European Commission

INCEPTION IMPACT ASSESSMENT			
TITLE OF THE INITIATIVE	**Review of Directive 2012/27/EU on energy efficiency**		
LEAD DG – RESPONSIBLE UNIT – AP NUMBER	ENER – C.3 – AP 2016/ENER/002	**DATE OF ROADMAP**	11/2015
LIKELY TYPE OF INITIATIVE	Legislative proposal		
ADDITIONAL INFORMATION	*http://ec.europa.eu/energy/en/topics/energy-efficiency/energy-efficiency-directive*		

This Inception Impact Assessment is provided for information purposes only and can be subject to change. It does not prejudge the final decision of the Commission on whether this initiative will be pursued or on its final content and structure.

A. Context, Subsidiarity Check and Objectives

Context

Energy efficiency is one of the five dimensions of the Energy Union Strategy adopted on 25 February 2015[1]. The Strategy stressed that it was necessary to fundamentally rethink energy efficiency and treat it as an energy resource in its own right. In this context, the Energy Union communication announced that the EU's energy efficiency legislation will be reviewed in 2016. The Energy Union Communication also states, in line with October 2014 European Council conclusions, that the new governance system will have to ensure the delivery of the 2030 energy and climate framework, and notably the implementation of the agreed 2030 targets on renewables and energy efficiency.

Energy efficiency has been one of the priorities of the Europe 2020 Strategy for smart, sustainable and inclusive growth[2] and its Energy strategy[3] with its 20-20-20 targets setting three objectives for the EU that represented an integrated approach to climate and energy. Energy efficiency is also identified as one of the key pillars of the 2030 EU climate and energy framework[4], as well as the European Energy Security Strategy[5], as it contributes to the reduction of the EU's energy dependency. Moreover, energy efficiency drives several other non-energy benefits, which are attractive for the society as a whole: it drives jobs and economic growth, it increases productivity, and it contributes to the EU's competitiveness by helping to offset increases in energy prices and by mobilising investments, which will in turn have additional employment benefits.

The Energy and Climate policy framework for 2030, as endorsed by the European Council of 24 October 2014, establishes more ambitious EU commitments to make further greenhouse gas emission reductions (40%) in line with the cost-effective pathway described in the 2050 roadmap[6], for the share of renewable energy consumed (at least 27%) and saving at least 27% energy by 2030 at EU level compared to 2007 baseline projections. The European Council also requested the Commission to review the energy efficiency target by 2020 *"having in mind an EU level of 30%"*.

The Directive on Energy Efficiency (EED) (2012/27/EU) lays down the EU 20% headline target for energy efficiency and establishes a common framework of measures for the promotion of energy efficiency within the EU to ensure the achievement of the target by 2020 and to pave the way for further energy efficiency improvements beyond that date. The EED is part of the broader EU energy efficiency policy framework, which brings together other key instruments such as the Energy Performance of Buildings Directive (2010/31/EU) (EPBD) (separate initiative in parallel), Energy Labelling Directive (2010/30/EU), Ecodesign Directive (2009/125/EC), transport energy efficiency measures (notably CO_2 standards for vehicles), as well as measures to improve the availability of finance for energy efficiency (cf. European Fund for Strategic Investments and European Structural and Investment Funds).

The EED is interlinked with other energy and climate policy areas, notably, the Emissions Trading System (ETS) and the Effort Sharing Decision, security of supply, transport, policy on renewables and market design.

The Commission carried out in 2014 an evaluation of the progress towards the EU 2020 target on energy

[1] COM(2015) 80 final.
[2] COM(2010) 2020 final.
[3] COM(2010) 639 final.
[4] COM(2014) 15 final.
[5] COM(2014) 330 final.
[6] COM(2011) 885 final.

efficiency (Article 3 EED) on an aggregate level and presented in the Communication *"Energy Efficiency and its contribution to energy security and the 2030 Framework for climate and energy policy"* [7] ('Energy Efficiency Communication').

The analysis showed that the current framework based on an indicative EU-level target and a mix of binding EU measures and national action has proved to be effective in driving significant progress towards reaching the 2020 EU objective of saving 20% of energy. Therefore, this approach should continue. However, the 2014 evaluation also revealed that 2020 target is likely to be missed by 1-2 percentage points, unless additional efforts are made to ensure timely and full implementation of the agreed legislation. While there is strong evidence of a growing decoupling of energy consumption and economic growth, the Communication also noted that about one third of the progress towards the 2020 target is due to the economic crisis and consequently efforts for reaching the 2030 target should not be underestimated.

The evaluation of progress of the EU energy efficiency policies is continuous and builds on:

- Member States report annually on the progress towards their national indicative energy efficiency targets (set in 2013 according to Article 3(1) of the EED) and submit National Energy Efficiency Action Plans ('NEEAPs') every three years, starting from 2014. Member States' progress in energy efficiency has been reviewed annually as part of the European Semester and it is being assessed as part of the new governance system under the Energy Union Strategy.
- An annual progress report prepared by the Commission and sent to the European Parliament and the Council, as required by Article 24(3) of the EED to assess the extent to which the Member States have made progress towards the achievement of the national energy efficiency targets required by Article 3(1), and on the implementation of this Directive, also evaluating the progress towards the EU 2020 energy efficiency target. A Progress Report on energy end-use efficiency and energy services was issued by the Commission on 8 January 2014 (COM(2013) 938 final). A new progress report will be presented by the end of 2015 as part of the State of the Energy Union package.
- An evaluation for the Review of the EED (Article 6 on public procurement and Article 7 on energy efficiency obligation schemes) was launched at the end of 2014 and is still ongoing. The results of this evaluation will be presented in a dedicated Staff Working Document (SWD) and feed into the impact assessment supporting this initiative. This will respond to the obligation set in the EED (Article 24(8) and Article 24(9)) for the Commission to assess the effectiveness of the implementation of Article 6 and of Article 7 and to report to the European Parliament and the Council, accompanied, if appropriate, by proposals for further measures.
- Consumer related issues (linked to Articles 9-11 on metering, billing information and cost of access to metering and billing information, and paragraph 8 of Article 15 on energy transformation, transmission and distribution, on demand response of the EED), including consumers' vulnerability, are also being looked at in parallel through the evaluation processes under the Electricity Market Design and Energy Consumers Communication initiatives[8].

Other initiatives which have links with the EED include :	*Relevance of the following initiatives for the review of the EED:*
Effort Sharing Decision for non-ETS sectors under the 2030 framework.	Synergies between climate change and energy efficiency policies notably as regards the setting of the greenhouse gas emission reduction targets for Member States and measures under the 2030 framework.
Review of the directive on Renewable energies[9].	Synergies between energy efficiency and renewable energy have to be sought not only in relation to buildings, but also to industry and products. Energy efficiency by reducing energy consumption contributes to and facilitates the achievement of renewables targets with smaller investments in renewables capacities.
Energy Performance of Buildings Directive Review.	Coherence with Article 4 of the EED on building renovation and Article 5 of the EED on the exemplary role of public bodies' buildings will be ensured.

[7] COM(2014) 520 final.
[8] COM(2015) 340 final; COM(2015) 339 final.
[9] Directive 2009/28/EC on the promotion of the use of energy from renewable sources

Smart Financing for Smart Buildings Initiative.	The initiative will address the fundamental gaps related to investibility and risk assumptions associated with energy efficiency investments and will enable upscaling of capital flows to the sector.
European Fund for Strategic Investments (EFSI) and European Structural and Investment (ESI) Funds.	EFSI addresses the market gaps related to bankability of major investments including those in energy efficiency. ESI Funds provide EU public funding for investment projects including those for energy efficiency. Implementation of both instruments is strongly influenced by the energy efficiency legislation including EED.
Heating and Cooling Strategy.	The Heating and Cooling Strategy will provide input for the assessment of Article 14 on the promotion of efficiency in heating and cooling and on Article 15 on energy transformation, transmission and distribution.
Review of the Energy Labelling Directive [adopted on 15 July 2015].	The revision of the product-related legislation could impact public authorities in public procurement procedures (Article 6 of the EED on purchasing by public bodies).
Electricity Market Design.	Aspects of metering and billing, demand side response and vulnerable consumers are dealt with in the EED and the Electricity Directive to be reviewed under the Market Design initiative.
Energy Union Governance.	The Energy Union Strategy foresees an integrated governance framework for EU energy and climate policy to ensure that agreed climate and energy targets are reached and to enable Member States to better coordinate their policies at a regional level.
Decarbonisation of Transport in 2030 Communication.	The assessment of the contribution of different policies to transport decarbonisation, the respective role of improving energy efficiency, fuels decarbonisation and managing transport demand. The amount of energy savings to be achieved in transport will be part of the global effort to reach the 2030 targets.

Policy coherence will be ensured throughout the process. In order to ensure coherence of the energy sector economic analysis, the new 2015 PRIMES energy reference scenario will be used as a basis for all related impact assessments.

Issue

Reasons behind the initiative:

I. The initiative responds to the agreement of the European Council of October 2014 on an indicative, EU-level energy efficiency target of at least 27% by 2030 to be reviewed by 2020 having in mind an EU level of 30%. This target must be delivered in a cost-effective way and in coherence with the overall EU climate and energy policy through a combination of Member States' efforts and EU-level measures within the framework of the governance system of the Energy Union.

II. The initiative responds to the legal obligations of the EED to assess the implementation of Article 6 and 7 (as required by Article 24 of the Directive).

Problem definition:

Part I: In relation to the level of the target on energy efficiency

(1) The optimal level of energy efficiency that is consistent with the cost-effective achievement of climate and energy goals for 2030 and 2050 is to be confirmed.

The July 2014 Energy Efficiency Communication proposed an EU target of 30% as part of the strategy to the

transition of the European Union towards a more competitive, secure and sustainable energy system with an internal energy market at its core and to deliver the 40% greenhouse gas reduction target in a cost-effective way. The European Council decided in October 2014 on an energy efficiency target of at least 27% to be reviewed by 2020 having in mind an EU level of 30% in 2030.

The Commission will update its assessment of the optimal and cost-effective level of energy savings by 2030 as part of the EED review announced in the Energy Union Communication. The level of the target will be coherent with the objectives of the 2030 Framework for climate and energy[10]..

A timely review of the 2030 EU energy efficiency target is needed to give clarity to Member States and predictability to investors for the long-term energy efficiency framework for 2030 and also to allow sufficient time for Member States to establish their national policy actions for 2030 that have to be embedded in their national energy and climate plans.

(2) The 2030 energy efficiency target of at least 27% (or more) at EU level will not be achieved with existing measures.

Without any additional efforts beyond the provisions already in place in Union and national policies, the EU28 is not expected to achieve the minimum target set by the European Council for 2030, let alone any revised target. Keeping the current effort would lead to only 21% of energy savings in 2030 compared to 2007 projections[11]. The planned new Ecodesign Working Plan, Review of the Energy Performance of Buildings Directive and Smart Financing for Smart Buildings initiative could contribute additional savings.

Given that Member States will prepare integrated energy and climate plans including national energy efficiency measures as part of a new governance framework, the question arises as to what measures would be appropriate to be developed at EU level (and which measures to leave to Member States) to implement a cost-effective and coherent delivery of climate and energy objectives including the target for energy efficiency, greenhouse gas emission reduction and the share of renewable energy.

Part II: In relation to reviewing other key elements of the EED

There are barriers to the adoption of cost-effective energy efficiency measures under the existing energy efficiency legislative framework. These have been categorised as economic, behavioural and organisational barriers or, alternatively, as market and non-market failures. A lack of awareness and expertise regarding energy efficiency financing on the part of all actors; high initial costs, relatively long pay-back periods and (perceived) credit risk associated with energy efficiency investments; and competing priorities for final beneficiaries hampers investment in improving the energy efficiency of buildings. Lack of sound monitoring and verification systems to track the performance of energy efficiency investments also prevents the needed investments.

More specifically, the following problems shall be tackled:

(1) Addressing market failures (economic, behavioural and organisational barriers):

Economic, behavioural and organisational barriers undermine the effect of price signals in driving energy efficiency: above all high transaction costs, information gap, lack of technical or institutional capacity.

(2) Access to finance:

A lack of awareness and expertise regarding energy efficiency financing on the part of all actors; high initial costs, relatively long pay-back periods and (perceived) credit risk associated with energy efficiency investments and competing priorities for final beneficiaries hampers investment for example in improving the energy efficiency of buildings. Lack of sound monitoring and verification systems to track the performance of energy efficiency investments also prevents the needed investments. The Energy Efficiency Financial Investors Group (EEFIG) Report highlighted the need for a strong regulatory framework accompanied by financing-related measures such as improvement of public procurement rules, standardisation of financing procedures or better performance monitoring.

The energy efficiency investment market is still small scale compared to its potential or volumes needed to meet the 2030 objectives.

(3) Governance aspect:

Governance aspects have to be looked at in the context of implementing a cost-effective and coherent delivery

[10] COM/2014/015 final

[11] COM(2014)520; the figure to be updated in the light of the 2015 PRIMES reference scenario.

of climate and energy objectives including the target for energy efficiency, greenhouse gas emission reduction and the share of renewable energy. This will be done in the context of streamlining the reporting, monitoring and planning obligations within the Energy Union governance initiative.

Affected Stakeholders are:

- Public authorities of the Member States (need to take the necessary policy/legal measures) at national, regional and local level;
- Consumers (should benefit more from energy savings and could exercise more rights in relation to billing information) and industry should benefit more from energy savings, 4 yearly audits for companies that are not SMEs; while there are no obligations for SMEs as such, Member States shall develop programmes to encourage SMEs to also undergo energy audits and the subsequent implementation of the results of these audits);
- Obligated parties, participating and entrusted parties (affected by Article 7);
- Investors (who should have more security and greater returns) and financial institutions such as public banks.

Subsidiarity check

The legal basis is Article 194 TFEU.

The European Council of October 2014 concluded that the EU energy efficiency target in 2030 needs to be of at least 27%, to be reviewed by 2020 having in mind an EU level of 30%. The Energy Efficiency Directive was adopted as the key instrument for reducing the EU's primary and final energy consumption with the 2020 time horizon and it needs to be adapted in view of the 2030 target. As it is an overall EU target that was agreed for 2030, policies and measures allowing the EU to reach the target are necessary.

The experience from the previous EU policies on energy efficiency, in particular under Directive 2006/32/EC on energy end-use efficiency and energy services showed that lack of a detailed EU framework made it difficult to achieve the energy savings target agreed by Member States. The EED showed that having a common EU framework reduced costs, benefited from the scale of the internal market and allowed national policy-makers to learn from each other. The European framework complements national measures.

Main policy objectives

A. The overall **objective** is to ensure that energy efficiency policy contributes to the development of a competitive, sustainable and secure EU energy system within a 2030 time horizon and promotes all five dimensions of the Energy Union.

Specific objectives are the following:

Part I:

To identify the optimal and cost-effective level of energy savings for 2030, thus providing Member States and investors with more predictability and certainty.

A long-term and coherent policy framework is needed to reduce the perceived risk amongst investors and consumers of uncertainty post-2020 up to 2030. This is particularly necessary given the long timeframe of energy efficiency investments in some sectors, especially energy generation, networks and buildings. A timely review of the 2030 EU energy efficiency target will ensure the needed clarity to investors, consumers as well as Member States and allow sufficient time for Member States to establish their national policy actions for 2030.

Part II:

To revise appropriate elements of the EED for the time period 2020-2030 so that it continues to address the problems outlined above and delivers necessary energy efficiency progress in conjunction with other pieces of legislation such as EPBD, transport measures.

The evaluation/impact assessment will assess whether the requirements of some parts of the EED need to be adapted.

B. Option Mapping

Part I: Response to the European Council request

The optimal level of energy efficiency that is consistent with the cost-effective achievement of climate and energy goals for 2030 as well as costs/benefits according to the five dimensions of the Energy Union and decarbonisation in 2050 is to be confirmed.

The baseline scenario for this analysis will be based on the new PRIMES 2015 reference scenario.

Policy options will assess different target levels in 2030 in relation to the overall costs and benefits of meeting the Union's climate and energy objectives for 2030 and 2050. The priority sectors where energy efficiency gains can be reaped will also be looked at.

This analysis will also look at the contribution of respective sectors (i.e. transport as defined in the decarbonisation of transport Communication; residential as driven by EPBD and Ecodesign; industry).

Part II Options for review of appropriate elements of the EED

Baseline scenario – no EU policy change

Option 1 – No further action

The impacts of the existing energy efficiency legislation will be taken into account but no future changes to the EED will be considered. Member States were obliged to transpose and implement the current EED by 5 June 2014. It will be necessary to explain which provisions in EED have sunset clauses/obligation for revision in 2020.

Changes in population, expected economic growth, international fuel prices, technology changes and other aspects will be taken into account in the baseline scenario of the Impact Assessment. (Option 1 will be portrayed by Reference scenario 2015).

Option 2 – Improved implementation/enforcement of EED

The enforcement effort is already taking place under the EED through the annual monitoring of Member States' performance, the dialogue with Member States and relevant infringement proceedings. In view of the 2030 framework, the following options could be assessed:

- Given the EED obligation under Article 24 (8) and (9) further clarification could be proposed for Article 6 and Article 7 and Annex V;
- Streamlining of monitoring, planning and reporting requirements (contained in Article 24) under the Energy Union governance initiative;
- Consumer related aspects in Articles 9-11 on individual metering and billing and Article 15(8) related to demand response are being addressed in parallel under the Market Design initiative.

Option 3 – Reviewing and amending/modernising the key Articles of EED (qualitative & quantitative assessment based on dedicated studies and analysis of the NEEAPs), including:

- Article 3 on energy efficiency target;
- Article 6 on purchasing by public bodies (public procurement);
- Extension of Article 7 beyond 2020 (energy efficiency obligation schemes);
- Articles 9 -11 on information and metering for consumers;
- Article 15 on efficiency in transmission and distribution;
- Various Articles on financing /energy performance contracting.

Alternative policy instruments

The use of alternative policy instruments will be considered to complement, as appropriate, the legislation to support the implementation of the Directive. These could include, for example, implementation guidance (for Article 7), information campaigns for stakeholders, and financial mechanisms as well as continued guidance to support Member States.

Alternative/differentiated scope

Under the current EED legislation micro-enterprises, small and medium sized enterprises are exempted from a number of provisions and administrative requirements already. Therefore, the appropriate scope of any proposed legislative change will be analysed in detail taking into consideration possible impacts on these companies and other market actors.

Options that take account of new technological developments

The rapid technology cost reduction of small scale renewables (e.g. solar PV) as well as the roll-out of smart meters for electricity and gas, the new possibilities for 'home energy management systems', self-consumption of decentralised electricity, the implications of electric vehicles for storage, etc. will all be taken into account.

Preliminary proportionality check

The instruments on energy efficiency adopted at EU level reflect the growing importance of energy as a political and economic challenge and its close interrelation to the policy areas of security of energy supply, climate change, sustainability, environment, internal market, and economic development. Energy efficiency objectives have so far not been sufficiently achieved by Member States alone, and action at Union level is needed.

The EU establishes a common legislative framework while leaving the responsibility of Member States to set the concrete policies and actions for achieving their energy efficiency national targets, which allows choosing their target sectors and measures to contribute to the EU target – hence taking into account the subsidiarity and

proportionality principle.

C. Data Collection and Better Regulation Instruments

Data collection

A series of studies, modelling and impact assessments were carried out for the 2014 Communication on Energy Efficiency and for the proposal for the Directive on Energy Efficiency in 2010-2011.

The Commission launched (end-2014) a study to evaluate progress of the implementation of Article 7 and the related Annex V as required by Article 24(9) of the EED in view of the Progress Report the Commission is asked to do to the European Parliament and Council (by 30 June 2016). The results of this study will feed in the envisaged evaluation and impact assessment processes of the EED Review. The study is expected to provide a quantitative assessment of policy measures for achieving savings target under Article 7 and its impact towards overall 2020 20% energy efficiency target with projections for expected savings for 2030. It also will provide analysis of the various aspects of Article 7 and Annex V to assess whether the established framework is fit to allow achieving the required end-use energy savings by 2020, and, in view of 2030, it will explore possible avenues for legal revisions and/or amendments of Article 7 laid down in Article 24(9).

For this Impact Assessment, a modelling exercise will be conducted based on the new PRIMES Reference scenario 2015 (which will become available at the beginning of 2016). Modelling outputs will provide indications on energy system impacts and total energy system costs of:

a) Different levels of energy consumption (including the levels equivalent to 27% and 30% energy consumption reductions compared to projections);
b) Different ways of achieving a given level of energy consumption taking into account the impact of other energy efficiency legislation which also contribute to the delivery of the targets for energy efficiency (within the available parameters used by PRIMES).

Based on the modelling results of the new PRIMES reference scenario additional modelling will be conducted to assess the macro-economic impacts of different energy efficiency targets for 2030.

Modelling outputs (like costs, investments, benefits with the regard to energy savings, also economic and social environmental and health benefits) will help to assess the options referred to in Part I and II of this Inception Impact Assessment.

Consultation approach

An open internet-based consultation supporting both the evaluation of the respective EED articles and the future impact assessment of the EED Review (via IPM tool) will be launched in October 2015.

The target groups of this consultation will be public authorities, Member States authorities, private organisations and industry associations, SMEs, consultancies and NGOs, other relevant stakeholders and citizens (inside and outside of the European Union).

Will an Implementation plan be established?

☒Yes

The Commission will consider the need for updating the existing Guidance Notes on various articles of the EED (Articles 5, 6, 7, 8, 9-11, 14 and 15), which are attached, in the form of Staff Working Documents, to the Communication on the implementation of the Energy Efficiency Directive[12], it will check the transposition and implementation by the Member States of any amended provisions and it will set up additional actions, as appropriate, to support Member States.

D. Information on the Impact Assessment Process

An Inter Service Group on energy efficiency (covering the reviews of the EED, the EPBD as well as the Smart Financing for Smart Buildings initiative) has been set up.

The following services are members of the ISG: Secretariat-General (SG), Legal Service (SJ), Agriculture and Rural Development (AGRI), Budget (BUDG), Climate Action (CLIMA), Communications Networks, Content and Technology (CNECT), Competition (COMP), Economic and Financial Affairs (ECFIN), Employment, Social Affairs and Inclusion (EMPL), Environment (ENV), Eurostat (ESTAT), Financial Stability, Financial Services and Capital Markets Union (FISMA), Health and Food Safety (SANTE), Internal Market, Industry, Entrepreneurship and SMEs (GROW), Joint Research Centre (JRC), Justice and Consumers (JUST), Mobility and Transport (MOVE), Regional and Urban Policy (REGIO), Research and Innovation (RTD), Taxation and Customs Union (TAXUD), Trade (TRADE), Executive Agency for Small and Medium-sized Enterprises (EASME).

The Impact Assessment will be developed in close cooperation with pertinent ongoing initiatives and use the

[12] COM/2013/0762 final.

same baseline - PRIMES Reference 2015 scenario.

E. Preliminary Assessment of Expected Impacts

Likely economic, competitiveness and innovation impacts

The identified options will have potential impacts on:

- Energy independence;
- Reduction of fossil fuel imports;
- Changes in the fuel mix;
- Sectoral competitiveness, technology leadership;
- Business opportunities (including for SMEs) for energy efficient technologies, including for export;
- Increased innovation/research;
- New business models;
- Energy system costs as well as investment costs and impacts on energy costs and prices;
- Retail energy prices;
- Overall economic growth linked to energy efficiency measures and the likely shift between sectors (in terms of value added created).

Likely environmental impacts

- Reduced GHG emissions, in particular in non-ETS sectors.
- Reduced pollutants and their impact on health.
- Reduced waste.
- Preserved water.

Likely social impacts

1. Employment effects:
   - Employment in sectors linked to energy efficiency;
   - Shift in employment between the sectors;
2. Social inclusion/ reduction of energy poverty effects.
3. Behavioural changes towards energy efficiency.

Likely impacts on simplification and/or administrative burden

Reduced administrative burden as regards monitoring, planning and reporting requirements through the Energy Union governance.

Likely impacts on third countries, international trade or investment

Impacts on the trade balance (tbc).