



EUROPEAN
COMMISSION

Brussels, 6.11.2013
COM(2013) 762 final

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT AND THE COUNCIL**

Implementing the Energy Efficiency Directive – Commission Guidance

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1. INTRODUCTION

Europe cannot afford to waste energy. Achieving an energy efficient Europe has been an EU goal for a long time, repeatedly supported by the Heads of State and Governments of the EU.

In 2007 the European Council adopted ambitious energy and climate change objectives for 2020 – to reduce greenhouse gas emissions by 20%, to increase the share of renewable energy to 20% and to reach 20% energy efficiency¹.

These targets were reconfirmed in the Europe 2020 Strategy², which is shared among the European institutions, the Member States and the social partners, all of whom have a part to play in making sure the EU takes the necessary actions to reach the Europe 2020 targets.

Forecasts in 2010³ showed that the EU energy efficiency 2020 target would not be met and that therefore new measures were needed at European and national level. To tackle this situation the Commission put forward a proposal for an Energy Efficiency Directive in 2011. The proposal built on the experience gained in various areas, notably on the energy performance of buildings, on energy services and on cogeneration. The common denominator of these areas is the still existing great potential for energy efficiency, thus the proposal started from the basis that the majority of the energy savings required could be reached through energy efficiency improvements (*i.e.* using less energy input for an equivalent level of economic activity or service). The overall aim of the proposal was to make a significant contribution to meeting the EU's 2020 energy efficiency target as well as to set a common framework to promote energy efficiency in the Union beyond 2020. That proposal was eventually adopted by the two co-legislators on 25 October 2012 as the Energy Efficiency Directive 2012/27/EU⁴.

2. THE ENERGY EFFICIENCY DIRECTIVE

The Energy Efficiency Directive (the "EED") was published in the Official Journal on 14 November 2012, and entered into force on 4 December 2012. Member States will have to transpose it by 5 June 2014 (apart from certain provisions for which a different transposition date is foreseen⁵).

The EED puts forward legally binding measures to step up Member States' efforts to use energy more efficiently at all stages of the energy chain – from the transformation of energy and its distribution to its final consumption. The most important requirements of the Directive, in terms of future energy policy, are set out briefly below.

¹ Contrary to the two other targets, this target has not been translated into legally binding instrument.

² COM(2010) 2020 final.

³ Energy Efficiency Plan impact assessment (SEC/2011/277)

⁴ Directive 2012/27/EU of the European Parliament and of the Council on Energy Efficiency, amending Directives 2009/125/EC (on the setting of ecodesign requirements for energy-related products) and 2010/30/EU (on labelling and standards for products) and repealing Directives 2004/8/EC (on the promotion of cogeneration) and 2006/32/EC (on energy end-use efficiency and energy services).

⁵ See Article 28(1).

First, in order to reinforce the political commitment made by the Member States in the EU 2020 Strategy the EED clearly defines and quantifies for the first time the EU energy efficiency target as the "*Union's 2020 energy consumption of no more than 1 474 Mtoe⁶ primary energy or no more than 1 078 Mtoe of final energy*"⁷. With the accession of Croatia on 1 July 2013, these targets have been adjusted to "no more than 1 483 Mtoe primary energy or no more than 1 086 Mtoe of final energy".

The full and proper implementation of the EED will play an important part in achieving the EU 2020 20% energy efficiency target which in turn will feed into the EU 2030 framework for climate and energy policies, as explained in the Green Paper COM (2013) 169 final. The assessment of progress towards the indicative national energy efficiency targets set by the Member States in accordance with Article 3 of the EED will contribute to the discussion about what types of target and at what level might be appropriate for 2030.

The EED also requires the Member States to set national indicative energy efficiency targets for 2020, which can be based on different indicators (primary or final energy consumption, or primary or final energy savings, or energy intensity). Member States had to notify these targets and how they translate in terms of primary and final energy use in 2020 to the Commission by 30 April 2013 either as part of the National Reform Programmes or in a separate communication⁸.

This information has been fed into the European Semester process⁹, and is being evaluated as an element in assessing the likely achievement of the overall EU target by 2020 and the extent to which the individual efforts meet the common goal. All Member States have now notified their national indicative targets, although two have not yet reported them in the format required by the Directive. The national indicative energy efficiency targets, taken collectively, suggest that the Member States aim to achieve only about 16.4% primary energy savings and 17.7% final energy savings by 2020 – not the full 20% needed to meet the EU's overall target.¹⁰ However, a more in-depth evaluation comprising the targets of all Member States, energy model results and the inclusion of further policy instruments currently being developed will need to be undertaken before a more reliable result can be given. In accordance with Article 3(2) and Article 24(7) of the EED, the Commission must submit its assessment of progress achieved towards the 2020 energy efficiency target to the European Parliament and Council by 30 June 2014.

Moreover, the Directive requires Member States to establish and publish by 30 April 2014 their long term strategies for building renovation, a crucial obligation given that nearly 40% of final energy consumption is in houses, public and private offices, shops and other buildings. Public sector buildings must lead by example – 3% of buildings owned and occupied by central governments should be renovated each year to the level the Member State has set under the Energy Performance of Buildings Directive¹¹. The leading role of the public sector is also recognised in the provisions of the EED on public procurement, with central

⁶ Million tonnes of oil equivalent

⁷ Figures updated to take into account Croatia's accession to the EU on 1 July 2013

⁸ For a list of the national targets and an evaluation, please see the Commission's Communication (COM (2013) final xxx) on "Overall progress towards EU energy efficiency objectives"

⁹ In particular in COM(2013) 350 final and in the Thematic fiche on *EUROPE 2020 TARGETS: climate change and energy*

¹⁰ For the two Member States (Slovenia and Croatia) that have not provided information on how their targets translate into primary and final energy in 2020, the historic data on their energy use for 2010 was used for the calculations (http://ec.europa.eu/energy/efficiency/eed/reporting_en.htm).

¹¹ Article 4 Directive 2010/31/EU

government required, under certain conditions, to purchase the most energy efficient products, services and buildings.

Member States must ensure that a certain amount of energy savings are realised over the 2014-2020 period at end-user level by establishing either an energy efficiency obligation scheme or alternative policy measures.

Recognising the significant energy savings potential in enterprises of all categories and types, all enterprises are encouraged to have energy audits, and this is compulsory every four years for those which are not SMEs. Member States are requested to develop programmes to encourage SMEs to undergo energy audits and to raise awareness among households about the benefits of such audits. Through the identification of energy saving possibilities, energy audits will also be the basis for the development of a market for energy services.

Information on energy consumption is crucial if consumers are to make informed decisions about energy supply and use. The Directive therefore contains detailed requirements on metering and billing for final customers.

About 30% of the EU's primary energy is used by the energy sector, mainly for transforming energy into electricity and heat and for distribution. The Directive therefore aims to maximise grid and infrastructure efficiency and to enable and promote demand response and sets in place obligations and encouragement for the greater use of high-efficiency cogeneration and district heating and cooling.

Energy efficiency is one of the most cost effective ways to enhance security of energy supply, and to reduce emissions of greenhouse gases and other pollutants. The energy system and society as a whole need to become significantly more energy efficient. Improving energy efficiency is a priority in all decarbonisation scenarios presented in the Energy Roadmap 2050 and therefore the prime focus should remain on energy efficiency also in this context.

An analysis of trends in key indicators suggests that, with strong energy efficiency policies and full implementation of the EED, the EU could get on track for meeting its target in 2020. If that is achieved, annually up to 2020, European households and industries energy costs would be some €38 billion lower, the need for investment in energy generation and distribution would be around €6 billion lower and there would be about €24 billion invested in the improvement our homes and offices, providing a better competitive edge of our industries and creating local employment.

3. STAFF WORKING DOCUMENTS WITH MORE DETAILED GUIDANCE ON THE EED PROVISIONS

The majority of the EED provisions must be transposed into national law by 5 June 2014. For Article 7 the Member States must send their planned policy measures to the Commission by 5 December 2013. Member States' use of the alternative approach in Article 5(6) and exemptions to the requirements of Article 14(5) must be notified to the Commission by 31 December 2013.

As energy efficiency relies on multiple small-scale actions, the Energy Efficiency Directive contains complex, detailed provisions often of a very technical character. The Commission is concerned to work closely with the Member States in their transposition and effective implementation of the Directive, and to this end, has prepared seven Staff Working Documents (SWDs), which explain in more detail how, in the Commission's services' view, certain provisions of the Directive should be read and can be best applied. These SWDs do not alter the legal effects of the Directive and are without prejudice to the binding interpretation of the Directive as provided by the Court of Justice. The documents deal with

subjects in the Directive which are legally complex, demanding to transpose and have high potential in terms of impact on energy efficiency. They concern Articles 5 – 11, 14 and 15 of the EED, which include provisions on central government buildings, public procurement, energy efficiency obligations and alternatives, energy audits, metering and billing, co-generation and grids and demand response. It should be noted that the EED contains minimum requirements and that, in accordance with Article 1(2), the Member States can introduce more stringent measures compatible with Union law.

The detailed SWDs will be linked to this Communication and a short summary of the main issues is given below.

As the full transposition of the EED into national legal orders requires long term planning, the Commission is publishing this Communication and accompanying SWDs in advance of the Directive's transposition deadline.

3.1. Guidance on Article 5 (Exemplary role of central government buildings)

Article 5 requires that central governments of Member States renovate each year 3% of the total floor area of the buildings they own and occupy that do not meet the minimum efficiency requirements set under the Energy Performance of Buildings Directive 2010/31/EC to at least the efficiency levels that they set in application of that Directive. Member States must establish and make publicly available an inventory of all relevant central government buildings by 31 December 2013. If a Member State renovates more than 3% of the total floor area of central government buildings, it can count this towards its obligations in any of the three previous or three following years. As an alternative to the requirement to renovate 3% of the floor space of central government buildings, Member States may take other cost-effective measures that would achieve at least an equivalent level of energy savings within their central government buildings. The amount of energy savings required under the alternative approach is cumulative, meaning that Member States are required to achieve the sum of annual energy savings over the whole period between 2014 and 2020, irrespective of the savings achieved in each individual year during that period. Member States may use estimates for establishing the required level of savings.

For determining the scope of the obligation under Article 5, the definition of "central government" provided in Article 2(9) of the EED is crucial. 'Central government' means 'all administrative departments whose competence extends over the whole territory of a Member State'. Further to this definition Member States might refer to Annex IV of the Public Procurement Directive¹², which includes a list of central government bodies in all Member States, as well as to the definition of central government contained in the Guidance to Council Regulation 479/2009/EC on the application of the Protocol on the excessive deficit procedure. For Member States with federal structure the last sentence of recital 17 of the EED is relevant.

The SWD on Article 5 provides possible criteria and references for establishing which buildings fall within the scope of the obligation. It also gives practical examples of how the 3% refurbishment target and the obligation under the alternative approach could be established and met.

3.2. Guidance on Article 6 (Purchasing by public bodies)

The Public Procurement Directive 2004/18/EC sets the framework on procurement and aims at ensuring principles such as fair competition and getting best value for taxpayers' money. It leaves to specific legislation, such as the EED, any definition of what has to be purchased. Article 6 of the EED requires, under certain conditions, that central governments purchase

¹² Directive 2004/18/EC

products, services and buildings with high energy-efficiency performance defined through EU legislative acts, such as the Energy Labelling Directive¹³ and supplementing delegated regulations, the Eco Design Directive¹⁴ and its implementing regulations, the Energy Performance of Buildings Directive or the Energy Star Programme. Annex III of the EED sets out a list of energy efficiency requirements defined in these EU acts.

The SWD clarifies relevant provisions of the EU acts referred to in Annex III in relation to public procurement. Also here the definition of "central government" is crucial for determining the scope of public procurement obligations.

The public procurement obligation is conditional on elements such as cost-effectiveness, technical suitability and wider sustainability. The SWD explains these "conditionalities", for example the difference between life-cycle cost-effectiveness and economical feasibility, and in what circumstances Member States could apply them. It also provides possible criteria on the basis of which Member States could establish which entities are covered by the public procurement obligations.

3.3. Guidance on Article 7 (Energy efficiency obligations and alternatives)

Article 7 is responsible for half the energy savings the EED should achieve. It is complex and some provisions¹⁵ should start to apply before the end of the EED transposition period. .

The Article requires Member States to establish energy efficiency obligation schemes or use alternative policy measures to achieve a certain targeted amount of energy savings amongst final consumers. The energy savings to be achieved by energy efficiency obligation schemes and alternative measures under paragraph 9 must be at least equivalent to achieving new savings each year from 1 January 2014 to 31 December 2020 of 1.5% of the annual energy sales to final consumers of all energy distributors or all retail energy sales companies by volume averaged over 2010, 2011 and 2012. The SWD explains how this overall targeted amount of cumulative and new energy savings to be achieved over the 2014-2020 obligation period should be calculated, and clarifies which statistical datasets could be used. Furthermore, this amount can be reduced by Member States by up to 25% using four specific possibilities, namely using lower savings rates, partially or fully excluding ETS industries, allowing certain supply side savings or counting energy savings from early action since 31 December 2008 that still deliver an impact in 2020. The SWD explains how these possibilities set out in Article 7(2) could be used.

The SWD gives examples of the types of policy measures and the energy savings resulting from them that can be taken into account. It also draws attention to the methods and principles set out in Annex V to the EED which need to be followed in the calculation of energy savings.

As "new" savings are required, not everything that Member States have done at any time in the field of end-use energy efficiency can count for the purposes of Article 7. The SWD explains that energy savings obtained from individual actions within the obligation period (*i.e.* from 1 January 2014 to 31 December 2020) can be counted, even if the policy measure that gave rise to the actions was adopted/introduced before 1 January 2014. In terms of transposition and implementation, by 5 December 2013 the Member States must notify to the Commission their detailed planned, proposed or legally defined methodology for the operation of their energy efficiency obligation scheme, as well as the policy measures they plan as alternative measures.

¹³ Directive 2010/30/EU

¹⁴ Directive 2009/125/EC

¹⁵ Article 7(9) & Annex V (4); Member States must notify to the Commission by 5 December 2013 the policy measures they plan to adopt

It should be recalled that Member States are required to lay down rules on effective, proportionate and dissuasive penalties applicable in case of non-compliance with the national provisions adopted under this Article (Article 13 EED).

3.4. Guidance on Article 8 (Energy Audits and Energy Management Systems)

Article 8 imposes two main obligations upon Member States: to promote the availability of energy audits among final customers in all sectors and to ensure that enterprises that are not SMEs carry out energy audits at least every four years. Audits must be cost-effective and undertaken by qualified/accredited experts or supervised by independent authorities.

The EED defines "SMEs" by reference to Commission Recommendation 2003/361/EC and the SWD explains the elements of the definition as set out in the Recommendation (fewer than 250 employees, annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million). National labour rules apply as regards the definition of 'employees'. The SWD explains that under the EU definition, an enterprise in one country needs to determine whether it is a partner or linked to an enterprise in another country. This will be the case if an enterprise holds over 25% of capital or voting rights in another enterprise¹⁶ (or vice versa) and in this case the total number of employees of the partner or linked companies must be looked at to see if the enterprises are SMEs or not.

Applying this definition in practice requires for instance the consideration of consolidated data concerning each enterprise, including in other Member States and outside Europe, in order to ensure a harmonised definition and treatment across the EU. The SWD gives examples of measures, such as registers of SMEs, public registries of companies by size, etc., which could be useful in identifying which enterprises fall under the energy audit obligation.

As a result, small branches in one Member State may need to carry out an energy audit every four years because they do not fall within the definition of SME and therefore come within the category of large enterprises. This should not be considered as an extra burden or disproportionate¹⁷ because on the one hand such enterprises may well be implementing energy management systems and therefore be exempted from the audit obligation or may have arrangements whereby the branch could be helped with the audit, for example by in house experts from the parent company; and on the other hand, because the energy audit in question is likely to have a more limited scope and cost.

The SWD explains the flexibility provided in Article 8 for the fulfilment of the audit obligation. Accordingly, large enterprises that implement energy or environmental management systems are exempt from the requirement of energy audits every four years. Large enterprises implementing energy audits under voluntary agreements (with adequate supervision) are considered to fulfil the regular energy audit requirement.

For the purpose of guaranteeing the high quality of energy audits and energy management systems, Member States must establish minimum requirements for energy audits based on Annex VI of the EED, and the SWD gives practical examples of the level of detail an energy

¹⁶ In general, most SMEs are *autonomous* since they are either completely independent or have one or more minority partnerships (each less than 25%) with other enterprises. If that holding rises to no more than 50%, the relationship is deemed to be between *partner* enterprises. Above that ceiling the enterprises are *linked*.

¹⁷ Annex VI(d) requires energy audits to be 'proportionate'. The principle of proportionality implies testing that a legislative or administrative measure or means is appropriate and necessary in order to reach or achieve a given goal or objective. The Court of Justice of the European Union applies the proportionality principle when it balances legislative measures against private interests, individual rights and fundamental freedoms.

audit should include. The guidance note also explains how the EED audit systems relate to accreditation and conformity assessment as governed by Regulation (EC) No. 765/2008.

It should be recalled that, as with Article 7, Member States are required to lay down rules on penalties applicable in case of non-compliance with the national provisions adopted for energy audits.

3.5. Guidance on Articles 9-11 (Metering and billing information)

Article 9 requires that final customers for electricity, natural gas, district heating, district cooling and hot water should have a competitively priced individual meter that accurately reflects their energy consumption and provides information on the time of their energy use (with exceptions based on technical and financial grounds). The provisions of the EED on metering and billing information take over and make more effective some of the provisions of the earlier Directive 2006/32/EC on energy end-use efficiency and energy services (most of which will be repealed by the EED on 5 June 2014). From 31 December 2016, the requirement for the provision of individual consumption meters to final customers of heating and cooling will extend to multi-apartment and multi-purpose buildings with a central heating/cooling source or supplied from a central source serving multiple buildings (with exceptions based on technical and financial grounds).

The guidance note makes it clear that Article 9 does not require the introduction of smart metering systems (this is dealt with in the Third Package Directives: 2009/72/EC and 2009/73/EC), but rather clarifies that if Member States introduce smart metering, various obligations then apply under Article 9(2), such as that the smart meters must be able to measure electricity supplied to the grid from the customer's premises. It also sets out the assessment that "final customer" could include not just the person who uses the energy but also a person or organisation such as cooperative of owners in a multi-apartment building, which collectively buys energy. Article 10 requires that final customers with traditional individual meters should normally be told at least every 6 months how much they will be billed for the energy they used in the last period – every 3 months if they ask for it or are billed electronically.

Where smart electricity/gas meters are available, Article 10 gives final customers a right to detailed information on their energy consumption under their present supply contract for the previous two years and (with exceptions) to a comparison with the consumption of a typical user.

Article 11 gives a right for final customers to receive bills and billing information for their energy consumption free of charge.

It should be recalled that Member States are required to lay down rules on effective, proportionate and dissuasive penalties applicable in case of non-compliance with the national provisions adopted pursuant to Articles 9 to 11 (Article 13 EED).

3.6. Guidance on Article 14 (Promotion of efficiency in heating and cooling)

Article 14 extends the scope and replaces the substantive provisions of Directive 2004/8/EC on the promotion of cogeneration. The guidance concerns only the new aspects introduced by the EED.

Member States are required to prepare a comprehensive assessment to identify the cost-effective potential of high-efficiency cogeneration and efficient district heating and cooling, taking into account climate conditions, economic feasibility and technical suitability. This assessment must be notified to the Commission by 31 December 2015. Based on the identified potential, Member States should take measures to implement the cost-effective

potential of high-efficient cogeneration and efficient district heating and cooling. In the assessment Member States should provide information on the measures, strategies and policies that may be adopted to achieve the potential for high-efficiency cogeneration up to 2020 and 2030. For electricity generation and industrial installations above 20 MW there is an obligation to prepare a cost-benefit analysis on the viability of cogeneration, waste heat recovery or district heat network connection when they are built or substantially refurbished. Results of the cost-benefit analysis should be reflected in the authorisations or permits of the installations.

The requirements for the content of the comprehensive assessment and for the methodology of the cost-benefit analysis and the possible exemptions to the obligations for installations are explained in detail in the SWD.

3.7. Guidance on Article 15 (Energy transformation, transmission and distribution)

Article 15 requires that Member States ensure that national energy regulatory authorities, TSOs and DSOs maximise the energy efficiency potential of smart grids, assess and improve energy efficiency in the design and operation of the gas and electricity infrastructure and ensure that tariffs and regulations fulfil specific energy efficiency criteria and do not hamper demand response. By 30 June 2015 Member States must assess the energy efficiency potential of their gas and electricity infrastructure and identify concrete measures to improve energy efficiency in their network infrastructure. The Article provides for access and dispatch priorities for combined heat and power (CHP) and puts demand side resources, in particular demand response, on an equal footing with supply as regards participation in wholesale and retail markets. It specifically promotes access to and participation of demand response in balancing, reserve and other services markets, requiring that the technical or contractual modalities for participation be defined, including the participation of aggregators and other demand response service providers.

4. CONCLUSION

Energy efficiency is a complex and demanding issue in terms of governmental capacity. Politically, there may be a gap between the commitments made by Member States and delivery. The Energy Efficiency Directive gives a new over-arching legal structure to the energy efficiency objectives agreed at European level. To date, the implementation of existing energy efficiency legislation is only partial. The EED replaces and strengthens two energy efficiency Directives (2004/8/EC on cogeneration and 2006/32/EC on energy services) and links with the obligations already set out in Directive 2009/125/EC on Ecodesign, Directive 2010/30/EU on energy labelling and Directive 2010/31/EU on the energy performance of buildings). As mentioned in part 2 above, the Commission must report to the European Parliament and Council in 2014 on progress towards the 2020 target, and this assessment can include proposals for further measures if necessary. It is hoped that this Communication and the accompanying SWDs will help the Member States in their transposition and implementation of the ambitious measures that they agreed in the Energy Efficiency Directive.