector. Among other things, it contains new green support criteria, a new green guarantee and a fund for experimentation to improve energy efficiency in social housing buildings.
- *Climate Agreement for Energy and Industry*. The agreement contains measures, which will ensure significant energy savings. The agreement increased the loft of a fund dedicated to subsidies in the private sector's energy efficiency efforts. The agreement also ensures that households can receive subsidies to exchange oil and gas boilers with heat pumps.
- *Agreement on Road Transport*. The agreement includes a re-organisation of current taxation on cars, creating a better incentive for citizens to choose electric cars over fossil-fuel-based cars.
- *Agreement on Finance Act 2021*. With the agreement, the government allocated funds to a subsidy scheme to increase energy efficiency in regional and municipal buildings, e.g. through renovations, shifting from oil and gas boilers to heat pumps or remote heat, and digital solutions.
- *Agreement on Green Tax Reform*. The agreement includes raising the tax on energy for companies' processing purposes, meaning energy used in e.g. production and lighting. The agreement also allocates further funds to the subsidy scheme for energy efficiency renovations in the private sector.

[1] https://en.kefm.dk/Media/C/5/Energy%20Agreement%202018%20a-webtilg%C3%A6ngelig.pdf

[2] https://en.kefm.dk/Media/C/B/faktaark-klimaaftale%20(English%20august%2014).pdf

[3] https://en.kefm.dk/Media/1/B/Climate%20Act_Denmark%20-%20WEBTILG%C3%86NGELIG-A.pdf

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article.

EED Article	Implementation status
Article 4	The provisions under Article 4 moved to the Directive on Energy Performance of Buildings in its amending directive 2018/844/EU.[4]
Article 5 + 6	Administrative regulations on energy efficiency in the governmental bodies is implementing Articles 5 and 6. It is designed as a framework management circular, making it the responsibility of the individual Ministries to ensure that the buildings they reside over contribute sufficiently towards the energy savings target for public buildings. In the implementation of Article 5, Denmark opted to use the alternative approach.
Article 7	Up until the end of 2020, Article 7 was implemented through the energy efficiency obligation scheme. The basis for the scheme was a voluntary agreement between the previous Ministry of Climate, Energy and Housing and the energy sector, and the 2012 Energy Agreement solidified the framework for the energy savings effort. The scheme terminated 31st December 2020. During the 2021-2030 period, Denmark has opted to take the alternative approach (Article 7b) and use various policy instruments in order to meet the national energy savings target. The current energy and climate policy is anchored in several national plans and policies (section 1 elaborated on the relevant plans and agreements). The cumulative effect of these plans is estimated to meet – and exceed – the Danish energy savings obligation for the 2021-2030 period. Examples of measures implementing Article 7 include: • subsidy scheme dedicated to subsidies in the private sector's energy efficiency efforts; • subsidy scheme to replace oil boilers with heat pumps in buildings outside the district heating and gas grids; • reorganisation of registration tax for cars (to promote electric cars); • increasing the energy tax on business energy consumption for process purposes; • subsidy scheme to carry out energy efficiency renovations in public buildings (regional and municipal level).

[4] Denmark's long-term renovation strategy under Article 2A of the Directive on Energy Performance of Buildings no longer available.

EED Article	Implementation status
Article 8	Article 8 is transposed in e.g. Obligatory Energy Audits in Large Companies Act, Energy Labelling of Buildings Act, and the aforementioned Promotion of Savings in the Energy Consumption Act. Energy audits in Denmark are, with exemptions, mandatory for companies exceeding 250 employees, or if the companies have a revenue of at least 50 million euros and a yearly balance of 43 million euros. The companies must report the audit to the Danish Energy Agency. Only qualified auditors can carry out the audits. In line with what is stipulated in the acts, schemes are in place to deliver implementation. For example, the Energy Labelling Scheme, which promotes the use of energy in homes and for consumers. The scheme sets out mandatory energy labelling of buildings, when selling or renting a home, in newly constructed housing, and in government buildings measuring above 250m^2.
Article 9	The Meter Act implements Article 9 and regulates individual metering of electricity, gas, water, heating and cooling.
Articles 10 and 11	The Invoicing Act implements Article 10 and 11 and regulates issues related to billing information and the allocation of cost to metering and billing information.
Article 12	www.SparEnergi.dk is a central website. The website is a content hub, which provides information and digital tools to partners and local authorities. The website also contains a case library with a large collection of illustrated examples of energy refurbishment projects from across the country. The measures furthermore include public meetings, information campaigns and behavioural change interventions. The Energy Agreement from June 2018 includes measures to improve the use of data and digitalisation to promote energy efficiency. This includes measures to improve consumer information and awareness targeted at end-users and energy service companies with the view of improving energy efficiency and the market for energy services. Article 12 also includes the possibility of providing access to finance, grants or subsidies in order to promote behavioural change. Denmark has implemented such measures through the "Building Pool" and "Sub-scheme for Scrapping".
Article 14	A comprehensive assessment of the potential for using high-efficiency cogeneration and efficient district heating has been made. The assessment was further updated in 2020, and has been shared with the European Commission.
Article 15	An assessment of the potential for energy efficiency in the gas and electricity infrastructure, particularly with regard to transmission, distribution, load management and interoperability, has been made.

EED Article	Implementation status
Article 16	The Promotion of Savings in the Energy Consumption Act and Energy Labelling of Buildings Act. There is also a scheme which ensures proper qualification of energy auditors.
Article 17	The obligation to implement and ensure energy efficiency activities to all stakeholders, including all relevant market players, is reflected in various initiatives and measures to promote energy efficiency. The Knowledge Centre for Energy Savings in Buildings is a service for craftspeople and educational institutions concerning energy efficiency improvements. The centre has worked with industry organisations within the area of mediating knowledge to its members, and provides on a regular basis courses to support the general further education of craftspeople. Furthermore, the labour market training centres carry out educational efforts. A voluntary certification scheme called "Trusted Renewable Energy installer" ensures that the scheme members have completed education regarding the installation of different types of renewable heating and solar photovoltaic systems. A public list displaying qualified companies is available and ensures that the public can make an informed choice regarding the installer used for their heating system or photovoltaic system. This voluntary certification scheme also implements Article 18 paragraphs 3 and 4 in the Renewable Energy Directive 2018/2001/EU.
Articles 18 + 19	Denmark has a number of initiatives, all of which help to promote a market for energy services: • The Craftspeople List The purpose of the Craftspeople List is to give the end user easy access to craftspeople who can perform the task of creating energy savings in buildings. • Heat Pump List The purpose of this list is to give an easy overview of the different types of heat pumps and help homeowners to choose the right one. • Better Housing Scheme The Better Housing Scheme educates craftspeople, architects and constructors to provide holistic advice to homeowners and owners of residence buildings. • 'Heating pumps on subscription' List of energy service providers who lease heat pumps to homeowners on favourable terms (subsidy). The energy service provider installs and services the heat pump. Therefore, the homeowner's effort and initial cost is minimal. • ESCO www.SparEnergi.dk also promotes ESCOs, where it offers relevant introductory material, guides on how to use ESCOs, as well as presenting illuminating case studies. Article 19 is also implemented through the Rent Act.

EED Article	Implementation status
Article 20	Denmark makes optimal use of opportunities and tools available to mobilise private financing of energy efficiency measures and energy renovations by creating awareness of mobilisation of private financing of energy efficiency and energy renovations on the Danish Energy Agency's website. Denmark also encourages 'one-stop-shops' through the Better Housing Scheme on www.sparenergi.dk

2.2. Non-legislative provisions

The Danish Energy Agency's informational website www.SparEnergi.dk contains information on policies and legislative provisions. However, it is also a general guide, which enables citizens, enterprises and public bodies to make informed decisions on energy efficiency improvements.

2.3. Implementing bodies

The Ministry of Climate, Energy and Utilities is responsible for implementing the EED and it is supported by the Ministry of Interior and Housing on select provisions. The implementation is anchored in the Danish Energy Agency, a part of the Ministry of Climate, Energy and Utilities.

3. Implementation of revised EED articles

The implementation of revised EED articles is included where relevant in sections 1 and 2. The revised EED led specifically to revisions in the Meter Act, the Invoicing Act, and the Energy Savings Act. For example, the revised Metering Act introduced requirements that only remotely readable meters can be installed, and the Invoicing Act introduced new requirements to energy invoices and empowered end-users to request digital invoices.

The revised EED is fully transposed, however, as mentioned in 2.1 on Article 7, and from 2021 Denmark made a shift from the previous energy efficiency obligation scheme towards introducing new policy measures to facilitate the energy savings efforts. The policy measures are directed at several areas, such as existing buildings and government buildings, conversion of heating sources, refurbishment of social housing, green tax reform, and transport. Select policies are supported by subsidy schemes.

4. Relevant information

The relevant information is presented in the preceding sections with footnotes linking to further reading and sources of information on the described measures and legal provisions.

For any further information, please refer to the following websites:

- The Ministry of Climate, Energy and Utilities (https://en.kefm.dk/energy)
- The Danish Energy Agency (https://ens.dk/en/our-responsibilities/energy-climate-politics)

National EED Implementation Report (NIR) 2021

EED implementation in Estonia

Introduction

In June 2016, Parliament adopted a new act to transpose the main requirements of the EED – the Energy Management Coordination Act. The Act defines the roles of the public institutions and energy market participants in promotion of energy efficiency. The Ministry of Economic Affairs and Communications (MoEAC) has the key responsibility in coordination of the energy efficiency activities. The Ministry of Finance has a leading role in promotion of energy efficiency in buildings occupied by central government institutions. In addition, the Technical Regulatory Authority has to ensure governmental supervision related to energy auditing in large enterprises, and the Competition Authority should contribute to the implementation of energy efficiency with its activities in energy market regulation. Important energy efficiency measures are carried out by implementing agencies KredEx and Environmental Investment Centre, The State Shared Service Center and manager of real estate owned by central government Riigi Kinnisvara AS (State Real Estate Ltd.).

This National Implementation Report (NIR) of the Directive 2012/27/EU of the European Parliament and of the Council on Energy Efficiency (EED) builds on the 2016 NIR. This version includes the implementation of the amendment of this Directive (Directive (EU) 2018/2002 of the European Parliament and of the Council of 11th December 2018 amending Directive 2012/27/EU on energy efficiency) and Governance Regulation (Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11th December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) and Directives, among which is 2012/27/EU (NECPs and reporting/Energy Efficiency dimension related to EED).

1. Legal context

To ensure transposition of the EED, the MoEAC prepared a new act – the Energy Management Coordination Act. The majority of the requirements in the EED are transposed with this act and only a few other acts (the Building Code and Electricity Market Act) were changed to transpose the requirements of EED. The Act was approved in Parliament in June 2016 and secondary legislation – regulations under the Energy Management Coordination Act – were issued during the second half of 2016 and in 2017, which are Regulation for Calculating Energy Savings, Minimum Requirements for Energy Audits, Energy Efficiency Requirements for Products, Services and Buildings Purchased by Central Government, the Energy Saving Obligation Allocation Plan and regulations for cost-benefit analysis of efficient CHP plant and requirements for efficient cogeneration of heat and electricity.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

Estonia's 2030 National Energy and Climate Plan (NECP 2030) states that in 2030, final energy consumption must remain at 32-33 TWh (Estonia's economy is growing, so significant measures are needed to keep consumption at the same level). The general energy saving objective of 14.7 TWh for the period 2020-2030 applicable under Directive 2012/27/EU (the Energy Efficiency Directive) Article 7 will help keep final energy consumption at the same level. Reduction of primary energy consumption by 14% (compared to the peak of recent years) in the period 2020-2030 is set as a target. Estonia is capable of reducing primary energy consumption by steps such as modernising the shale industry.

2. Status of the implementation

2.1 Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 4	As a result of the EED revision the Long Term Renovation Strategy as specified by Art 4 now falls under the Energy Performance in Buildings Directive.
Article 5	Estonia has taken a default approach in renovation of public buildings. To achieve the target, roughly 30 thousand m^2 should be renovated annually. The Riigi Kinnisvara AS, appointed as a manager of state real estate services to the executors of state authority by the Ministry of Finance, has a leading role to ensure achieving the target. Estonia has so far managed to renovate at least 3% annually.
Article 6	This article was transposed to national law with the Energy Management Coordination Act and its subordinate legislation. Minimum energy performance reagulation for products, buildings and services purchased by the government were adopted by the Government. Energy efficiency standards are compulsory in public procurements carried out by central government institutions.
Article 7	Estonia will use only alternative measures to fulfil the obligations under Article 7. National target for cumulative savings under Article 7 is 7.1 TWh. The most important measures to fulfil this target are taxation of energy products (with fuel and electricity excise), support schemes for energy efficiency investments in public and private sector financed from state budget. MoEAC as a coordinator of energy efficiency policy carries out annual monitoring of the results of policy measures. The planned measures are confirmed in the Energy Saving Obligation Allocation Plan with responsible authority and planned savings. There are different implementing authorities responsible for energy efficiency measures and measurement. The Tax and Customs Board collects taxes on data which MoEAC uses to calculate energy savings. Implementing authorities: SA Kredex, The State Shared Service Center and Environmental Investment Centre implement measures and collect necessary data. MoEAC uses this data for calculation and reporting.

EED Article	Implementation status
Article 8	The Energy Management Coordination Act includes an obligation for large enterprises to perform an energy audit after every 4 years. There are roughly 150 companies subject to this requirement. The first audits were requested from the companies in January 2017 and every four years thereafter. MoEAC updates the list every year. e-Business Register is used to compile the list of obligated parties based on fiscal year report. Energy audit results with energy audits are uploaded to an online database. Consumer Protection and Technical Regulatory Authority is responsible for monitoring and evaluation of results.
Articles 9-11	The issues related to metering are regulated in Electricity Market Act, Natural Gas Act, District Heating Act, Energy Management Coordination Act and their subordinate regulations. The network operator has to provide every final customer with remotely readable device. Electricity consumption is remotely readable for all final users. Biggest gas consumers are equipped with remotely readable devices. EED article 9b states that in multi-apartment and multi-purpose buildings with a central heating or central cooling source or supplied from a district heating or district cooling system, individual meters shall be installed to measure the consumption of heating, cooling or domestic hot water for each building unit, where technically feasible and cost-effective in terms of being proportionate in relation to the potential energy savings. MoEAC carried out an analysis which concluded that such meters are not cost-efficient in Estonia. The billing issues are regulated in the Electricity Market Act, Natural Gas Act, District Heating Act, The Energy Management Coordination Act and their subordinate regulations. Eesti Jõujaamade ja Kaugkütte Ühing worked out a methodology and guidance document with market participants to best display the information required on the bill. The access to metering and billing information on the internet is free of charge and every customer can use this data.
Articles 12 and 17	According to the Energy Management Coordination Act, the activities to ensure consumer information and their empowerment are carried out by the MoEAC. One of the recent developments to increase consumer knowledge and better involve them, is a www.energiatalgud.ee website update which promotes knowledge about energy markets, including energy efficiency. The Energy Management Coordination Act stipulates MoEAC to carry out information and training activities related to Article 17 implementation.
Article 14	MoEAC carries out a comprehensive assessment and takes findings into account when planning new measures.
Article 16	The Energy Management Coordination Act states that the MoEAC should continuously analyse the situation with qualification, accreditation and certification schemes and intervene if the schemes need an upgrade. The Professions Act regulates the qualification system. Estonian Qualifications Authority is responsible for issuing professional qualifications.
Article 18	Promotion of the energy services in Estonia is a task of MoEAC.

EED Article	Implementation status
Article 15	Estonia carried out an analysis to map energy efficiency potential in gas networks: https://www.mkm.ee/sites/default/files/1._lopparuanne_-_gaasisusteemi_energiatohususe_suurendamine.pdf. The national regulatory authority is taking into account energy efficiency in monitoring and coordination processes.

2.2 Implementing bodies

The Ministry of Economic Affairs and Communications is responsible for implementation of EED.

The Ministry of Finance is responsible for renovation of public buildings.

3. Implementation of revised EED articles

As a result of the EED revision of 2018, implementation did not lead to implementation of new legislation. Changes were done in the Energy Management Coordination Act, its subordinate legislations and the Natural Gas Act.

4. Relevant information

National EED Implementation Report (NIR) 2021

EED implementation in Finland

In Finland the overall responsibility for the implementation of the Directive on Energy Efficiency (EED) (2012/27/EU) was in the Ministry of Employment and the Economy (MEE). Most of the MEE´s responsibilities coming from the EED were given to the Energy Authority in 2014. Also the Ministry of the Environment, Ministry of Transport and Communications, Ministry of Agriculture and Forestry, Ministry of Education and Culture and Ministry of Finance are involved in the implementation of the EED. In addition, Motiva Oy (later Motiva), in assignment of the Energy Authority and the ministries, operates several instruments and programmes related to energy efficiency. Motiva is also responsible for monitoring and verification activities on energy efficiency measures as well as for calculating the energy savings.

This National Implementation Report (NIR) of the Directive 2012/27/EU of the European Parliament and of the Council on Energy Efficiency (EED) builds on the 2016 NIR. This version includes the implementation of the amendment of this Directive (Directive (EU) 2018/2002 of the European Parliament and of the Council of 11th December 2018 amending Directive 2012/27/EU on energy efficiency) and Governance Regulation (Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11th December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) and Directives, among which 2012/27/EU (NECPs and reporting/Energy Efficiency dimension related to EED).

1. Legal context

Based on the Standing Order of the Government, the overall responsibility for energy efficiency in Finland is with the Ministry of Employment and the Economy (MEE). The Energy Authority, a special agency and regulator operating under MEE, was authorised by the Law on the Energy Authority (870/2013) to implement and/or supervise the implementation of several obligations of the EED. There are also five other ministries that have either direct responsibilities coming from the EED or are responsible for certain energy efficiency measures that are necessary to achieve full compliance.

The Energy Efficiency Directive (EU 27/2012) entered into force on 4th December 2012, replacing the Energy Services Directive (2006/32/EC) and the CHP Directive (2004/8/EC).

To implement the EED, in 2014 three national laws were amended, one new law came into force and one existing law was repealed. The three laws amended former electricity and gas market legislation. The content of the repealed Law for Energy Services Offered by Companies in Energy Sector was incorporated to the Energy Efficiency Law (1429/2014) which was needed due to several new obligations for which there was no existing legal framework available. The Energy Efficiency Law implementing the Energy Efficiency Directive entered into force on 1st January 2015.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

As a result of reasoned opinion received in October 2015 the law (1338/2016) amending the Energy Efficiency Law entered into force at the beginning of 2017. With this amendment, the provisions of the Energy Efficiency Directive regarding the energy efficiency requirements for products, services and buildings procured by public bodies were implemented, and the role of the public sector in promoting energy efficient procurement was strengthened.

The revised Energy Efficiency Directive (EU 2018/2002) entered into force on 24th December 2018, establishing new energy efficiency targets for the EU for 2030, and new obligations to promote energy efficiency.

The law (787/2020) amending the Energy Efficiency Law entered into force on 23rd November 2020.This amendment was related to the provisions of the revised Energy Efficiency Directive regarding metering and billing.

2. Status of the implementation

2.1. Legislative provisions

EED Article	Implementation status
Article 2	Definitions defined in several national laws are presented in Energy Efficiency Law (787/2020).
Article 3	Finland's integrated energy and climate plan December 2019 (NECP) includes Finland's national targets and related policy measures to achieve the EU's 2030 energy and climate targets. With regard to energy efficiency, the target is that the final energy consumption does not exceed 290 TWh. The corresponding primary energy consumption is about 405 TWh. The plan addresses all five dimensions of the EU Energy Union: low carbon, energy efficiency, energy security, the internal energy market, and research, innovation and competitiveness. Finland's energy and climate plan presents the impact of the decided policy measures on the estimated development of greenhouse gas emissions, renewable energy and energy efficiency until 2040. In addition, the plan describes the effects of the planned policy measures, e.g. energy system, greenhouse gas emissions and removals by sinks, economic development, the environment and the health of citizens. The plan also assesses the impact of planned and existing policy measures on future investment needs.
Article 4	As a result of the revised Energy Efficiency Directive, the Long-Term Renovation Strategy (LTRS) as specified by Article 4 now falls under the Energy Performance in Buildings Directive. Finland's Long-Term Renovation Strategy was published and submitted as required to the European Commission in March 2020.
Article 5	Finland has opted for an alternative approach 5(6) for implementation. Notification submitted 18.12.2013 (Unofficial unchecked translation by the COM) Eight alternative measures are listed. No legislation.

EED Article	Implementation status
Article 6	Government Decision-in-Principle on the promotion of sustainable environmental and energy solutions (cleantech solutions) in public procurement (13.6.2013) cover some of Article 6 obligations. Voluntary Energy Efficiency Agreements comply fully with 6(3). Full compliance required amendments to the Energy Efficiency Law. The law (1338/2016) amending the Energy Efficiency Law entered into force at the beginning of 2017. With this amendment, the provisions regarding the energy efficiency requirements for products, services and buildings procured by public bodies were implemented, and the role of the public sector in promoting energy efficient procurement was strengthened.
Article 7, 7a, 7b	Finland has opted only alternative measures for Article 7 implementation. Related to the period 2014-2020, National Energy Efficiency Programme (Unofficial unchecked translation by the COM regarding the original 5.12.2013 version) was submitted 5.12.2013 and complemented 31.1.2014. An updated Article 7 notification (mainly complements and corrections to the Annexes) was delivered as an Annex in 5.6.2014 EED notification. The National Energy Efficiency Programme included eight policy measures. The binding cumulative energy savings target for the period 2014 to 2020 inclusive was 49 TWhcum. The target was reached and notified to the Commission December 2018. For the Article 7 obligation period 2021-2030 Finland continues to use alternative measures. Binding Finland's Article 7 cumulative energy savings target and seven energy efficiency measures and their expected savings to reach the target for the period 2021-2030, were included in the final NECP Annex 1. Detailed descriptions of these measures and the method of calculating the cumulative energy savings to be achieved from each measure were presented in the final notification to the Commission in June 2020, as required in the EED. In addition, in the notification in June 2020, the cumulative energy savings target for the period 2021-2030 was checked based on the latest statistics. Finland's notified binding cumulative energy savings target for the period 2021 to 2030 inclusive is 105 TWhcum. No legislation.
Article 8	Finland´s ongoing Energy Audit Programme complies with Article 8(1). National minimum requirements based on Annex VI and implementation of mandatory energy audits were transposed by the Energy Efficiency Law and its two accompanying documents: decree on energy audits and memorandum on the Government Decree. The Energy Authority has a web page related to both voluntary and mandatory energy audits. Energy Authority has commissioned Motiva to operate the subsidised Energy Audit Programme for SMEs and municipalities.

EED Article	Implementation status
Article 9, 9a, 9b, 9c	Some amendments were conducted to existing legislation on energy efficiency services in the energy market (1211/2009), on electricity and natural gas markets (590/2013), on the settlement and measurement of electricity supplies (66/2009), on land use and building (5.2.1999/132). In addition, some new provisions were included in the Energy Efficiency Law in 2014 and amended in 2017 to reach full compliance with EED. A study on the cost-effectiveness of individual metering in multi-purpose/multi-apartment buildings was carried out in 2013, as requested by 9(3). Two other studies were carried out related to the revised EED (EU) 2018/2002. A study related to water billing based on apartment specific measurement was published in December 2018 and a review regarding the profitability of remote readability apartment specific water meters was published in March 2020. Related to the provisions regarding metering and billing in the revised EED the law (787/2020) amending the Energy Efficiency Law entered into force on 23rd November 2020.
Article 10, 10a and 11, 11a	Provisions regarding billing and billing information were moved from existing legislation (Law for Energy Services Offered by Companies in Energy Sector). Provisions regarding district heating were included into the Energy Efficiency Law to achieve full compliance with EED. Related to the revised EED (EU) 2018/2002 the law (787/2020) amending the Energy Efficiency Law entered into force on 23rd November 2020. This amendment was related to the provisions regarding metering and billing.
Article 12 and 17	Existing measures fulfil all requirements. Existing situation is satisfactory. The Energy Authority will be responsible for monitoring the situation and taking actions when necessary. Several examples of the measures in this area are described in the NEEAP (2011) in the Annex 3 starting on page 154 (e.g. HO-07/...HO-12/) and the following NEEAPs (2014, 2017). (Unofficial unchecked translation by the COM for the NEEAP-2 in 2011 can be found under the heading Previous energy efficiency action plans via this link, and NEEAP- 3 in 2014 via the link). No legislation.
Article 13	Provisions are included in the Energy Efficiency Law.

EED Article	Implementation status
Article 14	Provisions regarding Article 14 are included both in existing legislation on excise duty on electricity and certain fuels (1260/1996) with its revision (1400/2010), on excise duty on liquid fuels (29.12.1994/1472) with its revision 1399/2010, on land use and building (5.2.1999/132) and its revision 1129/2008, on support for the production of electricity from renewable energy sources (1396/2010) with its revision (687/2012), on certification and notification of the origin of electricity (1129/2003) with its revision (445/2013) and decree on numerical values of the coefficients for the forms of energy used in buildings (9/2013) (revision (788/2017)), as well as in the Energy Efficiency Law. Notification on exemptions 14(6) was submitted 17.12.2013. The comprehensive assessment of the potential for the application of high-efficiency cogeneration and efficient district heating and cooling, was, as requited in Article 14, published and submitted to the Commission in September 2020.
Article 15	Most requirements were already in the existing legislation for the electricity market (588/2013) with its revision (445/2013), on control of the electricity and natural gas markets (590/2013) with its revision (1432/2014) and in decrees on system responsibility of the transmission system operator (635/2013), on the settlement and measurement of electricity supplies (66/2009) and on the certification of the origin of electricity (417/2013). Some new provisions and amendments regarding Article 15 implementation were included to fulfil all EED requirements. Provisions related to Article 15(3) are not included while in Finland the social policy is not implemented via the energy policy.
Article 16	The existing situation in Finland is satisfactory. No need for supplementary actions. There are over 2,000 trained and authorised energy auditors, approx. 450 trained and authorised lead assessors for mandatory energy audits related to the requirements in the Energy Efficiency Law, 2,000 trained and certified Building Energy Certificate providers related to the law on the energy certificate of a building (50/2013), roughly 100 certified RES installers related to the law on approving the trainer of installers of certain energy systems using renewable energy sources (38/2015) and 40 authorised farm energy advisers, just to list the most relevant.
Article 18	The existing situation is satisfactory. Requires continuous work, which is being carried out. No legislation.
Article 19	Existing situation is satisfactory. Requires continuous work and follow-up. Implementation is described in the NEEAP-3 (Unofficial unchecked translation by the COM, chapter 4.4). No legislation.

EED Article	Implementation status
Article 20	Constitution limits the possibility to establish funds in Finland. Promoting ways to make better use of energy audits under Article 8 in companies and communities has been one part of support and communication activities in the Voluntary Energy Efficiency Agreement Scheme since it started 1997 (Article 20 (3)(c)(a)). Financing energy efficiency has been raised as a separate target area of operation in the Energy Work Programme, which the Energy Authority commissions annually from Motiva. Motiva and the Energy Authority have been actively cooperating with the financial sector (FA) and financial institutions. The SEI Forum was held in Finland in autumn 2020. The first public sector ESCO model was published in Finland already in 2003 (Article 20 (3)(c)(b)).

2.2. Non-legislative provisions

Finland does not implement every article of the EED via legislation and mandatory measures. Since the previous table covers all articles, a brief answer has been given there. The following non-legislative provisions are those with significance in relation to the national transposition of the EED.

The broad Voluntary Energy Efficiency Agreement Scheme (2008-2016, 2021-2025) is the main instrument in Finland to implement Article 7 obligations. Voluntary Agreements have been the main energy efficiency policy in Finland since 1997 and continuation of the current period is planned. Energy Efficiency Agreements also serve the implementation of other EED articles related to e.g. energy management systems, energy audits, communication and information, and energy-efficient procurement in companies and municipalities. More comprehensive information is available on the Finnish website.

3. Future activities

Currently Finland´s new Energy and Climate Strategy is being prepared in parallel and in coordination with the Medium-term Climate Change Policy Plan preparation. The latter includes an action programme to reduce emissions in the non-emissions trading sectors, i.e., the effort-sharing sector. Medium-term Climate Policy Plan is based on the Climate Law (609/2015) that came into force in 2015 and is also currently under reform preparation. The new strategy and Medium-term Climate Change Policy Plan will be submitted to the Parliament in autumn 2021.

4. Relevant information

Ministry of Employment and the Economy www.tem.fi

The Energy Authority/Energy Efficiency Group https://www.energiavirasto.fi/fi/energiatehokkuus

Motiva www.motiva.fi

In 2018, the Ministry of Economic Affairs and Employment placed an energy efficiency working group in charge of preparations for implementation of the revised Energy Efficiency Directive (EU) 2018/2002. Five sectoral working groups worked in conjunction with the energy efficiency working group. Final report 10/2019 (only FI).

The Government works to ensure that Finland is carbon neutral by 2035 and carbon negative soon after that. In accordance with the Government Programme, sectoral low-carbon roadmaps 2035 (additional material in Finnish) were drawn up in cooperation with companies and organisations in the relevant sectors during the years 2019-2020 and were published in 2020. A summary of sectoral low-carbon road maps in English was published in February 2021.

The Ministry of Economic Affairs and Employment appointed in 2020 a working group on energy sector integration tasked with presenting concrete solutions on how to promote sector integration. Sectoral integration describes the development made possible and required by increasing zero-emission energy production, in which energy is transferred, used and transformed into new ones in new ways. The working group 's final report (only FI) was handed over to the ministry responsible in June 2021.

National EED Implementation Report (NIR) 2021

EED implementation in France

Introduction

In France, implementation of the EED is the responsibility of the Ministry of Ecological Transition.

1. Legal context

As described in our NECP (National Energy and Climate Plan), France has set ambitious energy efficiency objectives for 2030.

In addition, the energy and climate law has been adopted, in particular to support the implementation of the European Green Deal in France.

2. Status of the implementation

2.1. Legislative provisions

Details of most recent laws linked with energy efficiency.

EED Article	Implementation status
Overall – Law on energy transition (n° 2015-992, 17th August 2015)	https://www.legifrance.gouv.fr/jo_pdf.do?id=JORFTEXT000031044385
Overall – Law on energy and climate (n° 2019-1147, 8th November 2019)	https://www.legifrance.gouv.fr/loda/id/JORFTEXT000039355955
Article 7 – Articles L.221-1 à L.222-9 of the Energy Code	https://www.legifrance.gouv.fr/codes/id/LEGITEXT000023983208
Article 8 – Law n° 2013-619, 16th July 2013	https://www.legifrance.gouv.fr/jo_pdf.do?id=JORFTEXT000027713399

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

Additional information regarding the implementation of the EED / main provisions.

EED Article	Implementation status
Article 3	Targets of energy consumption have been set up (120.9 Mtoe in final energy, 202.2 Mtoe in primary energy) and notified in the NECP and was submitted in March 2020
Article 5	The alternative approach has been notified to the EC by France in March 2020
Article 7	Target of energy savings obligation has been set at 758 TWh and notified to the Commission in June 2020
Article 9 – Articles L. 241-9, L713-2 and Articles R.241-7 to 241-17 of the Energy Code	https://www.legifrance.gouv.fr/codes/article_lc/LEGIARTI000039369630/ https://www.legifrance.gouv.fr/codes/article_lc/LEGIARTI000038554356/
Article 10 – Article L.741-4 and Articles R.241-14 to 241.16 of the Energy Code	https://www.legifrance.gouv.fr/codes/article_lc/LEGIARTI000042120890/ https://www.legifrance.gouv.fr/codes/article_lc/LEGIARTI000038554397/
Article 11 – Article 18-1 of law n°65-557, 23-7 of law n°89-462 and L.741-2 of the Energy Code	https://www.legifrance.gouv.fr/loda/article_lc/LEGIARTI000039313558 https://www.legifrance.gouv.fr/loda/article_lc/LEGIARTI000041587263/ https://www.legifrance.gouv.fr/codes/article_lc/LEGIARTI000042120894

2.2. Non-legislative provisions

Several non-legislative provision has been adopted. They are described in France EED annual reports.

Especially, numerous decrees and orders have been taken, in order to adapt our existing white certificate scheme to the requirements of the EED.

Furthermore, as mentioned above, the law on energy and climate has introduced a series of new measures to implement the European Green Deal and tackle climate change.

2.3. Implementing bodies

Indicate here who the main implementing bodies are in your country and in which field they support EED implementation.

3. Implementation of revised EED articles

We are now fully mobilising our resources to adopt then to implement the "Fit for 55" package.

4. Relevant information

The NECP contains the main priorities of the climate and energy policy until 2030. It is based on two documents adopted at national level on the governance and programming of matters relating to energy and climate:

- The Multiannual Energy Plan (programmation pluriannuelle de l'énergie, MEP), which establishes the priorities for government action in the field of energy for the next 10 years, divided into two five-year periods.
- The National Low-Carbon Strategy (stratégie nationale bas-carbone, SNBC), which is France's roadmap for climate change mitigation. This provides guidelines to enable the transition to a low-carbon economy across all sectors. It specifies France's short-term and medium-term greenhouse gas (GHG) emissions reduction targets (carbon budgets) and aims to achieve carbon neutrality, i.e. net zero emissions, by 2050.

For more details:

- The Multiannual Energy Plan is available here: https://www.ecologie.gouv.fr/sites/default/files/20200422%20Programmation%20pluriannuelle%20de%20l%27e%CC%81nergie.pdf
- The National Low-Carbon Strategy is available here: https://www.ecologie.gouv.fr/sites/default/files/2020-03-25_MTES_SNBC2.pdf

National EED Implementation Report (NIR) 2021

EED implementation in Germany

Introduction

This National Implementation Report (NIR) of the Directive 2012/27/EU of the European Parliament and of the Council on Energy Efficiency (EED) builds on the previous NIR 2016. This version of the NIR includes information regarding the implementation of the amendments of the EED by the Directive (EU) 2018/2002 of the European Parliament and of the Council of 11th December 2018 amending Directive 2012/27/EU on energy efficiency and by the Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11th December 2018. It provides brief information on the status of the ongoing implementation of the EED in Germany and thereby meets the commitment of the Concerted Action for the EED (CA EED) participants to update the Commission on this issue.

The national energy efficiency policy framework outlined in this summary report demonstrates and underlines Germany's commitment to energy efficiency policy in general and the national implementation of the EED in particular.

Key responsibility for the coordination of the implementation of the EED lies with the German Federal Ministry for Economic Affairs and Energy (Bundesministerium für Wirtschaft und Energie, BMWi).

The Federal Energy Efficiency Center (Bundeststelle für Energieeffizienz, BfEE) within the Federal Office for Economic Affairs and Export Control (Bundesamt für Wirtschaft und Ausfuhrkontrolle, BAFA) is mandated by national law to fulfil reporting and monitoring, as well as communication activities. The BfEE also selects and oversees institutions, which conduct energy efficiency research for the ministries. Provisions in the EED concerning the energy market and grids lie within the responsibility of the BMWi and the Federal Network Agency (Bundesnetzagentur, BNetzA). Several organisations, namely the BAFA, the Credit Institute for Reconstruction (Kreditanstalt für Wiederaufbau, KfW[1]) the German Environment Agency (Umweltbundesamt, UBA) and different project executing bodies implement energy efficiency measures, initiatives and programmes for the ministries.

[1] The KfW is a German promotional bank, which among other functions offers credits and loans with regard to energy efficiency.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

1. Legal context

The EED was transposed through changes to several national laws. A key piece of legislation is the Act on Energy Services and Energy Efficiency Measures (Gesetz über Energiedienstleistungen und andere Energieeffizienzmaßnahmen, EDL-G), which was amended in April 2015 to transpose several aspects of the EED. However, as the EED has evolved and been revised so too has the transposition into national legislation. Furthermore, initial implementation has also been improved, because of lessons learned during the course of the EED.

The long-term German energy and climate policy is anchored in the Climate Action Plan 2050 (Klimaschutzplan 2050), while concrete policy measures are set out in the Climate Action Programme 2030 (Klimaschutzprogramm 2030). The German climate targets are set out in the recently revised Climate Change Act (Bundes-Klimaschutzgesetz, KSG). The measures and instruments outlined in the Climate Action Programme 2030 and the national mitigation targets set out in the Climate Change Act will successively be ascribed with directives and national laws.

The German National Energy and Climate Plan (NECP) contains the main priorities of the climate and energy policy for the next 10 years. The contents are largely determined by the Climate Action Programme 2030, which was established in October 2019 in a consultation process with various (public and private) stakeholders.

The government's central goal was to reduce greenhouse gas emissions by 55% until 2030 compared to 1990 levels with the Climate Action Programme 2030 and preceding acts[2]. However, recent amendments of the Climate Change Act stipulate that GHG Emissions will have to be reduced by 65% until 2030 compared to 1990 levels. In addition, the year for Germany to be net GHG-neutral was set at 2045. After 2050, negative GHG emissions shall be achieved.

In Annex III of the German NECP, several alternative measures, which shall account for the energy savings needed to fulfil the obligations of Article 7 EED, are displayed and described. The mandatory energy savings for Germany during the period 2021 up to and including 2030, in accordance with Article 7 EED, amount to roughly 3,995 petajoules. The German contributions will thereby be achieved by implementing the package of policy measures displayed in the Climate Action Programme as reported to the COM, such as the system for CO2 emission allowance trading in the sectors heating and transport.

[2] The reduction target was initially outlined in the so-called Energy Concept 2010 (Energiekonzept für eine umweltschonende, zuverlässige und bezahlbare Energieversorgung 2010) (for further information see here: https://www.bmwi.de/Redaktion/DE/Downloads/E/energiekonzept-2010.html).

2. Status of the implementation

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 3	In June 2018, an agreement was reached at EU level between the Member States, the European Parliament and the European Commission (the agreement entered formally into force in late 2018) to achieve a drop in primary energy consumption of – 32.5% by 2030 compared to the value currently forecast for that year; this agreement was enshrined in the current version of the EED. Hence, Member States must report their national indicative contributions to this target as part of their respective NECP, which Germany did by submitting its final NECP in June 2020 (for further information see here: https://ec.europa.eu/energy/sites/default/files/documents/de_final_necp_main_en.pdf in English language). The German Federal Government is aiming to achieve a continual reduction in energy consumption in the decade 2021-2030 (see NECP, pp. 47-48 in English language). With regard to the German national contributions the German Federal Government has set – as part of its Energy Efficiency Strategy 2050 (Energieeffizienzstrategie 2050) – a national energy efficiency target for 2030 of -30% primary energy consumption (compared to 2008). The German energy efficiency target for 2030 corresponds to primary energy consumption of approx. 240 Mtoe in 2030 (including non-energy consumption) or primary energy consumption of approx. 216 Mtoe excluding non-energy consumption, on the assumption that the latter remains more or less constant. The calculations from the modelling carried out by the German Federal Government regarding the effects of the climate protection measures in the NECP show a drop in final energy consumption down to 185 Mtoe by 2030.
Article 4	As a result of the last EED revision, Article 4 was deleted. The content can now be found in Article 2a of the Energy Performance in Buildings Directive (EPBD). The new Long-Term Renovation Strategy (Langfristige Renovierungsstrategie) for Germany therefore also refers to the implementation of the EPBD (https://www.bmwi.de/Redaktion/DE/Publikationen/Energie/langfristige-renovierungsstrategie-der-bundesregierung.pdf?__blob=publicationFile&v=6).

EED Article	Implementation status
Article 5	Following the notification of the Commission that Germany opts for the alternative approach to the implementation of Article 5, in line with Article 5 (6), the German Federal Government has adopted several implementing measures (for reference see https://ec.europa.eu/energy/sites/default/files/documents/200430_deu_jahresbericht_2020_art._24_abs._1_eed.pdf). These measures include information initiatives, as well as federal support programmes funding energy consulting for municipalities, the development of energy efficiency contracting projects, municipal action plans and renovation plans. Furthermore, grants and loans are given out for the construction and renovation of municipal buildings and infrastructure. In addition, the Federal Ministry of the Environment, Nature Conservation and Nuclear Safety (Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit, BMU) is supporting public bodies in getting Eco-Management and Audit Schemes (EMAS) certified. For further information, please refer to the Long-Term Renovation Strategy under https://www.bmwi.de/Redaktion/DE/Publikationen/Energie/langfristige-renovierungsstrategie-der-bundesregierung.pdf?__blob=publicationFile&v=6 (pp. 37 – 40, in German language). In August 2021, as part of the Climate Action Programme 2030, the German Federal Government adopted energy efficiency specifications for federal buildings that set ambitious energy standards for new and for energy-related renovations of existing federal buildings including the establishment of an increase of the annual renovation rate starting from 2022.
Article 6	All provisions regarding energy efficiency in procurement have been transposed to national law. Furthermore, the German Federal Government, the German "Bundesländer" and municipalities are cooperating in the "Alliance on Sustainable Procurement" (Allianz für Nachhaltige Beschaffung) in view of supporting public bodies at sub-federal level in procuring energy efficient products and services. For more information in German language on the initiative please see the website of the competence centre on sustainable procurement, which is supporting the alliance, at http://www.nachhaltige-beschaffung.info/DE/Allgemeines/allgemeines_node.html. With the revisited General Administrative Regulation on the Procurement of Energy Efficient Services (Allgemeine Verwaltungsvorschrift zur Beschaffung energieeffizienter Leistungen, AVV-EnEff) from May 2020, the German Federal Government is updating the obligations of federal agencies to take energy saving aspects into account when procuring supplies, services and construction work. Accordingly, federal departments are obliged to procure services with the highest available efficiency class as defined by the EU regulation on energy consumption labelling. As of January 2022, the AVV-EnEff will be strengthened and replaced by the General Administrative Regulation on the Procurement of Climate Friendly Services (Allgemeine Verwaltungsvorschrift zur Beschaffung klimafreundlicher Leistungen, AVV Klima). This updated regulation further takes into account the effect of procured goods and services on the climate overall (e.g. by internal carbon pricing and a negative list of certain goods).

EED Article	Implementation status
Article 7	Article 7 EED requires member states to deliver energy savings for two obligation periods, first from 2014 to 2020 and second from 2021 to 2030. In accordance with calculations for the fourth National Energy-Efficiency Action Plan (Nationaler Energieeffizienz-Aktionsplan, NEEAP) the mandatory energy savings for Germany under Article 7 EED amount to 1758 petajoules for the first obligation period from 2014 to 2020. For this period, Germany took an alternative approach[3] (Article 7b EED) to meet the requirements of Article 7 of the Energy Efficiency Directive (EED). The measures used for the alternative approach are displayed in the annual report based on Article 24 of the EU Regulation (EU) 2018/1999 (see in German Language: https://ec.europa.eu/energy/sites/default/files/documents/200430_deu_jahresbericht_2020_art._24_abs._1_eed.pdf). The mandatory energy savings during the second obligation period 2021 up to and including 2030 amount to 3995 petajoules. Germany has determined cumulative energy savings in the 2021-2030 period based on 0.8% energy savings per year of average final energy consumption in the years 2016, 2017 and 2018 (the reference consumption). During the 2021-2030 period, Germany again as in the previous period takes an alternative approach and uses various policy instruments to achieve the national energy savings target. Therefore, many policies will contribute to achieving the mandatory energy savings under Article 7. In addition to new policies, a number of existing policies (whether or not in adapted form) will continue after 2020. This is explained in more detail in Appendix 3 of the final NECP of Germany.
Article 8	All provisions have been implemented through several acts and regulations. The last amendment of the EDL-G was in November 2019 due to EED amendment in 2018 and the results of a national survey on audit obligation. Non-SMEs are now required to report the conclusion of their energy audit online, and in turn they receive a comprehensive summary with additional information and suggestions on subsidy programmes for recommended measures in a so-called "management summary". The summary has to be signed by management and serves as an official document to confirm the proper completion of the audit obligation. A programme (Energieberatung für Nichtwohngebäude, Anlagen und Systeme, Modul 1) that provides funding for energy audits for SMEs has been established and has been running successfully since 2015 (last amendment in December 2020). A public list provides information on energy auditors for non-SMEs (https://elan1.bafa.bund.de/bafa-portal/audit-suche/) and another one provides information on suitable energy auditors for SMEs (https://www.energie-effizienz-experten.de/). Mandatory audits for non-SMEs in line with Article 8 (4pp) EED have been implemented and are defined in the EDL-G. An evaluation of these mandatory audits is available in German (https://www.bafa.de/SharedDocs/Downloads/DE/Energie/ea_evaluierungsbericht.pdf?__blob=publicationFile&v=2).

[3] The alternative approach outlined in Article 7b EED allows use of a variety of polices and measures to fulfil the energy saving obligations.

EED Article	Implementation status
Article 9-11	The provisions have been implemented through several acts and regulations. Furthermore, gas, heating and cooling meters can also be connected to a Smart Meter Gateway under the Metering Point Operation Act (Gesetz über den Messstellenbetrieb und die Datenkommunikation in intelligenten Energienetzen, MsbG) and can thereby fulfil the requirements of the EED.
Article 12	Several initiatives supported by the BMWi serve the purpose of implementing Article 12 (1). Article 12 (2), for example, is implemented via the national awareness raising campaign "Deutschland macht's effizient" and the obligation for energy suppliers by the EDL-G to provide information regarding energy efficiency measures to consumers with every invoice. In addition, the BMWi is funding several initiatives by consumer organisations, like energy consulting conducted by German consumer advice centres (Verbraucherzentralen) to increase energy efficiency. For more information in German, please see https://verbraucherzentrale-energieberatung.de/beratung/zu-hause/heiz-check/.
Article 14	The comprehensive assessment of the national potential of cogeneration and district heating and cooling as well as the evaluation of the Act on Combined Heat and Power (Kraft-Wärme-Kopplungsgesetz (KWKG) has been communicated to the Commission[4] on time. The Act may be viewed at https://www.bmwi.de/Redaktion/DE/Gesetze/Energie/KWKG-2016.html in German (Article 14 para. 1). The same accounts for the updated second comprehensive assessment on heating and cooling, which has been communicated to the European Commission on time and may be viewed at https://ec.europa.eu/energy/sites/default/files/de_ca_2020_de.pdf (in German) (Article 14 para, 1 and 3). The KWKG, which supports efficient heating and cooling systems, was amended in 2016 and 2020 (Article 14 paragraphs 2 and 4). The Act on CHP-Cost-Benefit Analysis (KWK-Kosten-Nutzen-Vergleich-Verordnung, KNV-V) has entered into force on 1st May 2015 (Article 15 para. 5). Guarantees of origin were implemented with Article 31 KWKG as requested by paragraph 10. Public support to Combined Heat and Power (CHP) is subject to electricity produced originating from high-efficiency cogeneration and the waste heat being effectively used to achieve primary energy savings according to Article 1 KWKG as requested by paragraph 11. In addition, several support programmes by the BMWi and the BMU fund the establishment of heating grids and the set-up of small CHP-units. For example, the funding programme "Heat Grids 4.0" (Wärmenetze 4.0) entered into force in 2017 to support the construction and transformation of heat grids, which are mainly based on renewable energies and waste heat. Currently, the programme "Wärmenetze 4.0" is being developed further to become the programme "Federal Funding for Efficient Heat Grids" (Bundesförderung effiziente Wärmenetze, BEW). The main added value of the BEW is that single measures are supported which contribute to a long-term transformation of existing heat grids towards renewable energies and waste heat if they are in compliance with the transformation plan provided by the applicant. The BEW will enter into force as soon as it is approved under state aid guidelines by the Commission (Article 14 paragraphs 2 and 4). The Federal Government has already agreed to the funding scheme for the BEW.

[4] The assessment itself can be viewed at https://ec.europa.eu/energy/sites/ener/files/documents/151221%20Mitteilung%20an%20KOM%20EED%20KWK%20Anlage%20Analyse.pdf in German language (Article 14 paragraph 1).

EED Article	Implementation status
Article 15	Article 15 (1) requires member states to ensure that national energy regulatory authorities pay due regard to energy efficiency in carrying out regulatory tasks specified in Directives 2009/72/EC and 2009/73/EC regarding their decisions on the operation of the gas and electricity infrastructure. This has been implemented through the German Incentive regulation of gas and electricity network operators (Anreizregulierung von Strom- und Gasnetzbetreibern) (see for further information: https://www.bundesnetzagentur.de/EN/Areas/Energy/Companies/GeneralInformationRegulation/IncentiveRegulation/start.html). With regard to Article 15 (2), Germany has communicated its assessment of the energy efficiency potentials of the gas and electricity infrastructure to the Commission on time.
Article 16	The national level of technical competence, objectivity and reliability of providers of energy services, energy audits, energy managers and installers of energy-related building elements is considered to be sufficient overall. There are various training programmes for energy service providers available. Ongoing efforts by the German Confederation of Skilled Crafts and by actors involved in supporting various energy efficiency-related services aim to ensure that the competence, objectivity and reliability of service providers remains adequate in view of constant technological and methodological development. Furthermore, as an example, federal energy efficiency funding programmes and publicly available lists of energy service providers contribute to the transparency of qualification levels of energy service providers.
Article 17	The German Federal Government conducts a wide variety of information campaigns regarding energy efficiency. In particular, a comprehensive communication campaign on energy efficiency was launched on 12th May, 2016 and is ongoing (for further information in German language see https://www.deutschland-machts-effizient.de). Information to banks and other financial institutions is provided through the KfW as it cooperates with banks and other financial institutions to distribute its loans in support of energy efficiency and to help other organisations set up their own energy efficiency support programmes. As a further example, the government administrates an online specialist portal (www.febs.de) which provides professional information and helpful tools for energy service providers.
Article 18	According to §9 EDL-G the BfEE is responsible for supporting the further development of the energy services market which includes proposing measures to ensure the proper functioning of this market in line with Article 18. To this purpose, the BfEE produces annually an extensive survey in this area. All the reports (in German) as well as summaries in English can be found here: https://www.bfee-online.de/BfEE/DE/Energiedienstleistungen/Marktkennzahlen/marktkennzahlen_node.html;jsessionid=FB31ED55A24BE45FBFD45A15F1C3A8E0.2_cid371 For further information in German, please see also the main website of the BfEE: http://www.bfee-online.de/bfee/.

EED Article	Implementation status
Article 19	The BMWi has established the Energy Efficiency Platform to develop solutions for persisting barriers[5] to increasing energy efficiency, which have been identified in the first NEEAP, together with the relevant stakeholders from business, civil society, science, the affected public departments and the federal states. Legal issues are discussed in the framework of the "Legal Framework for Energy Efficiency Services" Working Group. More information can be found at http://www.bmwi.de/EN/Topics/Energy/Energy-Efficiency/energy-efficiency-platform.html.
Article 20	Germany has set up a fund to finance national energy efficiency initiatives and measures. For the latest figures, see the Act on the Federal Budget 2016 (Haushaltsgesetz 2016, Einzelplan 60) at https://www.bundeshaushalt-info.de/fileadmin/de.bundeshaushalt/content_de/dokumente/2016/soll/Haushaltsplan-2016.pdf.

Apart from the above-mentioned legislation, there are several other measures Germany uses to implement the EED. For example, the German Federal Government launched a comprehensive efficiency strategy on 3rd December, 2014: the "Nationaler Aktionsplan Energieeffizienz" (NAPE). The strategy stipulates several new measures and strengthens Germany's efforts in implementing Article 7 through alternative measures. For more information please refer to our annual Article 24 reports which may be found at https://ec.europa.eu/energy/en/topics/energy-efficiency/energy-efficiency-directive/national-energy-efficiency-action-plans. In addition, on 3rd December,2014, the German Federal Government adopted the Climate Action Programme 2020 (Aktionsprogramm Klimaschutz 2020) (see https://www.bmu.de/themen/klimaschutz-anpassung/klimaschutz/nationale-klimapolitik/aktionsprogramm-klimaschutz)). To account for the revisions of the EED in 2018, Germany designed the revised version of the NAPE (NAPE 2.0, see here in German: https://www.bmwi.de/Redaktion/DE/Publikationen/Energie/energieeffiezienzstrategie-2050.pdf?__blob=publicationFile&v=10) to accumulate new measures to satisfy the obligations under Article 7 of the revised EED. Some of those measures are also displayed in the German NECP, where, as mentioned before, additional information on the different measures Germany reported under Article 7 EED can be found.

As part of the NAPE on 3rd December, 2014, the German Federal Government signed an agreement with business associations and organisations on the nationwide introduction of energy-efficiency networks. By 2020 more than approximately 300 networks were established, thereby making an important contribution towards boosting energy efficiency in industry, crafts, trade and commerce. This initiative was renewed in 2021 and its scope was broadened to not only include energy efficiency measures but also instruments that tackle climate change and therefore mitigate GHG Emissions. The initiative aims to initiate and establish 300 to 350 new energy efficiency and climate networks. More information in German language is available at http://www.effizienznetzwerke.org/.

On 1st January, 2016, the Federal Ministry of Food and Agriculture (Bundesministerium für Ernährung und Landwirtschaft, BMEL) started the federal programme for the promotion of activities to increase energy efficiency in agriculture and horticulture as part of the NAPE. This programme was revised and continued in the NAPE 2.0 (for more information see here: https://www.ble.de/DE/Projektfoerderung/Foerderungen-Auftraege/Bundesprogramm-Energieeffizienz/bundesprogramm-energieeffizienz_node.html).

[5] These barriers include information deficits, absence of incentives, financing risks, legal constraints and high transaction costs (for more detailed information see: https://www.bmwi.de/Redaktion/EN/Publikationen/zweiter-nationaler-energieeffizienz-aktionsplan-der-brd.pdf?__blob=publicationFile&v=1 in English language pp. 98-101).

Furthermore, in 2020, Germany had adopted a comprehensive national "Long-Term Renovations Strategy" (LTRS). The strategy builds upon the national "Energy Efficiency Strategy for Buildings" from 2015. The German LTRS specifies "energy performance of buildings" as an indicator in accordance with the national energy saving legislation (EnEV).[6] As an indicative milestone for energy performance of buildings, Germany intends to reduce non-renewable primary energy consumption by 2030 to 2.000 PJ. This corresponds to a reduction in non-renewable energy consumption of around 55% compared to 2008 (see: https://www.bmwi.de/Redaktion/DE/Publikationen/Energie/langfristige-renovierungsstrategie-der-bundesregierung.pdf in German language). The strategy fulfils the requirements of Article 2a EPBD.

3. Implementation of revised EED articles

The implementation of the EED in Germany has been intensified. However, no new legislation was deemed necessary for the revised Article 7 EED as this provision is implemented by way of alternative measures (see above).

4. Relevant information

Please see the German NECP for comprehensive information on relevant issues at: https://ec.europa.eu/info/energy-climate-change-environment/implementation-eu-countries/energy-and-climate-governance-and-reporting/national-energy-and-climate-plans_en

For more information on the German Energy Efficiency Strategy 2050 see (in German): https://www.bmwi.de/Redaktion/DE/Publikationen/Energie/energieeffiezienzstrategie-2050.html

For more information on the German Climate Action Programme 2030 see (in German): https://www.bundesregierung.de/breg-de/themen/klimaschutz/klimaschutzprogramm-2030-1673578

Federal Ministry of Economic Affairs and Energy http://bmwi.de/

Federal Ministry for Environment, Nature Conservation and Nuclear Safety https://www.bmu.de/

Federal Energy Efficiency Center http://www.bfee-online.de/bfee/

German Energy Agency http://www.dena.de

[6] The EnEV has been replaced by the Gebäudeenergiegesetz (GEG), which went into force on the 1st November 2020 (see here in German: https://www.bmi.bund.de/DE/themen/bauen-wohnen/bauen/energieeffizientes-bauen-sanieren/energieausweise/gebaeudeenergiegesetz-node.html)

National EED Implementation Report (NIR) 2021

EED implementation in Greece

Introduction

The Ministry of Environment and Energy is responsible for implementation of the Directive 2012/27/EE on Energy Efficiency (EED) undertaking the obligation to design, realise and monitor the required energy efficiency measures for the fulfilment of the energy saving target at national level. Nevertheless, other ministries (such as the Ministry of Infrastructure and Transport, the Ministry of Development and Investment, the Ministry of Finance) are involved in the formulation of energy efficiency measures, while Operational Programmes is also vital, as they constitute the main financing mechanisms for energy efficiency measures mobilising the available Structural Funds. In parallel the Recovery and Resilience Facility (RRF) over the period 2021-2026 will finance and support the implementation of the crucial investment and reform measures outlined in Greece's recovery and resilience plan. Finally, the Centre for Renewable Energy Sources and Saving (CRES), which has been appointed by the corresponding legislation as the Greek national entity for the promotion of energy efficiency and the rational use of energy, participates in various initiatives regarding the EED implementation and contributes to the reporting of energy efficiency at both national and European level.

This National Implementation Report (NIR) of the Directive 2012/27/EU of the European Parliament and of the Council on Energy Efficiency (EED) is based on the 2016 NIR.

This version includes the implementation of the amendment of this Directive (Directive (EU) 2018/2002 of the European Parliament and of the Council of 11th December 2018 amending Directive 2012/27/EU on energy efficiency). In addition, this version contains the Governance Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11th December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) and Directives, among which is 2012/27/EU. Hence, the National Energy and Climate Plan (NECP) includes the dimension of energy efficiency that is directly related to the EED.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

1. Legal context

The Law 4342/2015 "Transposition of Directive 2012/27/EE on energy efficiency amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC" (Official Government Gazette: no. 143 of issue A') transposes into the national legislation all the provisions of the EED. The Law 4342/2015 came into force in November 2015, while the fulfilment of several obligations within the framework of Articles 3, 5, 7, 14 and 24 of the EED has started before its official transposition. Nevertheless, some ministerial decisions should be adopted in order to fully transpose all the foreseen aspects of the EED.

With the Decision No.4/23.12.2019 of the Government Council of Economic Policy (Government Gazette B'4893) the National Energy and Climate Plan (NECP) was ratified.

The National Energy and Climate Plan (NECP) is for the Greek Government a Strategic Plan for the issues of Climate and Energy and it presents a detailed roadmap for the achievement of specific Energy and Climate Objectives by the year 2030. The NECP presents and analyses Policy Priorities and Measures in a wide range of development and economic activities for the benefit of Greek society, making it the reference text for the next decade.

In particular, in order to improve energy efficiency, the quantitative target is set for the final energy consumption in the year 2030 to be lower than that recorded in the year 2017, fully fulfilling the relevant European index for the measure of the ambition of the NEAP. In addition, a qualitative improvement of energy efficiency in final energy consumption by 38% has been achieved, according to the specific European methodology, where the corresponding central European target was 32.5%. The NEAP describes a set of measures to improve energy efficiency with the most emphatic ones in the building and the transport sectors.

In February 2018, the Ministry of Environment and Energy (MEEN) established the National Committee for Energy and Climate in the context of the country's energy planning, which was responsible for drafting the National Energy and Climate Plan (NEAP) according to European Regulation. In October 2019, the new Inter-Ministerial Committee on Energy and Climate was re-established.

The energy savings objective under Directive (EU) 2018/2002 on energy efficiency in the period 2021-2030 amounts to 7,299 ktoe of cumulative energy savings. More specifically, the Energy Efficiency Obligation Scheme (EEOS) will account for 20% of the total cumulative objective for the period 2021-2030, whereas nine alternative policy measures will be implemented to cover the remaining part of the objective, reflecting the key policy priorities and the most important energy efficiency improvement measures.

So the most important policy measures proposed under Article 7, except EEOS, cover the energy upgrading of public/tertiary and residential sector buildings, the establishment of the energy managers in public buildings, the development of transport infrastructures, the promotion of alternative fuels in road transport, the energy upgrading of pumping equipment, the energy upgrading of street lighting and the improvement in energy efficiency through ESCOs.

The contribution of the indicative national target in the energy-efficiency improvement could reach approximately 38%, achieving the lower final energy consumption in 2030 compared to that in 2017. This will by far exceed the European Union's share of 32.5% by 2030, including the cumulative energy savings in final consumption (Article 7 of the EED) and total floor area that must be renovated (Article 5 of the EED).

Taking into account the specific challenges, the objectives achievement scenario meets the national targets under the EU policy. The final energy consumption forecast for the year 2030 is estimated to be significantly lower than the 2007 consumption and the reduction achieved amounts to 38%, while a corresponding reduction of 43% is achieved in primary energy consumption. This demonstrates that the overall objective is to achieve an improvement in energy efficiency across the energy system, attaining a particularly high level of improvement in terms of how energy is made available for consumption, always in the most cost-effective way. In addition to that, an objective is set for the annual energy renovation of a total floor area of the thermal zone of central public administration buildings equal to 5,400 square meters, representing 3% of the total floor area. To that end, it is necessary to establish a central quantitative objective for the renovation and replacement of residential buildings with new nearly zero-energy buildings, which could on aggregate amount to 12-15% of all residential buildings by 2030. The annual objective is to have an average of 60,000 buildings or building units upgraded in terms of energy and/or replaced with new, more energy-efficient ones.

2. Status of the implementation

2.1. Legislative provisions

The following table contains information outlining the EED current status of implementation by article in Greece.

EED Article	Implementation status
Article 3	An indicative national energy efficiency target was established based on final energy consumption taking into account the requirements of paragraph 1 of Article 3 of the EED. The energy efficiency target was notified firstly by the 4th Energy Efficiency Action Plan, which was submitted to the EU in March 2018. Also, according to the requirements of Article 4 of the Law 4342/2015, the Ministerial Decision ΔΕΠΕΑ/Γ/οικ.171872 (Official Government Gazette: No. 1001 of issue B') has imposed officially the obligation to achieve 18.4 Mtoe of final energy consumption in 2020.
Article 4	The Long-Term Renovation Strategy for mobilising investments in the renovation of the national stock of residential and commercial buildings was prepared and submitted to the EU in the beginning of 2015 according to the requirements of the paragraph 1 of Article 4 of the EED. According to the requirements of Article 6 of the Law 4342/2015, the official approval of the long-term strategy was performed through the adoption of the Ministerial Decision ΔΕΠΕΑ/Γ/οικ.185497 (Official Government Gazette: no.3004 of issue B'). Recently this document was revised by Ministerial Decision ΔΕΠΕΑ/20334/148/21.03.2021 (Official Government Gazette: no. 974 of issue B'). The new Long-Term Renovation Strategy replaces the two previous editions and was submitted accompanying the National Energy and Climate Plan (NECP). Its goal (NECP) concerns the energy upgrade of 12-15% of buildings within the decade 2021-2030, through targeted policy measures. Compared to this goal, and in order for the building stock to approach zero energy balance, the aspirations for 2050 must be significantly more ambitious and therefore the policy instruments must be more extensive. As a result of the EED revision, the Long-Term Renovation Strategy as specified by Article 4, now falls under the Energy Performance Buildings Directive.

EED Article	Implementation status
Article 5	Article 7 of the Law 4342/2015 introduces the obligation to renovate from 1st January 2014 3% of the total floor area of heated and/or cooled buildings owned and occupied by the central government annually in order to meet at least the minimum energy performance requirements as foreseen in Article 4 of Directive 2010/31/EU. The list of heated and/or cooled central government buildings in accordance with Article 5 of the EED being published on the Ministry's website. In addition, as described in the NECP, the target is an annual energy renovation of the total floor heated/cooled area of the central government buildings equal to 5,400 sq.m, which is 3% of the total area. Greece has decided to follow the default approach, but it also provides an alternative approach, in paragraph 8 of Article 7 of the Law 4342/2015, saying that it could contribute equivalent investments to the Energy Efficiency Fund for the realisation of the required energy savings. Furthermore, it is foreseen in paragraph 12 of Article 7 of law 4342/2015, under the responsibility of regional governors and mayors, an Energy Efficiency Plan for Buildings (EEPB) is prepared for the buildings under their responsibility, which contains specific objectives and actions for energy efficiency improvement. The EEPB is reviewed every two (2) years and is submitted to the Ministry of Environment and Energy. In addition, the EEPB is implemented, using special financial tools, as well as energy service companies (ESCOs) through the conclusion of energy efficiency contracts. Finally, buildings that are included in the EEPB or energy management system have priority when establishing financial incentives and programmes to improve the energy efficiency of public buildings. EEPB is part of the general framework of the exemplary role of the public sector and aims to improve the energy efficiency of public buildings in the country, in addition to the other existing provisions. Specifically, the above EEPB is aimed at improving the energy efficiency of buildings, in order to capture the reduction of energy consumption of public buildings. This is complemented by the obligation of public and wider public sector buildings to designate an energy. The responsibilities of the energy manager for the provision of data are supported by the electronic platform of energy managers assisting their work, as well as from the Energy Performance Certificates (EPCs) of public buildings. For the Municipalities that have co-signed and voluntarily joined "Covenant of Mayors", the EEPB should also be in agreement with the action plan prepared in the framework of Covenant Mayors, both at the data level and at the target level.

EED Article	Implementation status
Article 6	According to Article 8 of the Law 4342/2015, the central government bodies purchase only products, services and buildings with high energy-efficiency performance taking into consideration various criteria, such as the cost-effectiveness, the economic feasibility, the wider sustainability, the technical suitability, as well as the sufficient competition in the market. Moreover, the public bodies, including authorities at regional and local levels, are encouraged to purchase only products, services and buildings with high energy efficiency performance. In paragraph 6 of Article 8 of the Law 4342/2015 it is foreseen that only buildings that are classified at least in the Energy Performance Class C according to the existing Energy Efficiency Regulation in Buildings can be rented or purchased by public authorities. The identical obligation exists also in the case of the potential renewal of the existing contracts. In February 2021, the Ministry of Development and Investment in collaboration with the Ministry of Environment and Energy approved the Action Plan for Green Public Procurement (APGPP) by the Joint Ministerial Decision (F.E.K. 466 / 08.02.2021). The APGPP refers to the European legislation, records the methodological approach for the promotion of green public procurement as well as defines the general targets and finally describes its management, support and monitoring of the National Action Plan click here. Regarding the actions for Green Public Procurement (GPP) at regional and local level, remarkable actions are carried out by the local government organisations in collaboration with other bodies and in the framework of co-financed programmes according to the field of sustainable and green development, (Interreg MED, Life, Covenant of Mayors, Green Fund, etc.). At national level, according to a wide range of reforms, significant progress has been made towards a more transparent, cost-effective and business-friendly public procurement system of contracts. The Law 4412/2016 and the mandatory implementation of the National System of Electronic Public Procurement for the supply of goods, the provision of services and public works led to the modernisation and simplification of procedures.

EED Article	Implementation status
Article 7	In December 2013, it was notified to the EU that the Article 7 target could be achieved through the introduction of alternative measures. Initially the proposed alternative measures comprised of 18 policy measures. Nevertheless, the observed deviations from the established target in the annual reports of both 2015 and 2016 led to the reconsideration of the Article 7 implementation. According to Article 9 of the Law 4342/2015, the introduction of an energy efficiency obligation (EEO) scheme to the energy distributors and/or retail energy sales companies was foreseen since 1st January 2017 in order to achieve the target of Article 7. This target could be performed through a combination of alternative policy measures and an energy efficiency obligation scheme. The implementation of the scheme (EEO) was particularly successful for the period 2017-2020, achieving almost twice the target than expected. For the new period 2021-2030 the energy saving target under Directive 2018/2002 / EU on energy efficiency for the period amounts to 7,299 ktoe of cumulative energy savings. According to the NECP, the Energy Efficiency Obligation Regimes will assume 20% of the total cumulative target or 1,640 ktoe of cumulative energy savings, while a total of nine policy alternatives will be implemented to meet the remaining targets reflecting the key energy efficiency improvement measures. A ministerial decision is expected in order to specify the required details about the obligated parties, the allocated target for each obligated party separately, the monitoring and verification scheme, the reporting obligations and other provisions of the scheme. Finally, the current design of the existing alternative measures could be reviewed taking into account the effectiveness of the existing measures, the introduction of the obligation scheme and the current deviations for the intermediate targets.

EED Article	Implementation status
Article 8	According to Article 10 of Law 4342/2015 on energy efficiency the provision of high quality energy audits is introduced, which must be cost-effective in companies that are not SMEs. In addition, these companies have the obligation to carry out energy audits in an independent and cost-effective manner by qualified and/or accredited experts or by independent authorities at least every four years from the date of the previous energy audit. In case the obligated companies have already developed an energy management system or environment, which is certified by an independent body according to the relevant European or International Standards, they will be exempted from the obligation to carry out energy audit. However, all the details regarding the quality criteria of the energy audits, the energy auditors and the implementation of the procedure are defined in the Ministerial Decision: "Systems for recognition and certification of qualifications for energy auditors. Register of Energy Auditors and Archive of Energy Auditors" Ministerial Decision. At the same time, a Portal was developed for registering energy auditors and legal entities, as well as for keeping the archive of energy audits. Designated as the Monitoring Body is the Ministry of Environment and Energy and more specifically Inspection Departments of Northern and Southern Greece of the Special Secretariat of the Body of Inspectors and Auditors. The first cycle of the obligation to submit energy audits was from 30-09-2019 to 01-10-2023 (there was a delay in the implementation of the obligation). Finally, specific incentives will be introduced in order to encourage SMEs to conduct an energy audit, and specific initiatives will be organised in order to enhance the existing level of awareness and knowledge considering energy audits.

EED Article	Implementation status
Article 9-11	Article 11 of the Law 4342/2015 sets energy distributors and retail energy sales companies responsible for implementing Article 9 of the EED. Paragraph 6 of Article 10 indicates that, where appropriate, a Joint Ministerial Decision will include additional rules and guidelines on the way to allocate costs for heat and/or hot water that is used. Article 12 of the Law 4342/2015 includes the legal provisions of Article 10 and 11 of the EED. According to Article 12, where final customers do not have smart meters as referred to in Article 59 of the Law 4001/2011, energy distributors and retail energy sales companies must ensure that billing information is accurate and based on actual consumption, in accordance with point 1.1 of Annex VII. According to paragraph 2 of Article 12, smart meters must enable accurate billing information based on actual consumption. Energy distributors and retail energy sales companies must ensure that final customers have the possibility of easy access to complementary information on historical consumption allowing detailed self-checks. Independently of whether smart meters have been installed or not, energy distributors and retail energy sales companies, from 1st January 2016, are responsible for the legal provisions of paragraph 3 of Article 10 and Article 11 of the EED.
Article 12	According to Article 13 of the Law 4342/2015 the Division of Energy Policy and Energy Efficiency of the Ministry of Environment and Energy is responsible for taking the appropriate measures to promote and facilitate an efficient use of energy by small energy customers, including domestic customers. Information actions involve tools and policies to support behavior change, such as tax incentives, access to finance, loans or grants, information provision, exemplary projects, and workplace actions.

EED Article	Implementation status
Article 14	The exceptions relating to Article 14(6) of the EED were submitted promptly to the EU in December 2013. Article 15 of the Law 4342/2015 appoints the Division Electrical Energy of the Ministry of Environment and Energy responsible for the implementation of Article 14 of the EED. The comprehensive assessment of the potential for the application of high efficiency cogeneration and efficient district heating and cooling, containing the information set out in Annex VIII (as amended by Regulation 2019/826 of the Committee) and the analysis of high-efficiency cogeneration potential referred to the Law 3734/2009 (Article 8). The comprehensive assessment will be approved by a decision of the Minister of Environment and Energy. By decisions of the competent Ministers or Prefects measures will be adopted, which will encourage the use of efficient heating and cooling systems at local and regional levels. According to paragraph 14 of Article 15 of the Law 4342/2015, when adopting the authorisation criteria as referred to in the decisions of licensing Minister of Development, Deputy Minister of Environment, Energy and Climate Change decisions and the decisions of Deputy Minister of Development, Competitiveness, Infrastructure, Transport and Networks, except those definitions, the permit criteria also include the aspects of points a-b of paragraph 7 of Article 14 of the EED. Ministerial Decisions will determine: • thresholds, expressed in terms of the amount of available useful waste heat, the demand for heat or the distances between industrial installations and district heating networks, for exempting individual installations and exemptions; • for individual installations from the authorisation and permit criteria. Finally, public support to cogeneration and district heating generation and networks is subject to State aid rules, where applicable.
Article 15	According to Article 16 of the Law 4342/2015, the Regulatory Authority for Energy (RAE), in the context of issuing decisions under the authority of Law 4001/2011, which concern the development of tariffs in the transmission systems and distribution networks of electricity and taking into account the costs and benefits of each measure, the law provides incentives for transmission system and distribution network operators to provide system services to network users enabling them to implement energy efficiency measures in the context of the development of intelligent networks. RAE ensures the creation of conditions that allow, by any appropriate means, the participation in the electricity market of potential resources on the demand side, such as the response to demand. Relevant provisions are incorporated in the relevant System and Network Management Codes.

EED Article	Implementation status
Article 16	Article 17 of the Law 4342/2015 foresees the establishment of certification and/or accreditation schemes and/or equivalent qualification schemes, including suitable training programmes potentially, for the energy auditors and for the related professions with the building elements. According to Ministerial Decisions, a system for the recognition of qualifications and certification of Energy Auditors is applied, as well as a corresponding Register of Energy Auditors. Finally, information about the established certification scheme is provided to all consumers.
Article 17	According to Article 18 of the Law 4342/2015 the Ministry of Environment and Energy should launch a specialised website for the provision of information to all the involved stakeholders, such as consumers, builders, architects, engineers, banks, financial institutions, environmental and energy auditors, and installers of building elements as defined in Directive 2010/31/EU. Moreover, the public authorities should publicise on their websites the related information about the implemented energy efficiency measures, while specific dissemination actions should be incorporated into the Energy Efficiency Actions. Plans according to the paragraphs 2 and 3 of Article 18 correspondingly.
Article 18	Law 3855/2010 "Measures to improve energy efficiency in end use, energy services and other provisions" established the necessary institutional framework for the provision of energy services. To promote the energy services market and the access of Small and Medium Enterprises (SMEs) to this market: a) It is registered in the internet platform of the Register of Energy Services Companies, which is kept in accordance with the data under the Decision of the Minister of Environment and Energy. The register includes the available Energy Service Contracts (ESCs) and the rights of final consumers. Also included are financial instruments, incentives, grants and loans to support projects, and a list of available energy service providers who meet the criteria for registration in the Energy Services Companies Register. b) The Ministry of Environment and Energy encourages the development of quality labels by trade associations. Finally, Article 19 of the energy efficiency Law 4342/2015 introduces provisions for the promotion of the energy services to SMEs and supports the appropriate functioning of the energy services market.

EED Article	Implementation status
Article 20	Article 20 of the Law 4342/2015 promotes either the adoption of new financing measures or the exploitation of the existing financing mechanisms for the implementation of energy efficiency measures in order to maximise the derived benefits by the multiple streams of financing. Furthermore, according to Article 21 of the Law 4342/2015 the establishment of an Energy Efficiency National Fund is foreseen. Nevertheless, the responsibilities of the Energy Efficiency National Fund may be exercised by the existing Green Fund until the official establishment according to its operational characteristics as outlined in Article 9(5) of the Law 3855/2010.

2.2. Implementing bodies

The Implementation of the EED is entrusted under the authority of Ministry of Environment and Energy (MEEN).

3. Implementation of revised EED articles

The new European Directive (EU) 2018/2002 revising 2012/27/ EU on energy efficiency has been submitted to the Greek parliament for a vote, so in the coming days it will be a law of the Greek state. Due to this fact, there is no official publication of the revised EED articles.

4. Relevant information

- The Hellenic Ministry of Environment and Energy (MEEN)
- See also the Greek Integrated National Energy and Climate Plan 2021-2030 (NECP)

The NECP contains the main priorities of the climate and energy policy for the next 10 years. The NECP stresses Greece's priorities and development potential in terms of energy and addressing climate change and aims to serve as the key tool for drawing up the national energy and climate policy in the next decade, taking into account the Commission's recommendations and the UN's sustainable development targets. The Long-Term Strategy (LTS) for energy and climate has also been drafted and submitted to the European Commission. The LTS explores the optimal mix of structure and evolution of the energy system, including energy efficiency, by the year 2050 to achieve specific climate targets to determine the framework for the long-term energy and climate strategy of the country for the year 2050.

National EED Implementation Report (NIR) 2021

EED implementation in Hungary

1. Legal context

- Act LVII of 2015 on Energy Efficiency (Ehat. Tv)
- Act CLX of 2020 to amend certain laws on energy efficiency (Mód tv)
- 122/2015 Government Regulation on Implementation of Energy Efficiency Act (Ehat. Vhr.)
- 715/2020 (XII. 30.) Government Regulation amending certain government decrees on energy ((Ehat. Vhr. Mód rend)

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
2. 2012/27/EU Article 3. (5)	Ehat. Tv. 2. § (1) [Módtv. 25. § a) pont] Ehat. Tv. 2. § (3) [Módtv. 5. §] Ehat. Tv. 2. § (4) [Módtv. 5. §]
3. 2012/27/EU Article 7. (1)	Ehat. Tv. 12. § (1) [Módtv. 11. §] Ehat. Tv. 12. § (2) [Módtv. 11. §] Ehat. Tv. 12. § (3) [Módtv. 11. §] Ehat. Tv. 12. § (4) [Módtv. 11. §] Ehat. Tv. 12. § (5) [Módtv. 11. §] Ehat. Tv. 12. § (6) [Módtv. 11. §]
3. 2012/27/EU Article 7. (4)	Ehat. Vhr. Annex V.. 2-5. point
3. pont 2012/27/EU Article 7. (5)	Ehat. Vhr. Annex V. 6. point

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

EED Article	Implementation status
3. pont 2012/27/EU Article 7. (6)	Ehat. Tv. 13. § (6)-(7) [Módtv. 12. §]
3. pont 2012/27/EU Article 7. (7)	Ehat. Tv. 12. § (6) [Módtv. 11. §]
3. pont 2012/27/EU Article 7.(9)	Ehat. Tv. 13. § (3) [Módtv. 12. §] Ehat. Vhr. 12. § [Mód.rend. 15. §] Ehat. Vhr. 7. [Mód.rend. 19. § (3) and Annex IV..]
3. pont 2012/27/EU Article 7. (10)	Ehat. Tv. 14., 15-15/F. § [Módtv. 13-14. §] Ehat. Vhr. Annex VIII. [Mód.rend. 19. § (4) and Annex V.]
3. pont 2012/27/EU Article 7. (11)	Ehat. Tv. 1. § 28b. [Módtv. 4. § (8)] Ehat. Tv. 2. § (4) [Módtv. 5. §] Ehat. Tv. 13. § (2) [Módtv. 12. §] Ehat. Tv. 15/E. § (2)-(3) [Módtv. 14. § (3)]
3. pont 2012/27/EU Article 7. (12)	Ehat. Tv. 14. § (3) [Módtv. 13. §] Ehat. Tv. 15. § (3)-(4) [Módtv. 14. § (1)]
4. pont 2012/27/EU Article 7a. (1)	Ehat. Tv. 15-15/F. § [Módtv. 14. §]
4. pont 2012/27/EU Article 7a. (2)	Ehat. Tv. 15. § (1) [Módtv. 14. § (1)] Ehat. Tv. 15/B. § [Módtv. 14. § (1)]
4.pont 2012/27/EU Article 7a.(3)	Ehat. Tv. 15. § (7) [Módtv.14. § (1)]
4. pont 2012/27/EU Article 7a. (4)	Ehat. Tv. 15/A. § (1) [Módtv. 14. § (1)] Ehat. Tv. 15/A. § (5) [Módtv. 14. § (1)] Ehat Tv. 44. § c) point [Módtv. 20. § (2)] Ehat. Vhr. 12. § [Mód. rend. 15. §] Ehat. Vhr. Annex VI. melléklet [Mód.rend. 19. § (2) és Annex III.] Ehat. Vhr. Annex VII. [Mód.rend. 19. § (3) és Annex IV.]

EED Article	Implementation status
4.pont 2012/27/EU Article 7a. (5)	Ehat. Tv. 6. § 15. point [Módtv. 7. §] Ehat. Tv. 7. § a) point [Módtv. 8. §] Ehat. Tv. 15/D. § (7) [Módtv. 14. § (3)]
4. pont 2012/27/EU Article 7a. (6) a) pont	Ehat. Tv. 15/A. § (4) [Módtv. 14. § (1)] Ehat. Tv. 15/B. § [Módtv. 14. § (1)]
4. pont 2012/27/EU Article 7a. (6) b) pont	Ehat. Tv. 15/D. § (3)-(5) [Módtv.14. § (3)]
4.pont 2012/27/EU Article 7a. (7)	Ehat. Tv. 13. § (5) [Módtv. 12. §]
4.pont 2012/27/EU Article 7b. (1)	Ehat. Tv. 13. § (1) a)-g) point [Módtv. 12. §] Ehat. Tv. 14. § [Módtv. 13. §] Ehat. Vhr. Annex VII. [Mód.rend. 19. § (3) and Annex IV.] Ehat. Vhr. Annex VIII. part I-III. [Mód.rend. 19. § (4) és Annex 5.]
4.pont 2012/27/EU Article 7b. (2)	Ehat. Tv. 6. § 15. point [Módtv. 7. §] Ehat. Tv. 7. § a) point [Módtv. 8. §] Ehat. Tv. 14. § (4) [Módtv. 13. §]
12. pont 2012/27/EU Article 20. (3c)	Ehat. Tv. 6. § 19. point [Módtv. 7. §] Ehat. Tv. 21. § (4) b) point [2019. évi CX. törvény 90. § (1)] Ehat. Vhr. 7/D. § (1) c) point [393/2016. (XII. 5.) Government. Regulation. 4. §]
Article 2.	Ehat. 49. § (1) e) point [Módtv. 24. § (1)] Módtv. 28. § (1) Ehat. Vhr. 29. § c) point [Mód. rend. 17. §] Mód.rend. 24. § (1)
Annex 1. 2012/27/EU Annex IV.	Ehat. Vhr. Annex VI. [Mód. rend. 19. § (2) and Annex III.]
Annex 2. 2012/27/EU Annex V.	Ehat. Vhr. Annex VII. [Mód. rend. 19. § (3) és Annex IV.]

2.2. Non-legislative provisions

The national energy efficiency target for 2030:

The indicative energy efficiency target for Hungary to be achieved by 2030 had to be set in the integrated National Energy and Climate Plan in accordance with Articles 4 and 6 of the Regulation (EU) 2018/1999 of the European Parliament and of the Council. In setting the indicative energy efficiency target for 2030, it had to be taken into account that the European Union's energy consumption in 2030 should not exceed 1,128 Mtoe of primary energy and 846 Mtoe of final energy.

Thus, Hungary has set the indicative energy efficiency target in final energy consumption, meaning that its value may not exceed the 2005 consumption level of 785 PJ / year in 2030 or between 2030 and 2040. To exceed the level of 785 PJ / year is only possible if it comes from a carbon-free energy source.

It means that Hungary's goal is to temporarily separate the statistical relationship between economic growth (GDP) and final energy demand growth between 2021 and 2030, thus helping to meet the EU's targets. However, achieving a negative relationship between them is not a goal.

Final national energy efficiency target for energy savings under Article 7 of the EU's Energy Efficiency Directive 2021-2030

The expected rate of final energy savings in 2011-2030 in the commitment period of 1st January 2021 to 31st December 2030 is a cumulative national energy saving achieved by an annual energy saving of 0.8% per year, compared to the average final energy consumption of the base years 2016, 2017 and 2018.

In order to fulfil the obligation, the Government Decree no. 122/2015. (V. 26.) has set out the following:

- The cumulative target to be achieved between 2021 and 2030, broken down by measure groups;
- Annual new final energy savings targets to be achieved annually in 2021-2030 through policy measures (Energy Efficiency Obligation Scheme and alternative policy measures);
- Annual targets for cumulative energy savings from the Energy Efficiency Obligation Scheme for the period of 2021-2030.

Table 5: Annual new end-use energy savings targets for 2021-2030

Year	Programmed end-use annual energy savings, PJ
2021	4.8
2022	6.8
2023	9.5
2024	12.1
2025	10.0
2026	8.6
2027	6.4
2028	5.2
2029	3.7
2030	2.9
Total	**70.0**

Table 6: Target values for cumulative energy savings from each policy measure for the period of 2021-2030

Policy measures	Cumulative target value, PJ
Energy Efficiency Obligation Scheme (direct performance)	76
Energy Efficiency Obligation Scheme (payment of contribution)	12
Subsidies of the operational programmes	79.3
National programmes launched from other energy efficiency resources	21
Other national budget programs directly supporting end-use energy savings	28
Energy efficiency development measures focusing on municipalities	46
Governmental measures to improve energy efficiency in transport	47
Measures of counselling, capacity building, information and motivation	14
Market development measures	14
Total	**337.3**

Cornerstones of national energy efficiency policy in Hungary

I. Energy Efficiency Obligation Scheme and mobilisation of market capital:

- Introduction of the Energy Efficiency Obligation Scheme;
- Promoting ESCO-type financing solutions;
- Improving the financing conditions of the energy efficiency projects as well as the projects of the Energy Efficiency Obligation Scheme (ESCO); involving public budget into the reduction of risks.

II. Decarbonisation of the building stock by 2050, based on the "Hungarian" renovation wave, electrification of buildings and clean electricity generation:

- Long-Term Renovation Strategy;
- Clarification of the legal environment for the construction of buildings meeting the near-zero energy requirements as well as the regulation on the certification of the energy performance of buildings;
- Updating the methodological requirements of engineering under the building energy certifications;
- Support programmes (e.g. Home Renovation Programme);
- Mobilising international funding opportunities behind the sustainable financial programs (cooperation with EBRD and EIB).

III. Energy poverty and eligible households:

- Identification of vulnerable households to be supported and development of a new targeted support framework;
- Cooperation programme with the Maltese Charity Service to improve the quality of living conditions of disadvantaged households in rural areas;
- Launch of building energy support programmes in areas affected by coal mining to be removed;
- Substituting fuels for the public to replace coal-based fuels, which are to be reduced and then entirely removed.

IV. Introduction of a free public consultation system and a mandatory inspection system for heating and cooling:

- Launch of a free engineering consultancy and awareness raising programme for the public and SMEs by the network of the Autonomous County Chamber of Engineers of the Hungarian Chamber of Engineers;
- Introduction of the inspection system under Articles 14 and 15 of the Energy Performance of Buildings Directive (EPBD) instead of the previous alternative policy. In the case of the residential buildings, the Government will take over the cost of the engineering inspection of the heating system within the framework of a new programme (with implementation between 2023 and 2029).

V. Increasing renewable energy in energy use for heating and cooling combined with energy efficiency improvements:

- Replacement of residential heating energy with clean energy and reduction of energy consumption: Incentive regulation for biomass combustion and heat pump systems for heating and to promote the deployment of solar systems to partially replace their own electricity consumption:
  - Supporting the installation of efficient individual heaters. Application of biomass-based renewable "backyard" (decentralised) heating solutions;
  - Supporting the installation of heat pump systems for heating;
  - Encouraging the installation of solar systems for the partial replacement of own electricity consumption;
  - Encouraging the use of heat pumps in combination with the installation of solar systems (one of the main planned measures of the Recovery and Resilience Fund in Hungary).
- Supporting the establishment of decentralised district heating plants based on renewable energy.

VI. Exemplary role of public buildings:

- Stricter legal obligation to exploit the energy saving potential of public buildings (National Energy and Climate Plan);
- Imposing a stricter legal obligation to exploit the potential for energy savings in the operation of public buildings (National Energy and Climate Plan);
- Our strategic goal is to achieve 3% of annual deep renovation of the floor area of the central government building stock and the exemplary energy modernisation of the other public building stock in order to be able to provide exemplary, customer-friendly and energy-efficient public services;
- Strengthening the National Energy Network available to public institutions under the coordination of the Hungarian Energy and Public Utility Regulatory Authority;
- Support programmes (TOP Plus, Modern Cities Programme, Hungarian Village Programme).

VII. Strengthening energy efficiency expert services together with enhancing competitiveness in industry and service sectors:

- Clarification of the rules of use related to the implementation of the recommendations of energy auditors and experts;
- Imposing an industrial sub-measurement obligation;
- Strengthening the energy expert obligation and exploiting synergies with the Energy Efficiency Obligation Scheme;
- Support programmes (Economic Development and Innovation Operational Programme – GINOP Plus, energy efficiency corporate tax allowance).

VIII. Greening and making transport more efficient:

- The target of 14% share of renewable energy in transport will be achieved through a significant increase in the use of electricity for transport;
- Maintain the role of public transport (the largest share in the EU).

2.3. Implementing bodies

Related tasks of the Government:

- Sets the national energy efficiency target based on the "energy efficiency first" principle;
- Develops the Long-Term Renovation Strategy and forwards it to the European Commission;
- Develops policy measures and monitoring systems for end-users to achieve end-use energy savings;
- Ensures that policy measures and the methodology for their application are notified to the European Commission;
- Designates the implementing authorities responsible for the implementation of each policy measure;
- Ensures the consistency of the monitoring systems operated by the designated implementing authorities with the integrated National Energy and Climate Plan and sets the end-use energy savings and annual targets;
- Ensures the fulfilment of the energy efficiency reporting and evaluation obligations towards the European Commission;
- Determines the conversion factors to be used when comparing energy savings and converting them into comparable units;
- Records and publishes the energy savings data achieved through each policy measure necessary to aggregate end-use energy savings;
- Introduces a management system to ensure that the annual new energy savings achievable under the policy measures are not less than the annual end-use energy savings targets set in the Government Decree. If the progress is unsatisfactory, it sets necessary measures;
- Plans and sets out the range of policy measures in order to achieve the energy saving targets in the forthcoming revisions of the integrated National Energy and Climate Plan, in accordance with the requirements defined in the Government Decree. Furthermore, it sets out the framework for methodological procedures for monitoring and validating each policy measure;
- Reviews the extent of the energy saving obligation specified in Section 15 (1) within the Energy Efficiency Obligation Scheme, on the basis of the proposal of the Hungarian Energy and Public Utility Regulatory Authority or at least every two years.

Related tasks of the Hungarian Energy and Public Utility Regulatory Authority (HEA):

- In accordance with the methods and principles set out in the integrated National Energy and Climate Plan and the Government Decree, HEA ensures the verification of certain alternative policy measures as well as the monitoring data of the Energy Efficiency Obligation Scheme;
- During the reviews of the integrated National Energy and Climate Plan, HEA proposes a methodological framework for the monitoring system of each policy measure set out and planned to be set out in the integrated National Energy and Climate Plan.

Related tasks of the Implementing Authority (organisation responsible for the implementation and monitoring of the policy) designated in the Government Decree:

- Ensures the implementation and monitoring of alternative policy measures within its own competence;
- Provides HEA with the available data required for the inventory and verification of energy savings achieved through each alternative policy measure and individual action by 30th April of the year following the implementation of each energy efficiency improvement measure, based on the Decree of the President of HEA;
- Cooperates in the review of the data and provides the necessary information.

In addition to the various ministries and governmental organisations, the following non-governmental organisations are currently listed among the Implementing Authorities:

- The National Bank of Hungary;
- The Hungarian Energy and Public Utility Regulatory Authority;
- The Hungarian Chamber of Engineers.

3. Implementation of revised EED articles

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 organisations (the Hungarian Chamber of Engineers) prepare the auditors to pass the compulsory exam, organise 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 the energetics field, has to prove they have at least 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 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 tenants also would be obliged if more than 50% of the building is leased.

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. 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.

4. Relevant information

https://www.enhat.mekh.hu/

https://www.mmk.hu/tanacsadas/

https://fete.hu/

National EED Implementation Report (NIR) 2021

EED implementation in Ireland

Introduction

The Department of the Environment, Climate and Communications (DECC) is responsible for implementation of the EED in Ireland. The Sustainable Energy Authority of Ireland (SEAI) is responsible for measuring energy savings achieved and for implementation of many energy efficiency support programmes.

1. Legal context

The EED was transposed into Irish law in 2014 by means of Statutory Instruments:

- Statutory Instrument No. 426 of 2014 European Union (Energy Efficiency) Regulations 2014
- Statutory Instrument No. 646/2016 European Union (Energy Efficiency) (Amendment) Regulations 2016
- Statutory Instrument No. 599 of the 2019 European Union (Energy Efficiency) (Amendment) Regulations, 2019

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
3 – Energy Efficiency Targets	IE submitted our 2017-2020 Annual Reports by their respective due dates (reporting years 2016-2019), on progress towards our national energy efficiency targets. The National Energy Efficiency Action Plan (NEEAP 4) set out Ireland's approach in pursuit of the 20% energy efficiency target by 2020. Ireland's public sector was set a more ambitious energy efficiency target of 33% by 2020 (increased to 50% by 2030). The NEEAP is superseded by IE's National Energy & Climate Plan – see https://ec.europa.eu/energy/sites/default/files/documents/ie_final_necp_main_en.pdf

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

EED Article	Implementation status
4 – 6 **Buildings Renovation** **Exemplary role of public bodies buildings** **Purchasing by public bodies**	As a result of the EED revision, the Long-Term Renovation Strategy as specified by Article 4 now falls under the Energy Performance in Buildings Directive (EPBD). To demonstrate leadership, the Irish Government has set targets to the public sector to achieve by 2030 – improve its energy efficiency by 50% (increased from 33% by 2020), and reduce emissions by at least 50%. Public bodies monitor and report on their progress annually to the Sustainable Energy Authority of Ireland (SEAI). Energy performance by the public sector at the end of 2019 indicates Ireland's public sector had achieved 29% improved energy efficiency; cumulative savings of €1.56 billion on energy spend and avoided 5.2 mtCO2 emissions since 2009. Further information is set out in the SEAI's annual report on public sector energy efficiency performance – the most recent report can be accessed here. Key policies and measures which are supporting public bodies in improving their energy efficiency include: i. SEAI Public Sector Energy Efficiency Programme is an energy management and advisory programme where SEAI offers comprehensive support and engagement to support over 350 public bodies and 4,000 schools in reaching their energy saving targets. The Programme focuses on capacity building and embedding energy management principles (up to ISO50001), and monitors and tracks performance towards targets. ii. The Public Sector Retrofit Partnership Programme introduced in 2017 is a capital support fund for public sector energy efficiency and the decarbonisation of the sector's building stock. The aim of the Programme, through a partnership co-funded model is to build capacity and knowledge, test building retrofit approaches and develop a scalable model that can be replicated across the wider public sector and schools. iii. The Office of Public Works (OPW) – the agency that manages IE property portfolio – manages a state-wide staff behavioural change and energy conservation campaign, entitled Optimising Power @Work Campaign, in central Government buildings (since 2008) and in public sector buildings (since 2014). iv. The aim of the campaign is to achieve energy savings through staff engagement and low-cost interventions in about 250 large buildings around the country, which are owned or leased by the OPW for use by Government departments and agencies along with over 50 buildings and campuses across the wider public sector. v. The second edition of Green Procurement Guidance for the Public Sector was published in 2021 by the Environmental Protection Agency. The guidance document supports Ireland's commitment to the transition of implementing green public procurement in all tenders using public funds by 2023. vi. The Triple E Products Register is a searchable list of energy-efficient products. Products on this register all meet a minimum set of stringent energy efficiency criteria and typically will be of a best-in-class efficiency standard. As such, procuring against this register will provide you with the assurance that you are purchasing a product of very high efficiency. The energy efficiency criteria for qualifying technologies are currently being reviewed by the SEAI.

EED Article	Implementation status
7 – Energy Efficiency Obligation Schemes	Ireland opted to combine an energy efficiency obligation scheme (the EEOS) and other alternative policy measures in implementing Article 7 of the 2012 EED. The obligation scheme was transposed into Irish legislation by S.I. 131 of 2014, which was amended in 2016 by S.I. 634. These regulations gave the Minister the authority to create an obligation scheme and to issue energy efficiency notices to certain energy suppliers and distributors, known as obligated parties. Obligated parties were required to achieve energy savings by supporting energy users in the residential, commercial or public sector. In doing so, obligated parties could deliver the savings they were required to make through their own programmes and/or by working with the existing Government-funded energy efficiency support schemes offered through SEAI. To date, the 2014-20 EEOS has successfully resulted in final energy savings of over 3,450 GWh, supporting energy efficiency actions in over 290,000 dwellings and 3,000 businesses. More information on the 2014-20 EEOS is available in the EEOS Guidance Document. During the 2021-2030 period, Ireland will also use an obligation scheme alongside alternative measures in order to meet the national energy savings obligation.
8 – Energy audits and energy management systems	The SEAI manages and oversees compliance with Ireland's obligations under Article 8 of the EED vis its Energy Auditing Compliance Scheme. Those obligated bodies are required to report compliance to the SEAI via its online notification system. The system not only tracks compliance but also records key energy use and other data from the audits which is used to inform the development of policy. The SEAI launched a new Support Scheme for Energy Audits (SSEA) specifically aimed at SMEs. The scheme provides grant support up to a maximum of €2,000 per business site (maximum of three sites) to cover the costs of a typical energy audit through a voucher issued by the SEAI. Along with the financial support, the SSEA provides an opportunity to gather energy use data for businesses, whilst simultaneously educating them about their energy use and encouraging their commitment to immediate energy-saving actions and medium-term deep decarbonisation of their activities.

EED Article	Implementation status
9 – 12 **Metering** **Billing information** **Cost of access to metering and billing information** **Consumer information and empowering**	Part 4 of S.I. 426 of 2014 supports both S.I. 445 of 2000 and S.I. 60 of 2005 in meeting all requirements of Article 9. It also allocated powers to the Commission for Regulation of Utilities (CRU) to co-ordinate the roll out of smart meters nationally. Almost 500,000 meters have been installed by Sept 2021 with the rollout scheduled to be complete end 2024. Transposition of the smart metering provisions of the Internal Markets in Electricity Directive should be complete in October 2021. Part 4 of S.I. 426 of 2014 and Subsection 9M (5) of the Electricity Regulation Act of 1999 and S.I. 463 of 2011 give effect to all requirements of Article 10. Part 4 of S.I. 426 of 2014 supports Regulation 9 of S.I., 463 of 2011 in meeting all requirements of Article 11. It sets out the roles in this regard for the CRU to deliver on requirements. SEAI developed the National Energy Services Framework (NESF) which sets out a structured development process for energy projects. Its key aim is to encourage the development of robust projects which are investment-ready for financing entities. SEAI provides expert guidance and support on routes to project development and sources of finance. Ireland's Ministry DECC continues its work as the Market Surveillance Authority responsible for Energy Labelling, Ecodesign and Tyre Labelling Regulations. Inspections continue to be carried out to monitor compliance and ensure retailers and importers are informed of their obligations under legislation with follow-up where necessary.
14 – Promotion of efficiency in heating & cooling	The Support Scheme for Renewable Heat (SSRH) is a government-funded initiative designed to increase the energy generated from renewable sources in the heat sector. The primary objective of the SSRH is to contribute to meeting Ireland's renewable energy targets while also reducing greenhouse gas emissions. The scheme supports the adoption of renewable heating systems by commercial, industrial, agricultural, district heating, public sector and other non-domestic heat users not covered by the emissions trading system. The Scheme consists of two types of support mechanism: • An on-going operation support (paid for a period up to 15 years) for new installations or installations that currently use a fossil fuel heating system and convert to using biomass or anaerobic digestion heating systems; • A grant (of up to 30%) to support investment in renewable heating systems using heat pumps.

EED Article	Implementation status
15 – Energy transformation, transmission and distribution	EirGrid Group's (operates and develops Ireland's electricity grid) Delivering a Secure Sustainable Electricity System (DS3) Programme was established in 2011 with the aim of meeting the challenges of operating the electricity system in a secure manner while achieving our 40% 2020 RES-E targets. The DS3 Programme was designed to ensure that we could securely operate the power system with increasing amounts of variable non-synchronous renewable generation. The DS3 Programme employs System Non-Synchronous Penetration (SNSP) as a useful proxy for the capability to operate the power system safely, securely and efficiently with high levels of renewable generation. SNSP is a real-time measure of the percentage of generation that comes from non-synchronous sources, such as wind and solar generation, relative to the system demand. Over the course of the DS3 Programme, the allowable SNSP level has been increased to 70% from 50% following the successful conclusion of SNSP operational trials undertaken with 5% incremental increases. In April 2021, we increased the allowable SNSP level to 75% on a trial basis (this trial is still ongoing). The power system of Ireland and Northern Ireland is the first in the world to reach this 70% SNSP level (and current trial of a 75% SNSP level), making this a truly ground-breaking achievement. The introduction of new system services arrangements in 2016 as part of the DS3 Programme has been a key factor in enabling increased levels of non-synchronous renewables on the power system to date. These system services arrangements enable EirGrid to procure a range of services from providers of different technology types to support the operation of the transmission system. Another key enabler has been the development and introduction of a range of new innovative control centre tools which enable our grid controllers to manage the increased complexity and to ensure that we maintain power system security and reliability as we transition to a low-carbon energy future.
16 – Availability of qualification, accreditation and certification schemes	A range of training and supports are available around energy management and standards. ISO50001, EXEED certified and IS 399 Energy Efficient Design management. Further information is available at https://www.seai.ie/business-and-public-sector/standards/
19 – Other measures to promote energy efficiency	The recently published Climate Action and Low Carbon Development (Amendment) Act 2021 will support Ireland's transition to net zero and achieve a climate neutral economy by no later than 2050. It will establish a legally binding framework with clear targets and commitments set in law, and ensure the necessary structures and processes are embedded on a statutory basis to ensure we achieve our national, EU and international climate goals and obligations in the near and long term.

EED Article	Implementation status
20 – Energy efficiency national fund, Financing and technical support	Ireland Energy Efficiency Investments plc (IEEI) was established in March 2014 to deliver energy efficiency projects across the Irish public and private sector. Further information relating to the IEEI can be found at http://ieefund.ie/ SEAI developed the National Energy Services Framework (NESF) which sets out a structured development process for energy projects. Its key aim is to encourage the development of robust projects which are investment-ready for financing entities. SEAI provides expert guidance and support on routes to project development and sources of finance.
24 – Reviewing & Monitoring of Implementation	Ireland's NEEAP 4 covered the period 2017-2020. Ireland has fully complied with Article 24 of the EED.

2.2. Non-legislative provisions

Measure	Description
Accelerated Capital Allowance Scheme	S.I. No. 446/2016 – Taxes Consolidation Act 1997 (Accelerated Capital Allowances for Energy Efficient Equipment) (Amendment) (No. 1) Order 2016.
	S.I. No. 626/2016 – Taxes Consolidation Act 1997 (Accelerated Capital Allowances for Energy Efficient Equipment) (Amendment) (No. 2) Order 2016.
	S.I. No. 306/2017 – Taxes Consolidation Act 1997 (Accelerated Capital Allowances for Energy Efficient Equipment) (Amendment) (No. 1) Order 2017.
	S.I. No. 593/2017 – Taxes Consolidation Act 1997 (Accelerated Capital Allowances for Energy Efficient Equipment) (Amendment) (No. 2) Order 2017
	S.I. No. 349/2018 – Taxes Consolidation Act 1997 (Accelerated Capital Allowances for Energy Efficient Equipment) (Amendment) (No. 1) Order 2018
Smart Meters	Under the powers allocated to it in SI 426 of 2014, the Commission for Regulation of Utilities (CRU) is co-ordinating the roll-out of smart meters nationally. Almost 500,000 meters have been installed by Sept 2021 with the rollout scheduled to be complete end 2024.

2.3. Implementing bodies

- The Sustainable Authority of Ireland (SEAI), Ireland's national energy authority, is responsible for measuring energy savings achieved and for implementation of many energy efficiency support programmes.
- The EirGrid Group operates and develops Ireland's electricity grid.
- The Commission for Regulation of Utilities is Ireland's independent energy and water regulator. The CRU is responsible for the coordination of the Smart Meter roll-out. The CRU is also responsible for protecting the interests of consumers.

3. Implementation of revised EED articles

Transposition of EED revised articles is ongoing.

4. Relevant information

National EED Implementation Report (NIR) 2021

EED implementation in Italy

1. Legal context

Directive 2012/27/EU on energy efficiency had been transposed in Italy by Legislative Decree 102/2014; innovation elements in the following Directive (EU) 2018/2002 on energy efficiency were embedded in a new transposing LEGISLATIVE DECREE, nr 73 /14 July 2020 that has introduced amendments in view of the full new EED implementation. See boxes below for details under the respective articles and hereafter for some more general information.

The established framework of measures for the promotion and improvement of energy efficiency, at state contribute also to the implementation of the European principle energy efficiency "in the first place" (Article 1).

- The indicative national energy efficiency contributions towards the Union's 2030 targets set in Article 1 of the Directive have been defined: Italy intends to pursue an indicative reduction target for 2030 of 43% for primary energy consumption and of 39.7% for final energy consumption, with respect to the reference PRIMES 2007 scenario. In addition, also the set of measures planned for its achievement have been identified: those measures include, among others, the energy efficiency obligation from 01.01.2021 to 31.12.2030 (Article 7) as indicated and as such notified to the European Commission under the National Integrated Energy and Climate Plan (NECP).
- Promotion of energy efficiency in buildings: as an integration to previous measures of Article 4, a control room, has been created, to ensure optimal coordination of energy efficiency actions and measures in PA buildings, using human, financial and instrumental resources, at no further burden to the State budget. It is composed of representatives from the Ministry for Ecological Transition (chair), the Ministry for Technological Innovation and the Ministry for Finance.
- Improvement of the energy performance of the buildings of the PA (Article 5): up to 2030, the management of the proposals for intervention as well as all the related procedures are ensured through an ad-hoc portal, established and managed at the Ministry level. Italian regions and the local entities will contribute to the achievement of the national target 1 referred to in Article 3 and to the reduction of energy poverty. The specific objective will be pursued through the approval of: a) specific measures and actions of energy saving and energy efficiency, in order to comply with the exemplary role of State-owned buildings; b) measures to encourage the implementation of Energy Management Systems, including Energy Audits, a major involvement of ESCOs and EP-Contracts to realise energy upgrading of public-owned buildings and to improve long-term EE.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

- Availability of qualification, accreditation and certification schemes (Article 12/decree). The technical standards specifying technical skills, expertise and tasks for energy management experts (EGE) and ESCOs have been developed and issued by UNI-CEI, in collaboration with CTI and ENEA, after consulting the Regions and the two Autonomous Provinces, consumer associations and trade associations.

2. Status of the implementation

Italy intends to pursue an indicative reduction target for 2030 of 43% for primary energy consumption and of 39.7% for final energy consumption, with respect to the reference PRIMES 2007 scenario.

In terms of the absolute level of primary and final energy consumption for 2020, it is estimated that the indicative targets set pursuant to Directive 2012/27/EU, equal to 158 Mtoe and 124 Mtoe, respectively, will be surpassed. By contrast, with regard to the absolute level of energy consumption for 2030, Italy is pursuing a target of 125.1 Mtoe of primary energy and 103.8 Mtoe of final energy.

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Articles 4+5	The document STREPIN 2020 (Strategia Energetica Parco Immobiliare Nazionale), launched for consultation in 2020, gave results and indications on the actions to put in place to achieve the objectives of efficiency in the building sector to 2030. These, in addition to the analytical description of the building stock, concern the identification of the annual rate of surfaces of the current building stock subject to energy upgrading in order to achieve 2030 targets. They also highlight the convenience, where possible, of energy upgrading projects with an integrated approach that improves cost-effectiveness. The existing measures and actions and the lines of development aimed at achieving the estimated redevelopment rate are listed and broken down by residential buildings (public and private) and non-residential buildings (also split in public and private). In addition to the specific measures, crosscutting initiatives are described (actions to promote skills and training, intelligent technologies, financial mechanisms). **Policies and actions** In recent years, and most recently with the publication of the Italian Integrated National Energy and Climate Plan (NECP), several energy policies have been put in place to strengthen several on-going measures and adding new ones. Among those, inter alia, the tax deduction scheme (eco bonus) and its enhancement (Superbonus), of the Thermal Account, of the White Certificates mechanism, the take-off of the National Energy Efficiency Fund and the incentive measures for refurbishing the real estate of the Public Administration. Thanks to these measures, it is assumed that the targets for 2020 in the civil sector will be achieved; as for the residential sector, monitoring indicates that they have been already largely exceeded, with a saving in 2019 of 5.67 Mtep/year, against a target of 3.67 Mtep/year according to NEEAP 2017. As for the further reduction in consumption – with respect to the reference 2030 scenario – the energy saving expected from the residential sector amounts to 3.3 Mtoe in the next decade (2021-2030).

EED Article	Implementation status
Article 4	The above STREPIN envisages: • **Ecobonus and "Casa" Bonus**: 1] To consolidate over time and optimise the mechanism by integrating the two measures in a single incentive, which provides a modulated benefit on expected savings (according to a measurement approach anchored to savings) and rewards interventions with better cost-effectiveness and stimulation of the propensity towards joint deep redevelopment and seismic improvement. 2] To introduce provisions to encourage initial investment: for example the extension of the portability of the tax credit certificate and the activation of a fund for granting guarantees on loans. • Empowerment and launch of **Superbonus** (see below at Article 7) **Public housing** can benefit the Ecobonus (National Budget Law 2017) but can also access other national measures, such as the **new Superbonus**, the **Thermal Account** and the **National Fund for Energy Efficiency** (see further). The **credit transfer mechanism** can certainly make a positive contribution to those social housing bodies that may face a lack of liquidity for urgent building interventions, even of a different nature from the energy-seismic ones. • **Thermal Energy Account**: See at Article 7. • **Other measures are instrumental**, that is, for example, those aimed at carrying out energy audits with the aim of defining a path for operators in the real estate market by providing them with tools to support the implementation of energy audits, such as: 1. Guidelines for the real estate sector (office buildings) drawn up in October 2017, in collaboration with industry bodies. 2. Guidelines for the preparation of diagnoses in the Large Distribution Organizations, in collaboration with industry organizations. 3. Guidelines for the private health sector, in 2019, in collaboration with industry bodies. 4. Guidelines for audits in the bank sector, in 2017, in collaboration with industry bodies. With regard only to the tertiary sector, the introduction of even more effective instruments in the short term is under consideration, such as obligations for energy upgrading, in the so-called "windows of opportunity". They are meant to be adequately supported by incentives and promotion mechanisms, accompanied by an appropriate training and information programme, and aimed at supporting companies in the process of improving the performance of their property, making particular use of the results of the energy audits carried out.

EED Article	Implementation status
Article 5	**Measures** tightly related to the public buildings sector, such as indicated in the Italian NECP: • **PREPAC**: this Energy Regeneration Programme for Central Public Administration Buildings (PREPAC) is a measure widely used since its activation in 2014 and has encouraged interventions aimed at upgrading annually at least 3% of the surface area of the buildings of the Central Public Administration, according to Article 5 of the EED. To date, PREPAC has approved 195 projects for the energy refurbishment of central PA buildings, for a value of 270 million euros. Given the importance of the measure, it is planned to monitor and speed up the implementation phase, vs some initial difficulties, possibly by taking appropriate corrective actions, as well as to extend its duration until 2030 by increasing the resources allocated annually. • Following the PREPAC experience, it is planned to assess the **establishment of a "burden sharing"** system between central and local governments, which may be called upon to establish compulsory programmes for the annual energy refurbishment of a certain percentage of the building area of the buildings under their responsibility. Priority on energy refurbishment programmes is given to buildings with greater potential savings, such as hospitals. • The **National Fund for Energy Efficiency** was established in 2018 under the supervision of the three competent Italian ministries. It supports the release of guarantees on financing operations of energy efficiency interventions. • **White Certificates** (See at Article 7) • **Thermal Energy Account** (See at Article 7). General comment: this mechanism has shown an exponential growth trend since its inception, especially in the last three years, with an increased utilisation by the Public Administration. Indeed, thanks to its «double nature" of fostering both energy efficiency interventions and renewal of heating systems with RES, it can, in the long term, provide a valuable contribution to the achievement of the objectives outlined in the NECP and in the Long-Term Strategy (LTS). • **Minimum environmental criteria** (see below at Article 6). • **Kyoto Fund** and its reprogramming for public school buildings. • **The "Integrated Energy Service" (SIE) and "Light Service" (SL)** (see at Article 6).

EED Article	Implementation status
Article 6	The action plan for environmental sustainability of consumption in the public administration sector, also known as the National Action Plan on Green Public Procurement (**PAN GPP**), is an initiative of interest for its combined action on environmental and efficiency aspects. It establishes the following three main strategic environmental objectives: reduction in greenhouse gas emissions, reduction in hazardous chemicals, and recycling and reuse of material. **Minimum environmental criteria (CAM)** In particular, the CAM for construction stipulates that for renovation/ maintenance projects of existing buildings, an energy audit must be conducted or acquired, to identify the energy performance of the building and the actions to be taken to reduce its energy needs. As for the new constructions and major renovations of the first level, projects must ensure that the overall energy needs of the building are met by renewable energy plants or alternative systems with high efficiency (high-efficiency cogeneration/threegeneration, centralised heat pumps, low-enthalpy geothermal energy, etc.). These have to produce energy on the site of the building for a value of a further 10% compared to the values indicated by Legislative Decree no. 28/2011 (Annex 3, point 1), in accordance with the time limits laid down therein. All this without prejudice to the more restrictive rules and regulations – for example, town planning regulations and municipal buildings and the provisions of the CAM "energy services" (DM 7/3/2012). The design of the building should include technical specifications for the international environmental quality and the maintenance plan of the work, and its parts should provide for the verification of performance levels (qualitative and quantitative), according to a programme for monitoring the indoor air quality of the building: this programme can be identified only at the start-up of the plant, with the help of professionally qualified personnel for this purpose. **The "Integrated Energy Service" (SIE) and "Light Service" (SL)** SIE and SL Conventions are part of the portfolio of initiatives that CONSIP offers to public administrations for the enhancement and management of real estate assets, urban and territorial, allowing to achieve high levels of energy efficiency. The savings on energy needs are generated by process savings obtained through the introduction of the Energy Performance Contract (EPC), a well-established tool in Energy Services. The end-uses areas covered by this initiative are public lighting, traffic lights and horizontal services. The service for the first and second area consists of three main elements (Electricity supply, Management, Operation, Plant maintenance and regulatory compliance, Energy efficiency interventions), while the last area includes Technical census, Call centre and Information system.

EED Article	Implementation status
Article 7	The Italian energy savings target expected under Article 7 of the Directive amounts to 25.5 Mtoe of cumulative end-use energy to be achieved between 2014 and 2020 through different energy efficiency measures. The main energy efficiency measures that collaborate to the energy efficiency target defined in Article 7 include: • White Certificates scheme: The WCs is an obligation scheme to electricity and gas distributors with more than 50,000 final users to achieve energy savings targets. In 2021, the above-cited transposing decree 73/2020 introduced various innovations aimed at prolonging and strengthening the mechanism, including the introduction of the new mandatory quotas for gas and electricity distributors for the period 2021-2024 and the enlargement of the interventions allowed in the scheme. In the 2014-2020 period, this mandatory scheme contributed to cumulative final energy savings equal to 8.4 Mtoe. • Conto Termico (Thermal Energy Account): The TEA is a national incentive premium scheme that was launched in 2013 and updated in 2016. The scheme aims to encourage the implementation of energy efficiency improvements in publicly owned buildings and the installation of high-efficiency small-scale heating and cooling systems that use renewable energy sources in both publicly and privately owned buildings. In the 2014-2020 period, this measure contributed to 0.621 Mtoe of final energy savings. • Ecobonus: Fiscal deductions of 50-65% of total investment for private building refurbishment namely related to transparent and opaque envelopes, thermal solar plants for production of sanitised hot water and high-efficiency boilers and heat pumps in heating and cooling systems. The National Budget Law has extended the measure yearly. Since 2017, the Ecobonus has been enhanced with the introduction of specific interventions for condominiums with a rate of 70-75% or 80-85% and with the mechanism of credit transfer, now extended to all beneficiaries and also to banks and credit institutions. In the 2014-2020 period, this measure contributed to 0,724 Mtoe of final energy savings.

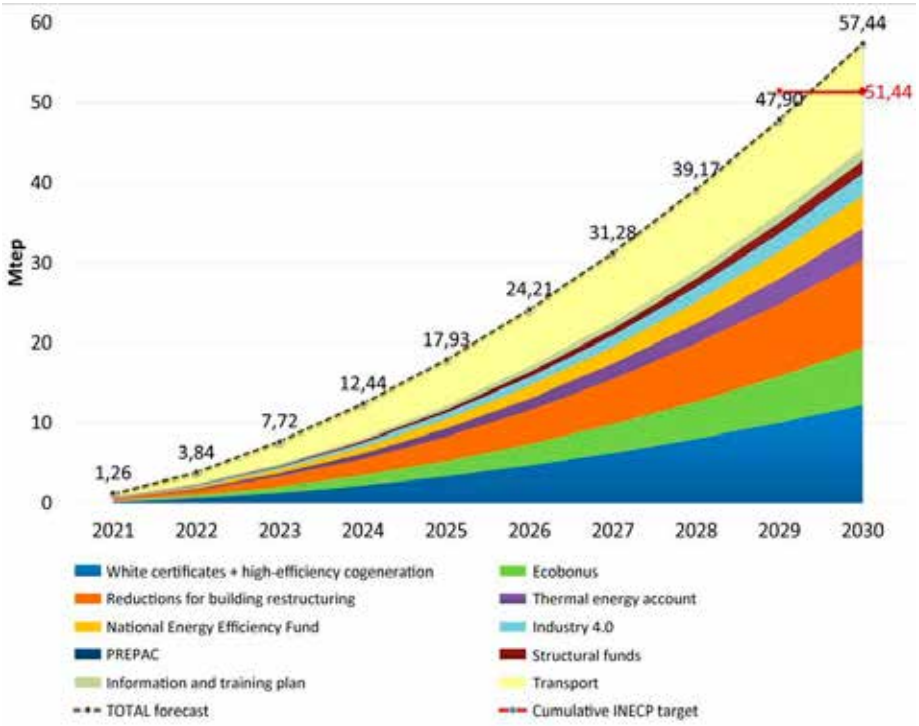
EED Article	Implementation status
Article 7	The final energy savings for each energy efficiency measure that contribute to the target defined by Article 7 EED are reported in the table below:

Mandatory savings in accordance with Article 7 EED - Period from 2014 to 2020

Policy measures notified	New savings achieved	New savings achieved	New savings achieved	New savings achieved	New savings achieved	New savings achieved	New savings achieved	Cumulative savings	Expected Cumulative savings by 2020
	2014	2015	2016	2017	2018	2019	2020*	2014-2020	
	Mtoe	Mtoe	Mtoe	Mtoe	Mtoe	Mtoe	Mtoe	Mtoe	Mtoe
White Certificate Mandatory Scheme	0,672	0,559	1,102	1,346	1,190	1,317	1,510	6,392	10,65
Alternative Measure 1 Thermal Energy	0,004	0,009	0,015	0,043	0,095	0,182	0,269	0,621	0,64
Alternative Measure 2 Tax Relief	0,364	0,793	1,091	1,489	1,850	2,253	2,631	10,607	10,41
Alternative Measure 3 National Energy Efficiency Fund	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,00
Alternative Measure 4 Piano Impresa 4.0 (Business Plan 4.0)	0,000	0,000	0,000	0,300	0,440	0,510	0,510	1,760	1,83
Alternative Measure 5 Coesion Policy**	0,002	0,101	0,167	0,168	0,222	0,223	0,225	1,108	1,11
Alternative Measure 6 Information Campaigns	0,000	0,015	0,026	0,084	0,088	0,094	0,104	0,411	0,40
Alternative Measure 7 Sustainable Mobility	0,000	0,000	0,000	0,000	0,057	0,240	0,156	0,453	0,42
Total Energy Savings	1,342	1,722	2,403	3,421	3,871	5,019	5,405	23,152	25,56

* Estimate
** Projects financed under the 2014-2020 planning phase
Source: Ministry of Economic Development elaboration on ENEA and GSE data

- 50/65% tax deduction scheme: at 2020, the overall energy saving has been 0.1 Mtoe of final energy. Indeed, between 2007 and 2020, more than 4.5 million interventions were realised and, in 2020, households had invested € 45 billion.
- SuperEcobonus: On 1st June, 2020, the Superbonus was introduced, with the higher rate of 110%, for anti-seismic and energy renovation interventions. As with the Ecobonus, it is addressed to multifamily and single-family houses, but it is mainly addressed to mayor renovations. The Superbonus, in addition to contributing to the achievement of the renovation goal in existing buildings, has been designed to restart the economy affected by the Covid-19 crisis and, in particular, to relaunch the construction sector. On 31st August 2021, only 14 months after the launch of the mechanism, 37,000 interventions were initiated, for a total of approximately € 6 billion in investments eligible for financing (€ 4 billion in investments have already been finalised).

EED Article	Implementation status
Article 7	According to NECP 2020 the mandatory cumulative energy savings during the period 2021-2030 amount to 50.98 Mtoe. Moreover, Italy has set up cumulative energy savings in the 2021-2030 period based on 0.8 % savings per year of average final energy consumption in the years 2016, 2017 and 2018 (the reference consumption) that led to a cumulative energy saving of 51.44 Mtoe by 2030, as shown in the figure below. Italy aims to achieve this target through various policy instruments during the period 2021-2030, including obligation scheme as White Certificates and a set of alternative measures that are already in place (as Fiscal deduction, Thermal account etc.), to be revised and strengthened in the next few years in order to reach this ambitious target. **Outline of expected energy savings (Mtoe of end-use energy)**  Source: Italian NECP 2020 (MiSE) The NECP is also being updated in light of the increase in energy and climate 2030 target.

EED Article	Implementation status
Article 8	Article 8 of the EED introduced the obligation for large enterprises to carry out an energy audit on their production sites, starting from December 2015 and subsequently every 4 years. The Italian Government transposed the EED in 2014 (by issuing the legislative Decree n. 102/2014, updated by legislative Decree n. 73/2020), extending the obligation also to a specific group of energy-intensive enterprises, those with large energy consumption applying for tax relief on the part of the purchased energy. All energy-intensive enterprises are registered in the list managed by «Cassa per i servizi energetici ed ambientali» (Governmental Agency related to electricity). As of December 2019, the first deadline for the second compulsory cycle, 11,172 energy audits have been uploaded to the ENEA website by 6,434 enterprises. In December 2020, 750 energy audits have been uploaded to the ENEA website by 505 enterprises. All companies with a total consumption amounting to less than 50 TOE are excluded from the audit obligation. Energy-intensive companies are obliged to carry out at least one energy audit intervention within 4 years, or within the deadline of the next diagnosis. ENEA carries out inspections in order to verify the compliance of the submitted audits with the requirements of this document article, through an annual selection of a statistically significant sample, at least 3%, of the mandated companies, referred to in paragraphs 1 and 3. ENEA is in charge of inspections on 100 percent of the audits carried out by internal auditors of the company. The monitoring activity may also include on-site checks. In order to promote the improvement of energy efficiency in small- and medium-sized enterprises, by 31st December 2021 and, subsequently, every two years until 2030, the Ministry of Economic Development, with the support of the GSE and after consulting the Conference of Regions, issues public tenders for the financing of the implementation of energy management systems compliant with ISO 50001 standard. Such public tenders define the resources available, the implementation methods of the aforementioned funding and the monitoring of the results obtained. The implementation of the activities described in this paragraph is carried out with up to a maximum of 15 million euros for each of the years from 2021 to 2030; this amount is based on the share due to the Ministry of Economic Development of the annual proceeds from CO2 emission quotas auctions, as referred to in Article 19 of Legislative Decree 13th March 2013, no. 30, regarding energy and environmental projects, in the ways and within the limits described in paragraphs 3 and 6 of the same article 19, after verification of the income annually available.

EED Article	Implementation status
Articles 9-11	Compared to previous situations (as of NIR 2016), modifications have been introduced, according to Legislative decree 73/2020. **Measurement** • Without prejudice to technical and economic feasibility, thermal meters and individual accounting systems (heating accounting systems) installed after 25th October 2020 in the individual housing units of condominiums equipped with central heating systems must be readable remotely. By 1st January 2027, all of the above-mentioned thermal meters and individual "Heat Contabilization Systems" shall be equipped with remote-reading devices. **Billing** Minimum frequency of billing information or thermal consumption: • From 25th October 2020, in cases of installed, remote-readable thermal meters or individual heat meters, billing or heat consumption information must be provided at least every three months to end-users who have chosen electronic invoicing, and in other cases at least twice a year. From 1st January 2022, if remotely readable heat meters or heat meters have been installed, billing or heat consumption information shall be provided to end-users at least once a month. • Minimum information on the invoice: the following minimum information shall be included in bills based on actual consumption or readings of heat recorders: a) actual current prices and actual energy consumption or total heat cost and reading of heat recorders; b) information on the fuel mix used; c) a comparison between the user's current energy consumption and consumption in the same period of the previous year in the form of a graph; d) comparisons with the consumption of an average or reference end-user belonging to the same category of users; e) contact details of consumer associations and ENEA, in order to obtain information on available energy efficiency improvement measures.

EED Article	Implementation status
Article 12	• Activities carried out with **"Italia in Classe A" Campaign** ended in 2020: https://italiainclassea.enea.it • **A new national EE programme for information and training actions** has been issued according to the transposition decree 73/2020, to be completed by 2030. Such a new programme is included in the Italian National Recovery and Resilience Plan (*Piano Nazionale di Ripresa e Resilienza*, NRRP), as part of the Next Generation EU (NGEU), under 1.1 Mission 2, Component 3. ENEA, in cooperation with GSE, sets a plan of targeted information and training programme that, taking into account stakeholders' inputs, is submitted to the Ministry for approval. On 3rd September 2021 an online public consultation (on a regular 3-year basis) for the above inputs closed. **Funding**: € 9 million every three years, up to 2030 with possible revisions throughout. Targets: large companies and SMEs, professionals, operators promoting EE, multifamily building managers and related trade associations, public administration, banks and financial institutions, students, all level education teachers, citizens, consumers and "multiplier effect subjects", low-income households. **Features**: continuation in dialogue with stakeholders and graduality and flexibility in monitoring and cross-checking the results; multimodal programme including measures relating to education, training, information and awareness-raising, behaviour change. The programme also funds research activity on communication instruments, multidisciplinary approach in individual attitude to behaviour change.
Article 14	In 2020, according to Article10 of Legislative Decree No. 73 of 14th July 2020, Italy has elaborated a comprehensive assessment, based on the indication set out in Annex VIII of Directive 2012/27/EU, to be notified to the European Commission after consultation with regions. The report analyses the entire heating and cooling sector in Italy, with reference to the year 2018, and the mix of technological solutions that could be developed to promote its progressive decarbonisation. The results are integrated into the NECP energy scenario by updating the heating technological mix to achieve the energy and climate targets. The proponents of new projects or system upgrades (power greater than 20 MW) or new district heating networks have to perform a cost benefit analysis according to Annex 4, part 2 of Legislative Decree No. 73 of 14th July 2020.

2.2. Non-legislative provisions

Article 8

ENEA, by 31st January, for each of the years from 2021 to 2030, processes and submits for approval of the Ministry of Economic Development, an annual awareness and support programme for small- and medium-sized enterprises for the execution of energy audits at their production sites and for the implementation of the energy efficiency interventions thereby proposed.

Article 12

EU and national funded projects have been initiated to implement EED articles such as 17 and others: they support national information multilevel dialogue either for investments in EE and various kind of EE interventions by means, e.g., guidelines, audits, technological tools and services, regional EE planning, sustainable energy at large – this latter to integrate RES, smart grids etc. (projects such as GreenRoad and SER – H2020 and ES-PA Energy and Sustainability for Public Administration under ESF).

2.3. Implementing bodies

Art. 6

MiTE (Former Ministry for Environment) Ministero per la Transizione Ecologica

CONSIP Central Agency for Purchases in the PA

Art. 7

ENEA Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile, for fiscal deduction etc

GSE Gestore Servizi Energetici, for White Certificates and Thermal Energy Account

Art.8

For the implementation of Article 8 in Italy the only public entity involved is ENEA

Art.s 9-11

ARERA Autorità di Regolazione per Energia Reti e Ambiente

Art. 12

ENEA+Ministry for Ecological Transition MiTE (former MiSE)+GSE+ Local entities (these latter are involved mostly at "target" level, thus having also an implementing role)

Art. 14

GSE

3. Implementation of revised EED articles

4. Relevant information

Sources:

- ENEA as Italian agency for EE https://www.efficienzaenergetica.enea.it/
- GSE Gestione https://www.gse.it/
- CONSIP Home | Consip
- ARERA – Home page
- (Italian) INTEGRATED NATIONAL ENERGY AND CLIMATE PLAN "it_final_necp_main_en" it_final_necp_main_en.pdf (mise.gov.it)
- STRATEGIA PER LA RIQUALIFICAZIONE ENERGETICA DEL PARCO IMMOBILIARE NAZIONALE +85 (mise.gov.it)
- Kyoto Fund https://www.mite.gov.it/pagina/fondo-kyoto-2021
- Report on National Energy Situation (former Ministry for Economic Development) https://dgsaie.mise.gov.it/pub/sen/relazioni/relazione_annuale_situazione_energetica_nazionale_dati_2020.pdf
- ENEA: LE DETRAZIONI FISCALI per l'efficienza energetica e l'utilizzo delle fonti rinnovabili di energia negli edifici esistenti RAPPORTO ANNUALE 2020 DATI 2019 https://www.efficienzaenergetica.enea.it/component/jdownloads/?task=download.send&id=452&catid=40%20&Itemid=101

Article 8

- GUIDELINES FOR ENERGY AUDITS UNDER ARTICLE 8 OF THE EED: ITALY'S IMPLEMENTATION PRACTICES AND TOOLS
- https://www.efficienzaenergetica.enea.it/component/jdownloads/?task=download.send&id=377&catid=40&Itemid=101
- Ministero dello Sviluppo Economico aggiornamenti sulle diagnosi novembre 2016: https://www.mise.gov.it/images/stories/documenti/CHIARIMENTI-DIAGNOSI-14-nov-2016.pdf
- Ministero dello Sviluppo Economico aggiornamenti sui sistemi di gestione ISO 50001 sulle diagnosi dicembre 2018: https://www.mise.gov.it/images/stories/documenti/Allegato-2-FAQ-ISO-50001.pdf
- MiTE Ministero della Transizione Ecologica (mite.gov.it)

National EED Implementation Report (NIR) 2021

EED implementation in Latvia

Introduction

In Latvia, the authority responsible for the Energy Efficiency Directive transposition is the Ministry of Economics. In accordance with the division of responsibilities, other ministries are involved in the creation of the legislation needed, for example, the Ministry of Welfare is involved in solving energy poverty issues and the Ministry of Environmental Protection and Regional Development is involved in the development of responsibilities for local governments. The fulfilment of energy efficiency obligations is controlled by the State Construction Control Bureau.

1. Legal context

The Energy Efficiency Directive is mainly transposed into the Energy Efficiency Law, setting out the obligations and possibilities of the parties involved. A number of regulations of the Cabinet of Ministers have been issued, which stipulate in detail the conditions for the performance of energy efficiency obligations, deadlines for submission of documents and penalties in case of non-compliance.

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the DIRECTIVE (EU) 2018/2002 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11th December 2018 amending Directive 2012/27/EU on energy efficiency has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 1 (1)	Fully transposed The requirements are transposed by the National Energy and Climate Plan
Article 1 (2)	Fully transposed The requirements are transposed by the National Energy and Climate Plan
Article 1 (3)	Planned to transpose in the near future
Article 7 (1)	Fully transposed The requirements are transposed by the National Energy and Climate Plan
Article 7 (2)	Fully transposed The requirements are transposed by the National Energy and Climate Plan
Article 7 (3)	Fully transposed The requirements are transposed by the National Energy and Climate Plan

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

EED Article	Implementation status
Article 7 (4)	Fully transposed The requirements are transposed by the National Energy and Climate Plan
Article 7 (5)	Fully transposed The requirements are transposed by the National Energy and Climate Plan
Article 7 (6)	Fully transposed The requirements are transposed by the National Energy and Climate Plan
Article 7 (7)	Fully transposed The requirements are transposed by the National Energy and Climate Plan
Article 7 (8)	Fully transposed The requirements are transposed by the National Energy and Climate Plan
Article 7 (9)	Fully transposed The requirements are transposed by the National Energy and Climate Plan
Article 7 (10)	Fully transposed Article 6, paragraph one of the Energy Efficiency Law
Article 7 (11)	Partially transposed Article 1 of the Energy Law
Article 7 (12)	Fully transposed Regulations of the Cabinet of Ministers No. 668 "Regulations on the Standard of Energy Efficiency Monitoring and the Applicable Energy Management System", paragraph 13
Article 7a (1)	Fully transposed Article 6 of the Energy Efficiency Law; Regulations of the Cabinet of Ministers No. 668 "Regulations on the Energy Efficiency Obligation Scheme"
Article 7a (2)	Fully transposed Article 6 of the Energy Efficiency Law
Article 7a (3)	Fully transposed Article 35, paragraph one of the Electricity Market Law
Article 7a (4)	Fully transposed Article 6 of the Energy Efficiency Law
Article 7a (5)	Fully transposed Regulations of the Cabinet of Ministers No. 668 "Regulations on the Standard of Energy Efficiency Monitoring and the Applicable Energy Management System"
Article 7a (6)	Planned to transpose in the near future

EED Article	Implementation status
Article 7a (7)	Fully transposed Regulations of the Cabinet of Ministers No. 226 "Rules of the Energy Efficiency Obligation Scheme"
Article 7b (1)	Fully transposed Article 6 of the Energy Efficiency Law
Article 7b (2)	Fully transposed Regulations of the Cabinet of Ministers No. 668 "Regulations on the Standard of Energy Efficiency Monitoring and the Applicable Energy Management System"
Article 9 (1)	Fully transposed Regulations of the Cabinet of Ministers No. 85 "Regulations for the Supply and Use of Natural Gas"; Cabinet Regulation No. 50 "Electricity Trade and Use Regulations"
Article 9a (1)	Fully transposed Cabinet Regulation No. 876 "Regulations for the Supply and Use of Heat Energy"; Regulations of the Cabinet of Ministers No. 1013 "Procedures by which the Owner of an Apartment in an Apartment House Shall Pay for Services Related to the Use of Apartment Property"
Article 9a (2)	Fully transposed Cabinet Regulation No. 876 "Regulations for the Supply and Use of Heat Energy"
Article 9b (1)	Partially transposed Regulations of the Cabinet of Ministers No. 876 "Regulations for the Supply and Use of Heat Energy"; Regulations of the Cabinet of Ministers No. 1013 "Procedures by which the Owner of an Apartment in an Apartment House Shall Pay for Services Related to the Use of Apartment Property"
Article 9b (2)	Fully transposed Regulations of the Cabinet of Ministers No. 332 "Regulations on the Latvian construction standard LBN 221-15 "Internal water supply and sewerage of buildings"; Regulations of the Cabinet of Ministers No. 1013 "Procedures by which the Owner of an Apartment in an Apartment House Shall Pay for Services Related to the Use of Apartment Property"; Regulations of the Cabinet of Ministers No. 524 "Procedures for Determining, Calculating and Accounting for the Part Paid by Each Owner of a Dwelling House for the Services Necessary for the Maintenance of a Dwelling House"
Article 9b (3)	Fully transposed Regulations of the Cabinet of Ministers No. 1013 "Procedures by which the Owner of an Apartment in an Apartment House Shall Pay for Services Related to the Use of Apartment Property"; Regulations of the Cabinet of Ministers of 15th September, 2015 No. 524 "Procedures for Determining, Calculating and Accounting for the Part Paid by Each Owner of a Dwelling House for the Services Necessary for the Maintenance of a Dwelling House"

EED Article	Implementation status
Article 9c (1)	Partially transposed Regulations of the Cabinet of Ministers No. 730 "Minimum Energy Efficiency Requirements for Existing Buildings"
Article 9c (2)	Partially transposed Regulations of the Cabinet of Ministers No. 730 "Minimum Energy Efficiency Requirements for Existing Buildings"
Article 10 (1)	Fully transposed Decision No. 1/6 of the Council of the Public Utilities Commission of 9th March 2017 "Regulations on Information for Electricity and Natural Gas End Users"
Article 10a (1)	Partially transposed Regulations of the Cabinet of Ministers No. 876 "Regulations for the Supply and Use of Heat Energy"
Article 10a (2)	Fully transposed Article 14 and Article 16 of the Energy Efficiency Law
Article 10a (3)	Fully transposed Residential House Management Law; Regulations of the Cabinet of Ministers No. 524 "Procedures for Determining, Calculating and Accounting for the Part Paid by Each Owner of a Dwelling House for the Services Necessary for the Maintenance of a Dwelling House"
Article 11	Fully transposed Article 16 of the Energy Efficiency Law
Article 11a (1)	Planned to transpose in the near future
Article 11a (2)	Planned to transpose in the near future
Article 11a (3)	Planned to transpose in the near future

2.2. Non-legislative provisions

The "Live Warmer" campaign has been running in Latvia for more than 10 years, with regular information events on energy efficiency issues, so that anyone interested can get binding information on the opportunities and benefits of improving energy efficiency.

Support programmes for energy efficiency improvement are being implemented in Latvia from both EU funds and other funding sources. The scope of the programmes is wide, reaching homeowners, manufacturing companies, heating companies and others. Support programmes to improve energy efficiency are being further developed and are currently being extended.

2.3. Implementing bodies

The scope of energy efficiency improvement obligations in Latvia is wide. The obligations to improve energy efficiency lie with large companies, large electricity consumers (with electricity consumption above 500 MWh), public authorities, municipalities and electricity traders. The fulfilment of obligations is supervised by the State Construction Control Bureau, which collects information on the achieved energy savings within the framework of the energy efficiency monitoring system.

3. Implementation of revised EED articles

Latvia plans to strengthen the energy efficiency first principle, as well as pay increased attention to reducing energy poverty. Ensuring the implementation of the review of the Energy Efficiency Directive will require complex cross-sectoral solutions and coordinated action by stakeholders.

4. Relevant information

National EED Implementation Report (NIR) 2021

EED implementation in Lithuania

Introduction

The Ministry of Energy is responsible for implementation of the Directive on Energy Efficiency (EED) (2012/27/EU) and a new Energy Efficiency Directive 2018/200/EC. Ministry of Environment, Ministry of Transport and Ministry of Innovation and Economy are involved in the implementation and directly in their sectors. Lithuanian Enterprise Energy Agency administers Energy Audit system, performs energy savings calculations and oversees the achievement of a cumulative end-use energy savings target as assigned by the Ministry of Energy.

1. Legal context

Implementation of the EED is ensured with adoption of amendments of Law on Energy Efficiency, Law on Energy, Law on Heat Sector, Law on Electricity, Law on Natural Gas, Law on Public Procurement, and other legislation will be adopted.

2. Status of the implementation

2.1. Legislative provisions

The main document for implementation of both Directives is NATIONAL ENERGY AND CLIMATE ACTION PLAN OF THE REPUBLIC OF LITHUANIA FOR 2021-2030.

Increasing energy consumption efficiency in Lithuania by 2030 will be implemented in accordance with the following principles:

- cost-effectiveness: in achieving energy efficiency improvement targets, priority should be given to the most cost-effective energy efficiency improvement measures;
- active education and training of energy consumers: as energy consumers can contribute to energy efficiency improvement objectives by changing their behaviour and habits, education and training of energy users must be strengthened;
- competition: enabling investors in energy efficiency improvement to compete with each other for the implementation of the most economically advantageous projects, in fulfilling energy efficiency obligations or competing for incentives provided by the State.

In order to meet the target under Article 7 of the Energy Efficiency Directive 2012/27/EU, which adds up to 27.279 Twh, Lithuania plans to implement existing energy efficiency improvement measures and plans new energy efficiency measures to ensure the achievement of the energy efficiency target by 2030.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

Brief descriptions of energy efficiency measures are given below:

EE1. Excise duties and fuel taxation. In order to increase energy efficiency in the transport sector, Lithuania has introduced higher excise duties and VAT on fuels, i.e. petrol, liquefied natural gas and diesel. Lithuania has a value added tax rate of 21% on fuel, which is 6 percentage points higher than the EU minimum of 15%. Petrol is subject to a higher excise duty of 21% (+ EUR 0.08/l), and liquefied petroleum gas – 243% (+EUR 0.18 /l). The combined effect of higher taxes and excise duties is a price increase of 14.7% for petrol, 5.2% for diesel and 64.7% for liquefied petroleum gas compared to the levels prescribed by the European Union. Taking into account the volume of fuels sold in Lithuania (petrol, diesel and liquefied natural gas) and demand elasticity, as well as the experience of other countries (Sweden, Spain, Germany and Estonia) in calculating the impact of increasing energy efficiency by means of tax instruments on fuel consumption, it is projected that 6 TWh of energy savings will result from higher taxes and excise duties on fuel in 2030.

EE2. Renovation of multi-apartment buildings. Lithuania will continue to prioritise the renovation of multi-apartment buildings and seek to reduce heating costs for consumers and improve living conditions in multi-apartment buildings. The implementation of the Programme for the renovation of multi-apartment buildings will continue and nearly 500 multi-apartment buildings will be renovated each year, with energy savings of 100 GWh. Priority will be given to multi-dwellings which were constructed in accordance with the technical standards of the Construction Regulation in force before 1993. After renovation, the building should qualify for class C, and 40% savings should be achieved in the building's energy consumption. By the end of 2030, around 5,000 multi-apartment buildings should be renovated under this measure, saving 5.5 TWh of energy.

EE3. Renovation of public buildings. The current programme for improving the energy performance of public buildings envisages targets for State-owned public buildings up to 2030. Around 510,000 m^2 in the central government public building area and around 450,000 m^2 in municipal public building area are expected to be renovated by 2030. According to the current legal framework, public buildings must reach a minimum class C after renovation. Around 10 GWh of energy will be saved annually and the overall energy savings from this measure will come to 0.55 TWh approximately.

EE4. Agreements with energy suppliers on consumer education and consulting. Continued efforts will be made to increase consumer awareness and change their habits in the field of energy consumption, therefore the provisions of the Law on Increasing Energy Efficiency concerning agreements with energy suppliers on consumer education and consulting will extend beyond 2020. According to this Law, energy suppliers are obliged to conclude agreements with the Ministry of Energy of the Republic of Lithuania (hereinafter referred to as the 'Ministry of Energy') on consumer education and consulting.

Agreements on consumer education and consulting must include:

- the scope and timetable of consumer education and consulting;
- the procedure for reporting on the scope of consumer education and counselling (form of report, reporting periods);
- information on consumer education and consulting measures;
- the duration of the agreement and the procedure, and the possibility of extending it.

Energy suppliers will ensure the implementation of the scope of consumer education and consulting and of measures provided for in agreements concluded between them or through other persons. Newly established energy suppliers must sign agreements with the Ministry of Energy on consumer education and consulting within 6 months of the date of establishment. This measure is expected to lead to energy savings of 3 TWh due to changes in consumer behaviour.

EE6. Energy saving agreements with energy companies. The Law on Increasing Energy Efficiency sets out a legal framework for energy saving agreements. According to the Law, electricity and gas transmission systems and distribution system operators in which at least 1/2 of the voting rights in the general shareholders' meeting are held by the State, either directly or through State-controlled companies (hereinafter referred to as 'State-controlled operators'), have an obligation towards the Ministry of Energy to make public the agreements on energy saving. Other energy companies must also conclude energy saving agreements with the Ministry of Energy.

The energy savings of energy companies will be determined in proportion to the final energy to be delivered to consumers over the last few years.

Energy saving agreements include the following elements:

- the energy savings/GHG reductions to be achieved by the energy company and the timetable for those savings;
- the procedure for reporting on energy savings (form of report, reporting periods);
- information on energy efficiency improvement measures that will ensure mandatory energy savings;
- financial investment indicators for energy efficiency improvement measures and the methodologies for calculating them;
- the duration of the agreement and the procedure, and the possibility of extending it.

Energy companies are required to save energy according to the levels of energy specified in the energy savings agreements (either on their own or through others) by applying cost-effective energy efficiency improvement measures at the final energy customers' facilities (installations, equipment, transport). This measure is expected to result in annual savings of around 100 GWh and 5.5 TWh by 2030.

EE7. Replacing boilers with more efficient technologies. The measures set out in the plan will achieve the main target: by 2030, 50,000 domestic boilers will be replaced in households and other heat efficiency improvement measures will be implemented, resulting in savings of at least 200 GWh per year or 11 TWh by 2030. The plan is to upgrade 5,000 boilers in households annually.

This measure will compensate up to 50% of the costs of replacing inefficient individual boilers with individual boilers using more efficient technologies for households not connected to the district heating system.

EE5. SPI relief for industrial enterprises. A support mechanism to finance the implementation of energy efficiency improvement measures (recommended in the energy efficiency audit reports) in all major industries in Lithuania. Companies will be reimbursed for the implementation of energy efficiency measures. Energy efficiency measures to be implemented are expected to result in energy savings of around 100 GWh annually and 5.5 Twh by 2030.

EE8. Modernisation of indoor heating and hot water systems in multi-apartment buildings. A financial instrument that will encourage building owners to upgrade old elevator-type heating systems into newer single-circuit heating systems. Up to 30% of the investment costs will be reimbursed and around 250 heating substations will be upgraded annually. This would lead to annual energy savings of around 10 GWh, or 0.55 TWh by 2030.

EE9. Improving energy efficiency in enterprises. In order to improve the energy efficiency of businesses, Lithuania has planned a financial instrument that will encourage companies to implement energy efficiency improvement measures identified in the energy audit. It is planned to provide a subsidy for the energy savings achieved and to save 100 GWh annually and close to 5.5 TWh by 2030.

EE10. Renovation of private houses. Financial incentive for private house owners to renovate their homes. It is planned to renew 1,000 private houses each year and save 13.5 GWh of energy. Up to 30% of the investment costs will be reimbursed. Total energy savings by 2030 will amount to 0.742 TWh.

EE11. Modernisation of street lighting systems. Financial assistance to encourage the modernisation of street lighting systems. The aim is to replace and renew about 25% of all luminaires or about 65,000 luminaires by 2030 in Lithuania. Renewal of one luminaire is expected to result in annual electricity savings of around 250 kWh and total electricity savings of around 0.11 TWh by 2030.

Whole NECP can be found here: https://ec.europa.eu/energy/sites/ener/files/documents/lt_final_necp_main_en.pdf

2.2. Non-legislative provisions

All measures foreseen in NECP.

2.3. Implementing bodies

Ministry of Energy https://enmin.lrv.lt/

Ministry of Environment https://am.lrv.lt/

Ministry of Transport https://sumin.lrv.lt/

Ministry of Economy and Innovation https://eimin.lrv.lt/

Lithuanian Energy Agency https://www.ena.lt/

3. Implementation of revised EED articles

At the moment Lithuania started preparation for revision of NECP and Fit for 55 package.

4. Relevant information

National EED Implementation Report (NIR) 2021

EED implementation in Luxembourg

Introduction

The implementation of the Directive on Energy Efficiency (EED) (2012/27/EU) and the following Directive (EU) 2018/2002 is the responsibility of the Ministry for Energy and Spatial Planning (Ministry of the Economy until end of 2018). Provisions regarding public procurement and public building renovation are implemented by the Ministry of Mobility and Public Works (Ministry for Sustainable Development and Infrastructure until the end of 2018). myenergy, the national energy agency, supports the Ministry for Energy and Spatial Planning in the transposition of the EED, i.e. in the promotion of the energy efficiency and advice to consumers.

1. Legal context

The transposition of the EED required the modification of several legal and regulatory texts, as the law on rational use of energy, the laws concerning the electricity and natural gas markets and the regulation on public procurement. The transposition of the amended EED required, among other things, modifications of the laws concerning the electricity and natural gas markets.

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 4	A first draft of the renovation strategy was integrated in Luxembourg's 3rd NEEAP. On the basis of that first draft, Luxembourg organised several working groups with stakeholders in order to identify the national renovations potential, with focus on the identification of the solutions to eliminate the potential barriers to renovation initiatives. The process to identify barriers and look for possible solutions to enhance energy efficiency was continuously developed in the years 2015 and 2016. The final document (Weiterentwicklung der Gebäuderenovierungsstrategie: https://meco.gouvernement.lu/dam-assets/publications/rapport-etude-analyse/minist-economie/domaine-energie/bericht-weiterentwicklung-der-gebaeuderenovierungsstrategie-juli-2017/Bericht-Weiterentwicklung-der-Gebauderenovierungsstrategie-Juli-2017.pdf) was then completed in July 2017 and presented to the general public. The subsequent LTRS – Long Term Renovation Strategy, which had to be drawn up three years thereafter, was established and notified to the Commission in June 2020 (https://mea.gouvernement.lu/dam-assets/energie/energie-effizienz/lu-2020-ltrs-official-en-translation-EU-.pdf)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

EED Article	Implementation status
Article 5	Luxembourg decided not to opt for the alternative approach foreseen in Article 5 EED. So, 3% of the total floor area of heated and/or cooled buildings owned and occupied by Luxembourg's central government is renovated each year to meet at least the minimum energy performance requirements. The total surface of buildings owned by the central government to be renovated until 2020 totals 29.970 m^2. An inventory of the concerned buildings was sent to the European Commission in March 2013 https://ec.europa.eu/energy/sites/ener/files/documents/2013_lu_eed_article5_fr.pdf In September 2014, Luxembourg adopted a national energy efficiency renovation strategy for the refurbishment of States patrimony or http://www.abp.public.lu/publications/index.html. Luxembourg provides financial means to implement the renovation strategy, by providing in its multi-year budget the funds for the planned refurbishments. Renovations will be done in compliance with the minimum energy efficiency criteria set out in the Grand-Ducal Regulation of 31st August 2010 on the energy performance of functional buildings.
Article 6	Transposition of article 6 EED required an insertion of a new article 169bis in the Grand-Ducal regulation of 3rd August 2009 implementing the law of 25th June 2009 concerning public procurements (loi du 25 juin 209 sur les marchés publics et portant modification du seuil prévu à l'article 106, point 10 de la loi communale modifiée du 13 décembre 1988).

EED Article	Implementation status
Article 7	Luxembourg decided to fulfil its complete energy savings target under Article 7 EED (cumulative energy savings target of 5.993 GWh) with the introduction of an energy efficiency obligation scheme (EEOS). The related legal and regulatory texts were adopted in June and August 2015 respectively. http://www.legilux.public.lu/leg/a/archives/2015/0119/a119.pdf#page=2 and http://www.legilux.public.lu/leg/a/archives/2015/0170/a170.pdf#page=2 Obligated parties under the EEOS are all electricity and gas retailers selling electricity or gas to final consumers located in Luxembourg. The first period of the EEOS was running from 1st January 2015 to 31st December 2020 (EEOS I). The second period of the EEOS, which shall run from 1st January 2021 to 31st December 2030 (EEOS II), was set up by amending the electricity and gas laws (*la loi du 3 juin 2021 portant modification de la loi électricité et de la loi gaz naturel* http://legilux.public.lu/eli/etat/leg/loi/2021/06/03/a418/jo) already mentioned, in order to implement the new Articles 7, 7a and 7b of the amended EED. Luxembourg decided to fulfil a cumulative energy efficiency target of 13.750 GWh during the current decade by means of the EEOS, whereby the remaining part of the cumulative savings target (7.090 GWh) is to be achieved by alternative measures. Obligated parties are allocated an annual individual energy saving target based on their market share of the previous year. They have to report yearly by 31st March on the energy savings achieved during the previous year. In order to relieve smaller obligated parties, a buy-out option was introduced in EEOS II, under which each obligated party can buy out of its savings obligation for a maximum amount of 1.500 MWh per year. The price of the buy-out option in €/MWh is determined based on the obligated parties' costs related to the EEOS-mechanism from the previous year. In case the obligated parties don't reach their targets, a penalty which amounts to the price of the buy-out option x 1.25 and which shall not exceed the maximum limit of 100 €/MWh (compared to 2€/MWh in period I of the EEOS) is foreseen.
Article 8	The transposition of Article 8, obliging enterprises that are not SMEs to realise an energy audit carried out in an independent and cost-effective manner, required the modification of the law of 5th August 1993 regarding the rational use of energy.
Articles 9-11	Luxembourg's legislation regarding the organisation of the electricity and natural gas markets was already complying with most of the provisions of Articles 9 to 11 of the EED. Only a few amendments were made to completely stick to the text of the directive. The roll-out of smart meters for electricity and natural gas started in 2016 and so far almost all meters have been replaced (www.luxmetering.lu).

EED Article	Implementation status
Article 12	Luxembourg opted for a global roll-out of smart meters by 2019 for electricity and by 2021 for gas. By installing these smart meters, final consumers will have the opportunity to actively participate in the energy market and to regulate their own consumption. Moreover, myenergy offers free guidance for individuals, municipalities and professionals in their projects to help them save energy and use renewable energy sources (www.myenergy.lu). myenergy regularly organises information and awareness campaigns for individuals regarding energy efficiency. In addition, myenergy is represented annually at different national exhibitions on the subject of housing and climate in order to offer interested people appropriate advice regarding their specific situation or project. In 2017, the Luxembourg Government has decided to strengthen its new system of state financial aid "PRIMe House", which originally entered into force in January 2013, to further encourage sustainable energy efficiency retrofits and the implementation of renewable energy (decarbonisation of buildings). In an attempt to relaunch the economy during the Covid crisis, the current system has been topped up with more attractive subsidies for renewable energy and sustainable energetic renovation projects and prolonged until 2021. An overhaul of this system is currently in the legislative procedure and will come into effect in 2021. The Ministry of the Economy has developed a standard form agreement governing aspects of an energy performance contract. The energy performance contract provides the opportunity for owners of large buildings to achieve energy savings in their building with the support of a contracting company. The financial investments necessary to achieve the energy saving measures are not engaged by the owner of the building itself, but by a contractor, who is in turn funded by the energy savings.
Article 13	The various sanctions provided in article 13 EED are included in the relevant legal and regulatory texts.
Article 14	The transposition of Article 14 required the modification of the law of 5th August 1993 regarding the rational use of energy and of the regulation of 26th December 2012 on high-efficiency cogeneration. The comprehensive assessment of the potential for the application of high-efficiency cogeneration and efficient district heating and cooling was accomplished and published in August 2016 (Bewertung des Potenzials für den Einsatz der hocheffizienten KWK und der effizienten Fernwärme und Fernkälteversorgung: https://ec.europa.eu/energy/sites/ener/files/documents/20160908-140506_LU%20cogeneration%20report.pdf). The updated comprehensive assessment of the potential for the application of high-efficiency cogeneration and efficient district heating and cooling is currently being produced, and is expected to be completed by the end of 2021.
Article 15	Article 15 is transposed in national law by the legislation regarding the organisation of the electricity and natural gas markets. Only a few amendments were necessary to comply with the requirements of Article 15.

EED Article	Implementation status
Article 16	Luxembourg has voluntary and mandatory schemes. The EPC accreditation is a mandatory accreditation given by the Ministry for Energy and Spatial Planning (Ministry of Economy until end of 2018) to experts in order to allow them to establish EPCs (energy performance certificates) for households and non-residential buildings. https://guichet.public.lu/en/entreprises/sectoriel/energie/agrement-expert-cpe.html The EPC agreement is given to the company but with the restriction that only the named persons can establish the EPCs on behalf of the company. "myenergy certified" is a voluntary certification scheme of energy advisers for residential buildings given by myenergy (EIG) to experts in order to attest their extra qualification in the energy advice sector, following an assessment. http://certified.myenergy.lu/ Training in energy efficiency is offered by the Chamber of Trade (http://www.cdm.lu), the ''Institut de formation sectoriel du bâtiment IFSB'' (http://www.ifsb.lu/fr/formations.php?domaine=3) and ''Agence de l'Energie S.A.'' (http://www.energieagence.lu/fr/formations).

EED Article	Implementation status
Article 17	Please refer to the developments under article 12 EED. Furthermore, the websites of the Ministry for Energy and Spatial Planning (https://mea.gouvernement.lu/fr.html or www.energyefficient.lu), the Department of the Environment, (https://mecdd.gouvernement.lu/en.html) and of myenergy (www.myenergy.lu) offer free access for the public to all information related to energy efficiency and the various financial aid schemes. In this context, the Department of the Environment regularly publishes a brochure presenting the "grants applicable to individuals for the construction of a new high energy efficient house, for the energy efficient renovation of an existing building, for the rational use of energy and the development of renewable energy (More information here). As part of an administrative simplification programme aiming to provide citizens and businesses, a central information point for everything related to administrative procedures or questions of everyday life, the Luxembourg Government has set up a website under the name "Guichet.lu" for easy way to access all sorts of useful information and referrals to relevant links. A section dedicated to housing contains a sub-section relating specifically to energy efficiency (www.guichet.public.lu/citoyens/fr/logement/renovation-transformation/index.html). myenergy offers municipalities that wish to raise awareness and help their residents to limit the energy consumption of their homes, to discover the potential of renewable energies and to obtain information on sustainable construction, a basic energy advice service, called "myenergy infopoints". The myenergy infopoints organise awareness raising and information activities on the one hand, and offer individual advice to citizens on the other. Today 100 municipalities (out of a total of 103) participate actively in this national network composed of 22 infopoints. In 2020, a new application (myrenovation App) has been launched by myenergy to make access to information even easier and accessible from anywhere by smartphone (https://www.myenergy.lu/fr/mediatheque1/actualites/decouvrez-la-nouvelle-application-myrenovation). Discussions with banking institutes are currently ongoing to raise awareness about energy efficiency and encourage them to set up and/or adapt financing mechanisms facilitating the energy renovation of buildings (Klimaprêt https://guichet.public.lu/en/citoyens/logement/renovation-transformation/prets-climatiques/pret-climatique-taux-reduit.html).

EED Article	Implementation status
Article 18	Luxembourg's public structure myenergy has the mission to inform and advise all private or public persons on energy efficiency. Information can be collected directly from myenergy (hotline, mailing, info points) or its website (www.myenergy.lu). In 2013, myenergy implemented a quality label for energy consultants called "myenergy certified" (https://www.myenergy.lu/de/privatpersonen/certified). This label is a certification programme to certify the competence and quality of work of professionals acting in the field of energy consulting. Certified experts can claim the increased quality of their services and stand out in the market. In addition, they are eligible for the accreditation required to perform the consultation and documentation needed for the grant scheme. Moreover, in 2013 they were awarded the first certificates under the label "Energie fir d'Zukunft +". The label "Energie fir d'Zukunft +" allows customers and consumers to easily identify the craft enterprises specialised in the field of construction of new passive houses and energy-efficient renovation of homes. These companies have mastered the principles of the certification seal of the house and also have competent people to accompany their clients in administrative procedures for the granting of subsidies under the legislation. A list of experts having undergone special training courses in the energy performance of residential and functional buildings is published on the Ministry for Energy website (http://www.guichet.public.lu/citoyens/fr/logement/construction/performances-energie/demande-passeport-energetique/index.html): A specific list limited to architects and engineers is available on the website of the Order of Architects and Engineers (www.oai.lu). These lists are regularly updated.

2.2. Non-legislative provisions

See comments under point 2.1.

2.3. Implementing bodies

Implementation of the EED is entrusted to the Ministry for Energy and Spatial Planning.

3. Implementation of revised EED articles

See comments under point 2.1.

4. Relevant information

Ministry for Energy and Spatial Planning: https://mea.gouvernement.lu/fr.html

Ministry of the Environment, Climate and Sustainable Development: https://mecdd.gouvernement.lu/fr.html

myenergy: www.myenergy.lu

Luxembourg's NEEAPs can be accessed on the website from the Ministry of the Economy: https://mea.gouvernement.lu/fr/energie/efficacite-energetique.html

Luxembourg's NECP: https://environnement.public.lu/fr/actualites/2020/05/pnec.html

National EED Implementation Report (NIR) 2021

EED implementation in Malta

1. Legal context

The Ministry for Energy, Enterprise and Sustainable Development (through the Energy and Water Agency) is responsible for overseeing the implementation of the Energy Efficiency Directive – Directive (EU) 2018/2002 of the European Parliament and of the Council of 11th December 2018. Other Ministries are involved in the implementation of this directive, the main one being the Ministry for the Environment, Climate Change and Planning for those provisions relating to buildings.

Subsidiary Legislation 513.07 Energy Efficiency Regulations, Legal Notice 66 of 2021.

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 4	Article 4 of the EED requires the establishment of a long-term strategy for mobilising investment in the renovation of the national stock of residential and commercial buildings, both public and private. The first version of Malta's long-term strategy for mobilising investment in the renovation of buildings gives a clear picture of the particular attributes of the Maltese buildings. It describes the method of construction, energy consumption patterns and limitations of the local building sector. The Long-Term Renovation Strategy has been finalised and adopted. It includes Malta's plan for the renovation of the building stock, and its ambition in terms of number of properties to be renovated and corresponding estimate of energy which would be saved. The strategy proposes a framework for the Maltese government to adopt when designing policies and schemes to support the uptake of energy efficiency measures, including deep renovations and on-site generation. The strategy provides more details about concrete actions that the Maltese government plans to put in place in the short to medium term. These actions will be aimed primarily at encouraging cost-effective measures and improving worst-performing buildings.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

EED Article	Implementation status
Article 6	With respect to the provisions of Article 6 of the EED, The Energy and Water Agency collaborated with the relevant entities including the Department of Contracts to formalise in an appropriate guidance document the administrative processes to implement Article 6 of the EED. The document is available online to guide public authorities in their procurement of goods, services and buildings in line with Article 6.
Article 7	For the period 2014-2020, Malta indicated that Article 7 energy savings would be met through the setting up of an Energy Efficiency Obligation Scheme, as well as alternative policy measures. For the period 2021-2030, the obligation on the electricity supplier is no longer in place so Malta will achieve its savings through alternative policy measures which include amongst other things: • Financial support schemes for Solar Water Heaters and Heat Pump Water Heaters • Financial Support Schemes for Services and Industry • Financial Support Schemes for Solar PV
Article 8 and Article 16	Malta has adopted Option (a) in line with Article 8(1)(a), where energy audits are carried out in an independent manner by qualified and/or accredited experts according to qualification criteria. The Energy and Water Agency (EWA) monitors energy audit activities. It promotes energy audits and guarantees the attainment of the desired quality in mandatory audits by non-SMEs. EWA in conjunction with the Regulator for Energy and Water Services has issued a guidance note on the carrying out of mandatory energy audits by non-SMEs. This guidance note is updated for each round of audits as needed. The latest version is available at the link: https://www.rews.org.mt/#/en/a/88-registered-and-authorised-providers-energy-services-providers The Regulator for Energy and Water Services published Government Notice (GN 1032 of 2014) which sets out a scheme for the registration of training courses leading to the certification of energy auditors and energy managers. The registered training courses and the list of certified energy auditors and energy managers are available at the following link: https://www.rews.org.mt/#/en/a/81-providers-res-and-energy-audits
Articles 9-11	In line with its programme to ensure an efficient electricity distribution system, the DSO, Enemalta has equipped 99.6% of its consumers with smart meters and has adopted a tariff system that favours the prudent use of energy. Furthermore, post-2020, electricity tariffs shall continue to incorporate a built-in mechanism which promotes end-use savings. This includes a "rising block tariff" and an eco-reduction mechanism. These mechanisms incentivise end-users to reduce consumption below an established threshold and deter high consumption by applying higher tariffs as consumption increases.

EED Article	Implementation status
Article 12	Article 12 requires MSs to take appropriate measures to promote and facilitate an efficient use of energy by small energy customers, including domestic customers. Malta is addressing this requirement through various initiatives intended for small energy customers investing in energy efficiency and renewable sources. These measures include fiscal incentives, feed-in tariffs, grants and subsidies, and the implementation of lighthouse projects in the residential sector. Furthermore EWA technical personnel disseminate best practices by participating in popular media programmes and conduct home visits, to promote energy efficiency and provide tailored energy and water saving tips. These instruments and policies are intended to promote a behavioural change towards the better use of energy.
Article 14	In 2015, a comprehensive assessment on the potential for the application of high efficiency cogeneration and efficient district heating and cooling in Malta was delivered to the European Commission in accordance with Article 14(1) of Directive 2012/27/EU. This report determined that district heating systems are not cost-effective solutions for Malta due to the fact that the final energy consumption for heating purposes in Malta is relatively low compared to what is needed to justify the considerable investment required for district heating networks. Indeed, despite the increase in final energy consumption for heating and cooling foreseen for 2030 and 2050, the final heating demand is likely to remain below the necessary threshold that renders such technologies economically feasible. It is for this reason that the new report carried out in 2020 does not consider the possible use of district heating networks. Scenarios and technologies also take into consideration the lack of a natural gas grid. Additionally, CHPs were also not prioritised as technologies to be assessed in the report, since the recommendation for potential use outlined in the 2015 report was met with significant challenges during its implementation. In an effort to overcome these challenges and incentivise the uptake of high-efficiency CHP units, in 2016 the government released a scheme whereby enterprises were eligible for aid through tax credits. To date, the uptake was nil, mainly due to spatial requirements for onsite fuel storage (mainly LPG) and applicable international standards. Such challenges brought about by spatial constraints, along with Malta's ambition to contribute to the EU-wide commitment of decarbonising by 2050, led to the prioritisation of more relevant technologies to Malta's heating and cooling specificities, as analysed in the 2020 report.
Article 15	In line with the requirements of this Article, the designated distribution system operator has carried out an assessment of the energy efficiency potential of the electricity infrastructure.

EED Article	Implementation status
Article 17	Regular training sessions and seminars for energy auditors have been organised whereby best practices are shared with the aim of continuing to ensure capacity building of national expertise and higher-quality audits. These events also target the analysis of grey areas of expertise observed from the ex-post assessments of past audits. Auditors will be encouraged to work together as teams, building a pool of expertise, to provide more comprehensive audits which cover the various aspects of energy use. Training sessions for industry employees on energy efficiency measures shall be organised to target both their place of work as well as the employees' households. This will be part of a holistic campaign to promote energy efficiency and renewable energy, starting in 2019 which includes an energy efficiency website https://energyefficiencymalta.com/ and a project Investing in Energy https://mbb.org.mt/category/projects/archive/investing-in-energy/ aimed at introducing further energy audits to Small and Medium Enterprises and raising energy saving in the agenda of all enterprises. The Energy and Water Agency will also be undertaking initiatives to help raise awareness amongst the public on behavioural changes which can help save energy. These include studies as well as educational and social media campaigns in order to increase energy efficiency in households.
Article 18	A public consultation on Energy Performance Contracting was held in February 2017. Respondents highlighted that take-up is restricted due to limited savings. Furthermore, potential ESCO providers find it difficult to accumulate a sufficiently large portfolio of interventions to build a suitable business case. Malta is currently analysing whether the development of a financial Special Purpose Vehicle, which would provide off-balance sheet financing for ESCOs and their customers, offer attractive repayment options through low interest rates and have a higher risk tolerance than traditional financing instruments, would achieve the required effectiveness and leverage in the local scenario.
Article 19	Studies to implement these paragraphs of this Article are still being developed.

2.2. Non-legislative provisions

With the local transposition of the Energy Efficiency Directive in 2014, the industry sectors were informed of their legal obligations towards Article 8, and the Government relayed its commitments to support all economic sectors to boost competitiveness. The Sustainable Energy and Water Conservation Unit in the summer of 2014 approached the Malta Business Bureau, to facilitate the implementation of the obligation of Article 8 and also proceeded to negotiate voluntary agreements with non-SMEs to promote the implementation of energy efficiency measures as a tool to support this aim. A number of voluntary agreements were signed in 2015 covering energy saving measures implemented from 2014 onwards. The Agency has just kick-started the process of updating these voluntary agreements. Companies achieved 88.6GWh cumulative energy savings in the period 2014-2018.

2.3. Implementing bodies

Indicate here who the main implementing bodies are in your country and in which field they support EED implementation.

The Ministry for Energy, Enterprise and Sustainable Development

Regulator for Energy and Water Services

The Ministry for Environment, Climate Change and Planning

Building and Construction Agency

3. Implementation of revised EED articles

The above bodies are responsible for the implementation of the revised EED articles. In view of the new directive, an update to the previous Legal Notice was deemed necessary: Subsidiary Legislation 513.07 Energy Efficiency Regulations, Legal Notice 66 of 2021.

4. Relevant information

The Energy and Water Agency: https://www.energywateragency.gov.mt/

National EED Implementation Report (NIR) 2021

EED implementation in the Netherlands

Introduction

The implementation of the Directive on Energy Efficiency (EED) (2012/27/EU) is the responsibility of the Ministry of Economic Affairs and Climate Policy (EZK). Also the Ministry of the Interior and Kingdom Relations and the Ministry of Infrastructure and Water Management are involved in the implementation of the EED. The Netherlands Enterprise Agency (RVO) implements several instruments, programmes and measures relating to the implementation of the EED. RVO also coordinates and contributes to the reporting of energy efficiency at both the national and European level. The ties between the Min. of EZK and RVO are close to the extent that RVO is a directorate within the Min. of EZK. The PBL Netherlands Environmental Assessment Agency is involved in calculations regarding energy efficiency (EE).

This National Implementation Report (NIR) of the Directive 2012/27/EU of the European Parliament and of the Council on Energy Efficiency (EED) builds on the 2016 NIR. This version includes the implementation of the amendment of this Directive (Directive (EU) 2018/2002 of the European Parliament and of the Council of 11th December 2018 amending Directive 2012/27/EU on energy efficiency) and Governance Regulation (Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11th December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) and Directives, among which 2012/27/EU (NECPs and reporting/Energy Efficiency dimension related to EED).

1. Legal context

To implement the EED, changes have been made to several national laws. These have been, among others, effectuated by the law on the implementation of EC directives energy efficiency, the electricity law, the gas law, law on heat. They all came into force in July 2015 together with a temporary regulation for the implementation of Articles 8 and 14 of the EED. In the Netherlands the EED obligations have been fully transposed into national laws. As the EED has evolved and been revised, so too has the transposition into national legislation, furthermore initial implementation has also been improved and lessons learned during the course of the EED.

The current energy and climate policy is anchored in the 2017 Coalition Agreement, the Climate Act, the recently published Climate Agreement and the 2013 Energy Agreement.

Since October 2017, climate and energy policy has been mandated to the Ministry of Economic Affairs and Climate Policy (EZK). The responsibility of the Ministry of EZK includes implementation of the Energy Agreement, implementation of the Climate Agreement and drafting the Climate Plan and NECP.

The NECP contains the main priorities of the climate and energy policy for the next 10 years. The contents are largely determined by the Climate Agreement, established in June 2019 involving over a hundred (public and private) stakeholders.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

The Climate Agreement is part of the Dutch climate policy. It is an agreement between many organisations and companies in the Netherlands to combat climate change. The government's central goal with the National Climate Agreement is to reduce greenhouse gas emissions in the Netherlands by 49% by 2030 compared to 1990 levels.

The national strategy for achieving the long-term reduction targets is established in the Climate Agreement. Due to the integrated character of the Climate Agreement, it addresses the five dimensions of the Energy Union (decarbonisation, energy efficiency, energy security, internal energy market and research and innovation). These are subdivided into five sectors, which are: electricity, industry, mobility, agriculture and land use, the built environment, and into a number of cross-sectoral areas, which are electrification, hydrogen, biomass, innovation, the labour market and education, finance, civic participation, spatial integration and the regional energy strategy (RES).

The mandatory energy savings for the Netherlands during the period 2021 up to and including 2030, in accordance with Article 7 of the Energy Efficiency Directive, is expected to amount to 925 petajoules. The Dutch contributions will be achieved by implementing the package of policy measures in the Climate Agreement, such as the district-oriented approach in the built environment, the CO2 tax in industry and the expansion of the SDE+ (stimulation of sustainable energy production).

Indicative national energy-efficiency contribution to achieving the energy-efficiency targets of the European Union of at least 32.5% by 2030, including cumulative energy savings in final consumption (Article 7 of the EED) and total floor area that must be renovated (Article 5 of the EED).

The indicative national contribution of the Netherlands to the European energy-efficiency target of 32.5% is based on the expected primary energy consumption of the Netherlands in 2030, in the event of a cost-efficient package of measures capable of achieving a 49% reduction in greenhouse gas emissions by 2030 compared with 1990. In the PBL Outlook from 2018, a number of packages of measures have been analysed to reduce greenhouse gas emissions by 49% in 2030. In 2018, the PBL calculated the corresponding energy consumption for each package of measures. The national energy efficiency contribution assumes the most cost-efficient package of measures. Measures that result in energy savings are included herein, insofar as the measures were deemed cost-efficient by PBL. The "energy-efficiency first" principle is included as part of the cost-effective reduction of greenhouse gas emissions.

The Netherlands has opted to make its contribution based on primary energy consumption in 2030. The Netherlands aims to achieve primary energy consumption of 1,950 petajoules by 2030 (excluding use for non-energy purposes). In terms of final energy consumption, this contribution is translated into an expected final energy consumption of 1,837 petajoules by 2030. These contributions are based on the definitions adopted in Eurostat in the context of the 2020-2030 energy targets. As a result, the Netherlands is expected to meet the indicative national contribution to the European target. The Dutch contributions will be achieved by implementing the package of policy measures specified in the Climate Agreement.

The KEV 2020 (Climate and Energy Outlook) describes greenhouse gas emission development in the Netherlands, in accordance with the Climate Act, up to and including 2030.

The KEV provides an integrated view of developments in energy supply and energy consumption, as well as of other activities that lead to greenhouse gas emissions. The KEV builds on previous National Energy Outlooks (NEVs) and will be developed further, in the coming years.

As indicated this does not yet include the measures proposed in the Climate Agreement. This is why no indicative trajectory has been defined as of 2021. An indicative trajectory will be established as of 2021.

2. Status of the implementation

2.1 Legislative provisions

This table contains information on how the EED has been implemented by Article, including any relevant web links.

EED Article	Implementation status
Article 4	Article 4 of the EED requires European Member States to establish a long-term strategy for the renovation of buildings. The strategy of the Netherlands is based on the Energy Agreement for Sustainable Growth that was concluded in September 2013. The basic assumption of the Energy Agreement is that citizens and companies will themselves take responsibility for investments in energy-saving measures. The role of the national Government is to facilitate and encourage energy-savings where necessary and to implement certain regulations of a more restrictive nature. The national Government has provided an incentive for the financing of energy-saving measures in particular with the National Revolving Fund for Energy Savings for private home-owners and a subsidy scheme for energy savings in the social housing sector. Additional measures will also be provided to assist municipal authorities in their role as promoters of energy efficiency at the local level and to provide homeowners with an (indicative) energy label. The government facilitates and encourages third parties to take energy-saving measures and deals with restrictive regulations. The government's renovation strategy can be divided into three activities: 1. Own responsibility 2. Facilitating and encouraging 3. Financing and subsidising This approach applies both for the building of residential and non-residential buildings. As a result of the EED revision the Long-Term Renovation Strategy as specified by Article 4 now falls under the Energy Performance in Buildings Directive.

EED Article	Implementation status
Article 5	Article 5 EED obliges Member States to renovate 3% of the floor area of buildings owned and occupied by its central government each year and offers Member States the opportunity to opt for an alternative approach to achieve an equivalent objective. On the basis of Article 5(6) the Netherlands has opted for an alternative approach. The Ministry of the Interior has commissioned ECN in 2013 to calculate if the current approach of 2% energy savings is as effective as energy reduction by 3% renovation would be annually. It concerns buildings of the National Real Estate Company (7 million m^2 premises of the Government Buildings Agency (GBA) (offices, courts, prisons, monuments, etc) and 6.5 million m^2 of defence property from the Ministry of Defence). According to ECN the GBA would save 14% (approximately 700TJ) with the approach of 2% energy savings. The service property Defence would save with the chosen approach 600 TJ savings; about 300 TJ for defence property covered by the EED obligation. See ECN report 2013. For the implementation of Article 5(7), the Minister of Infrastructure and the Environment is encouraging municipal and provincial authorities to draw up a local climate agenda setting out energy efficiency objectives. A local climate agenda also contains policies to reduce energy consumption in the built environment. The 'Road map to a climate-neutral municipal and provincial organisation' is one of the measures developed to achieve this. In the Energy agreement for sustainable growth, the International Cooperation Agency of the Association of Netherlands Municipalities and therefore the municipalities is responsible for energy efficiency in social property. *Total floor area that must be renovated or the equivalent in annual energy savings (Article 5 of Directive 2012/27/EU)* Article 5 of the Energy Efficiency Directive (EED) contains a requirement to renovate 3% of central government's building stock on an annual basis. Following renovation, the 3% of the building stock must comply with the minimum energy performance requirements established by the Member State in question in the context of Article 4 of the Energy Performance of Buildings Directive (EPBD). The requirement relates to buildings owned and used by central government with an area of use greater than 250 m^2. The directive provides the scope for achieving the same savings effect using an alternative approach. The Netherlands aims to make use of this option for the 2021-2030 period. The Netherlands aims to adopt the Sectoral Road Map of the Central Government Real Estate Agency as an alternative approach. The road map was produced in the context of the Climate Agreement and outlines the route to achieve a low CO2 real estate portfolio for central government by 2050. The desired savings in the road map are 1.3 petajoules in 2030. This is much higher than the expected savings of 0.2 petajoules if 3% of the buildings with an area of use greater than 250 m^2 owned and used by central government are renovated annually.

EED Article	Implementation status
Article 6	The central government and the other authorities have been purchasing sustainably since 2007 to encourage sustainable production. A general purchasing framework is being developed to take account of energy efficiency in the central government's purchases. This framework is placed on the website PIANOo (the Dutch Public Procurement Expertise Centre; https://www.pianoo.nl/). Here expertise is built up through a large network of around 3,500 public procurement professionals and contracting authorities. PIANOo brings experts in specific areas together, pools knowledge and experience and provides advice. It also fosters dialogue between government contracting authorities and private sector companies. Public purchasing is centralised for several years, through DGOBR, part of the Ministry of Interior. This is divided into 34 purchasing categories and 34 category managers. There is an Interdepartmental Committee on National Operations (ICBR). The aim is that more and more services are purchased instead of products, and more and more is tendered and EMVI rather than lowest price. For 50 product groups sustainability criteria have been developed for sustainable purchasing. For the management and maintenance of buildings and infrastructure the use of energy performance contracts has been increased.
Article 7	The mandatory energy savings for the period 2014 to 2020 inclusive amount to 482 petajoules, in accordance with the fourth National Energy-Efficiency Action Plan. The mandatory energy savings during the period 2021 up to and including 2030 amount to 924 petajoules. The Netherlands has determined cumulative energy savings in the 2021-2030 period based on 0.8% savings per year of average final energy consumption in the years 2016, 2017 and 2018 (the reference consumption). For the period of 2014-2020, the Netherlands opted to take an alternative approach to meeting the requirements of Article 7 of the Energy Efficiency Directive (EED).86. During the 2021-2030 period, the Netherlands also aims to take an alternative approach and use various policy instruments in order to meet the national energy savings target. Current energy and climate policy is anchored in the 2013 Energy Agreement, the 2017 Coalition Agreement, the Climate Agreement and the Climate Act. The Climate Agreement contains many agreements on actions that will be undertaken and new policies that will be implemented to achieve the climate target of a 49% reduction in greenhouse gases by 2030. Many of these policies will contribute to achieving the mandatory energy savings under Article 7. In addition to new policies, a number of existing policies (whether or not in adapted form) will continue after 2020. This is explained in more detail in Appendix 3 of the final NECP of the Netherlands. In the Methodology document on energy savings (in Dutch)[1], the Netherlands indicates the methods, in accordance with article 3 point 2 (h) of the Governance Regulation, that will be used to monitor and calculate the energy that is saved.

[1] https://english.rvo.nl/sites/default/files/2020/07/EED-Methodedocument-energiebesparing.pdf

EED Article	Implementation status
Article 8	In the built environment, energy audits are promoted by means of the energy label, the energy performance advice (EPA) and the energy management systems. These instruments are implemented independently by qualified experts and are verified by independent bodies. For the energy label this is done on the basis of the Energy Performance of Buildings Decree and the Energy Performance of Buildings Regulation. The use of energy audits in industry is promoted by the LTA3 (Long-Term Agreement 3, MJA3) and the Long-Term Agreement for the energy efficiency of ETS enterprises (MEE). To ensure that Article 8 of the Directive is fully implemented, additional requirements are included in the temporary amended regulation for the implementation of Articles 8 and 14 of the EED (24 may 2019, Wijziging Tijdelijke regeling implementatie artikelen 8 en 14 Richtlijn energie-efficiëntie). This amended regulation stipulates that all large enterprises must have carried out an energy audit before 31st December 2020, guarantees that all large enterprises repeat their energy audit every four years and also stipulates that the Minister of Economic Affairs and Climate Policy assesses the compliance of the energy audit. These provisions will become part of the Implementation EU-directive energy-efficiency law (Wet implementatie EU-richtlijnen energie-efficiëntie).
Article 8(5)	Article 8 (5) states that access of market participants offering energy services must be based on transparent and non-discriminatory criteria. The Competitive Trading Act and the supervision thereof by the Authority for Consumers and Markets (ACM) will ensure this.
Article 8(6)	Article 8 (6) of the Directive states that enterprises that are not SMEs and that implement an energy or environmental management system – certified by an independent body according to the relevant European or International Standards – are exempt from the requirement to carry out an energy audit once every four years under the Directive. The temporary Regulation on the implementation of Articles 8 and 14 includes an exemption from the requirement to carry out an energy audit for this situation.
Article 8(7)	Article 8 (7) contains an optional provision for district heating and cooling networks. As part of the promotion of efficiency in heating and cooling, a cost-benefit calculation must be made for new or substantially refurbished installations with a total input of more than 20 MW of the operation of the installation as a high-efficiency cogeneration installation. To determine whether a comprehensive cost-benefit calculation is necessary, the temporary Regulation on the implementation of Articles 8 and 14 stipulates that a quick scan must be carried out as part of the energy audit.

EED Article	Implementation status
Articles 9-11	The 1998 Electricity Act, the Gas Act, the Heating Act and the EU Energy Efficiency Directive (Implementation) Act contain regulations for the provision of meters. These acts provide that small consumers of gas, electricity, cooling and heat and large consumers of cooling can have an individual meter. In October 2020 the Act amending the Implementation of EU Energy Efficiency Directives Act and the Heat Act in connection with the implementation of Directive 2018/2002/EU on energy efficiency entered into force.
Articles 12 and 17	Examples of instruments and policies implemented in the Netherlands to promote behavioural change by fiscal incentives include the Energy Investment Allowance (EIA, Article 3.42 of the 2001 Income Tax Act) for small entrepreneurs and the excise on mineral oils (Section 6, Chapter II of the Excise Act) for small customers and consumers. The EIA is a budgeted fiscal scheme that allows entrepreneurs to deduct a certain percentage of the cost of energy-savings measures from their profit tax. The energy tax and excise duties on mineral oils are putting up the cost of using gas, electricity, petrol and diesel, for example, for small customers and consumers. Regarding information provision, the Netherlands Enterprise Agency distributes information via the internet about sustainable leases for buildings, for example, (Green Leases), performance contracts for the management and maintenance of buildings, and forms of mortgage which are combined with energy-saving measures. The website www.energiesubsidiewijzer.nl has been developed by the Netherlands Enterprise Agency and provides a list of subsidies, loans and other schemes for energy efficiency. MilieuCentraal and the National Institute for Family Finance Information provide consumers with information about energy efficiency via the website www.bespaartest.nl. There are various enterprises offering energy services in the Netherlands. The independent network organisation Esconetwerk aims to put these parties in a better position to gather information about the provision of energy services and to utilise opportunities in this field. Esconetwerk's focus is on reducing the cost of setting up an energy service provision contract between the energy service provider and the owner, manager and/or user of a building and to increase the quality of the energy saving measures in these buildings. These measures provide banks and other financial institutions with information about the possibilities of participating in the financing of measures to improve energy efficiency, by setting up public-private partnerships, for example.
Article 14	The update of the comprehensive assessment according to Article 14 was carried out and notified to the commission at the end of 2020.

EED Article	Implementation status
Article 16	The level of competence, objectivity and reliability of energy advisors in the Netherlands is very high. There are various training programmes for energy advisors and certifying bodies for the certification and accreditation of the training programmes for energy advisors. An example of a certifying body is the Stichting Kwaliteitsborging Installatiesector (Foundation for Quality Assurance in the Installation Sector) (KBI). KBI is an industry organisation which, amongst other things, certifies the design, installation and management of installations and assesses means of ventilation in dwellings. Another example of a certifying body is the Platform for Certification of Environmental and Occupational Health & Safety Management Systems (SCCM). The SCCM is working on a clear certificate for example for ISO 14001 (environment), EMAS (environment) and ISO 50001 (energy). The SCCM establishes certification systems for this and publishes them on its website. The Accreditation Council (Raad voor Accreditatie) supervises the certifying bodies. This structure contributes to realising the national energy efficiency objectives. MilieuCentraal's website, aimed at consumers, refers to the importance of a certified customised solutions advisor.
Article 18	The Netherlands Enterprise Agency (RVO) website distributes information to promote the market for energy services and access of small- and medium-sized enterprises to this market. This information includes a template for a performance contract for the supply of heat and/or cooling by an ESCo and a number of other performance contract templates. The website of the Netherlands Enterprise Agency also provides information about financing structures and possible subsidies, such as the EIA. RVO is participant of the Platform Duurzame Huisvesting. One of the tools of PDH is Menu on Performance contracting. It stimulates clients and ESCos to use EPC for energy efficiency measures. RVO developed a Guide on Procurement of Energy Performance contracting to help municipalities and other procuring organisations with defining projects with a performance contract. Energy service providers are listed on the internet (www.esconetwerk.nl). The list includes 41 suppliers and relevant parties, who signed the Transparense Code of Conduct. There are certainly more service providers available in the Netherlands, but these providers didn't sign this code. We do not know the extent to which ESCO services are used in the Netherlands, in the commercial sector and in the public sector, for energy efficiency and maintenance in buildings, in public lightning, housing, or for installations/products such as WKO, LED lightning, solar panels. However it will probably increase significantly in the coming years because the working method fits with a trend towards further cooperation, not simply tendering on the lowest price, but on the cost-profit ratio and finding and using core competencies (not every company is good at all aspects of operation). RVO was involved in a H2020 project GuarantEE on capacity building and promoting EPCs, from April 2016 – March 2019.

EED Article	Implementation status
Articles 19 and 20	The independence of the network operators is guaranteed in the 1998 Electricity Act and the Gas Act (House of Representatives, 30 212). Good market access is assured by existing energy regulations and competitive trading legislation. We are also implementing this by making an open standard compulsory for the consumer port on the smart meter. This obligation is included in the General Order in Council on Remotely Readable Meters. This gives third parties access to the measurement data obtained by the network operator via the smart meter, provided they obtain consent to this from the small consumer (privacy regulations). The problem of the split incentive in social housing is solved by the Housing Valuation System in which investments in improving energy efficiency are encouraged by means of a points system based on the energy label. An energy-efficient dwelling delivers more points under the points system than a dwelling that is not energy efficient. At the moment of writing there is new legislation proposed for energy performance compensation between tenants and landlords. The Netherlands has set up a national fund to implement the alternative policy measures under Article 7 of this Directive. Under the Housing Agreement (Parliamentary Papers II, 2012/2013, 32 847 No 42) the cabinet contributed a total of € 150 million in 2013 and 2014 to a national fund for energy savings in the built environment. This is a revolving fund, which means that the expenditure of the fund will be returned to the fund over time in the form of interest and repayment. This revolving fund is aimed at energy saving for tenants and homeowners and is supplemented with funds from the market, to achieve a total investment of € 600 million. The revolving fund started in 2013. The state provided a € 400 million subsidy for landlords in the rental social housing sector for investments in energy efficiency for the period 2014 – 2017 with the aim of contributing to the objectives of the Energy Saving Agreement for the Rental Sector. Nationaal Energiebespaarfonds (NEF) / Nationaal Warmtefonds
Article 14 (7) (9) (10)	Provisions are made in the temporary regulation for the implementation of Articles 8 and 14 to comply with Article 14. Article 14 (10) sets rules for guarantees of origin for high-efficiency cogeneration. These rules will be implemented in the Regulation on Guarantees of Origin for Electricity Generated in an Installation for High-Efficiency Cogeneration. Other measures: The development of efficient heat and cooling networks will be promoted by means of fiscal incentives such as the EIA and energy tax, but also by the LTA3, MEE, Green Deals, the Nationaal Expertise Centrum Warmte (National Heat Expertise Centre) and the setting of EPC standards.

EED Article	Implementation status
Article 15	The 1998 Electricity Act, in common with the Gas Act, promotes network tariffs that are related to the most effective operation and quality of the electricity chain. As the network tariffs do not distinguish between providers of balancing and ancillary services by means of demand response measures or other measures, no additional requirements are needed for this. Annex XI.2 to the Directive specifies that tariffs or conditions for the transmission of electricity may not prevent network operators or energy retailers from offering services for demand response measures, demand management and distributed generation. The ACM has been appointed to supervise the tariffs and conditions of network operators to ensure that they do not constitute an impediment to the provision of the specified services and the energy efficiency of the electricity and gas market. **Facilitating the promotion of demand response** Providers of demand response services must be treated in a non-discriminatory way on the market for balancing and associated services. This was already the case in the Netherlands. All producers or customers with balance responsibility, including providers of demand response services, can compete in the market for the provision of system services if, by switching installations on or off, they can contribute to balancing the system. **Energy efficiency for the design and regulation of energy networks** The regulation of quality aspects of the operation of electricity and gas networks provides incentives for optimising energy efficiency in the energy system. This Bill also specifies that the ACM must take account of energy efficiency when performing its duties on the electricity and gas market. This will allow maximum use of the potential for energy efficiency in the electricity and gas networks. It also further implements Article 15 (2) of the Directive, which asks Member States to assess the remaining potential for energy efficiency in the networks.

2.2 Implementing bodies

Implementation of the EED is entrusted, under the authority of EZK and BZK (for building related aspects) to RVO in conjunction with PIANOo and ACM.

3. Implementation of revised EED articles

As a result of the EED revision of 2018 implementation has been intensified; however, no new legislation was deemed necessary. For full information on the changes see EED notification to the Commission of 24th June 2020.

Part of the Netherlands' energy efficiency policy focuses on raising awareness and making joint agreements with the sector and fellow governments:

- Agreements: In recent years, various agreements and green deals have been concluded between central government and other parties, such as companies, social organisations or other governments. With a green deal, parties strive to find solutions to work in a sustainable manner. The government helps these parties with various bottlenecks such as ambiguous or conflicting regulations. More than 200 green deals have been signed since 2011. Various green deals reinforce energy efficiency such as the zero emission urban logistics green deal, the maritime shipping green deal, the inland waterway shipping and ports green deal, the participation of the environment in sustainable energy projects green deal and "Het Nieuwe Draaien" green deal focusing on mobile machinery. Other agreements (aimed at energy efficiency) between central government and other parties are e.g. the 10 petajoule energy saving built-up environment agreement and the More with Less agreement for energy saving new constructions. The Netherlands will continue to focus on green deals and agreements.
- Campaigns: the Dutch government creates energy awareness with public campaigns such as the "Energiebesparing doe je nu", (Now's the time to make energy savings!), "Kies de beste band" (Choose the best tyre) and "Watt je moet weten over de informatieplicht energiebesparing" (Watt you need to know about the energy saving information requirement).
- Regional approach: Dutch municipalities, provinces and water boards work together with stakeholders on a Regional Energy Strategy (RES) within the region. The RES is an instrument for jointly arriving at choices for the generation of renewable electricity, the heat transition in the built-up environment and the required storage and energy infrastructure. Among other things, the RES offers insight into the possibilities for regional generation and savings.

4. Relevant information

The Netherlands Ministry of Economic Affairs and Climate Policy (EZK)

The Netherlands Enterprise Agency (RVO)

See also the Dutch Integrated National Energy and Climate Plan 2021-2030 (NECP).

The NECP contains the main priorities of the climate and energy policy for the next 10 years. The contents are largely determined by the Climate Agreement, established in June 2019 involving over a hundred social (public and private) parties. The strategy of the Netherlands is based on this Climate Agreement. The Climate Agreement is part of the Dutch climate policy. It is an agreement between many organisations and companies in the Netherlands to combat climate change. The government's central goal with the National Climate Agreement is to reduce greenhouse gas emissions in the Netherlands by 49% by 2030 compared to 1990 levels.

National EED Implementation Report (NIR) 2021

EED implementation in Poland

Introduction

The Energy Efficiency Directive (EED) was implemented by a new Energy Efficiency Law (EEL) (2016), which replaced the previous Energy Efficiency Law (2011). The responsibility of the whole implementation is placed on a minister competent for energy (MoE). It means that the duty is shifted to different ministers according to the current structure of the government. Actually, at the end of 2021, the duty is allocated to the Ministry of Climate and Environment; earlier, it was in the Ministry of Energy.

1. Legal context

Energy efficiency policy in Poland until 2020. The most important documents defining energy efficiency policy until 2020 were:

- The Energy Policy for Poland until 2030;
- The National Energy Efficiency Action Plans (NEEAPs: 1, 2, 3, 4 from 2007, 2012, 2014, 2017 respectively) required by the Directive 2006/32/EC and the Directive 2012/27/EU.

Concerning legal regulations, the first Energy Efficiency Act was adopted in 2011 (Journal of Laws of 2011 No. 94, item 551), to develop mechanisms stimulating the improvement of energy efficiency. Primarily, the Act introduced the obligation to obtain an appropriate number of energy efficiency certificates, the so-called white certificates (WCs) under the newly introduced White Certificate System (WCS), by energy companies selling electricity, heat or natural gas to final customers connected to the grids on the territory of Poland.

The Act of 2011 was replaced by the new Energy Efficiency Act of May 20, 2016 (Journal of Laws of 2016, item 831), aimed at further improving the energy efficiency of the Polish economy and ensuring meeting the national energy efficiency target. The Act's primary purpose is to regulate the development of national legislation and set out guidelines that will allow Poland to achieve the energy efficiency targets as required by the EU law.

The Act fully transposes Directive 2012/27/EU into national law. According to Article 1 of the Act, it regulates (i) principles for the development of the national action plan on energy efficiency; (ii) tasks of the public sector in energy efficiency; (iii) rules for implementing the obligation to obtain energy savings; and (iv) procedures for conducting an energy audit of a company.

Specifically, the WCS was deeply modified with the main change of dropping the auction system for granting the WCs. The Act also introduced a regulation that a public sector entity may implement and finance projects using an energy efficiency improvement contract. All Polish public authorities are obliged to purchase energy-efficient products and services. They must buy or rent energy-efficient buildings and comply with energy efficiency recommendations in state-owned and rented buildings.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

Energy efficiency policy in Poland after 2020. In the longer term, the state's energy policy is presented in strategic framework documents. These include:

- The Energy Policy for Poland 2040, adopted by the Council of Ministers on 2nd February, 2021. 12 years after establishing the previous policy, a new energy strategy was adopted, setting out the directions for the development of this sector.
- The Strategy for Responsible Development 2020 – with an outlook to 2030 (adopted in 2017).
- National Energy and Climate Plan for the years 2021-2030, which Poland was obliged to develop by the provisions of the Regulation of the European Parliament and of the Council. The document was adopted by the European Affairs Committee on December 18, 2019.
- Long-Term Renovation Strategy.

The Energy Policy for Poland until 2040 (EPP2040) sets the framework for the energy transition in Poland. It contains strategic arrangements for selecting technologies to construct a low-carbon energy system. PEP2040 contributes to implementing the Paris Agreement concluded in December 2015, considering the need to carry out the low-carbon transition in a fair and solidarity-based manner. Furthermore, PEP2040 determines the national share in implementing the EU's climate and energy policy, whose ambition and dynamics have increased significantly in recent times.

The main objective of the energy policy EPP2040 is energy security while ensuring the competitiveness of the economy and energy efficiency, reducing the impact of the energy sector on environment, and securing the optimal use of its energy resources. The EPP2040 envisages eight strategic directions, namely: (1) making the optimum use of own energy resources, (2) expanding electricity-production and network infrastructure, (3) diversifying natural gas and oil supplies and expanding network infrastructure, (4) developing energy markets, (5) implementing nuclear power projects, (6) developing renewable energy resources, (7) developing the heating and cogeneration sector, (8) improving energy efficiency.

2. Status of the implementation

It had been decided that EU directives related to energy efficiency would be transposed into the Polish legal system by the legal acts under the common name of "Energy Efficiency Law". The EEL (2011) implemented the Directive 2006/32/EC of 5th April 2006 on energy end-use efficiency and energy services. Then, the EEL (2011) was replaced the new EEL (2016). It introduces necessary changes to fully implement the EED. The Act adopted by the Parliament on 20th May, 2016, came into force in October 2016.

According to the EEL (2016), the MoE is obliged to prepare the National Energy Efficiency Action Plan every three years. Furthermore, according to Article 9 of the EEL, the MoE shall perform different additional tasks related to energy efficiency, such as organising campaigns to promote the use of energy efficiency improvement measures, including the introduction of innovative technologies; conducting information and educational activities, organising training on available energy efficiency improvement measures; monitoring progress in increasing energy efficiency improvement.

Some statistical duties were attributed to the National Statistical Office and the regional governmental administration.

As the primary means of energy efficiency to meet the national energy-saving targets, the White Certificate System (WCS) was launched under the EEL (2011), starting in 2013. In the WCS, certain entities are obliged to increase energy efficiency projects or purchase white certificates (WC) in a limited number. The Act covers both the private and public sectors and imposes saving obligations on all entities delivering energy in all forms to the end-users. Furthermore, it enumerates efficiency-improving measures that might be used by the public sector entities, which includes a solution in the form of the conclusion of an energy performance contract. According to the Act's provisions, the private sector and – within its framework – large companies are obliged to conduct energy audits at four-years

intervals. The system incorporates legislative provisions approved at the EU level into the Polish legal regime. Its main task is to bring about the attainment of the 2020 efficiency target. It was set at the level of 13.6 Mtoe in 2020 – compared with the reference value for Poland calculated based on the baseline scenario. The target translates, in absolute terms, into primary consumption at a level of 96.4 Mtoe and the final consumption reaching 71.6 Mtoe in 2020.

The role of a horizontal review of the status of the undertaken energy efficiency actions and measures, considering the already achieved effects, is performed by the National Action Plan (four editions). Its function is to provide information and structure measures undertaken by Poland to improve energy efficiency. The National Action Plan has been replaced by this National Energy and Climate Plan starting from 2019.

The National Energy Efficiency Action Plan for the years 2021-2030 (NEEAP 2017) contains a description of energy efficiency improvement measures by end-use energy sectors and calculations for final energy savings obtained in 2008-2015 and planned to be achieved in 2020. This document was prepared at the Ministry of Energy with the involvement of the Ministry of Infrastructure and Construction and the Central Statistical Office. The NEEAP 2017 also contains a long-term strategy for mobilising investment to renovate the national stock of residential and commercial buildings, both public and private. The responsibility for implementing measures aimed at meeting the targets set in the National Energy Efficiency Plan rests on several public administration entities, depending on their scope of competence, and – at the operational level – on private entities.

This one was the last NEEAP for Poland, and the subsequent reports will be a part of the National Energy and Climate Plan as requested by the Energy Union governance regulation (2018/1999).

On 30th December, 2019. Poland submitted the National Energy and Climate Plan for 2021-2030 (NECP PL) to the European Commission. The NECP PL presents directions that are consistent with and complementary with the horizontal development strategy of the country, i.e. the Strategy for Responsible Development and its integrated sector strategies, in particular with the Energy Policy for Poland 2040. It sets the following climate and energy targets for 2030:

- 7% reduction in greenhouse gas emissions in sectors not covered by the ETS compared to the level in 2005,
- 21-23% share of RES in gross financial energy consumption (the 23% target will be achievable if Poland is granted additional EU funds, including those intended for a just transition), considering: 14% share of RES in transport, the annual increase in the share of RES in heating and cooling by 1.1% on average per year,
- increase in energy efficiency by 23% compared to PRIMES2007 forecasts,
- reduction to 56 – 60% of the share of coal in electricity production.

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 3 Energy efficiency targets	Indicative national energy efficiency contribution to achieving the Union's primary energy efficiency target of 32.5 % in 2030 as referred to in Article 1(1) and Article 3(4) of the EED (amended by Directive 2018/2002), based on either primary or final energy consumption, primary or final energy savings, or energy intensity; expressed in terms of the absolute level of primary energy consumption and final energy consumption in 2020 and 2030, with a linear trajectory for that contribution from 2021 onwards; including the underlying methodology and the conversion factors used. Indicative main milestones of the long-term strategy for the renovation of the national stock of residential and non-residential buildings (both public and private), the roadmap with domestically established measurable progress indicators, an evidence-based estimate of expected energy savings and more comprehensive benefits, and the contributions to the Union's energy efficiency targets pursuant to the EED under Article 2a of Directive 2010/31/EU. The 2012/27/EU Directive establishes an indicative target of at least 20% energy efficiency for each Member State. Poland, in the Third National Action Plan of 2014, declared the adoption of a standard programme for implementation, i.e. 1.5% annually until 2020, which is a total of 10.5%, in accordance with Article 7(1) of the EED, adopted to increase efforts in this area obliges the Member States to introduce instruments to improve energy efficiency for achieving the target of 20% savings in primary energy consumption by 2020. In Poland's case, the target of primary energy consumption was set at 96.4 Mtoe. The implementation of the EED into national law was done in EEL (2016). Directive 2018/2002 of 11th December, 2018, amending Directive 2012/27/EU on energy efficiency introduced an energy efficiency target of 32.5%, corresponding to end-use energy savings by 2020, amounting to 3.675 Mtoe. Poland declared the national 2030 energy efficiency target at 23% concerning the primary energy consumption as forecast by PRIMES 2007. In its energy policy till 2040, Poland plans to continue to pursue directions contributing to an increase in the economy's energy efficiency. The residential building national stock long-term renovation targets have been specified by the Government of the Republic of Poland in the National Housing Plan. Residential building national stock long-term renovation targets: • the share of thermo-insulated buildings in the aggregate housing stock will amount to 70% in 2030 (as compared with 58.8% in 2015), • the number of people living in sub-standard conditions due to overpopulation, poor technical conditions, or absence of technical facilities will decrease to 3,300,000 in 2030 (from 5,360,000 in 2011).

EED Article	Implementation status
Article 3 Energy efficiency targets	According to Article 9(3)b of Directive 2010/31/EU, the National Plan sets out, among others, indirect targets aimed at improving the energy performance of new buildings for 2015, intending to prepare the attainment of objectives according to which: • all new buildings are to be nearly zero-energy buildings by 31st December, 2020, and • new buildings occupied and owned by public authorities are to be nearly zero-energy buildings after 31st December, 2018.
Article 4 Building renovation	The minister responsible for infrastructure and buildings oversees the following areas of the government activity: construction, local planning and spatial management and housing. The minister prepared the strategy for investment in the building renovation. The strategy is attached as the Annex to the National Energy Efficiency Action Plan for Poland 2014. The Energy Performance of Buildings Act addresses a few items related to energy efficiency in buildings: • Energy Performance Certificates scheme. • Inspection of heating and air-conditioning systems. • Central register of EPC. • Long-term renovation strategies. The Polish Building Law sets requirements for: • Optimal minimum energy performance requirements (new and existing buildings, when undergoing a major renovation). • nZEB standards. **Energy Performance Certificates scheme** The system was introduced in 2008, and several changes have been made since then. Currently, the EPC is issued only when the building is sold or rented. There is no obligation to issue the EPC when the new building is handed over for use. The information on the EPC is unclear to the end-users. There is no energy class of buildings; only the continuous scale with actual and reference value of non-renewable primary energy is given. Therefore, it is hard to assess which building is energy efficient. The calculation methodology is not in line with the standards from ISO 52000 group (this should be implemented by 10th March, 2020). The EPC system is not used for other purposes, i.e. for assessment of modernisation works.

EED Article	Implementation status
Article 4 Building renovation	**Central register of EPC** The central register of EPC started in 2015. The EPCs issued before (years 2008-2015) are not registered in the central register. The data in the central register of EPC is not publicly available. The authorised person (person with permission to issue EPC) only has access to his EPCs. Although for the new building, the energy performance characteristic (not EPC) is required in design documentation, it is not registered in the register. Therefore, if the building is not sold or rented and the EPC has not been issued, such a building will not be present in the central register database. There is no automatic verification of EPC data within the central register. Therefore, the verification of calculation correctness is limited. **Long-term renovation strategies** The current long-term renovation strategy is under approval. The sources of financial support for building thermo-modernization have been described in the strategy. It must be stated that several programmes for different groups and buildings exist. However, the changes of the programmes, developing a new and closing existing form of financial support, results in uncertainty of investors for modernisation plans. The actions related to building modernisation activities are scattered among different ministries, and there is no co-ordination body. It was noticed that increase in the energy efficiency of buildings would require implementation of energy classification of buildings. **Energy performance requirements and nZEB** The minimum energy performance requirements for new and modernised buildings and nZEB standards were stated in 2014, with the sub-requirements for 2014-2017 and 2017-2021. The building sector had the time to prepare for more strict requirements. Although some of the requirements are set in the building law, in practice, they are not verified (i.e. minimum air-tightness value is stated in the building law, but no air-tightness measures are needed for building handover for use). Designing of a new building is not optimised for increasing energy efficiency (i.e. the designing documentation has been divided into parts, where in the first part the geometry of a building, thermal parameters of the envelopes and energy source are set, while the energy performance characteristic is calculated in the second part). Furthermore, Article 7 of the Act on energy efficiency expressly allows energy efficiency contracting by public sector units. The Act stipulates that an energy efficiency contract is a contract that specifies, in particular, possible energy savings to be achieved as a result of carrying out a project or projects of the same type aimed at improving energy efficiency with the use of an energy efficiency improvement measure, as well as defines the method of determining the fee, the amount of which is to depend on the energy savings achieved as a result of carrying out those projects.

EED Article	Implementation status
Article 5 Exemplary role of public bodies' buildings	Indicative national energy efficiency contribution to achieving the Union's primary energy efficiency target of 32.5% in 2030 as referred to in Article 1(1) and Article 3(4) of the EED, based on either primary or final energy consumption, primary or final energy savings, or energy intensity; expressed in terms of the absolute level of primary energy consumption and final energy consumption in 2020 and 2030, with a linear trajectory for that contribution from 2021 onwards; including the underlying methodology and the conversion factors used. Indicative main milestones of the long-term strategy for the renovation of the national stock of residential and non-residential buildings (both public and private), the roadmap with domestically established measurable progress indicators, an evidence-based estimate of expected energy savings and more comprehensive benefits, and the contributions to the Union's energy efficiency targets according to the EED under Article 2a of Directive 2010/31/EU. In its energy policy, Poland will continue to pursue directions contributing to increasing the economy's energy efficiency. Based on an analysis of the effects and impact on the GDP and the potential for savings, Poland declares the national 2030 energy efficiency target at 23% concerning the primary energy consumption as forecast by PRIMES 2007. Poland will continue to follow the WCS, setting out energy efficiency obligations in 2021-2030. The residential building national stock long-term renovation targets have been specified by the Government of the Republic of Poland in the National Housing Plan. Residential building national stock long-term renovation targets: • the share of thermo-insulated buildings in the aggregate housing stock will amount to 70% in 2030 (as compared with 58.8% in 2015), • the number of people living in sub-standard conditions due to overpopulation, poor technical conditions, or absence of technical facilities will decrease to 3,300,000 in 2030 (from 5,360,000 in 2011). According to Article 9(3)b of Directive 2010/31/EU, the National Plan sets out, among others, indirect targets aimed at improving the energy performance of new buildings for 2015, intending to prepare the attainment of objectives according to which: • all new buildings are to be nearly zero-energy buildings by 31st December 2020, and • new buildings occupied and owned by public authorities are to be nearly zero-energy buildings after 31st December 2018. The EEL (Journal of Laws of 2016 item 831, amended) defines the energy efficiency duties of public sector units.

EED Article	Implementation status
Article 5 Exemplary role of public bodies' buildings	Public sector units are to carry out their duties by applying at least one of the following measures to improve energy efficiency: • implementing and funding a project aimed at improving energy efficiency; • purchasing low-energy equipment or a low-energy system or vehicle with low operating costs; • replacing used equipment or a used system or vehicle (with their low-energy equivalents) or their modernisation; • implementing a thermal upgrading project within the meaning of the "Act on supporting thermal upgrading and renovation" implementing the eco-management system EMAS.
Article 6 Purchasing by public bodies	The EED addresses in Article 6 the issue of purchasing made by public bodies. Article 6(1) states in that Member States shall ensure that central governments purchase only products, services and buildings with high energy-efficiency performance, insofar as that is consistent with cost-effectiveness, economic feasibility, wider sustainability, technical suitability, as well as sufficient competition. Furthermore, the Member States shall encourage public bodies, also at regional and local levels, to follow the exemplary role of their central governments in purchasing (Article 6(3). This obligation to purchase only products, services and buildings with high energy-efficiency performance has already been imposed on central governments (Article 8 of the EEL). The promotion of "green" public procurement is already the task of the President of the Office of Protection of the Competitiveness and Consumers.
Article 7 Energy efficiency obligation scheme	Article 7 of the EED requires each MS to establish an energy efficiency obligation (EEO) scheme or alternative policies measures that would deliver a set amount of end-use energy savings over the 2014-2020 obligation period, equivalent to 1.5% savings of annual sales to final consumers. An EEO is a regulatory mechanism that requires obligated parties to meet quantitative energy-saving targets through implementing cost-effective end-use energy efficiency. The Polish WCS comes directly from this EEO. The WCS has been functioning since 2011 when the Polish Parliament approved the first EEL (Energy Efficiency Law 2011). Currently, there is the new EEL (Energy Efficiency Law 2016). Therefore, the WCS has had two different stages which differ radically. The law ruling the second stage came into force in the fourth quarter of 2016. The objective of the WCS is to support a mechanism for measures aimed at improving the energy efficiency of the economy, increasing energy savings by end-users and facilities using energy for their own needs, and reducing losses of electricity, heat and natural gas in transmission or distribution. The WCS, as neutral for the Polish budget, was supposed to contribute to increasing the competitiveness of the economy and taking economically justified actions.

EED Article	Implementation status
Article 7 Energy efficiency obligation scheme	The WCS-obliged parties are all entities selling electricity, natural gas, or heat to end users, as well as commodity exchange members and commodity brokerage houses. They shall: • either obtain WCs, e.g. by own investments in energy efficiency projects or buy them from third parties and then submit them for redemption to the President of the Energy Regulatory Office, or • pay a substitution fee if they fail to obtain the WCs. The essential simplification of the current system, resulting from the new EEL (2016), consists of the elimination of auctions for WC. However, the action procedures were complicated and turned out to be a significant obstacle to the effective functioning of the WCS. Now eligible energy efficiency projects by request of investors obtained WC "automatically". However, they may be used as eligible means in the process of meeting the obligation (redemption) no sooner as the investment is completed and brings verified energy savings not lower than declared. Submissions of project applications to obtain WCs are now carried out on a continuous basis. The MoE announces a list of eligible projects, although if the investor proposes a project outside the list that brings measurable and sustainable energy savings, the project can also be considered eligible. There is a threshold of 10 toe annual savings entering into the WCS. Each project aimed at improving energy efficiency submitted to the WCS must have an initial energy efficiency audit to estimate the potential energy savings. In all audits in the WCS, the methods of metered and deemed savings are eligible. The finally obtained savings are subject to random checks by the President of the Energy Regulatory Office. The WCS rules allow some exemptions for the energy-intensive industry. WCs are tradeable on the Polish Commodity Exchange (TGE). The possibility of paying a substitution fee instead of submitting certificates for redemption has also been eliminated (unless the obligated amount of savings could not be reached otherwise). The EEL includes provisions that gradually phase out the possibility to pay the substitution fee instead of carrying out the energy efficiency investments. Eligibility of paying substitution fee were steadily limited, i.e. 30% in 2016; 20% in 2017; 10% in 2018. The possibility of meeting the obligation by paying a substitution fee has been limited only to the situation when there is not enough WC in the market; the substitution fee was significantly increased by 50% in 2017 compared to its previous value, then rose by 5% annually.

EED Article	Implementation status
Article 7 Energy efficiency obligation scheme	The aggregate value of energy savings is to be achieved in 2021-2030 under Article 7 of Directive 2012/27/EU concerning energy-saving commitment. The WCS is governed by the MoE, while the President of the Energy Regulatory Office is responsible for managing the system. Poland will continue to follow the WCS, setting out energy efficiency obligations in 2021-2030. No other policy measures (as listed in Article 7 (7) EED) are envisaged.
Article 8 Energy audits and energy management systems	An essential change in the regulations is the obligation to perform energy audits in large enterprises, i.e. not being SMS, which came into force with the new EEL (2016). These audits must be carried out at least once every 4 years. They must cover a minimum of 90% of energy consumption supplied in all forms of carriers. In addition, the energy used in the company's transport must be included. These audits must fulfil the requirements "Minimum criteria for energy audits, including audits carried out as part of energy management systems" stipulated by Annex VI of the EED (Article 37 of the EEL). The rules and guidelines for preparing energy efficiency audits are outlined in a very general way. Generic rules for audit carrying are provided in the EEL (Chapter 5, Articles 36-38) and a decree following the EEL[1]. An energy audit is carried out by an independent entity that possesses the knowledge and professional experience in performing this type of audit. If in-house experts from the audited enterprise carry out the energy audit of an enterprise, they must not be directly involved in auditing the other activities of that enterprise. The enterprise is released from this obligation under the following conditions: • It possesses an energy management system specified in the Polish Standard PN-EN ISO 50001 on energy management systems, requirements and recommendations of use; or • It owns an environmental management system, referred to in Article 2 Section 13 of the Regulation of the European Parliament and Council Regulation (EC) No. 1221/2009 of 25th November, 2009, on the voluntary participation by organisations in a Community Eco-Management and Audit Scheme (EMAS); and • It can prove that an energy audit of the company was conducted under one of those schemes. The first compliance period to report the implementation of the first audit was in 2017.

[1] ROZPORZĄDZENIE MINISTRA ENERGII z dnia 5 października 2017 r. w sprawie szczegółowego zakresu i sposobu sporządzania audytu efektywności energetycznej oraz metod obliczania oszczędności energii.

EED Article	Implementation status
Article 8 Energy audits and energy management systems	The energy audit reports may be checked on a random basis by the Energy Regulatory Office President. According to the available information, the energy audits of enterprises were not subject to detailed assessment in terms of their methodological correctness and quality. The number of companies required to conduct an energy audit was estimated at over 3,000, while the number of consulting companies specialising in the energy efficiency of industrial processes or complex enterprises was estimated at several/several dozen at that time. It is planned to support the development of energy management efficiency solutions by linking building energy management systems (BEMS) with the demand-side response (DSR) mechanism. The potential for linking EMS with DSR is exceptionally high in the industry due to their consumption characteristics, e.g. high degree of predictability, the economies of scale caused by considerable power available for DSR.
Article 9 Metering	All relevant provisions from the EU directives have already been implemented in the EL. Smart meters and other broadly understood smart grid solutions are at the stage of development. Smart metering programmes have been carried out mainly in the power sector – all large Distribution System Operators have already launched large-scale pilot programmes. It is planned that a more suitable and supporting legal framework for smart metering will be created concerning the technical, legal and economic aspects of bringing smart meters into everyday use. It is expected that 80% of consumers will be equipped with smart meters by 2026.
Article 10 Billing information	The provisions of this article have already been implemented in the EL. The issue of delivering billing information according to the requirements of Article 10 to the end-users is supervised and supported by the President of the Energy Regulation Office.

EED Article	Implementation status
Article 11 Costs of access to metering and billing information	The provisions of this article have already been implemented in the EL (Article 14, paragraph 4). Ensuring costs of access to metering and billing information to the end-users is supervised and supported by the President of the Energy Regulation Office. His primary duties and concerns in this respect are: • setting a time limit for a settlement period convenient for the parties; • possibilities of improvement of the quality parameters of electricity supplied and a possibility of applying a discount on account of a failure to meet quality parameters and interruptions in electricity supply; • simplification of the procedure and shortening the time of changing electricity suppliers; • efforts to increase the awareness of electricity consumers to decrease the system balancing costs and contribute to lowering the final cost of electricity supply; • a decrease in end-users' service costs; • reduction in the commercial losses (theft).
Article 12 Consumer information and empowering programme	The concern of Article 12 of the EED is that the Member States shall take appropriate measures to promote and facilitate efficient energy use by small energy customers, including domestic customers. There are already measures intended to enhance the position of end-users, protect vulnerable consumers, and encourage them to take on a more active role in the energy markets. Poland changed the «Act on renewable energy sources» in the parts related to the participation of the prosumers in the energy market (November 2021). The most essential are the new rules for net-billing which will apply to prosumers who report the connection of micro-installations after 31st March, 2022. Existing prosumers and new ones who manage to report the connection of micro-installations to the distribution network operator by 1st April will be able to continue to use settlements in the current discount mechanism. For the injections of energy into the grid, they will still be entitled to a discount on the energy bill and distribution fees in the ratio of 1:0.8 (installations with a capacity of up to 10 kW) or 1:0.7 (10-50 kW). Discounts will be available for up to 15 years from the start of energy production. Prosumers reporting the connection of micro-installations after 31st March, 2022, must consider the new settlement rules in the form of net billing. This system assumes the sale of unused surplus energy at the average price from the wholesale market from the previous month, and from mid-2024, it is to be an average hourly price. In addition, settlement in this system will be carried out using the so-called prosumer deposit. Therefore, it will be possible to reduce the amount due for energy taken from the grid by the prosumer.

EED Article	Implementation status
Article 12 Consumer information and empowering programme	The latest amendment also defines the collective prosumer of renewable energy. The implementation of this concept is to give more significant benefits, which, thanks to prosumer energy, will be able to benefit residents of multi-family blocks. **Renewable energy virtual prosumer.** The introduction of the institution of a virtual prosumer is to enable the use of prosumer energy and reduce energy bills by buying shares in a generating installation distant from the point of consumption of such a prosumer. The amendment to the RES Act also introduces other concepts that should improve prosumers' position in the energy market, e.g. a new institution of the so-called prosumers' representative, prosumer of virtual RES energy, interphase balancing. There are ongoing information actions addressed to electricity and gas consumers, e.g. services delivered by the information centre for electricity and gas consumers, and availability of an online energy price calculator. The President of the Energy Regulatory Office has a pivotal position in protecting household consumers. Monitoring the retail energy market prices on an ongoing basis, when necessary, he approves tariffs for households to protect this group of end-users. In addition, he offers household consumers the energy price calculator. Once the calculator has been expanded and billing information has been simplified, household consumers will have easier and broader access to information about offers and, consequently, fact-based arguments to take a rational decision on changing the supplier. He is now developing standard agreements between suppliers and operators of electricity systems (the so-called general distribution agreements). Additionally, end-users will be able to enter into the market to increase competition, as active forms of participation in the electricity market become more common, due to the planned developments, e.g. through the use of aggregation services, becoming prosumers or use of dynamic price contracts. Expected effects of empowering energy consumers by 2030 are: • raising awareness among consumers concerning the rules of operation of the energy and gas markets; • activating consumers in the area of electricity supplier changing, among other things, by enabling comparison of energy supply offers with the online calculator; • strengthening of the position of consumers in the energy and gas markets by raising consumer knowledge on and awareness of rights in relations with energy companies; • conducting information campaigns to make consumers aware of their rights as full-right participants in the energy markets; • development of an online tool for comparing supplier offers in the gas market.

EED Article	Implementation status
Article 13 Penalties	Penalties for not meeting the requirements of the EED implemented into the EEL are specified in Chapter 5, Articles 39-42.
Article 14 Promotion of efficiency in heating and cooling	The provisions of this article have already been implemented in the EL. **Development of heat production in cogeneration processes** Poland has the potential for considerably increasing the production of heat in cogeneration processes by replacing heating boilers with cogeneration sources. Improving the use of the potential for high-efficiency cogeneration will further improve the efficient use of primary energy carriers, reducing CO2 emissions and decreasing the raw-material intensity of the national economy. The heat/cool map in Poland was completed in 2015. The methodology used to identify the potential for efficiency in heating in cooling was in line with the general rules provided in Article 14 and Annex VIII of the EED. **Development of heating networks and co-financing of the connection of new consumers** Having regard to the need to undertake multifaceted measures aimed at ensuring the quality of the air, the development of heating networks in urbanised areas leads, in a particular manner, to the improvement of the situation and a reduction in low-carbon emissions from inefficient local boilers. Financial support dedicated to developing heating networks is intended to expand their coverage area and connect new heat consumers. This measure is necessary to improve the air quality in Poland by eliminating individual sources of heat and replacing them with district heating. Furthermore, consideration should be given (especially in the context of regional measures) to possible financial support for the modernisation of the internal infrastructure of buildings, necessary to receive heat supplied by district heating systems. A parallel measure necessary to increase the efficiency of the use of primary energy carriers and thus to reduce CO2 emissions from the district heating sector is the reduction of distribution losses of heating networks. Funds assigned to this measure should be targeted on, among others, the modernisation of heat distribution centres and on the replacement of heating pipes by pre-insulated pipes. Introduction of a new support mechanism for high-efficiency cogeneration and systemic change in the heating sector. Until 2018, there was a system for supporting high-efficient cogeneration – "red" certificates for all fuels except gas and "yellow" certificates for gas and small-scale cogeneration units. The new high-efficiency electricity cogeneration support mechanism was introduced in 2019. The Act of 14th December, 2018, on the promotion of electricity from high-efficiency cogeneration (Journal of Laws of 2020, item 250, as amended) (Act on CHP), defines the rules for providing support for electricity produced in high-efficiency cogeneration in cogeneration units and issuing guarantees of origin of electricity from high-efficiency cogeneration.

EED Article	Implementation status
Article 14 Promotion of efficiency in heating and cooling	It enables both the stimulation of the construction of new cogeneration units and the maintenance of high-efficiency electricity cogeneration in existing units, which would not be able to operate without support due to the financing gap in operating costs. The MoE has a delegation contained in Article 56(1) and Article 104 of the Act on CHP, which imposes on the minister the obligation to determine, by way of regulation, the maximum amount and value of electricity from high-efficiency cogeneration covered by the support, including cogeneration units located outside the territory of Poland. In addition, the draft regulation specifies the unit amounts of the guaranteed premium (including for small cogeneration units) and the maximum amount of the individual cogeneration premium. The support scheme will be active if there is a need for market intervention. In a longer time perspective, district heating should be generated only in CHPs. The expansion of the heating sector, and first of all the construction of energy-efficient heating systems, will be pursued primarily through the following measures: • Development of cogeneration; • Increase in the use of RES in district heating – this will be achieved mainly through the use of local RES, such as biomass, biogas or geothermal energy, especially in energy clusters; • Increase in the use of waste in district heating (mainly in CHPs); • Conversion of power plants to heat and power plants; • Modernisation and expansion of the heating and cooling distribution systems to reduce losses; • Promotion of heat storage facilities; • Promotion of smart networks. **Development of heat consumption rationalisation technology** Heat consumption rationalisation technologies that may potentially be supported from public funds include the following: • Insulation and dewatering of steam systems; • Renewable energy sources, including geothermal systems, solar collectors, heat pumps; • Thermal upgrading of industrial and office buildings; • Recuperation and heat recovery from processes and devices; modernisation of internal heating networks; • Using energy from waste generated in industrial processes; • Construction/modernisation of own (internal) energy sources, including high-efficiency cogeneration.

EED Article	Implementation status
Article 14 Promotion of efficiency in heating and cooling	In 2017, nearly 20% of systems met the criterion of an energy-efficient district heating or cooling system. The number of energy-efficient district heating or cooling systems is expected to increase by 2030 due to: • converting power plants into heat and power plants; • increasing the use of RES in district heating; • increasing the use of waste for energy purposes; • modernising and expanding district heating systems and developing district heating-based cooling technologies; • promoting heat storage facilities and smart networks; • ensuring conditions for increasing the use of district heating, especially through: – extending the obligation to connect to an energy-efficient district heating system and implementing a mechanism for enforcing it; – changing the heat market model and tariff policy.

EED Article	Implementation status
Article 15 Energy transformation, transmission and distribution	As required by Article 15 of the EED, all the requirements related to energy efficiency covered in the Electrical Directive (2009/72/EC) or the Gas Directive (2009/73/WE) have already been implemented into the EL. Ensuring costs of access to metering and billing information to the end-users is supervised and supported by the President of the Energy Regulation Office. His main duties and concerns in this respect are: • enhancement of competitiveness in the electricity market; • enabling of the development of distributed electricity sources, including RES; • reduction of peak power demand due to demand-side response (DSR); • reduction of the costs of analyses relating to the determination of the conditions for connection to the power grid; • improvement of the effectiveness of maintenance, renovation and modernisation work. The priority access of renewable energy and energy from high-efficiency cogeneration to the power grid is guaranteed in the Act on renewable energy sources and the EL. To meet the target, the rule of priority for connecting installations using renewable energy to the power grid (Article 7(1) of the EL), as well as the rule of priority for transmitting and distributing electricity from renewable sources and for cogeneration (Article 9c(6) of the EL). Positive effects are to be achieved through the structure of the auction-based support system (Article 73(3u) of the law on renewable energy sources), which, by supporting the sale of RES-generated energy, guarantees the maximisation of the quantity of energy introduced to the power grid at acceptable to the end-user costs. The end-user role in the energy market will also be extended by amendment to transmission network codes that set out the detailed rules for participating end-users in delivering system services. The development of these rules will be supported by the President of the Energy Regulatory Office to the extent they meet the proportionality and effectiveness conditions, including cost-proportionality and effectiveness. To the extent, they are based on implementing network codes and guidelines developed in the form of EU regulations. The expected effects in 2030 include increasing the share of system services delivered by the demand side in the operation of the energy market, e.g. reducing possible energy shortfalls during peak demand. Furthermore, an issue inseparably linked to the issue of the construction of a smart grid is the redevelopment of communication systems in the energy sector, covering, on the one hand, a modern special communication system enabling extraordinary situations to be handled effectively and, on the other hand, the creation of a framework for effective and direct communication of people and equipment in a smart grid and the implementation of the Internet of Things solutions. Therefore, the program's implementation is directly related to measures undertaken as part of the Strategy for Responsible Development described under the "Efficient State", the "Energy for Development" tasks.

EED Article	Implementation status
Article 15 Energy transformation, transmission and distribution	A vital energy efficiency project for the following years in Poland is the program of building a smart electricity grid. It encompasses works on organisational and legal solutions that will enable the application of new technologies such as smart metering. Only then will it be possible to implement electricity demand management mechanisms and, as a result, use electricity more sustainably. This will be possible by making up for the gap in knowledge about measures and preferences between energy consumers and its producers and suppliers.
Article 16 Availability of qualification, accreditation and certification schemes	The qualification, accreditation and certification schemes are not planned because of the strong deregulation trend of professions in Poland. There are many freelancers in the energy auditor profession or who work in small auditor companies. There are no specific requirements for energy efficiency auditors nor centrally organised auditor training schemes. There is no official system for confirmation of the competencies of energy auditors. There are few voluntary lists of recommended auditors in various fields run by independent bodies. However, there are no legal requirements or guidelines for using such lists.
Article 17 Information and training	The information and education campaigns of the National Fund for Environmental Protection and Water Management and the MoE raise awareness and knowledge on energy efficiency improvement options and offer practical help to citizens, institutions and enterprises. They aim among other things, at enhancing consumer knowledge and encouraging consumers to play a more active role in the energy market. To fulfil the EED obligation for the public sector to promote good solutions, the EEL stipulates that the national governing bodies, namely the MoE, the minister responsible for transport and the minister responsible for construction, spatial planning and development and housing are to: • organise campaigns promoting the use of measures to improve energy efficiency, including the introduction of innovative technologies; • conduct information and educational campaigns concerning the available energy efficiency improvement measures. Measures to enhance end users' awareness and practical knowledge are planned to continue in 2021-2030. It will specifically be focused on increasing awareness of consumer rights, e.g. relating to the provisions of energy contracts, supplier switching options, alternative methods of dispute resolution, and the ability to play an active role in the energy market, e.g. prosumers rights, use of aggregated services, smart meters benefits, dynamic price contracts.

EED Article	Implementation status
Article 18 Energy services	This article stipulates that a Member State shall promote and support the energy services market and the access of SMSs companies to this market. Among other recommended means, there is also provision supporting the public sector in the acceptance of offers of energy services, particularly regarding the modernisation of buildings. Some incentives for the public sector to take energy efficiency improvement measures and use energy performance contracting to finance these measures are included in EEL (Article 7). In general, the ESCO market is weak and underdeveloped compared to the market potential. Even though the relevant EED provisions have been incorporated into the Polish legislation, the energy services market still has not reached the mature stage, and companies operating under the ESCO scheme find it difficult to operate. Therefore, measures will be undertaken in the period 2021-2030 also to support SMS companies, including start-up companies, especially those operating for the benefit of the public administration sector, be it central or local bodies.
Article 19 Other measures to promote energy efficiency	Among the pro-efficiency measures most significant are projects supported by national funds through environmental funds and from the European Union Cohesion Fund within the framework of Regional Operational Programs and the Operational Program Infrastructure and Environment (2014-2020).
Article 20 Energy efficiency national fund, financing and technical support	Most programs aimed at energy efficiency improvements are financed from the fund, which collects the WCS substitution fees and penalties. These programs are operated by the National Fund of Environmental Protection and Water Management. **Thermomodernization and Repairs Fund** The program has been continuously ongoing since 2007. This is a systemic measure, and no provisions provide a fixed time framework. The program's objective is financial aid for investors who implement projects involving thermomodernization, repairs, and renovation of individual houses, using credit obtained from commercial banks. The program covers actions aimed at: • improvements which result in a reduction in demand for energy delivered for heating and service water heating purposes; • improvements which result in reducing primary energy losses in local heating grids and local heat sources; • building a technical connection to a centralised heating source to be used instead of a local heating source which results in a reduction in the cost of acquiring heat; and • a complete or partial change of energy sources to renewable sources or using high-efficiency cogeneration. Bank Gospodarstwa Krajowego (National Economy Bank) is the operating body.

EED Article	Implementation status
Article 20 Energy efficiency national fund, financing and technical support	**Program Clean Air** In September 2018, the government's priority program Clean Air was launched, which will last until 2029. Its most important goal is to reduce the emission of harmful substances into the atmosphere, which arises because of heating single-family houses with poor quality fuel in outdated domestic stoves. The program offers to co-financing the replacement of old and inefficient heat sources for solid fuel with modern heat sources that meet the highest standards (these are: heat substation, heat pump, condensing gas boiler, condensing oil boiler, electric heating, solid fuel boiler (coal, biomass)), as well as carrying out the necessary thermo-modernization works of the building. One of the main reasons for the problem of smog in Poland is the so-called low emission, i.e. the release of harmful substances into the atmosphere. The addressees of the program are the owners or co-owners of a single-family residential building or a single-family residential unit with a separate land and mortgage register and persons who have obtained permission to start the construction of a single-family residential building, and the building has not yet been handed over or reported for use. Stimulating for improvement of energy efficiency and building internal energy culture in industry is the WCS. **Tax relief** From 1st January, 2019, another financial support instrument is the thermomodernization relief allowing for the deduction of expenses related to the implementation of thermo-modernization projects from income. The solution encourages owners of single-family houses to carry out thermal modernisation, e.g. wall insulation, replacement of woodwork or modernisation of the heating system. The list of building materials, equipment and services covered by the thermomodernization relief has been published. Co-financing of energy efficiency measures in gas transmission and distribution and in underground gas storage facilities ca. €1.4 billion have been allocated to support energy efficiency measures as part of the Operational Programme Infrastructure and Environment 2014-2020 and ca. €2 billion as part of the Regional Operational Programmes (ROP). As part of the ROP amount, ca. €320 million have been allocated in the form of repayable aid. The support concerns investments in such areas as energy efficiency in buildings, energy efficiency in companies, high-efficiency cogeneration and energy-efficient heating and cooling systems. In addition, as part of the Smart Growth Operational Programme 2014-2020, 150 smart and energy-efficient construction projects received €170 million worth of support. Given the commitments made with regard to the European Union-wide 2030 targets for energy efficiency and the share of RES in the gross final energy consumption, the support for the above-described area must be maintained in the current financial perspective, i.e. 2021-2027.
Article 24 Review and monitoring of implementation	The MoE is in charge of preparing and coordinating all required reports.

2.2. Non-legislative provisions

Reduction of energy poverty regarding the protection of vulnerable social groups A comprehensive state policy oriented towards the solution of the problem of energy poverty is planned to be developed. An effect of the proposed comprehensive public policy will be reducing energy poverty and enhancing the protection of vulnerable consumers.

Protection of vulnerable gaseous fuel consumers by granting a fixed allowance for the purchase of fuel To protect the poorest, the group of vulnerable gaseous fuel consumers has been defined in an amendment to the Energy Law of 26th July, 2013 (Journal of Laws of 2013, item 984) and the system of support for this group has been regulated. As a result, the number of vulnerable gaseous fuel consumers is expected to fall by 2030.

Formulation of the definition of energy poverty and the development of methodology adapted to Polish conditions The problem of protecting vulnerable consumers against energy poverty has been addressed in the Recommendations of the Cabinet Economic Committee (CEC) under the name Clean Air Programme. According to the Programme guidelines, works on the following issues were carried out in 2018:

- creation of a definition of energy poverty adapted to Polish conditions,
- development of coherent methodology for diagnosing energy poverty and creating a statistical model necessary to monitor the phenomenon's scale in Poland.

Based on the results of the works, the number of households affected by energy poverty will be specified, and then the most effective methods of reducing energy efficiency will be indicated. The protection of vulnerable consumers is related to the problem of energy poverty. A vulnerable consumer is defined in the EL (Article 3(13c)) and is entitled to receive a flat-rate energy allowance. The amount of the energy allowance is specified each year by the MoE and depends on the product of the electricity consumption limit and the average electricity price for household consumers.

The government monitors the number of households affected by energy poverty.

The government plans continuation of publicly (including EU) funded programmes and their possible adaptation to the needs of energy-poor consumers, in particular loan programmes intended to finance modernisation measures aimed at improving energy efficiency.

2.3. Implementing bodies

Implementation of the EED is carried out by the MoE. When necessary, he is supported by representatives of the Ministry of the Environment, the Ministry of Finance, the Ministry of Enterprise and Technology, the Ministry of Investment and Development, the Ministry of Foreign Affairs, the Ministry of Agriculture and Rural Development, the Ministry of Science and Higher Education, the Ministry of Infrastructure, the Ministry of the Maritime Economy and Inland Waterways, the Ministry of Family, Labour and Social Policy, the Government Plenipotentiary for Strategic Energy Infrastructure, as well as the President of the Energy Regulatory Office (Urząd Regulacji Energetyki – URE), the Central Statistical Office (Główny Urząd Statystyczny – GUS), the National Centre for Emissions Management (Krajowy Ośrodek Bilansowania i Zarządzania Emisjami – KOBiZE)[2].

The Polish National Energy Conservation Agency (KAPE) serves as the National Contact Point in the CA EED.

[2] The names of the ministers are valid as for 2020. They may change according to modification of the structure of Poland's government.

3. Implementation of revised EED articles

As a result of the EED revision of 2018, no new legislation was deemed necessary.

4. Relevant information

Energy Law (in Polish)
https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU19970540348/U/D19970348Lj.pdf

Energy Efficiency Law (in Polish)
https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20160000831/U/D20160831Lj.pdf

RES Law (in Polish)
http://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20210000610/U/D20210610Lj.pdf

Energy Policy for Poland till 2040 (in English)
https://www.gov.pl/web/klimat/polityka-energetyczna-polski

National EED Implementation Report (NIR) 2021

EED implementation in Portugal

Introduction

In Portugal, the Energy Efficiency Directive (EED) implementation is the responsibility of the Ministry of Environment and Climate Action. The Directorate General for Energy and Geology (DGEG) under this Ministry is the entity responsible for EED supervision.

This National Implementation Report (NIR) of the Directive 2012/27/EU of the European Parliament and of the Council on energy efficiency (EED) builds on the 2016 NIR. This version includes the implementation of the amendment of this Directive (Directive (EU) 2018/2002 of the European Parliament and of the Council of 11th December 2018 amending Directive 2012/27/EU on energy efficiency) and Governance Regulation (Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11th December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) and Directives, among which 2012/27/EU.

1. Legal context

EED was first transposed to national law by Decree-Law No. 68-A/2015, of 30th April, which also reviewed Decree-Law No. 23/2010 on cogeneration. For the implementation of the amendment of the Directive (Directive (EU) 2018/2002) the articles mentioned above were amended through Decree-Law No. 64/2020.

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 3	Portugal's targets are defined in the National Energy Efficiency Action Plan for 2013-2016, published by the Cabinet Resolution nº 20/2013, of 10th April. It reflects the new National Energy Strategy, aiming to fulfil Portugal 2020 targets. The estimate of savings induced by the NEEAP is 1501 ktoe, corresponding to a reduction of energy consumption of approximately 8.2% relative to the average consumption in the period between 2001 and 2005, which approximates the indicative target set by the European Union of 9% energy savings by 2016.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

EED Article	Implementation status
Article 3	The establishment of the time horizon of 2020 for the purpose of monitoring and controlling the estimated impact on the primary energy consumption allows to foresee in advance the fulfilment of the new targets set by the EU, the 20% reduction of primary energy consumption by 2020, as well as the goal assumed by the Government to reduce the primary energy consumption by 25% in 2020 and achieve energy savings equivalent to 30% of the energy consumption in public buildings by 2020. In 2020 was published the Resolution of the Council of Ministers no. 53/2020 that approves the National Energy and Climate 2030 Plan (NECP 2030). In line with this vision and developed in conjunction with RCN 2050, NECP is framed within the obligations arising from Regulation (EU) No 2018/1999 of the European Parliament and of the Council of 11th December 2018 on the Governance of the Energy Union and Climate Action. NECP, as the main instrument for energy and climate policy for 2021-2030, includes a description of the current situation in Portugal with respect to energy and climate and covers the five dimensions of the Regulation: decarbonisation, energy efficiency, supply security, the internal energy market and research, innovation and competitiveness. It also defines the national contributions and policies and measures planned to comply with the different general commitments made by the Union, including the reduction of greenhouse gas (GHG) emissions, renewable energies, energy efficiency and interconnections. The estimate of primary energy consumptions in the horizon 2030 allows us to foresee the fulfilment of the reduction target of energy consumption of 35%, compared to the projections of the Reference Scenario of the European Union 2007 (PRIMES model), which is Portugal's indicative contribution in terms of energy efficiency to meet the Union's 32.5% energy efficiency target European in 2030.
Article 4	Article 8.º of Decree-Law n.º 68-A/2015. On building renovation, the long term strategy for mobilising investment in the renovation of the national stock of residential and commercial buildings, both public and private was presented to the Commission in August 2014. As a result of the EED revision the Long Term Renovation Strategy as specified by Article 4 now falls under the Energy Performance in Buildings Directive.
Article 5	Article 7.º of Decree-Law n.º 68-A/2015. For the exemplary role of public bodies' buildings, Portugal has opted for the alternative approach and has notified the Commission in December 2013. In 2020 was published the Resolution of the Council of Ministers no. 104/2020 that updates the program that is under Article 7.º of Decree-Law n.º 68-A/2015. This Resolution Approve the Resource Efficiency Program in Public Administration for the period until 2030 (ECO.AP 2030) which is now extended to water, material and fleet efficiencies, as well as the reduction of greenhouse gas (GHG) emissions.

EED Article	Implementation status
Article 6	Articles 9.º,10.º and 11.º of Decree-Law n.º 68-A/2015. For the purchase of products, services and buildings by public bodies, the Government Entity of Shared Services (eSPap) is responsible for ensuring the development and provision of shared services within the Public Administration, as well as design, manage and evaluate the National Public Procurement System.
Article 7	Articles 4.º and 5.º of Decree-Law n.º 68-A/2015. Regarding the setting up of an energy efficiency obligation scheme, Portugal has opted for the alternative approach and has notified the Commission in December 2013. For the implementation of the amendment of the Directive (Directive (EU) 2018/2002) the articles mentioned above were amended through Decree-Law No. 64/2020.
Article 8	On energy audits and energy management systems, Portugal already had mandatory energy efficiency schemes in place, namely for Industry and Transport sectors, being the minimum criteria to its scope the annual energy consumption. Paragraph 4 of this article created the obligation of conducting energy audits by non SMEs, which was transposed by Articles 12.º and 13.º of Decree-Law n.º 68-A/2015.
Article 9, 10, 11	Articles 16.º,17.º,18.º and 19.º of Decree-Law n.º 68-A/2015 and Order n.º 231/2013 transposes the obligations on metering and billing information. For the implementation of the amendment of the Directive (Directive (EU) 2018/2002) the articles mentioned above were amended through Decree-Law No. 64/2020.
Article 12	Consumer information and empowering programme: article 19.º of Decree-Law n.º 68-A/2015.
Article 13	Penalties: article 31.º of Decree-Law n.º 68-A/2015.
Article 14	Promotion of efficiency in heating and cooling: article 25.º of Decree-Law n.º 68-A/2015, which amended Decree-Law n.º 23/2010.
Article 15	Energy transformation, transmission and distribution: in the regulatory sector, the adoption of practices to promote energy efficiency and the creation of appropriate standards of service quality is the responsibility of the Energy Services Regulatory Authority (ERSE), in accordance with its statutes approved by Decree-Law n.º 97/2002, as amended by Decrees Law n.º 200/2002, 212/2012 and 84/2013. ERSE also monitors losses in distribution networks and transmission of electric energy and natural gas and promotes a number of activities whose purpose is to promote the active participation of consumers.
Article 16	Availability of qualification, accreditation and certification schemes: article 14.º of Decree-Law n.º 68-A/2015, Laws n.º 7/2013 and n.º 58/2013.
Article 17	Information and training: article 19.º of Decree-Law n.º 68-A/2015.

EED Article	Implementation status
Article 18	Energy services: article 15.º of Decree-Law n.º 68-A/2015. There was an update of the legal framework for energy efficiency management contracts to be signed between the State and energy service companies through Decree Law 50/2021.
Article 19	Measures to remove regulatory and non-regulatory barriers to energy efficiency, without prejudice to the basic principles of the property and tenancy law: Laws n.º 31/2012 and 79/2014 on the legal regime for urban lease doesn't limit in any way, the split of incentives arising from investments in energy efficiency.
Article 20	The Energy Efficiency Fund (EEF) is a financial instrument created by Decree Law n.º 50/2010 with the following objectives: to fund programmes and measures identified in the NEEAP, encouraging energy efficiency on the part of citizens and businesses, supporting energy efficiency projects and promoting behavioural change. The EEF, by means of specific calls, supports energy efficiency projects in sectors such as transport, buildings, services, industry and public services. The EEF also supports projects not covered by the NEEAP but which demonstrably contribute to energy efficiency.

2.2. Implementing bodies

DGEG is the entity that in general terms implements the EED in Portugal.

3. Implementation of revised EED articles

As a result of the EED revision of 2018 adjustments were made through the Decree-Law No. 64/2020.

4. Relevant information

More information regarding the situation in Portugal can be found at the following websites:

Directorate General of Energy and Geology: https://www.dgeg.gov.pt

Energy Agency (ADENE): https://www.adene.pt/

Energy Efficiency Fund: https://www.pnaee.pt/fee

SGCIE (Management System of Intensive Energy Consumption): https://sgcie.pt/

System for Energy Certification of Buildings (SCE): https://www.sce.pt/

Energy Services Regulatory Authority: https://www.erse.pt/inicio/

National EED Implementation Report (NIR) 2021

EED implementation in Romania

1. Presentation of the responsible Romanian energy efficiency authority

The Ministry Energy, organized as a specialized body of the central public administration, is the authority for implementing the strategy and the Government Programs in the specific fields, among others the energy and energy resources sector, in accordance with the requirements of the market economy and for supporting the initiative of economic operators. MEEMA is a public institution with legal personality. According to the national Government Emergency Ordinance no. 1/2020, the Directorate for Energy Efficiency (DEE) is the competent authority, integrated in MEEMA, with responsibility for elaborating, implementing and monitoring the primary and subsequent policies and the legal framework in the field of energy efficiency.

Relevant tasks and objectives of the DEE included in the Law no. 121/2014 regarding energy efficiency, the legal act transposing the Directive 27/2012:

- considering MEEMA has the right for legislative initiative at national governmental level, DEE is in charge of the transposition or/and implementation of the European legal framework in the energy efficiency sector;
- primary and subsequent national legal framework in the energy efficiency sector;
- monitoring the implementation of the National Energy Efficiency Action Plan, as well as developing related programs for increasing energy efficiency at the national level;
- cooperation with national and international bodies to promote energy efficiency and reduce the negative impact on the environment;
- authorize energy auditors and certificate energy managers;
- regularly update the list of energy services suppliers that are qualified and certified, as well as their qualifications/certifications;
- monitor, based on the reporting of the operators, the implementation of the energy efficiency programs at the national level;
- participation in substantiating the indicative energy saving targets and developing measures to achieve the national targets;
- collaboration with the National Authority for Regulating and Monitoring Public Procurement in order to support central public administration authorities to meet the obligation of purchasing high efficiency performance products, services and buildings, as far as the requirements for cost effectiveness, economic feasibility, high viability, technical compliance and a sufficient level of competition are met;

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

- organizing information and motivation campaigns of national interest for small energy consumers, including households, for responsible and intelligent efficient energy usage;
- Develop a National Energy Efficiency Strategy with NGOs and representatives of the private sector, operators and final consumers.

2. Legislative contributions

1. Policy-making in the field of Energy Efficiency in industry, at national level, issuing primary and secondary legislation;
2. Monitoring the implementation of the reference documents at national level for achieving the national objectives for 2030 in EE, namely the National Action Plan for EE and the EE target from the National Energy and Climate Plan, aiming to achieve energy savings of 45,1% by reference to primary energy consumption and 40%for final energy consumption.
3. Implementation of Monitoring and Verification system consisting of a reporting procedure on 3 stages. 1.The undertakings with an annual consumption under 1000 toe and those over 1000 toe have the obligation to assess and report savings from electricity, district heating, natural gas and fuels (gasoline and diesel), the percent of energy consumed from fossil fuels and clean energy. 2. The stakeholders report the measures implemented for EE improvement each year, at the level of each undertaking. 3. Each energy auditor and manager reports the annual activity, for the precedent year, including all the contracted beneficiaries (undertaking) for energy audit and management service.

   For municipalities more than 5000 inhabitants it is obligatory to have:

   - Energy efficiency programs

   For municipalities more than 20000 inhabitants it is obligatory to have:

   - Energy efficiency programs
   - Energy manager
4. Elaboration of the reports regarding the monitoring of the progress registered in the fulfilment of the national energy efficiency objectives; communication of certain indicators of EE in industry to the European Commission and other national public administration structure/institutions involved.
5. Elaboration, development and monitoring of the implementation of an integrated energy efficiency strategy, at national level, in accordance with the complementary areas of the energy efficiency policies.
6. Cooperation with other national authorities with competence in the implementation of EE in buildings and district heating.
7. Certification of energy auditors and energy managers performing the EE verification in industry and municipalities.
8. Managing the process of technological evaluation and approval of investment projects for the modernisation of the infrastructure, equipment, with EE component, helping increase the percentage of savings of energy at national level, of CO2 reduction and clean energy production.
9. Coordinating the implementation of European Commission Regulations on the requirements regarding energy labels.

10. Stimulating energy targeted behaviour of the stakeholders and household consumers, organising workshops and campaigns for the dissemination of information; promoting energy efficiency programs for consumers, through complementary actions, organizing, including from external sources, but also from the state budget, information and motivation campaigns, of national interest, of small energy consumers, including households, to use energy efficiently.

11. Elaboration of the legal framework for the Energy Performance Contract and ESCOs.

12. Elaboration of studies for the promotion of high efficiency cogeneration or of central heating and cooling, for the substantiation of the national energy efficiency programs, as well as the participation in projects declared eligible, within energy efficiency and renewable energy programs, initiated by international bodies.

Implementation of Monitoring and Verification system consisting of a reporting procedure in 3 stages. 1. The undertakings with an annual consumption under 1000 toe and those over 1000 toe have the obligation to assess and report savings from electricity, district heating, natural gas and fuels (gasoline and diesel), the percent of energy consumed from fossil fuels and clean energy. 2. The stakeholders report the measures implemented for EE improvement each year, at th elevel of each undertaking. 3. Each energy auditor and manager reports the annual activity, for the precedent year, including all the contracted beneficiaries (undertaking) for energy audit and management service.

Additionally, each DSO reports annually the consumption for each consumption point of over 1000tep.

3. Training energy auditors and managers

Regarding the implementation of Articles 8 and 16 of the Energy Efficiency Directive 2012/27/ EU in Romania, the competent authority is the Ministry of Energy, The Energy Efficiency Directorate. Since 2014 the Authority issues licences for the energy auditors, managers implementing energy management and companies providing energy services for undertakings/companies with an annual energy consumption of over/under 1000 toe, also for municipalities with over 20,000 inhabitants.

The legal framework for these activities is provided by two Regulations approved by the Order of the minister of energy.

The above mentioned categories must have the professional training, specialization and experience gained in this field. Professional experience refers to teaching, research, design, execution or operation, accumulated in the technical fields like energetic, electric, electronics or physics, equipment, industry, chemicals, environment, mining, oil or gas, etc. Qualification – graduation of a specialized training, university or Master's degree.

In order to obtain the certification as a company providing energy services, must meet the following conditions:

a) to be registered as one of the activities the energy services and / or engineering activities and technical consultancy related to them;

b) to have at least one energy manager for industry and / or localities certified according to the law, employed on the basis of an individual employment contract in a single company or as certified natural person. Legal entities that have implemented, certified and maintained one of the standards ISO 15900 – Energy efficiency services or ISO 50001 – Energy management systems will obtain the certification without the examination/evaluation procedure.

For certification, these categories will be evaluated by the examination committee, will take the interview and provide a project with minimum criteria specified in the Regulation regarding the examination procedure.

Each certification is valid for three years and must be accordingly reassessed.

The Authority published the data base of all auditors/managers/companies providing energy services, the updates, clarifications, validates the certified copy of the certificate issued in a Member State of the European Union or in the European Economic Area or at international level. Examples: Certified Energy Manager (CEM), European Energy Manager (EUREM).

Beside the Authority, relevant NGOs and universities are involved in this process.

4. Non-legislative actions

The Energy Efficiency Directorate is requesting support from other institutions such as the Ministry of Public Works, Development and Administration, National Authority for Energy Regulations or the energy auditors and managers when we need to elaborate comprehensive content for CAEED and other H2020 projects in which we are partners. We also collaborate with the profile NGOs.

Energy Efficiency Information Point – established by the Energy Efficiency Directorate in order to help all energy consumers to achieve a better understanding of energy efficiency matters, from legislation to concrete measures that can help increase energy efficiency.

Organising workshops for promoting energy efficiency to the final consumers.

5. Future activities – implementation of the new obligations according to the new Directive (EU) 2002/2018 regarding energy efficiency

The Transposition of the Directive(EU) 2002/2018 into the national legal framework regarding energy efficiency provide the following new obligations:

a. At least the obligation regarding the cumulated energy savings at the level of final use provided in para. (1 ^ 1), the competent authorities may calculate the required amount of energy savings by one or more of the following means: a) the application of an annual rate of savings on energy sales to final customers or on final energy consumption, as an average over the period of three years immediately preceding 1st January 2019; b) partial or total exclusion from the reference scenario for the calculation of energy used in transport; c) the use of any of the options provided in para. (6) and (7).

b. When calculating the savings provided in para. (6) shall take into account: a) to exclude from the calculation, by volume, all or part of the sales of energy used, for the period of obligations or the final energy consumed, for the period of obligations, related to the industrial activities listed in Annex no. 1 to the Government Decision no. 780/2006 on establishing the scheme for greenhouse gas emission allowance trading, with subsequent amendments and completions; b1) to include in the calculation of the mandatory amount of energy savings, energy savings achieved in the sectors of energy transformation, distribution and transport, including efficient district heating and cooling infrastructures, as a result of the implementation of the requirements of Article 14, para. (4), (5), (6) lit. b) and Article 15, para. (1) – (7) and par. (10) – (13).

c. The country objectives and indicators pursued on each pillar of PNIESC 2021-2030, respectively RES, GES, EE, security of supply and other elements are included and reported to and through PNIESC, cumulating all recent legislative obligations in the field of energy (PNIESC of). was approved in the government meeting of 4th October, 2021).

d. Energy efficiency policy measures are adopted with the aim of obtaining savings, each year, of 0.8% of annual final energy consumption, in order to achieve new energy savings.

e. The energy efficiency policy measures adopted by Romania, the programs or measures financed under the National Energy Efficiency Fund must be implemented as a matter of priority among vulnerable households, including those in energy poverty, and, where appropriate, social housing.

f. With regard to the obligation of economic operators with subunits that consume more than 1,000 energy per year, they are required to include energy balances on all energy consumption outlines of the economic operator and to meet the minimum criteria for energy audits, including for those developed as part of energy management systems (Annex 4). Energy audits are performed for all types of energy carriers that enter the contour of energy consumption.

Ministry of Energy

http://energie.gov.ro/

Website: www.energie.gov.ro

Strada Academiei nr.39-41, București, România

National EED Implementation Report (NIR) 2021

EED implementation in Slovakia

Introduction

Energy Efficiency is in responsibility of Ministry of Economy of the Slovak Republic. It has prepared Energy Efficiency Act, as well as connection to the Governance Regulation within the topic of Energy Efficiency. Buildings are in responsibility of Ministry of Transport, Construction and Regional Development of the Slovak Republic.

1. Legal context

Energy Efficiency Act No. 321/2014 Coll., in force as of 1st December 2014, has been prepared by Ministry of Economy of the Slovak Republic, in cooperation with Ministry of Transport and Construction of the Slovak Republic as well as with Slovak Innovation and Energy Agency. It was amended based on the revised EED with the law Nr. 419/2020 Coll., which is in force from the 1st January 2021. Monitoring and reporting is set according to Energy Efficiency Act and is realised via Monitoring system of energy efficiency run by Slovak Innovation and Energy Agency.

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 3 EE target	Energy Efficiency Act as amended
Article 5 renovation of public buildings	Energy Efficiency Act as amended, Energy Performance of Buildings Act as amended
Article 7 target and alternative approach	Energy Efficiency Act as amended
Article 8 energy audit	Energy Efficiency Act as amended

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

EED Article	Implementation status
Articles 9-11 measuring and verification of heating and cooling	Energy Efficiency Act as amended, Heating Law
Article 14	Energy Efficiency Act as amended
Article 15	Energy Efficiency Act as amended, Energy Law, Energy Regulation Law
Article 16	Energy Efficiency Act as amended
Article 17	Energy Efficiency Act as amended
Article 18	Energy Efficiency Act as amended
Article 19	Energy Efficiency Act as amended

2.2. Non-legislative provisions

Planning and reporting in energy efficiency is realised mainly through the governance regulation as one part of Energy Policy, which is now defined in the NECP. LTRS has been prepared by the Ministry of Transport and Construction.

Monitoring System of Energy Efficiency, run by Slovak Innovation and Energy Agency, is used for collecting various data necessary for evaluation of energy efficiency and energy savings according to legal obligations based on Energy Efficiency Act as well as Governance regulation provisions on energy efficiency.

Slovakia has prepared and EPC strategy for public sector in 2018 and amended its legislation related to public sector for the use of EPC services based on the Eurostat guidelines. Voluntary agreements with main energy consumers in industry and with energy related companies have been further developed.

Main implementing body is Ministry of Economy of the Slovak Republic. Ministry of Transport and Construction is responsible for buildings, Ministry of Finance for EPC introduction in public sector and Ministry of Environment for climate and environmental issues. All above mentioned ministries are implementing the various EU funding possibilities in energy efficiency area and closely cooperating, in particular based on the new Fit for 55 package connecting together energy and climate targets.

2.3. Implementing bodies

Main implementing body is Ministry of Economy of the Slovak republic. Ministry of Transport and Construction is responsible for buildings, Ministry of Finance for EPC introduction in public sector and Ministry of Environment for climate and environmental issues. All above mentioned ministries are implementing the various EU funding possibilities in energy efficiency area.

3. Implementation of revised EED articles

Secondary legislation based on Energy Efficiency Act is under preparation. All reports related to energy efficiency based on governance regulation are also under preparation. At present, Slovakia is analysing the new proposal of EED as part of Fit for 55 package promoting the main objective of EU carbon neutrality in 2050.

4. Relevant information

www.mhsr.sk

www.siea.sk

National EED Implementation Report (NIR) 2021

EED implementation in Slovenia

Introduction

The implementation of the Directive on Energy Efficiency (EED) (2012/27/EU and 2019/944/EU) is the responsibility of the Ministry of Infrastructure. Also the Ministry for Environment and Spatial Planning and Energy Agency are involved in the implementation of the EED. Eco fund, public fund implements several instruments and programmes related to energy efficiency in assignment of the Ministries. Institute Jozef Stefan, Centre for Energy Efficiency is involved for calculations regarding energy efficiency (EE).

1. Legal context

To implement the EED, changes have been made to several national laws. These have been among others effectuated by the new "Act on Energy Efficiency" (Official Gazette, No. 158/20) coming into force November 2020.

2. Status of the implementation

Slovenia has chosen to effect the provisions of Article 7(9) of the Energy Efficiency Directive (Directive 2012/27/EU and 2019/944/EU), through opting to combine alternative policy measures and an energy efficiency obligation scheme (EEOS) to meet the national target. The two measures thus (EEO and Eco-Fund) will be responsible for achieving the 0.8% target annually.

Obligated parties under the EEOS are energy suppliers of electricity, heat, gas and liquid and solid fuels to final customers. There are no exceptions for small scale suppliers foreseen. The final customers are public and service sectors, industry and some measures in households. The measures must function up until and including 2020. From 2015 suppliers of motor fuels are also obligated, on the level of savings 0.25% sold fuel in year 2020, 0.30% sold fuel in year 2021, 0.40% sold fuel in year 2021, 0.50% sold fuel in year 2022, 0.60% sold fuel in year 2023, 0.70% sold fuel in year 2024 and 0.8% in year 2025.

Eco Fund (Eko sklad), Slovenian Environmental Public Fund, is a public fund (owned by the state). Eco-Fund aims at improving energy efficiency through financing investments in energy efficiency, mostly in households. The funds for subsidies are collected from the contributions-fee for improving energy efficiency; from charges from district heating, electricity and solid, liquid and gaseous fuels, paid by final consumers on top of the price of energy or fuel to the operator or supplier of energy or fuels, which pays the funds collected to Eco-Fund.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

Non-repayable subsidies (grants) (higher for investments in at least three eligible measures and total retrofits vis–à–vis singular investments; up to 50% of the eligible cost for investments on areas with high PM10 pollution; up to 100% of the eligible costs for socially deprived households) are offered to:

- households for energy efficiency in residential buildings:
  - solar heating systems
  - biomass boilers
  - heat pumps
  - connection to district heating on renewable energy sources
  - energy efficient wooden windows
  - facade insulations
  - roof insulations
  - heat recovery ventilations
  - new nearly-zero-energy buildings (nZEBs)
  - full retrofits
  - purchases of apartments in nZEBs multi-residential buildings (full retrofits)
- individuals (households) for energy efficiency and use of renewable energy sources investment projects in in multi residential building:
  - facade insulations
  - roof insulations
- households, legal entities and municipalities for electric cars
- municipalities for nearly-zero energy public buildings

In 2020 for grants there is around 45 mio EUR available. Eco Fund's is supporting also Energy Advisory Network which offers free advises regarding EE investments for households.

The energy savings in the framework of EEO and Eco Fund are calculated by the method of evaluating energy savings determined by Ministry of Infrastructure published in Regulation on methods for determining the energy savings to end consumers (UL RS, No 67/15, 14/17, 158/20-ZURE in 57/21).

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

Energy Law (ZURE), http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8136

EED Article	Implementation status
Article 5	Article 9 Act on Energy Efficiency Decree on energy management in public sector was adopted in June 2016. The Decree is bringing obligation for all public bodies to perform energy book-keeping and achieve EE and RES goals in the building owned and used by them. Regarding transposition of EED decree is defining minimum energy performance requirements for buildings which central government will purchase or rent.
Article 7	Articles 10-14 Act on Energy Efficiency Decree on energy savings requirements Rules on the methods for determining energy savings
Article 8	Article 16, 55 Act on Energy Efficiency Rules on the Methodology for Compiling Energy Audits and the Content of those Audits was adopted in June 2016.
Article 9	General Condition for connection to the distribution Electric system Decree on the method of provision of an electricity DSO service of general economic interest and a service of general economic interest of electricity supply to tariff.
Article 10	Article 21 Act on Energy Efficiency
Article 11	Article 23 Act on Energy Efficiency
Article 12	Article 5 Act on Energy Efficiency
Article 13	Article 63, 65, 67 Act on Energy Efficiency
Article 14	Article 51, 54 Act on Energy Efficiency
Article 15	Article 30, 43, 164, 371, 385 Energy law
Article 16	Article 357 Energy Law
Article 17	Article 55 Act on Energy Efficiency
Article 18	Article 55, 58 Act on Energy Efficiency

EED Article	Implementation status
Article 19	Article 7, 9 Act on Energy Efficiency
Article 20	Article 7 Act on Energy Efficiency
Article 21	Decree on the method of determining and calculating the contribution for ensuring support for the production of electricity from high-efficiency cogeneration and renewable energy sources.

2.2. Non-legislative provisions

Regarding Article 5 Slovenia has opted for a default approach. The list of central government buildings is updated yearly.

For the implementation of Article 5(7), the Ministry of Infrastructure is published Decree on energy management in public sector which was adopted in June 2016.

The Decree is bringing obligation for all public bodies to perform energy bookkeeping and achieve EE and RES goals in the building owned and used by them. For implementation of that provision electronic register was established. Organisations reporting on energy consumption in the register.

To set public bodies' buildings as exemplary role the Ministry of Infrastructure has established a special Project Office for Building Energy Renovation in October 2015. The Project Office is a coordinating body concentrating knowledge and experience for the implementation of investments in the energy renovation of state-owned buildings, with special emphasis on the energy performance contracting model. It provides an expert team to assist in designing invitations to tender, conducting public-private partnership procedures, evaluating tenders, overseeing the implementation of measures, overseeing the implementation of the contract on the provision of energy savings and transferring knowledge and good practice to the entire public and other sectors.

The main tasks of the Office are to manage and ensure the systematic preparation of a set of projects to meet the targets of renovation of state-owned buildings; to support the implementation of energy performance contracting projects: an active role in establishing an energy performance contracting model (including the preparation of procedures and documents for the standardised implementation of projects) and in removing administrative barriers, the speeding-up of the preparation of projects, analyses of the quality of projects already carried out; to provide information and participate in the training of all important entities in these fields; to transfer knowledge and experiences relating to investments in the renovation of buildings between different segments of public administration (with entities such as local energy agencies, etc.), and transfer international knowledge and experiences to other sectors (e.g. SMEs, housing sector); to support the transfer of knowledge and experiences in the field of the energy renovation of cultural heritage buildings; to manage demonstration project records (the role of the project office will be to ensure the demonstration effects by making the appropriate selection of projects and solutions and by monitoring them, disseminating the results, etc.); to retain and maintain records of central government buildings for energy renovation requirements.

Below is a list of some other activities:

- Partial refurbishment and update of GIS portal for RES and energy efficiency – containing locations of plants, info on possible further RES development (potentials)
- Extended topic on "Trajnostna energija" portal (waste, water, smart grids, carbon footprint, PV recycling etc.)

There are a lot of others demonstration projects covering different category of energy efficiency sector.

2.3. Implementing bodies

Ministry of Infrastructure is main responsible institution for implementation of EED directive. Also the Ministry for Environment and Spatial Planning and Energy Agency are involved in the implementation of the EED, bevose they are responsible for environmental policy. Eco fund, public fund implements several instruments and programmes related to energy efficiency in assignment of the Ministries. Mostly they are responsible for subsidies for households and companies. Institute Jozef Stefan, Centre for Energy Efficiency is involved for calculations regarding energy efficiency (EE).

3. Implementation of revised EED articles

The implementation of the revised Directive on Energy Efficiency (EED) (2019/944/EU) was done with new "Act on Energy Efficiency" (Official Gazette, No. 158/20) coming into force November 2020.

4. Relevant information

Ministry of Infrastructure, Portal energetika:

http://www.mzi.gov.si/

https://www.energetika-portal.si

and link to NECP: https://www.energetika-portal.si/fileadmin/dokumenti/publikacije/nepn/dokumenti/nepn_5.0_final_feb-2020.pdf and
Long term renovation strategy for buildings until 2050: https://www.energetika-portal.si/dokumenti/strateski-razvojni-dokumenti/dolgorocna-strategija-za-spodbujanje-nalozb-energetske-prenove-stavb/

National EED Implementation Report (NIR) 2021

EED implementation in Spain

Introduction

The implementation of the Directive on Energy Efficiency (EED) (2012/27/EU) is the responsibility of the Ministry for Ecological Transition and Demographic Challenge (MITERD). MITERD is also responsible for the elaboration and coordination of the Spanish Integrated National Energy and Climate Plan 2021-2030 (NECP 2021-2030).

In addition, the Ministry of Transport, Mobility and Urban Agenda is involved in the implementation of the EED, especially in relation to article 4 and the long-term strategy for building renovation, and that now falls under the Energy Performance in Buildings Directive.

The Institute for Diversification and Saving of Energy (IDAE), which is the national energy agency attached to the Secretary of State for Energy, implements several instruments, programmes and measures relating to the implementation of the EED. IDAE also coordinates and contributes to the reporting of energy efficiency at both national and European level.

This National Implementation Report (NIR) of the Directive 2012/27/EU of the European Parliament and of the Council on energy efficiency (EED) builds on the 2016 NIR. This version includes the implementation of the amendment of the EED (Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency) and the Governance Regulation (Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) and Directives, among which 2012/27/EU (NECPs and reporting/Energy Efficiency dimension related to EED).

1. Legal context

To implement the EED, changes have been made to different regulations and legal provisions. These legal provisions are mentioned article by article in the table of the next paragraph. The present table is an updated version of the 2016 NIR table, and includes the new regulation and legal provisions that implement the revised articles of EED.

There are three laws that have to be highlighted since the 2016 NIR was published:

- Royal Decree-Law 23/2020, of June 23, which approves measures in the field of energy and in other areas for economic reactivation. This Royal Decree-Law extends until 2030 the system of energy saving obligations and the National Energy Efficiency Fund.
- Royal Decree 736/2020, of 4 August, which regulates the accounting of individual consumptions in thermal installations of buildings and implements article 9.
- Law 7/2021, of May 20, on climate change and energy transition. This law ensures compliance by Spain with the objectives of the Paris Agreement and facilitate the decarbonisation of the Spanish economy. Climate neutrality should be achieved no later than 2050. With regard to the energy efficiency measures contemplated by law, it is worth highlighting the provisions in the areas of building and transport.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links. The table builds on the 2016 NIR therefore violet text is the information from the previous table and dark is the latest information:

EED Article	Implementation status
Article 2 (Definitions)	Royal Decree 56/2016, February 12th, which transposes the EED regarding energy audits, accreditation of service providers and energy auditors and promoting efficiency of energy supply (paragraph I). Law 6/1997 of 14 April, on the organization and operation of the General State Administration (art. 41-44, Title II). Law 18/2014, of 15 October, approving urgent measures for growth, competitiveness and efficiency (art. 69, 71). National Energy Efficiency Plan (paragraph 4.1.6). Law 24/2013 on the Electricity Sector (arts. 6, 7, 30, 38, 40). Law 34/1998 on the Hydrocarbons Sector (art. 58). Royal Decree 1110/2007, 24th August, approving the Regulation of metering points of the electrical system (art. 3). Royal Decree 616/2007, 11th May, on the promotion of cogeneration (art. 2).
Article 4	In fulfilment of Article 4 the Ministry of Development has presented, within the framework of this 2014–2020 National Energy Efficiency Action Plan, a 'Spanish Strategy for Energy Renovation in the Building Sector'. This is a long-term strategy (including forecasts for 2020, 2030 and 2050) which will be updated every three years, the aim of which is to stimulate investments in the renovation of residential and commercial buildings with a view to improving the energy performance of the national stock of buildings. With this in mind, it gives an in-depth analysis of how to take on exhaustive and cost-effective renovations which could potentially reduce consumption in terms of both the energy supplied to buildings and their final energy level. According to the Directive, this strategy shall encompass: (a) an overview of the national building stock based, as appropriate, on statistical sampling; (b) identification of cost-effective approaches to renovations relevant to the building type and climatic zone; (c) policies and measures to stimulate cost-effective deep renovations of buildings, including staged deep renovations; (d) a forward-looking perspective to guide investment decisions of individuals, the construction industry and financial institutions; (e) an evidence-based estimate of expected energy savings and wider benefits. As a result of the EED revision, the Long Term Renovation Strategy as specified by Art 4 now falls under the Energy Performance in Buildings Directive. Spain published in June 2020 the update of the Long-term Strategy for Energy Renovation in the Building Sector in Spain (ERESEE 2020) that establishes a roadmap for the decarbonisation of housing stock in 2050.

EED Article	Implementation status
Article 5	The inventory of heated and/or cooled central government buildings has been elaborated and published as it is stated in article 5 (firstly including those with a total useful floor area over 500 m^2 and secondly including also those over 250 m^2). The inventory of 2020 is available at the following link on the Ministry for Ecological Transition and Demographic Challenge website: https://energia.gob.es/desarrollo/EficienciaEnergetica/directiva2012/Inventario/Inventario%20de%20Edificios%20de%20la%20Administración%20General%20del%20Estado/00%20Inventario%20energetico%20de%20los%20edificios%20de%20la%20Administracion%20General%20del%20Estado%20-%20Diciembre%202020.pdf
Article 6	Law 15/2014, September 16th, for public sector rationalization and other measures of administrative reform. This law establishes the principles and energy efficiency requirements for the procurement of goods, services and buildings by public administrations within the State Public Sector: https://www.boe.es/boe/dias/2014/09/17/pdfs/BOE-A-2014-9467.pdf
Articles 7 and 13	Regarding article 7, Royal Decree Law 8/2014, July 4th, for the approval of urgent measures for growth, competitiveness and efficiency (https://www.boe.es/diario_boe/txt.php?id=BOE-A-2014-7064), approved afterwards by Law 18/2014, October 15th (https://www.boe.es/diario_boe/txt.php?id=BOE-A-2014-10517), established the system of energy saving obligations (art. 69.1) and set up, in accordance with Article 20 of Directive 2012/27/EU, the National Energy Efficiency Fund (art. 72.1), under the Ministry of Industry, Energy and Tourism (art. 73.1), now Ministry for the Ecological Transition and the Demographic (MITERD). According to the Law 18/2014, the obligated parties (gas and electricity trading companies, petroleum product wholesale and operators of liquefied petroleum gas wholesale) should do an annual financial contribution to the Fund for fulfilling with energy savings obligations (art. 71.1). Alternatively, in the terms legally regulated by the Government, a mechanism based on the presentation of Energy Saving Certificates (art. 71.2) may be established. Spain is working on the implementation of a system of energy saving certificates (CAEs) which will add energy savings and associated investments. Regarding the implementation of the revised EED article 7, by Royal Decree-Law 23/2020, of June 23, which approves measures in the field of energy and in other areas for economic reactivation, the contribution period has been extended until December 31, 2030, which guarantees the availability of funds for the coming years. This Royal Decree-Law also updates the rules on penalties for article 7. Additionally, Spain is developing an Energy Savings Certificates System (CAE due to its Spanish name) as a complementary mechanism of the Energy Efficiency National Found, within the frame of its National System of Energy Efficiency Obligations. Order ETU/120/2017, 1st February, which determines the way to send information from the autonomous communities and local entities regarding their energy saving and efficiency programmes. This order establishes the communication mechanism at regional and local level regarding the energy savings achieved by them.

EED Article	Implementation status
Article 8,16	Royal Decree 56/2016, February 12th, which transposes the EED regarding energy audits, accreditation of service providers and energy auditors and promoting efficiency of energy supply. http://www.boe.es/boe/dias/2016/02/13/pdfs/BOE-A-2016-1460.pdf The Royal Decree consists of fourteen articles, grouped into five chapters, four additional provisions, two transitional provisions, seven finals provisions and five annexes. Chapter I, under the heading "General Provisions," sets the object and purpose of this Royal Decree, and the necessary definitions for the proper interpretation of the text. Chapter II, "Energy Audits", contains the regulation of them. This Royal Decree establishes the obligation for companies not SMEs, which must do an energy audit before December 5th, 2015 and thereafter at least every four years from the date of previous energy audit. Requirements to be met by the audit are also established. An Administrative Registry of Energy Audits is created in the Ministry of Industry, Energy and Tourism and an inspection system is established. Chapter III, "Accreditation system for providers of energy services and energy auditors" regulates the conditions and requirements to be applied in the accreditation of these suppliers and auditors. Chapter IV, "Promotion of energy efficiency in the production and use of heat and cold" regulates the assessment of high-efficiency cogeneration potential and district heating and cooling to be performed in order to provide information to investors regarding the national development plans and contribute to a stable and supportive environment for investment. Chapter V, "Penalties", relates to the penalties for the provisions defaults of this Royal Decree. The provisions included in the Royal Decree impact on the assessment of energy efficiency potential in the gas infrastructure, establish deadlines and dates for the mandatory implementation of the articles contained in the Royal Decree and modify existing legislation to incorporate aspects of energy auditing, the system of accreditation of providers of energy services and energy auditors and accounting for consumption of hot water and heating, provided by Directive 2012/27/UE.

EED Article	Implementation status
Article 9	Royal Decree 736/2020, of 4 August, which regulates the accounting of individual consumptions in thermal installations of buildings (https://www.boe.es/eli/es/rd/2020/08/04/736). Royal Decree 178/2021, of 23 March, amending Royal Decree 1027/2007, of July 20, which approves the Regulation of Thermal Installations in Buildings (https://www.boe.es/eli/es/rd/2021/03/23/178). This law addressed to the establishment of the requirements and obligations related to the accounting of individual heating and cooling consumptions that the centralized thermal installations of new and existing buildings must meet. It also sets out the procedures that make it possible to verify compliance with the obligations relating to information on individual consumption and the cost of access to information on measurement and settlement of consumption. These obligations will apply to buildings built before 1998, since as of 1998 the mandatory installation of metering systems was regulated, therefore it does not apply, exempting buildings located in the warmest areas of the country and cases in which the investment cannot be recovered in a maximum of 4 years, based on the savings generated.
Article 10	Royal Decree 56/2016, February 12th, which transposes the EED regarding energy audits, accreditation of service providers and energy auditors and promoting efficiency of energy supply. Royal Decree 1435/2002, December 27th, in which the basic conditions of power purchase contracts and access to low voltage networks are regulated. (Art. 7). Resolution of 2 June 2015 (State Energy Secretariat), amending certain operating procedures approved for the treatment of data from equipment type 5 measurement for billing and settlement of energy. Royal Decree 1074/2015, November 27th, by which different provisions are amended in the electricity sector (art. 2). Royal Decree 736/2020, of 4 August, which regulates the accounting of individual consumptions in thermal installations of buildings (https://www.boe.es/eli/es/rd/2020/08/04/736). Royal Decree 178/2021, of 23 March, amending Royal Decree 1027/2007, of July 20, which approves the Regulation of Thermal Installations in Buildings (https://www.boe.es/eli/es/rd/2021/03/23/178).

EED Article	Implementation status
Article 11	Royal Decree 56/2016, February 12th, which transposes the EED regarding energy audits, accreditation of service providers and energy auditors and promoting efficiency of energy supply. Law 24/2013, December 26th, on the Electricity Sector. Title VIII. Power supply. Royal Decree 1955/2000, December 1st, by which the transmission, distribution, marketing, supply and authorization procedures for electric power facilities are regulated. Title VI Supply. Royal Decree 1718/2012, December 28th, which determines the procedure for reading and billing energy supplies low voltage with contracted power not exceeding 15 kW. Royal Decree 216/2014, March 28th, establishing the methodology for calculating volunteers prices for small electricity consumers and its legal procurement regime is established. Royal Decree 736/2020, of 4 August, which regulates the accounting of individual consumptions in thermal installations of buildings (https://www.boe.es/eli/es/rd/2020/08/04/736). Royal Decree 178/2021, of 23 March, amending Royal Decree 1027/2007, of July 20, which approves the Regulation of Thermal Installations in Buildings (https://www.boe.es/eli/es/rd/2021/03/23/178).
Article 14 and Annex X	Royal Decree 56/2016, February 12th, which transposes the EED regarding energy audits, accreditation of service providers and energy auditors and promoting efficiency of energy supply. http://www.boe.es/boe/dias/2016/02/13/pdfs/BOE-A-2016-1460.pdf Chapter IV, "Promotion of energy efficiency in the production and use of heat and cold" regulates the assessment of high-efficiency cogeneration potential and district heating and cooling to be performed in order to provide information to investors regarding the national development plans and contribute to a stable and supportive environment for investment. The second additional provision determines the obligation to make a comprehensive assessment of the use of high efficiency cogeneration and an efficient district heating and cooling. The second final provision modifies the Royal Decree 616/2007, May 11th, on the promotion of cogeneration. Order ITC / 1522/2007, May 24th, by which the regulation of an origin guarantee of electricity from renewable energy sources and high efficiency cogeneration is established (Art. 3, 4, 6). Royal Decree 413/2014, June 6th, by which production activity of electric power from renewable energy sources, cogeneration and waste is regulated (art. 27).

EED Article	Implementation status
Article 15 and Annex XI and XII	Royal Decree 56/2016, February 12th, which transposes the EED regarding energy audits, accreditation of service providers and energy auditors and promoting efficiency of energy supply. Law 24/2013, December 26th, on the Electricity Sector. (Art. 9, 14.8, 16, 26,33, 46, 49). Royal Decree 413/2014, June 6th, by which production activity of electric power from renewable energy sources, cogeneration and waste is regulated (Arts. 6, 10). Order IET 2013/2013, October 31st, by which the competitive allocation mechanism management service demand interruptibility is regulated. Order IET 346/2014, March 7th, amending the Order IET / 2013/2013, of 31 October, by which the competitive allocation mechanism management service demand interruptibility is regulated. Royal Decree 1085/2015, December 4th, to promote biofuels (sixth additional provision). Royal Decree 661/2007, May 25th, by which the activity of electricity production under the special regime (art. 17, 33) is regulated. Royal Decree 216/2014, March 28th, establishing the methodology for calculating volunteers prices for small electricity consumers and its legal procurement regime is established. Royal Decree 900/2015, October 9th, by which the administrative, technical and economic conditions, of electric energy supply modalities with self-consumption are regulated.
Article 16	Royal Decree 56/2016, February 12th, which transposes the EED regarding energy audits, accreditation of service providers and energy auditors and promoting efficiency of energy supply.
Article 17	Spanish NEEAP (paragraph 4.1.4). See some videos of the most recent campaign on energy efficiency, under the EED: http://www.lamoncloa.gob.es/serviciosdeprensa/cpci/Paginas/industria/idae-2015.aspx See also the 2016 national report on: https://ec.europa.eu/energy/en/topics/energy-efficiency/energy-efficiency-directive/national-energy-efficiency-action-plans Spanish NECP, measure 2.15. Communication and information concerning energy efficiency (page 155)

EED Article	Implementation status
Article 18	Royal Decree 56/2016, February 12th, which transposes the EED regarding energy audits, accreditation of service providers and energy auditors and promoting efficiency of energy supply. Law 24/2013, December 26th, on the Electricity Sector. (Art. 40, 46, 49, 50, 65). Spanish NECP, measure 2.11. Promotion of energy services (page 152).
Article 19	Spanish NEEAP (paragraph 4.1.7).
Article 20	The National Energy Efficiency Fund is under the Ministry of Industry, Energy and Tourism through the State Secretariat for Energy. The Fund, which was established by Law 18/2014, of October 15, has been extended through Decree-Law 23/2020, of June 23, by which they are approved measures in the field of energy and in other areas for economic reactivation. It aims at financing mechanisms for economic, financial, technical assistance, training, information or other measures to increase energy efficiency in the different energy-consuming sectors so that contribute to the national energy savings target established by the National System of Energy Efficiency Obligations under Article 7 of Directive 2012/27/EU.
Annex VII	Royal Decree 1718/2012, December 28th, which determines the procedure for reading and billing energy supplies low voltage with contracted power not exceeding 15 kW. Royal Decree 216/2014, March 28th, establishing the methodology for calculating volunteers prices for small electricity consumers and its legal procurement regime is established. Royal Decree 1164/2001, October 26th, in which access tariffs to transmission and distribution of electricity are established (Art. 5). Law 24/2013 on the Electricity Sector (arts. 44, 46). Resolution of 23 May 2014, from the General Directorate of Energy Policy and Mines, in which the minimum content and the electricity bill model is established. Royal Decree 1955/2000, December 1st, by which the transmission, distribution, marketing, supply and authorization procedures for electric power facilities are regulated. Title VI Supply. (Art. 110a). Royal Decree 1434/2002, December 27th, by which the activities of transportation, distribution, marketing, supply and authorization procedures for natural gas installations are regulated (Art. 51, 52, 53).

2.2. Non-legislative provisions

From 2015 until now, Spain has been very active in new policies and measures put in place to promote energy efficiency. The following table shows the main programs and measures, both regulatory and legislative, to promote energy efficiency, which have taken place:

AÑO	SECTOR	PROGRAMA/MEDIDA	DESCRIPCIÓN	LINK
2015	**Cross-sectoral**	Energy Saving and Diversification Investment Fund (F.I.D.A.E.).	The JESSICA Holding Fund (Joint European Support for Sustainable Investment in City Areas) with a Budget of 123 M€, the purpose of which is to finance urban energy-efficiency and renewable-energy-use projects.	https://www.idae.es/uploads/documentos/documentos_Criterios_de_elegibilidad_FIDAE_Mar-2016-v15_653cd980.pdf
		Communication campaign 2015.	Communication campaign: 'You control your energy'.	http://www.lamoncloa.gob.es/serviciosdeprensa/cpci/Paginas/industria/idae-2015.aspx
	Buildings	Aid Programme to Improve the Energy Efficiency of Existing. Buildings (PAREER-CRECE).	To promote comprehensive measures to improve energy Efficiency, the use of renewable, and the reduction of CO2 emissions in existing buildings of all kind. This programme has also contributed to comply with Article 4 of Directiveligh2012/27/UE.	https://www.idae.es/ayudas-y-financiacion/para-la-rehabilitacion-de-edificios/convocatorias-cerradas/programa-de-ayudas
	Appliances, equipment, lighting	Aid programme for the renovation of municipal street lighting.	Incentives for and to promote energy saving and efficiency and CO2 emission reduction projects via measures to renovate street lighting in Spanish municipalities.	https://www.idae.es/ayudas-y-financiacion/para-la-renovacion-de-alumbrado-exterior-fnee/primera-convocatoria-programa
	Industry	Aid programme for energy efficiency measures in SMEs (Small and Medium-sized Enterprises) and large industrial enterprise.	Aid programme to improve technology used in industrial equipment and processes and to install energy management systems.	https://www.idae.es/ayudas-y-financiacion/para-eficiencia-energetica-en-la-industria/concesion-directa-ccaa-de-las-0
		Aid programme to improve energy efficiency in desalination plants.	Actions aimed at improving the efficiency of water supply, treatment and desalination technologies. Strong incentives for the introduction of electric vehicles, such as encouraging demand for those vehicles, supporting electric vehicle technology mass-production and R&D, facilitating adaptation of the electricity infrastructure to provide the necessary charging facilities and manage demand, and to promote a series of cross-cutting programmes to provide information, raise awareness, provide training and standardise that technology.	https://www.idae.es/ayudas-y-financiacion/programa-de-ayudas-para-actuaciones-de-eficiencia-energetica-en-desaladoras
	Transport	MOVELE 2015	Strong incentives for the introduction of electric vehicles, such as encouraging demand for those vehicles, supporting electric vehicle technology mass-production and R&D, facilitating adaptation of the electricity infrastructure to provide the necessary charging facilities and manage demand, and to promote a series of cross-cutting programmes to provide information, raise awareness, provide training and standardise that technology.	https://www.boe.es/diario_boe/txt.php?id=BOE-A-2015-4215
		Efficient Vehicle Incentives Programmes (PIVE).	Public aid programmes managed by the IDAE (Instituto para la Diversificación y Ahorro de la Energía (Institute for Energy Diversification and Saving) designed to promote the scrapping of passenger vehicles (M1) and commercial vehicles of less than 3.5 t (N1) that are more than 10 and 7 years old, respectively.	https://www.boe.es/diario_boe/txt.php?id=BOE-A-2015-12895
		Aid programme for modal shift and more efficient use of transport modes.	Public aid programme for the promotion of plans for sustainable travel to the workplace, management of road transport vehicle fleets and ecodriving courses for drivers of industrial vehicles.	https://www.idae.es/ayudas-y-financiacion/para-movilidad-y-vehiculos/convocatorias-cerradas/plan-moves-incentivos-la
		Aid programme to improve energy efficiency in railway systems.	Public aid programme for the promotion of these type measures: Action 1. Improvement of energy efficiency via the installation of regenerative braking systems in trains. Action 2. Energy-saving strategies in rail traffic operations. Action 3. Improvement of the energy efficiency of existing railway buildings. Action 4. Improvement of the energy efficiency of street lighting and signalling systems. Action 5. Improvement of the energy efficiency of railway facilities.	https://www.idae.es/ayudas-y-financiacion/para-movilidad-y-vehiculos/convocatorias-cerradas/programa-de-ayudas-para-0

AÑO	SECTOR	PROGRAMA/MEDIDA	DESCRIPCIÓN	LINK
2016	**Cross-sectoral**	Carbon Fund for a Sustainable Economy (fes-co2).	The aim of this programme is to generate low-carbon economic activity and to contribute to meeting Spain's greenhouse gas emission reduction commitments. CLIMA Projects must be implemented in Spain in the non-ETS sectors (not subject to the European emissions trading scheme, e.g. the transport, agriculture, residential and waste sectors), excluding projects to absorb emissions by sink.	https://www.miteco.gob.es/es/cambio-climatico/temas/proyectos-clima/que-es-un-proyecto-clima/default.aspx
		Energy Saving and Diversification Investment Fund (F.I.D.A.E.).	The JESSICA Holding Fund (Joint European Support for Sustainable Investment in City Areas) with a Budget of 123 M€, the purpose of which is to finance urban energy-efficiency and renewable-energy-use projects.	https://www.idae.es/uploads/documentos/documentos_Criterios_de_elegibilidad_FIDAE_Mar-2016-v15_653cd980.pdf
	Buildings	Aid Programme to Improve the Energy Efficiency of Existing Buildings (PAREER-CRECE).	To promote comprehensive measures to improve energy Efficiency, the use of renewable, and the reduction of CO2 emissions in existing buildings of all kind. This programme has also contributed to comply with Article 4 of Directiveligh2012/27/UE.	https://www.idae.es/ayudas-y-financiacion/para-la-rehabilitacion-de-edificios/convocatorias-cerradas/programa-de-ayudas
	Appliances, equipment, lighting	Aid programme for the renovation of municipal street lighting	Incentives for and to promote energy saving and efficiency and CO2 emission reduction projects via measures to renovate street lighting in Spanish municipalities.	https://www.idae.es/ayudas-y-financiacion/para-la-renovacion-de-alumbrado-exterior-fnee/primera-convocatoria-programa
	Industry	Industrial competitiveness incentive programme.	Financing for plans that improve industrial facilities in operation by making changes and modifications intended to have a significant impact on their competitiveness.	https://www.mincotur.gob.es/PORTALAYUDAS/RCI/NORMATIVA/Paginas/Convocatorias-2016.aspx
		Aid programme for energy efficiency measures in SMEs (Small and Medium-sized Enterprises) and large industrial enterprise.	Aid programme to improve technology used in industrial equipment and processes and to install energy management systems.	https://www.idae.es/ayudas-y-financiacion/para-eficiencia-energetica-en-la-industria/concesion-directa-ccaa-de-las-0
		Aid programme to improve energy efficiency in desalination plants.	Actions aimed at improving the efficiency of water supply, treatment and desalination technologies. Strong incentives for the introduction of electric vehicles, such as encouraging demand for those vehicles, supporting electric vehicle technology mass-production and R&D, facilitating adaptation of the electricity infrastructure to provide the necessary charging facilities and manage demand, and to promote a series of cross-cutting programmes to provide information, raise awareness, provide training and standardise that technology.	https://www.idae.es/ayudas-y-financiacion/programa-de-ayudas-para-actuaciones-de-eficiencia-energetica-en-desaladoras
	Transport	Plan to Promote Mobility using Alternative-Fuel Vehicles (MOVEA).	Incentives to purchase electric vehicles continued to be provided through the MOVEA Plan, which consolidated the existing state aid for the purchase of alternative-fuel vehicles — MOVELE and PIMA Aire — into a single programme.	https://www.boe.es/diario_boe/txt.php?id=BOE-A-2015-12900
		Efficient Vehicle Incentives Programmes (PIVE).	Public aid programmes managed by the IDAE (Instituto para la Diversificación y Ahorro de la Energía (Institute for Energy Diversification and Saving) designed to promote the scrapping of passenger vehicles (M1) and commercial vehicles of less than 3.5 t (N1) that are more than 10 and 7 years old, respectively.	https://www.boe.es/diario_boe/txt.php?id=BOE-A-2015-12895
		Aid programme for modal shift and more efficient use of transport modes.	Public aid programme for the promotion of plans for sustainable travel to the workplace, management of road transport vehicle fleets and ecodriving courses for drivers of industrial vehicles.	https://www.idae.es/ayudas-y-financiacion/para-movilidad-y-vehiculos/convocatorias-cerradas/plan-moves-incentivos-la
		Aid programme to improve energy efficiency in railway systems.	Public aid programme for the promotion of these type measures: Action 1. Improvement of energy efficiency via the installation of regenerative braking systems in trains. Action 2. Energy-saving strategies in rail traffic operations. Action 3. Improvement of the energy efficiency of existing railway buildings. Action 4. Improvement of the energy efficiency of street lighting and signalling systems. Action 5. Improvement of the energy efficiency of railway facilities.	https://www.idae.es/ayudas-y-financiacion/para-movilidad-y-vehiculos/convocatorias-cerradas/programa-de-ayudas-para-0

AÑO	SECTOR	PROGRAMA/MEDIDA	DESCRIPCIÓN	LINK
2017	**Cross-sectoral**	Carbon Fund for a Sustainable Economy (fes-co2).	The aim of this programme is to generate low-carbon economic activity and to contribute to meeting Spain's greenhouse gas emission reduction commitments. CLIMA Projects must be implemented in Spain in the non-ETS sectors (not subject to the European emissions trading scheme, e.g. the transport, agriculture, residential and waste sectors), excluding projects to absorb emissions by sink.	http://www.mapama.gob.es/es/cambio-climatico/temas/proyectos-clima/convocatorias-proyectos-seleccionados/Convocatoria_FES_CO2_2017.aspx
		Strategy for an Integrated Sustainable Urban Development (DUSI).	Integrated measures for a sustainable urban development, address to cities, sub regional or local organisms that are responsible for the implementation of these strategies.	https://www.rediniciativasurbanas.es/convocatoria-de-ayudas/estrategias-dusi
		Unique projects of local entities that favour the transition to a low carbon economy (DUS).	Royal Decree 616/2017, Jun 16, aid program for direct granting of subsidies to unique projects of local entities that promote the transition to a low carbon economy within the framework of the operational program ERDF for sustainable growth 2014-2020.	https://www.boe.es/boe/dias/2017/06/17/pdfs/BOE-A-2017-6897.pdf
	Buildings	Energy renovation for buildings and facilities of the State General Administration (FEDER -POPE 2014-2020).	Public aid programme for the promotion of integrated actions for energy refurbishment in buildings, partial actions for the renovation of buildings, actions to improve the energy efficiency of infrastructures other than buildings or buildings and actions to improve the energy efficiency of outdoor lighting facilities.	https://www.boe.es/diario_boe/txt.php?id=BOE-B-2017-47302
	Appliances, equipment, lighting	Aid programme for the renovation of municipal street lighting (2nd call).	Incentives for and to promote energy saving and efficiency and CO2 emission reduction projects via measures to renovate street lighting in Spanish municipalities (2nd call).	https://www.idae.es/ayudas-y-financiacion/para-la-renovacion-de-alumbrado-exterior-fnee/segunda-convocatoria-del-programa-de-ayudas-para-la-renovacion-de-las-instalaciones-de-alumbrado
	Industry	Aid programme for energy efficiency measures in SMEs (Small and Medium-sized Enterprises) and large industrial enterprise (2nd call).	Aid programme to improve technology used in industrial equipment and processes and to install energy management systems (2nd call).	https://www.miteco.gob.es/es/cambio-climatico/temas/fondo-carbono/
		Financing line "ICO-IDAE Eficiencia Energética 2017-2018".	Aimed at improving energy consumption in the hospitality industry, small and medium-sized companies and large companies in the Industrial and Commercial sector.	https://www.idae.es/ayudas-y-financiacion/linea-de-financiacion-ico-idae-eficiencia-energetica-2017-2018
	Transport	Plan to Boost Mobility with Alternative Energy Vehicles (MOVEA).	Aid for the acquisition of alternative energy vehicles, and for the implementation of recharging points for electric vehicles.	https://www.boe.es/diario_boe/txt.php?id=BOE-A-2017-7165
		Plan MOVALT Vehículos.	Public aids for the purchase of electric vehicles, liquefied petroleum gas (LPG / Autogas), compressed natural gas (CNG) and liquefied (LNG), vehicles that are propelled with fuel cells and electric motorcycles.	https://www.idae.es/ayudas-y-financiacion/para-movilidad-y-vehiculos/convocatorias-cerradas/plan-movalt-vehiculos
		Aid programme for modal shift and more efficient use of transport modes (2nd call).	Public aid programme for the promotion of plans for sustainable travel to the workplace, management of road transport vehicle fleets and ecodriving courses for drivers of industrial vehicles (2nd call).	https://www.idae.es/ayudas-y-financiacion/para-movilidad-y-vehiculos/convocatorias-cerradas/programa-de-ayudas-para/segunda-convocatoria-programa-de-ayudas-cambio-modal-y-modos-de-transporte

AÑO	SECTOR	PROGRAMA/MEDIDA	DESCRIPCIÓN	LINK
2018	**Cross-sectoral**	Unique projects of local entities that favour the transition to a low carbon economy (DUS).	Royal Decree 616/2017, Jun 16, aid program for direct granting of subsidies to unique projects of local entities that promote the transition to a low carbon economy within the framework of the operational program ERDF for sustainable growth 2014-2020.	https://www.boe.es/boe/dias/2018/12/29/pdfs/BOE-A-2018-18003.pdf
	Buildings	State Housing Plan 2018-2021.	Aids to improve energy efficiency, constituting a central element in the effort to establish an economy based on low carbon emissions, in accordance with the objectives of the Government and the forecasts and policies of the European Union, which will help reduce the energy bill of families and the country as a whole, as well as reduce greenhouse gas emissions.	https://www.boe.es/diario_boe/txt.php?id=BOE-A-2018-3358
		PAREER II.	2nd call of the public programme aid for Energy refurbishment of existing buildings.	https://www.boe.es/buscar/doc.php?id=BOE-B-2018-525
		Energy renovation for buildings and facilities of the State General Administration (FEDER-POPE 2014-2020).	Public aid programme for the promotion of integrated actions for energy refurbishment in buildings, partial actions for the renovation of buildings, actions to improve the energy efficiency of infrastructures other than buildings or buildings and actions to improve the energy efficiency of outdoor lighting facilities.	https://www.boe.es/boe/dias/2018/12/17/pdfs/BOE-B-2018-59653.pdf
	Industry	Aid programme to improve energy efficiency in desalination plants (temporal extension of the programme).	Actions aimed at improving the efficiency of water supply, treatment and desalination technologies. Strong incentives for the introduction of electric vehicles, such as encouraging demand for those vehicles, supporting electric vehicle technology mass-production and R&D, facilitating adaptation of the electricity infrastructure to provide the necessary charging facilities and manage demand, and to promote a series of cross-cutting programmes to provide information, raise awareness, provide training and standardise that technology.	https://www.boe.es/buscar/doc.php?id=BOE-A-2018-163
		Aid programme for energy efficiency measures in SMEs (Small and Medium-sized Enterprises) and large industrial enterprise (2nd call, extension).	Aid programme to improve technology used in industrial equipment and processes and to install energy management systems (2nd call).	https://www.idae.es/ayudas-y-financiacion/para-eficiencia-energetica-en-la-industria/convocatorias-cerradas/segunda-convocatoria-ayudas-pyme-fnee
	Transport	MOVALT Infrastructures.	Aid program for the implementation of electric vehicle charging infrastructures.	https://www.boe.es/boe/dias/2018/09/27/pdfs/BOE-B-2018-45944.pdf

AÑO	SECTOR	PROGRAMA/MEDIDA	DESCRIPCIÓN	LINK
2019	**Buildings**	Direct granting of subsidies for urban policies, architecture and housing.	Royal Decree 516/2019, of September 6, which regulates the direct granting of subsidies in urban policies, architecture and housing by the Ministry of Public Works during the 2019 budget year.	https://www.boe.es/diario_boe/txt.php?id=BOE-A-2019-13562
	Industry	Aid programme for energy efficiency measures in SMEs (Small and Medium-sized Enterprises) and large industrial enterprise (3rd call,).	Aid programme to improve technology used in industrial equipment and processes and to install energy management systems (2nd call).	https://www.boe.es/diario_boe/txt.php?id=BOE-A-2019-5570
	Transport	MOVES Programme.	Aid for the acquisition of alternative vehicles, recharging infrastructures, the implementation of electric bicycle loan systems and support for transport plans in work centres.	https://www.idae.es/ayudas-y-financiacion/para-movilidad-y-vehiculos/convocatorias-cerradas/plan-moves-incentivos-la
		MOVES Singulares.	Aids for Singular Projects that contemplate any of the actions included in a Sustainable Urban Mobility Plan, Director or Strategic Plan; and to unique Innovation projects such as technological development projects and experimental developments (pilot projects, prototypes, new or improved products or services).	https://www.idae.es/ayudas-y-financiacion/para-movilidad-y-vehiculos/convocatorias-cerradas/plan-moves-incentivos-la
2020	**Transport**	Programme MOVES II.	2nd call of the MOVES programme, expanding the eligible actions for supporting municipalities in their adaptation to mobility needs after COVID 19 pandemic. It includes the optional scrapping of a vehicle older than seven years old, increasing the limit price of a vehicle to be eligible, also increasing the maximum budget that can be dedicated to heavy gas vehicles (given the demand generated) as well. "Demo" and fuel cell vehicles up to 9 months old will be eligible.	https://www.idae.es/ayudas-y-financiacion/para-movilidad-y-vehiculos/plan-moves-ii
	Buildings	PREE	Program which objective is to boost the sustainability of existing building in the country, through actions that can include changes in the thermal envelope, replacement of thermal generation facilities of fossil fuels by thermal generation based on renewable sources (such as biomass, geothermal, solar thermal, heat pump) or renewable electricity generation for self-consumption. It also includes d the incorporation of regulation and control technologies, as well as improvement in energy efficiency in lighting. In addition, the Program aims to promote the actions carried out by renewable energy communities or citizen energy communities, as set out in the latest European Directives on renewable energy and the internal energy market.	https://www.idae.es/ayudas-y-financiacion/para-la-rehabilitacion-de-edificios/convocatorias-cerradas/programa-pree

AÑO	SECTOR	PROGRAMA/MEDIDA	DESCRIPCIÓN	LINK
2021	**Agriculture**	Aid program for carrying out energy efficiency actions in agricultural uses.	The saving measures to be applied in this program are aimed for the renovation of existing facilities in the agricultural field in heat generator systems, as well as in air conditioning systems, lighting, pumps or other consuming equipment. Also the replacement of energy conventional in thermal installations by others that use thermal renewable energies (thermal solar energy, biomass, waste, geothermal energy, or aerothermal or hydrothermal heat pump) that will reduce energy consumption by 30%.	https://www.idae.es/ayudas-y-financiacion/programa-de-ayudas-para-la-realizacion-de-actuaciones-de-eficiencia
	Transport	Programme MOVES III	Aid program for the execution of incentive programs linked to electric mobility within the framework of the European Recovery, Transformation and Resilience Plan, with the goal of encouraging electric mobility and particularly, the purchase of electric vehicles and the deployment of infrastructure for recharge these vehicles.	https://www.idae.es/ayudas-y-financiacion/para-movilidad-y-vehiculos/programa-moves-iii
	Cross-sectoral	DUS 5000	Aid program for investments in specific local clean energy projects in municipalities with demographic challenges (DUS 5000 PROGRAM), within the framework of the Demographic Regeneration and Challenge Program of the Recovery, Transformation and Resilience Plan. The objective is to give a boost to Sustainable Urban Development, in the demographic challenge municipalities, through actions that constitute unique clean energy projects, such as energy efficiency projects in buildings and public infrastructures, the promotion of green investments and, in particular, self-consumption; as well as of sustainable mobility, facilitating the modal change and guaranteeing the participation of the municipalities in the deployment of the infrastructure of recharging and impulse of the electric vehicle, including measures of energy saving and reduction of the light pollution by means of the improvement of public lighting.	https://www.idae.es/ayudas-y-financiacion/programa-dus-5000-ayudas-para-inversiones-proyectos-singulares-locales-de
	Buildings	PREE 5000	Grant program for energy rehabilitation actions in existing buildings, in execution of the Energy Rehabilitation Program for existing buildings in demographic challenge municipalities (PREE 5000 Program), included in the Regeneration and Demographic Challenge Program of the Rehabilitation and Regeneration Plan Urban Recovery, Transformation and Resilience Plan. The objective is to give a boost to the sustainability of the building in the municipalities of demographic challenge in Spain, through actions that range from changes in the thermal envelope, to the replacement of thermal generation facilities with fossil fuels by thermal generation based in renewable sources such as biomass, geothermal, solar thermal or heat pump and the incorporation of regulation and control technologies, as well as improvement in energy efficiency in lighting.	https://www.idae.es/ayudas-y-financiacion/para-la-rehabilitacion-de-edificios/programa-pree-5000-rehabilitacion
	Transport	MOVES Singulares II	Incentive program for singular projects in electric mobility (Program MOVES Singular Projects II), aimed at the selection and concession, in a competitive competition regime, of aid corresponding to singular projects and projects related to experimental and innovative developments, carried out in the national territory, related to the electric vehicle.	https://www.idae.es/ayudas-y-financiacion/para-movilidad-y-vehiculos/programa-moves-proyectos-singulares-ii

2.3. Implementing bodies

The Ministry for the Ecological Transition and the Demographic Challenge (MITERD) is responsible for preparing state energy legislation, developing national energy policy, along with measures to ensure energy supply, coordination with the rest of Ministries and monitoring of policies in those areas related to the fulfilment of energy policy objectives. Therefore, it is responsible for the EED through the Secretary of State for Energy.

The General Sub-Directorate for Energy Efficiency and the Institute for Energy Diversification and Saving, IDAE, which is a public business entity, report to this Secretary of State.

The General Sub-Directorate for Energy Efficiency is in charge of developing the guidelines of the Secretary of State for Energy in Energy Efficiency and the IDAE manages energy efficiency programmes and projects to help Spain meet the energy efficiency objectives. The programs often involve aid that is financed by the National Energy Efficiency Fund previously mentioned.

On the other hand, it should be noted that energy efficiency policies and measures are often implemented at the regional and municipal level, which is why MITERD often develops these policies and measures in coordination with the autonomous communities.

3. Implementation of revised EED articles

As mentioned in previous section, new legislation has been approved in order to implement the revised EED articles:

- Royal Decree-Law 23/2020, of June 23, which approves measures in the field of energy and in other areas for economic reactivation. This Royal Decree-Law extends until 2030 the system of energy saving obligations and the National Energy Efficiency Fund.
- Royal Decree 736/2020, of 4 August, which regulates the accounting of individual consumptions in thermal installations of buildings and implements article 9.
- Royal Decree 178/2021, of 23 March, amending Royal Decree 1027/2007, of July 20, which approves the Regulation of Thermal Installations in Buildings.

In addition, as said before, Spain is working on the development of Energy Savings Certificates (CAE due to its Spanish name) as a complementary mechanism of the National System of Energy Efficiency Obligations.

4. Relevant information

Relevant information regarding EED and Spain can be found here:

- Ministry for the Ecological Transition and the Demographic Challenge (MITERD).
- Institute for Diversification and Saving of Energy (IDAE).
- Spanish Integrated National Energy and Climate Plan 2021-2030 (NECP 2021-2030).

National EED Implementation Report (NIR) 2021

EED implementation in Sweden

Introduction

In Sweden the implementation of the Directive 2012/27/EU of the European Parliament and of the Council on energy efficiency (EED) is the responsibility of the Ministry of Infrastructure. The Ministry of Finance is also involved in the implementation. The Swedish Energy Agency implements most instruments and programmes for the directive and is also responsible for the follow-up and reporting under the directive. The National Board of Housing, Building and Planning, the Swedish Environmental Protection Agency, the Swedish Energy Market Inspectorate, and the National Agency for Public Procurement are also implementing parts of the directive.

Legal context

In Sweden, the EED has been fully transposed in national legislation. The Parliament approved the Government's proposals in April 2014 and the Government decided on the first publication of acts and ordinances in June and July 2014.

This National Implementation Report (NIR) of the EED builds on the 2016 NIR. This version includes the continued implementation of the amendment of this Directive (Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency) and Governance Regulation (Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) and Directives, among which 2012/27/EU (NECPs and reporting/Energy Efficiency dimension related to EED).

To implement the EED, changes have been made to national legislation and new acts have been adopted.

The following new acts have been adopted:

- Act (2014:266) on Energy Audits in Large Enterprises (Art. 8)
- Act (2014:267) on Energy Measurement in Buildings (Art. 9)
- Act (2014:268) on Certain Cost-Benefit Analyses in the Energy Sector (Art. 14)

There are also several new secondary and tertiary legal acts such as ordinance 2014:480 on central governments' purchasing of energy efficient goods, services, and buildings.

PUBLISHED DATE: JANUARY 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521

Amendments to existing legislation have been made in the following areas:

- Act (2012:838) on Certification of Certain Installers
- Electricity Act (1997:857)
- Natural Gas Act (2005:403)
- District Heating Act (2008:263)
- Tenant-Ownership Act (1991:614)
- Co-operative Tenancy Act (2002:93)
- Land Code
- Environmental Code

2. Status of the implementation

2.1. Legislative provisions

This table contains information on how the EED has been implemented by article, including any relevant web links.

EED Article	Implementation status
Article 3	Sweden notified the national target for art.3 to the Commission as part of the National Reform Program. The Swedish energy efficiency target for 2030 is set as a relative target based on energy intensity, reducing primary energy use per GDP unit. The EED requires the Member States to indicate the level of primary and final energy use if the target is met. The indicator for the Swedish target is based on the development of energy use and of GDP.
Article 4	As a result of the EED revision the Long-Term Renovation Strategy, as specified by Art 4, now falls under the Energy Performance in Buildings Directive.
Article 5	The requirement relates to buildings owned and used by central government with an area of use greater than 250 m². Sweden has opted for the alternative approach according to Article 5.6. for the period 2021-2030, prolonging the period that ended in 2020. The Swedish Government has assigned the fulfilment of the required savings to the National Property Board of Sweden and the Swedish Fortifications Agency. Energy-efficiency improvements are carried out in the building stock owned and manged by these organisations. To encourage public bodies at regional and local level the Government has allocated funds for capacity building for the energy transition among regional and local actors, since 2015. There are also investment funds for local actions providing long term carbon emissions reductions, including energy efficiency investments.
Article 6	A new ordinance, act 2014:480 on central governments purchasing of energy efficient goods, services and buildings has been adopted.

EED Article	Implementation status
Article 7	Sweden notified the implementation of art. 7 to the Commission in December 2013. Sweden has opted for the alternative approach. The cumulative target was 106 TWh for the period 2014-2020 as per EED1 and estimated to be achieved through energy and CO2 taxes with complementing measures as a package. To avoid double-counting, the top-down approach is applied to calculate the effect of taxes only. Additionally, for the period 2021-2030 Sweden continues to apply the alternative approach.
Article 8	A new act, (2014:266) on Energy Audits in Large Enterprises was adopted in 2014. The Swedish Energy Agency is responsible for the implementation and follow-up of the new legislation. An intensive work with information and engagement activities has been carried out since2015. See also Lagsstiftningen (energimyndigheten.se) For the promotion of energy efficiency in SME:s, a new program financed through the ERDF was launched in 2015. The program supports energy audits, network activities and capacity building and will continue until the end of 2021.
Article 9-11	A new act, (2014:267) on Energy Measurement in Buildings was adopted in 2014. The Swedish National Board of Housing, Building and Planning has been assigned by the Government to analyse in which cases individual metering of heating and hot water would be cost-effective. The provisions have also been implemented by amendments to the Electricity Act (1997:857), the Natural Gas Act (2005:403) and the District Heating Act (2008:263). Information and estimates for energy costs are provided to consumers through the website www.elpriskollen.se which also enables consumers to compare deals. The Swedish Energy Markets inspectorate has presented a proposal for new functionalities of smart meters for gas and electricity.
Article 12 and 17	A new ordinance, (2016:385) on Financing Municipal Energy and Climate Advisories, to further strengthen the municipal energy – and climate advisors was adopted in April 2016. It has been decided to prolong the state support to the municipal energy – and climate advisors in 290 municipalities as a permanent investment. The targeted groups for energy and climate advisory are primarily households and SME:s.
Article 13	Rules on penalties have been implemented through Act (2014:266) on Energy Audits in Large Enterprises and Act (2014:267) on Energy Metering in Buildings as well as the Electricity Act (1997:857), the Natural Gas Act (2005:403) and the District Heating Act (2008:263).

EED Article	Implementation status
Article 14	A new law (2014:268) on Certain Cost-Benefit Analyses in the Energy Sector was adopted in 2014. According to this law, a cost-benefit analysis is required for new plants or changes to existing plants fulfilling the following criteria: • Plants for thermal power production >20 MW; • Industrial power plants >20 MW generating waste heat; • Grids for district heating/cooling; • Energy production plants >20 MW attached to existing grids for district heating/cooling. The result of the cost-benefit analysis shall be attached to the application for permits according to the Environmental Code.
Article 15	The Swedish Energy Market Inspectorate is responsible for most parts of the implementation of Article 15 and there have been amendments to the ordinance regulating the tasks of the inspectorate. Amendments have also been made to the Electricity Act (1997:857).
Article 16	The assessment is that the national level of technical competence, objectivity and reliability is sufficient, thus a certification or accreditation scheme has not been introduced.
Article 16	The Swedish Energy Agency is responsible for the promotion of the energy services market and the access for SME:s to this market. The Agency's website provides information on energy services with a special focus on SME:s.
Article 19	An analysis of split incentives between owners and tenants has been carried out by the Swedish Energy Agency and the National Board of Housing, Building and Planning. Because charges for heating for most apartments in Sweden are included in the rent or in the monthly charges the prevalence of split incentives is low. An analysis of barriers for energy efficiency in the public sector including public purchasing has been carried out by the Swedish Energy Agency and the conclusion is that barriers mostly are in the form of lack of strategy and lack of knowledge among the actors. To reduce these barriers, state support for capacity building and strategic energy efficiency work among local and regional actors has been introduced. Implementation follow-up is a part of the NEKP.
Article 20	Sweden has prioritized energy efficiency in SME:s within the framework of the Regional fund and the state provides co-funding for energy efficiency projects. Proposals for financial mechanisms have been presented within the framework of the national long-term strategy for energy efficient renovations related to Art. 4.

2.2. Non-legislative provisions

The Swedish energy efficiency policy is based on general measures (such as CO2 – and energy taxes and ETS), combined with regulatory measures (such as building codes and energy performance requirements) and supporting measures aimed at removing information and knowledge related market failures. Examples of the latter are energy – and climate advisors, networks, regional energy – and climate strategies, support for energy audits in SME:s and market introduction measures.

Here is a selection of the additional measures that are currently in place:

- Energy and Climate advisors in 290 municipalities and 15 Regional energy offices.
- State support for capacity building and strategic energy efficiency work at local and regional level including regional energy – and climate strategies.
- ERDF programmes for energy-efficiency improvements in SME:s.
- Networks in building, industry, SME – capacity building and market introduction of new technologies.
- Information activities, websites and other.
- Capacity building for the enforcement of energy efficiency requirements in environmental legislation.

2.3. Implementing bodies

Swedish Energy Agency – implementation, statistics, and reporting articles 3, 4, 6, 8, 9-11, 12-17, 19, 20.

Swedish Energy Market Inspectorate – article 15.

National Board of Housing, Building and Planning reporting – article 5, implementation articles 9-11.

National Agency for Public Procurement – implementation article 6.

Swedish National Accreditation Body (SWEDAC) – accreditation and certification schemes.

3. Implementation of revised EED articles

As a result of the amendment of EED, Sweden is reviewing the District Heating Act and the Act on Energy Measuremen in Buildings in order to make the necessary adjustments for the implementation. Sweden is also working to develop an Act for District Cooling.

Financial support for multi-family buildings has been adopted and is active 2021- 2024, targeting the worst performing buildings to stimulate renovation and improve energy efficiency.

Continued work with the use of EU Regional fund for energy efficiency projects, both at regional and national level. SME:s is a targeted group for this action.

4. Relevant information

Ministry of the Environment and Energy:
www.government.se/government-of-sweden/ministry-of-the-environment

Swedish Energy Agency: www.swedishenergyagency.se

Swedish Energy Market Inspectorate: www.ei.se

National Board of Housing, Building and Planning: www.boverket.se

Swedish Environmental Protection Agency: www.swedishepa.se

National Agency for Public Procurement: www.upphandlingsmyndigheten.se

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754521