

# EU-ASE RESPONSE TO THE PUBLIC CONSULTATION ON THE REVISION OF THE ENERGY EFFICIENCY DIRECTIVE (EED)



E3G



ORBITAL SYSTEMS



EUROPEAN ALLIANCE TO  
SAVE ENERGY

Creating an Energy-Efficient Europe

# Consultation on the Review and the Revision of Directive 2012/27/EU on Energy Efficiency

Fields marked with \* are mandatory.

## Introduction

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This consultation aims to collect views and suggestions from stakeholders and citizens on the review and the revision of Directive 2012/27/EU on energy efficiency (Energy Efficiency Directive or EED), as partially amended in 2018 (Directive (EU) 2018/2002), foreseen by June 2021[1].

### **Energy Efficiency dimension of the Energy Union and the EED**

Since the beginning, Energy Efficiency targets and policies have been one of the cornerstones of the EU Energy and Climate policy. Energy efficiency is one of the five dimensions of the Energy Union and will continue playing a key role in delivering the 2030 energy and climate framework supported by the governance process under the Governance Regulation[2]. In addition, Energy Efficiency First[3] has become a guiding principle of EU energy policy. To facilitate the operationalization of the principle, the Commission will issue a guidance.

The EED was adopted in 2012 to promote energy efficiency across the EU, to tap the existing energy saving potential with concrete measures, to remove barriers and overcome market failures that impede efficiency in energy supply and use in different sectors in order to achieve the EU headline energy efficiency targets for 2020.

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[4], as amended by Directive (2018/844 /EU) (EPBD), the Energy Labelling Regulation[5] and the Ecodesign Directive[6].

The EED is part of the overall decarbonisation policy framework and is interlinked with other energy and climate policy areas, notably, the Renewable Energy Directive (RED)[7], the EU Emissions Trading System (ETS) Directive[8] and the Effort Sharing Regulation[9] (non-ETS sectors), and security of supply and internal energy market. The EU level energy and climate targets are linked together in the Governance Regulation, which requires Member States to prepare their integrated National Energy and Climate Plans (NECPs) for 2030. In these NECPs Member States set out their national contributions to the EU level targets and policy objectives, and the intended policies and measures to implement them.

The EED was subject to a first, limited revision in 2018[10] as part of the Clean Energy for All Europeans package[11]. This revision sets the EU headline energy efficiency target for 2030 of at least 32.5% and

amended certain provisions[12], including adding a new requirement for a general review of the Directive and a possible, upwards revision of the target[13]. The transposition deadline for the amending Directive (2018/2002) was, in general on 25 June 2020, and, for Articles 9 to 11, on 25 October 2020.

### **The European Green Deal and the increased energy efficiency target for 2030**

The Commission announced in the European Green Deal[14] that it would present an impact-assessed plan to increase the EU's greenhouse gas emission reductions target for 2030 to at least 50% towards 55% in a responsible way. The Commission also committed to “review and propose to revise”, where necessary, the relevant energy legislation by June 2021”, including the EED.

In the impact assessment[15] accompanying the Communication on the Climate Target Plan[16] adopted on 17 September 2020, the Commission examined the effects on the economy, society and environment of reducing emissions by 50% to at least 55% by 2030 (compared to 1990 levels). The assessment also considered the mix of available policy instruments and how each sector of the economy could contribute to these increased targets.

To this end and based on this impact assessment, the Communication on the Climate Target Plan puts forward an emissions reduction target of at least net 55% by 2030 as a balanced, realistic, and prudent pathway to climate neutrality by 2050. It also highlights that, to achieve this level of greenhouse gas emission reductions, there is a need to significantly step up energy efficiency efforts (to 36-37% for final and 39-41% for primary energy consumption) by 2030 from the current headline target of at least 32.5%.

The assessment of Member States' national contributions to the current headline target[17] shows insufficient level of ambition in terms of energy efficiency. The gap is equal to 2.8 percentage points for primary energy consumption and at 3.1 percentage points for final energy consumption.

### **Trends in energy efficiency**

In terms of energy consumption, transport is the sector with the highest energy consumption accounting for 34% of final energy consumption in 2018. It is followed by industry and the residential sectors with both representing 25%, and the services' sector representing 13% of final energy consumption. The remaining sectors including, agriculture, fishing and forestry represent 3% of final energy consumption. Following a gradual decrease between 2007 and 2014, energy consumption has started to increase in recent years, and is now slightly above the linear trajectory for the 2020 targets. This is mainly due to weather variations, notably colder winters in 2015 and 2016, but also increased economic activity, low oil prices and increase in transport. Energy intensity in industry has continued to improve by as much as 22% between 2005 and 2017 and energy savings have indeed helped offset parts of the impact of these increases.

The latest assessment of progress for 2018 shows a decline of 0.6% in primary energy consumption compared to 2017[18], but this pace of reduction is insufficient to meet the EU target in 2020.

To address the growing energy consumption since 2014, the Commission set up a dedicated Task Force in the summer 2018 to mobilise Member States' efforts to reach the EU energy efficiency targets for 2020[19].

Partial and preliminary data for 2020 indicate that the impact on energy consumption of the COVID-19 crisis is significant and, as a result, the 2020 energy efficiency targets may well be met. However, these reductions are not caused by structural changes. Moreover, it was clear before the crisis that the level of

energy efficiency efforts by Member States would not alone be sufficient to reach the 2020 targets. The subsequent recovery from the COVID-19 crisis is expected to lead to a return of energy consumption close to the pre-crisis levels.

Taking the above-mentioned elements into consideration and given the collective ambition gap of the national contributions proposed in the NECPs, the policies in place would have to be significantly increased in order to reach even the current 2030 targets

### **Review and the revision of the EED**

The process will cover two elements:

1. The evaluation of those elements of the EED that were not revised in 2018.
2. The Impact assessment for a revision of the EED in view of meeting the increased 2030 GHG emissions reduction ambition.

Against this background, the Commission shall undertake a two-step process. As a first step, the evaluation will assess the existing framework of the EED since its entry into force in 2012[20], except for those elements already revised in 2018. It will assess whether the provisions are efficient, effective, and coherent with the broader EU legislative framework. It shall assess whether the EED is fit to overcome remaining regulatory and non-regulatory barriers, and market failures, whether there are some shortcomings, gaps and weaknesses for the existing measures or whether additional measures would be needed to deliver on their expected results.

The findings of the evaluation will then offer the basis for what needs to be streamlined, strengthened, added or changed in the EED in order (a) to address the remaining ambition gap to the 2030 EU energy efficiency targets and (b) to deliver the increased EU greenhouse emissions reduction target of at least 55% by 2030. The impact of these policy choices will be thoroughly analysed and the impact assessment will look at the impacts of the entire EED, irrespective of the articles that were revised in 2018.

The questions of this consultation are formulated to respect the requirements of the Better Regulation rules [21] and to support this two-step process of evaluation and impact assessment.

## **About you**

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### \* Language of my contribution

- Bulgarian
- Croatian
- Czech
- Danish
- Dutch
- English
- Estonian
- Finnish

- French
- German
- Greek
- Hungarian
- Irish
- Italian
- Latvian
- Lithuanian
- Maltese
- Polish
- Portuguese
- Romanian
- Slovak
- Slovenian
- Spanish
- Swedish

\* I am giving my contribution as

- Academic/research institution
- Business association
- Company/business organisation
- Consumer organisation
- EU citizen
- Environmental organisation
- Non-EU citizen
- Non-governmental organisation (NGO)
- Public authority
- Trade union
- Other

\* First name

Luigi

\* Surname

PETITO

\* Email (this won't be published)

luigi@bs-europa.eu

\* Organisation name

*255 character(s) maximum*

European Alliance to Save Energy

\* Organisation size

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

\* Country of origin

Please add your country of origin, or that of your organisation.

- |   |  |  |  |
|---|--|--|--|
| <input type="radio"/> Afghanistan         | <input type="radio"/> Djibouti           | <input type="radio"/> Libya            | <input type="radio"/> Saint Martin                     |
| <input type="radio"/> Åland Islands       | <input type="radio"/> Dominica           | <input type="radio"/> Liechtenstein    | <input type="radio"/> Saint Pierre and Miquelon        |
| <input type="radio"/> Albania             | <input type="radio"/> Dominican Republic | <input type="radio"/> Lithuania        | <input type="radio"/> Saint Vincent and the Grenadines |
| <input type="radio"/> Algeria             | <input type="radio"/> Ecuador            | <input type="radio"/> Luxembourg       | <input type="radio"/> Samoa                            |
| <input type="radio"/> American Samoa      | <input type="radio"/> Egypt              | <input type="radio"/> Macau            | <input type="radio"/> San Marino                       |
| <input type="radio"/> Andorra             | <input type="radio"/> El Salvador        | <input type="radio"/> Madagascar       | <input type="radio"/> São Tomé and Príncipe            |
| <input type="radio"/> Angola              | <input type="radio"/> Equatorial Guinea  | <input type="radio"/> Malawi           | <input type="radio"/> Saudi Arabia                     |
| <input type="radio"/> Anguilla            | <input type="radio"/> Eritrea            | <input type="radio"/> Malaysia         | <input type="radio"/> Senegal                          |
| <input type="radio"/> Antarctica          | <input type="radio"/> Estonia            | <input type="radio"/> Maldives         | <input type="radio"/> Serbia                           |
| <input type="radio"/> Antigua and Barbuda | <input type="radio"/> Eswatini           | <input type="radio"/> Mali             | <input type="radio"/> Seychelles                       |
| <input type="radio"/> Argentina           | <input type="radio"/> Ethiopia           | <input type="radio"/> Malta            | <input type="radio"/> Sierra Leone                     |
| <input type="radio"/> Armenia             | <input type="radio"/> Falkland Islands   | <input type="radio"/> Marshall Islands | <input type="radio"/> Singapore                        |

- Aruba
- Australia
- Austria
- Azerbaijan
  
- Bahamas
- Bahrain
  
- Bangladesh
  
- Barbados
- Belarus
- Belgium
- Belize
- Benin
- Bermuda
- Bhutan
  
- Bolivia
- Bonaire Saint Eustatius and Saba
- Bosnia and Herzegovina
- Botswana
- Bouvet Island
- Brazil
- British Indian Ocean Territory
- British Virgin Islands
- Brunei
  
- Faroe Islands
- Fiji
- Finland
- France
  
- French Guiana
- French Polynesia
- French Southern and Antarctic Lands
  
- Gabon
- Georgia
- Germany
- Ghana
- Gibraltar
- Greece
- Greenland
  
- Grenada
- Guadeloupe
  
- Guam
  
- Guatemala
- Guernsey
- Guinea
- Guinea-Bissau
  
- Guyana
- Haiti
  
- Martinique
- Mauritania
- Mauritius
- Mayotte
  
- Mexico
- Micronesia
  
- Moldova
  
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Myanmar /Burma
- Namibia
- Nauru
  
- Nepal
  
- Netherlands
- New Caledonia
- New Zealand
- Nicaragua
  
- Niger
- Nigeria
  
- Sint Maarten
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
  
- South Georgia and the South Sandwich Islands
- South Korea
- South Sudan
- Spain
- Sri Lanka
- Sudan
- Suriname
- Svalbard and Jan Mayen
- Sweden
- Switzerland
  
- Syria
  
- Taiwan
- Tajikistan
- Tanzania
- Thailand
  
- The Gambia
- Timor-Leste

- Bulgaria
- Burkina Faso
- Burundi
- Cambodia
- Cameroon
- Canada
- Cape Verde
- Cayman Islands
- Central African Republic
- Chad
- Chile
- China
- Christmas Island
- Clipperton
- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Cook Islands
- Costa Rica
- Côte d'Ivoire
- Croatia
- Heard Island and McDonald Islands
- Honduras
- Hong Kong
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Isle of Man
- Israel
- Italy
- Jamaica
- Japan
- Jersey
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kosovo
- Kuwait
- Niue
- Norfolk Island
- Northern Mariana Islands
- North Korea
- North Macedonia
- Norway
- Oman
- Pakistan
- Palau
- Palestine
- Panama
- Papua New Guinea
- Paraguay
- Peru
- Philippines
- Pitcairn Islands
- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
- Romania
- Togo
- Tokelau
- Tonga
- Trinidad and Tobago
- Tunisia
- Turkey
- Turkmenistan
- Turks and Caicos Islands
- Tuvalu
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom
- United States
- United States Minor Outlying Islands
- Uruguay
- US Virgin Islands
- Uzbekistan
- Vanuatu
- Vatican City
- Venezuela
- Vietnam

- Cuba
- Curaçao
- Cyprus
- Czechia
- Democratic Republic of the Congo
- Denmark
- Kyrgyzstan
- Laos
- Latvia
- Lebanon
- Lesotho
- Liberia
- Russia
- Rwanda
- Saint Barthélemy
- Saint Helena Ascension and Tristan da Cunha
- Saint Kitts and Nevis
- Saint Lucia
- Wallis and Futuna
- Western Sahara
- Yemen
- Zambia
- Zimbabwe

### Transparency register number

*255 character(s) maximum*

Check if your organisation is on the [transparency register](#). It's a voluntary database for organisations seeking to influence EU decision-making.

3781663

### \* What is the scope of your organisation or institution?

- International
- European Union
- National
- Local
- Other (please specify)

### \* Does your organisation or institution primarily deal with energy, climate and/or environmental issues?

- Yes
- No

### \* In which sector / activity? (more choices are possible)

- Energy
- Climate
- Environment

\* Does your organisation or institution primarily deal with OTHER issues than energy, climate and/or environmental issues?

- Yes  
 No

The Commission will publish all contributions to this public consultation. You can choose whether you would prefer to have your details published or to remain anonymous when your contribution is published. **For the purpose of transparency, the type of respondent (for example, 'business association, 'consumer association', 'EU citizen') country of origin, organisation name and size, and its transparency register number, are always published. Your e-mail address will never be published.** Opt in to select the privacy option that best suits you. Privacy options default based on the type of respondent selected

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The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

**Anonymous**

Only organisation details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published as received. Your name will not be published. Please do not include any personal data in the contribution itself if you want to remain anonymous.

**Public**

Organisation details and respondent details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published. Your name will also be published.

I agree with the [personal data protection provisions](#)

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## Part I – Questions of general nature

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### 1. Assessing the implementation and the effectiveness of the Energy Efficiency Directive

Although the progress towards the achievement of the 2020 targets is still to be assessed, it is important to assess the effectiveness of the existing EED framework and to see how and to what extent the original

objectives were achieved in the context of the proposed higher climate ambition of at least 55% net emissions reduction by 2030.

### 1.1 To what extent do you agree with the following statement?

“The original objectives of the EED - to increase energy efficiency across the EU and to remove barriers and market failures in energy supply and energy use - are still relevant”?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	No opinion
* Please select your answer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Please explain your answer:

The original objectives of the EED are still relevant and the directive's provisions should be strengthened to be able to achieve Europe's full efficiency potential and attract the necessary investments to do so. The impact assessment accompanying the Commission’s communication on stepping up Europe’s 2030 climate ambition showed that the increased ambition for GHG reductions by 2030 requires higher Energy Efficiency (EE) ambition.

The Commission’s EU-wide assessment of national energy and climate plans (NECPs) underlined that although the collective ambition for 2030 in the EE field has been increased (when compared to the scenario outlined in the Member States’ draft plans), there is a gap to achieve the Union’s 2030 target of at least 32.5%. This gap is 2,8% for primary energy consumption and 3,1% for final energy consumption.

Efficient use of energy is key to realize the European Green Deal. It is also a necessary tool for successfully implementing the Paris Agreement. Unfortunately, the present headline EE target (32.5%) is insufficient to reach Europe energy and climate objectives and further interventions such as factoring the Energy Efficiency First principle in all energy and infrastructures investments is urgently needed.

According to the International Energy Agency (IEA), 76% of the European greenhouse gas (GHG) emission reductions required to keep temperature increases below 1.5°C must come from energy efficiency.

Therefore, Europe's overall energy demand reduction is the foundation for achieving the EU 2030 and 2050 climate targets while ensuring a deep economic transformation that supports a circular, resilient and equitable post-COVID recovery.

### 1.2 To what extent has the EED attained its objectives – to increase energy efficiency across the EU and to remove barriers and market failures in energy supply and energy use ?

	Not at all	To a little extent	To some extent	To a moderate extent	To a large extent	No opinion
* Please select your answer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your answer:

The Directive has played a significant role in bringing energy efficiency up in the political agenda, stimulated increased national efforts, and resulted in some energy efficiency improvements. Energy efficiency has enabled the decoupling of the EU's GHG emissions and energy use. Emissions and energy use would have been higher without EU-wide energy efficiency improvements during 2010-19.

However, the EED did not lead to the creation of the much needed binding and long term legal framework to mobilize the investments required to untap the energy savings potentials across sectors and deliver the multiple benefits of energy efficiency to citizens, businesses and the environment.

Unfortunately, the role of supply-side solutions for energy efficiency has not been sufficiently addressed and should be better acknowledged within the Directive and in its objectives.

Some of the shortcomings stems from the imperfect implementation of the Directive and lack of concrete operationalisation of the EE1 principle. As a consequence, in many countries, the energy savings delivered fell short of the minimum required and are insufficient to achieve the national targets. We note that the Commission is rightly stepping up enforcement and we fully support strengthening the legal requirements for more effective implementation.

**\* 1.2.A Which factors helped the most to achieve the objectives of the EED? (multiple options are possible)**

- Binding nature of the measures of the EED (e.g. Article 5 on exemplary role for public buildings and Article 7 on energy savings obligation, etc.)
- Significant flexibility left to Member States how to achieve various obligations under the EED
- Existence of targets at the EU level
- Requirement to set national targets
- Requirement for planning policies and measures at national level
- Wide scope of the EED covering both the energy supply and demand and targeting different market actors (e.g. energy suppliers and distributors, transmission grid operators, national regulators, enterprises and consumers)
- Strong monitoring and reporting framework at EU level
- Other (please specify)

**1.3 To what extent could the below mentioned positive effects and outcomes (achieved to date) be associated with the EED since its entry into force in 2012? (use a rating scale of 1 to 5, where 1 = to a very little extent and 5 = to a very large extent)**

	1	2	3	4	5	No opinion
* My country is more committed to energy efficiency	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* There is greater awareness about energy efficiency and its role in achieving the overall climate objectives (i.e. Paris Agreement)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* More developed market of energy services	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Innovative technologies and techniques are more often used	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Greater availability of funding for energy efficiency investments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Energy efficiency policies triggered more jobs and growth	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Energy efficiency led to an increased security of supply	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Energy efficiency led to lower energy bills	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Energy efficiency reduced energy poverty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Energy efficiency increased resource efficiency	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### 1.4 To what extent could the below mentioned negative effects be associated with the EED?

(use a rating scale of 1 to 5, where 1 = to a very little extent and 5 = to a very large extent)

	1	2	3	4	5	No opinion
* Obligations under the EED led to higher administrative burden besides costs	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Obligations under the EED led to disproportionately higher costs	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Enterprises have lost substantial revenues	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Obligations under the EED led to flawed investment decisions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Obligations under the EED further complicated existing rules	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Guidance on implementation of the EED from national authorities to enterprises and consumers was unclear	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Obligations under the EED put strain on already limited national administrative resources	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Obligations under the EED led to too diverging implementation across Member States	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The benefits of the EED were unequally distributed among the population.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\*

**1.5 Which measures stemming from the EED have been the most successful in your country in terms of energy savings and other benefits? (multiple options possible)**

- Energy efficiency obligation schemes introduced to achieve annual energy savings among final customers
- Obligation for public authorities to renovate buildings owned and used by the central government
- Obligation for public authorities to purchase only products, services and buildings with high energy-efficiency performance
- Obligation for large enterprises to carry out regular energy audits to learn about their energy consumption profile and identify energy saving opportunities
- Support provided to small and medium-sized enterprises to carry out energy audits to learn about their energy consumption profile and identify energy saving opportunities
- Measures introduced on awareness raising of energy efficiency and promoting change of consumer behaviour
- Deployment of individual meters and obligation to provide consumers with better and more frequent information about their energy consumption
- Introduction of subsidies, support schemes and fiscal incentives for energy efficiency
- Increased efficiency in energy production/conversion, transmission and distribution
- Introduced measures to address regulatory barriers or split incentives in national legal frameworks or administrative practices
- None of the above
- Other (please specify)

**1.6 To what extent has the EED stimulated energy efficiency efforts in the following sectors?**

( 1 = to a very little extent and 5 = to a very large extent)

	1	2	3	4	5	No opinion
* Buildings	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Heating and cooling	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Industry	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Information and communication technologies (ICT)	<input type="radio"/>	<input checked="" type="radio"/>				
Transport	<input type="radio"/>	<input checked="" type="radio"/>				
* Agriculture	<input type="radio"/>	<input checked="" type="radio"/>				
* Services (i.e. commercial and public)	<input type="radio"/>	<input checked="" type="radio"/>				

### 1.7 To what extent do the following factors represent barriers impeding the energy efficiency improvements across different sectors?

(use a rating scale of 1 to 5, where 1 = to a little extent and 5 = to a very large extent)

	1	2	3	4	5	No opinion
* Lack of clear information among consumers about available energy efficiency measures and support schemes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Split incentives (different interests of owners and tenants or investors and users)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Administrative burden associated with energy efficiency investments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Regulatory barriers preventing energy efficiency investments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
* Lack of awareness among investors of profitability of investments in energy efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* High transaction costs to finance the energy efficiency measures	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Limited access to capital for households and small and medium-sized enterprises to invest in energy efficiency	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Lack of available skills to make energy efficiency improvements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Low profitability and return on investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Complexity or hassle associated with making energy efficiency investments	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Lack of fiscal measures and incentives including carbon pricing and energy taxation to provide incentives for energy efficiency	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your answer (optional):

## 1.8 To what extent were the costs associated with the implementation of the EED proportionate to the achieved energy savings and other benefits?

(please rate 1 to 5, where 1 - disproportionate, 5 - proportionate)

	1	2	3	4	5	No opinion
* Please select your answer	<input type="radio"/>	<input checked="" type="radio"/>				

Please explain, provide further data and information on the costs and benefits associated with the implementation of the EED and specific EED articles.

## \* 1.9 Are there any parts / specific provisions of the EED that are obsolete or have proven inappropriate?

- Yes
- No
- No opinion

Please explain your answer:

The Energy Efficiency First (EE1) principle should be the main pillar of the EED to deliver on its objectives in line with the Governance Regulation. This will require a definition to be enshrined in the Directive, an extended focus of the principle to both demand and supply side and clear guidelines to operationalize the principle in all future energy policy and investments decision making.

A 40% energy efficiency target ensures cost-effective investments and makes achieving the targets for greenhouse gas emission reductions and renewable energy cheaper for consumers and the economy. Following the Commission's proposal to increase the GHG emission reduction target from 40% to at least 55%, the energy efficiency target for 2030 should be increased accordingly from the current 32.5% to cost-effective 40%. The energy efficiency target should be mandatory at Member State level, and expressed systematically in both primary and final energy (as opposed to the current option of and/or). Also, the progress towards the target achievement should be expressed in a similar manner. This will enable the implementation of a holistic approach towards end-use and energy system efficiency. Indeed, the Directive has an inadequate and outdated approach to systemic energy efficiency as it fails to equally address the need for energy savings on the demand and supply side.

The scope of art. 5 should be expanded to all public buildings, as the current framework is not sufficient to substantially improve energy efficiency of the public buildings stock and all alternative measures under this article should be deleted as in many cases are used to justify to not undertake proper energy savings measures.

Art. 7 must ensure new and additional savings and these savings must effectively support the aims of the Renovation Wave that directly benefit citizens and businesses.

Art. 8 should be revised to further unlock the energy efficiency potential and consequently achieve CO2 emissions reduction in industry. In this respect, the implementation of recommendations stemming from

energy audits should be made mandatory, especially for measures with a short pay-back period. In addition, energy management systems and energy performance contracting which, through energy efficiency measures, can generate significant GHG emission reductions, should be promoted and included in the scope of the article.

Between 2014 and 2020, the EU Cohesion policy allocated a budget of around €14 billion to improve the energy efficiency of buildings across Europe. Even greater amounts are likely to be available for this purpose in the 2020-2027 programming period and in the framework of the EU Recovery and Resilience Plans. To ensure cost-effective use of public funds, Art 20 should condition the expenditure of EE resources to the implementation of energy managements systems or energy audits conducted pre- and post- intervention, and to credible monitoring systems that measure real energy savings.

**\* 1.10 In your view, does the EED have positive synergies with the Effort Sharing Regulation and the Emission Trading System? If yes, what are those?**

- Yes
- No
- No opinion

Please explain your answer:

There are interactions between energy efficiency policies and ESR as they target to a large extent the same sectors. For example, national energy efficiency policy measures put in place to implement the Energy Efficiency Directive (EED) are often the main instruments for Member States to meet their ESR targets. In particular, the EED's energy savings obligations under Article 7 usually target key ESR sectors, such as buildings and transport. Regarding the ETS, currently most of the energy efficiency potential lies outside the sectors covered by the EU ETS, so the interactions under the current framework are more limited.

During the revision process the Commission must ensure that existing synergies and interlinkages are being well captured and their impact thoroughly assessed.

For us, a European carbon pricing in the building sector can only work effectively and efficiently as part of a well-designed broader policy mix and it should never be considered as a replacement for existing or emerging high impact measures to boost energy efficiency. Carbon pricing policies should complement the energy efficiency regulatory framework and support schemes. They cannot replace energy efficiency policies in buildings because of the non economic nature of several market barriers, low price elasticity (reaction of energy efficiency / fuel switching measures to price signal) and the ownership structure of buildings. On the basis of this consideration we recommend that the EED revision take into consideration that:

- energy efficiency measures aimed to accelerate renovations rates and increase renovation depths combined with an uptake of renewable technologies in heating and cooling remains absolutely critical to achieve a 55% GHG emission reduction by 2030 and climate neutrality by 2050
- building related policies should be kept in the Effort Sharing Regulation sectoral scope with increased ambition (achieving -55% by 2030 will require increased efforts in both the ESR and EU ETS)
- if implemented carbon pricing policies generate revenues which should be reinvested in comprehensive building renovation (with the establishment of an EU renovation fund) and direct support for the most vulnerable consumers.

**\* 1.11 In your view, does the EED have positive synergies with the Renewable Energy Directive? If yes, what are those?**

- Yes
- No
- No opinion

Please explain your answer:

The synergy between energy efficiency and renewable energy policies is indispensable to achieve the 2030 and 2050 energy and climate targets. The prerequisite for such positive synergy is the operationalization and prioritization of the energy efficiency first principle. We recommend that the revision of the EED, in synergy with the RED, creates the conditions so that:

- Energy efficiency improvements and the reduction of energy demand catalyse renewable energy penetration and results in higher share of renewable energy.
- Digitalization plays a key role in managing and integrating renewable and distributed generation, while reducing energy consumption and empowering end-users towards energy efficient behaviours and more control over their energy use.
- Smart and highly energy efficient buildings, powered by renewable energy are able to respond to market signals through demand response.

The synergy between energy efficiency and renewable energy has important environmental, societal and economic benefits. It should be strengthened along the lines outlined above in view of accelerating the decarbonisation of Europe's energy system.

**\* 1.12 In your view, does the EED have positive synergies with the Energy Performance of Buildings Directive? If yes, what are those?**

- Yes
- No
- No opinion

Please explain your answer:

An example of useful interaction between the EED and EPBD is provided by the role that Article 7 can play in the implementation of long term renovation strategies (Article 2 EPBD) and in the long term decarbonization of the EU building stock. Indeed, article 7 can promote energy efficiency measures and generate additional energy savings resulting from holistic deep staged renovations and retrofit including envelope elements (ie. roofs, walls, windows), smart lighting and technical buildings systems (i.e. building automation and control and energy management systems). We believe that such role should be further reinforced and Art 7 should be more and more targeted to improve the energy performance of both individual buildings and the surrounding energy system and neighbouring buildings.

In order to promote a coordinated approach to renovation and strengthen the coherence between the EED and the EPBD, it is necessary to better link the effort to renovate public buildings (Art 5) with Article 2a of the EPBD. In this respect Art 5 should take into consideration the potential inclusion of Minimum Energy

Performance Standards in the framework of the EPBD revision.

The synergies between the EED and the LTRS should also include the creation of milestones for the renovation of private non-residential buildings because these buildings are in average 55% more energy intensive than residential buildings.

In addition, there should be a strengthened link between article 2a of EPBD and article 14 of EED (on assessment for efficient heating and cooling) so as to make sure that planning for renovation and heating and cooling supply happens at the same time and at the right level of districts/neighborhoods.

### \* 1.13 To what extent has the EED contributed to an optimisation of the overall energy system (higher system efficiency)?

*1000 character(s) maximum*

The EED has not sufficiently taken into account supply side measures and overall system efficiency. It should promote energy system integration and facilitate the interlinkages between electricity, heating, building, transport and industry sectors. This includes looking at how integrating sectors can improve the overall efficiency of the energy system through enabling reuse of excess/waste energy, storage of surplus electricity in thermal networks, buildings and transport as well as to incentivize the clean electrification of sectors, interconnectivity and energy storage. In this respect the EED should assess the overall efficiency of the entire energy supply chain (generation, conversion, transmission, distribution) by benchmarking different technologies with the aim of achieving a highly efficient and renewable based energy system. Such assessment will avoid the creation of an oversized energy system, stranded assets and keep energy prices affordable for citizens and businesses.

### \* 1.14 What are the main lessons learned from the implementation of the EED?

*1000 character(s) maximum*

The main lesson learned from the implementation are the following two:

- An indicative target is not effective to ensure delivery compared to a binding one, as shown by the mandatory nature of the renewable and the GHG reduction targets, which are both being met. This should be fixed with the revision.
- Article 5 only covers central government buildings, which are very few in most countries. This limits considerably the impact that this article could have on the renovation in this exemplary building segment. Also, it allows Member States' governments to take alternative measures which cannot be measured. For both reasons, governments have not been leading by example.

### \* 1.15 What is missing in the EED?

*1000 character(s) maximum*

- A binding 40% EE target
- A definition and operationalization of the EE1st principle at system level
- Digitalisation as an enabler for EE to ensure delivering measurable results for EEOS
- The acceleration of the energy renovation rate to reach 3% per year, covering public, private and tertiary buildings
- The introduction of MEPS for the worst performing buildings, milestones for the energy renovation of private non residential buildings and MMR for the entire existing building stock

- A more systemic (demand and supply) approach to EE to enable smart sector integration
- A stronger Art 8 promoting the mandatory implementation of audit recommendations and Energy Management Systems
- A more coherent and reinforced framework for energy performance contracting
- More coherence with REDII, EPBD, and Energy Taxation Directive
- A specific provision to address the water-energy nexus and unleash the energy efficiency potential of water saving measures across sectors

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## **2. Assessing possible options for revising the Energy Efficiency Directive (EED) in view of contributing to the 55% climate target for 2030 and addressing the ambition gap in the final NECPs**

The impact assessment supporting the 2030 Climate Target Plan concluded that a contribution at the level of 36-37% for final energy consumption and 39-41% for primary energy consumption by 2030 would be required.

Therefore, the Commission has launched the EED revision process. The revision would reflect on the need to increase energy efficiency efforts to match the level of ambition of a higher 2030 climate target and would also aim to strengthen those parts of the EED, which could address the remaining ambition gap for energy efficiency in the NECPs, to ensure the achievement of the current level of the EU energy efficiency target for 2030. In addition, the revision will be vital to contribute to the implementation of the other European Green Deal Initiatives[22]. This is particularly relevant especially in the context of actions identified in the Commission's Recovery Plan[23], which need to be reflected in the national Recovery and Resilience Plans.

The EED revision also offers the important opportunity to address any shortfall in its effectiveness and efficiency. A notable case relates, for instance, to the need for a more consistent application of the Energy Efficiency First principle. Another important area is the need to address any outstanding regulatory and non-regulatory barriers for additional energy savings and emissions reduction throughout all economic sectors.

In this context, the revision of the EED will also have to consider whether the EED sufficiently addresses emerging opportunities and needs for energy efficiency improvements in sectors like ICT sector, as well as agriculture and water.

In addition to the results of the evaluation of the Directive, the impact assessment of the 2030 Climate Target Plan and the Commission assessment of the final NECPs will feed into formulation of policy options to identify which elements of the EED – and to what extent – need to be amended, and what needs to be added to achieve the objectives outlined above.

### **\* 2.1 Do you agree that energy efficiency should play a key role in delivering a higher climate ambition (of at least 55% net) for 2030 and in view of achieving the EU's carbon neutrality by 2050?**

- Agree
- Neutral

- Disagree
- No opinion

Please explain your answer:

The EED targets must be aligned with the European Green Deal and its goal to achieve climate neutrality by 2050 at the latest. According to the International Energy Agency (IEA), 76% of the European greenhouse gas emission reductions required to keep temperature increases below 1.5°C must come from energy efficiency. Therefore, energy efficiency and energy demand reduction are the foundation for achieving climate targets while ensuring a deep economic transformation that is supporting a circular, resilient and equitable post-COVID recovery.

Following the Commission's proposal to increase the GHG emission reduction target from 40% to at least 55% by 2030, the energy efficiency target for 2030 should be increased accordingly from the current 32.5% to cost-effective 40%.

**\* 2.2 Given the suggested increase in energy efficiency efforts by 2030, which instruments of general nature should be considered to achieve the higher energy efficiency ambition? (multiple options possible)**

- Making the “Energy Efficiency First” principle\* a compulsory test in relevant legislative, investment and planning decisions
- Strengthening the EED requirements
- Setting a higher energy efficiency target at EU level for 2030
- Setting energy efficiency targets in specific sectors of the economy
- Stronger focus on implementation and on enforcement of the existing legislation at national and EU level
- Stronger focus on life-cycle efficiency and circularity.
- The EU should provide additional technical support to Member States
- Stronger focus on fiscal measures and incentives including through carbon pricing.
- Stronger focus on awareness raising of energy efficiency and behavioural change
- Other (please specify)

\* Energy Efficiency First (in line with Article 2(18) of the Regulation (EU) 2018/1999), means taking utmost account in energy planning, and in policy and investment decisions, of alternative cost-efficient energy efficiency measures to make energy demand and energy supply more efficient, in particular by means of cost-effective end-use energy savings, demand response initiatives and more efficient conversion, transmission and distribution of energy, whilst still achieving the objectives of those decisions.

**\* If you selected 'other', please specify here:**

Milestones for private non-residential buildings alongside the existing focus on residential buildings (private and public) and public buildings.

Acknowledgment of the link between energy and water consumption across sectors and a specific provision to reduce water and energy waste in the European efforts towards a clean and circular energy transition.

**\* 2.3 Do you agree that the EED should be strengthened by introducing new measures and stricter requirements in the context of a higher energy efficiency ambition for 2030?**

- Yes
- No
- No opinion

Please explain your answer:

Untapping the full cost-effective potential for energy savings must be the aim of the EU energy efficiency target for 2030. Research of the DG Energy shows that the EU could cost-effectively save 40% of its energy consumption by 2030. A 40% energy efficiency target ensures cost-effective investments and makes achieving the targets for greenhouse gas emission reductions and renewable energy cheaper for consumers and the economy. The energy efficiency target should be mandatory at Member State level, and expressed systematically in both primary and final energy (as opposed to the current option of and/or). Also, the progress towards the target achievement should be expressed in a similar manner. This will enable the implementation of a holistic approach towards end-use and energy system efficiency.

**\* 2.4 Could the EED be simplified while preserving its objectives and if so, how?**

*1000 character(s) maximum*

Removing all the alternative options to reach a stated objective from the EED will simplify implementation. Moreover, better monitoring and verification mechanisms would oblige Member States to provide evidence on how the energy efficiency measures implemented contribute towards the overall energy efficiency target.

**\* 2.5 With the suggested increase in ambition for energy efficiency for 2030, what should the nature of the EU targets be?**

- Indicative
- Binding
- Not specified
- Other (please specify)

**\* 2.6 With the suggested increase in ambition for energy efficiency for 2030, what should the nature of the national targets be?**

- Indicative national targets (to contribute to EU energy efficiency target for 2030)
-

Binding national targets

Not specified

Other (please specify)

**\* 2.7 In which sectors would additional energy efficiency efforts be most needed to achieve a higher energy efficiency ambition for 2030?** (multiple options possible)

Buildings

Heating and cooling

Industry

Information and communication technologies (ICT)

Transport

Agriculture

Services (i.e. commercial and public)

Other (please specify)

Please explain your answer:

**2.8 Should the following measures be considered to achieve a higher ambition?**

(use a rating scale of 1 to 6, where 1 = strongly disagree and 6 = strongly agree)

	1	2	3	4	5	6	No opinion
* Strengthening the renovation obligations for public buildings	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
* Strengthening energy efficiency requirements for public procurement	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
* Requiring that local authorities (above a certain size) develop an energy efficiency action plan with measurable impact indicators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Requiring that large enterprises implement certain energy efficiency improvements identified in energy audits	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
* Requiring that small and medium-sized enterprises are offered free energy audits	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
* Extending the requirement on frequent consumption information from electricity and thermal energy to							

also cover gas and roll-out remotely readable gas meters	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>				
* Establishing sector specific goals or measures addressing sectors for which the energy efficiency potential is higher (e.g. services, data centres, energy-intensive industries)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>				
* Strengthening the requirements for efficiency in energy transformation, transmission and distribution	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
* Strengthening the requirements for using energy performance contracting in renovation of public buildings	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
* Introducing or extending fiscal measures and incentives, including carbon pricing and energy taxation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>				

### Please explain your answer:

Article 5 should aim at realizing all available energy savings potential by covering the need for holistic deep staged renovations and deep renovation including envelope elements (ie. roofs, walls, windows), smart lighting and

technical buildings systems upgrade and efforts to accelerate the digitalization of buildings as a key enabler for their decarbonization (i.e. building automation and control, energy management systems, on-site electricity generation, systems using energy from renewable sources). In this respect, energy performance contracts can be used to ensure, that besides driving deep staged renovations improved performance is guaranteed over time.

In order to promote a coordinated approach to renovation and strengthen the coherence between the EED and the EPBD, it is necessary to link the effort to renovate public buildings with Article 2a of the EPBD.

The importance of public authorities leading by example cannot be overestimated and is an essential part of the EU Green Deal. It will be at the core of the EU and national Recovery Plans and of the EU Renovation Wave. Yet, to make provisions in this Article stronger and more effective, the Directive should extend the current 3% mandatory renovation rate to all public buildings owned or occupied by central, regional, and local authorities. A particular focus should be given to public buildings such as schools and hospitals, especially in the context of post-COVID-19 recovery. Given that public buildings account for around 12% of the European building stock, the impact of such an extension will be tremendous, in terms of energy savings, improved health, comfort, and productivity.

EED should promote the use of smart technologies such as IoT to deliver measured energy savings and support the smart readiness of the overall energy system. For instance, Article 7 should make the best use of innovative digital technologies to measure real energy savings in terms of reduction of primary and final energy consumption and reduction of CO2 emissions. Both energy performance contracting and active energy efficiency measures will enable real-time monitoring, analysis and optimisation of energy performance. Smart technologies (such as smart connected building sensors, building automation and energy management systems) through real-time measurement, ongoing monitoring and reporting could make frequent regular energy audits, e.g. once in every X years, unnecessary. Instead, an energy audit could be required only when there are significant deviations in the monitored parameters that require additional expert analysis.

In addition, the EED should ensure alignment with the EPBD and its Long-Term Renovation Strategies by introducing milestones for the renovation of both public and private non-residential buildings. Non-residential

buildings decarbonization is critical as they are in average 55% more energy intensive than residential buildings.

## 2.9 Should the following measures in the heating and cooling policy area be considered in order to achieve more effectively the decarbonisation objectives?

(use a rating scale of 1 to 6, where 1 = strongly disagree and 6 = strongly agree)

	1	2	3	4	5	6	No opinion
* Member States should introduce specific energy efficiency targets for the heating and cooling sector to ensure that energy consumption in this sector is sufficiently taken into account	<input type="radio"/>	<input checked="" type="radio"/>					
* Fossil fuels in heating systems (in buildings and district heating) should be gradually phased out with a faster phasing out of the most polluting ones	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
* Fossil fuel heating system should be banned for new buildings whenever technical feasible	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
* Member States should unbundle the management of the generation and distribution heat network	<input type="radio"/>	<input checked="" type="radio"/>					
* Allow public support for heating systems only to non-fossil fuel technologies	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
* The recovery of waste heat from heating and cooling (air-conditioning) systems in individual buildings should be promoted	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
* Specific requirements for utilization of waste heat and waste cold should be set for industry and services	<input type="radio"/>	<input checked="" type="radio"/>					
* Requiring district heating and cooling operators to prepare long-term plans to improve their energy efficiency in terms of primary energy intensity energy	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
* Member States should facilitate local and district approaches to policy and infrastructure planning and development in heating and cooling	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
* Other (please specify)	<input type="radio"/>	<input type="radio"/>					

Please explain your answer:

The identification and access to information on waste heat recovery potential and sources are key for optimal exploitation of this energy source, which contributes towards greater sector integration and energy efficiency first principle implementation. It will require rigorous execution of comprehensive assessments to be carried out by the Member States, followed by concrete measures and commitments. In order to ensure

that the use of waste heat is an essential part of decarbonisation, the results of comprehensive assessments should be integrated into national strategies, such as National Energy and Climate Plans, National Recovery Plans and national Just Transition Plans.

The comprehensive assessment for efficient heating and cooling solutions should be carried out at the same time as the preparation of long term renovation strategies (Article 2b of EPBD). This will ensure a more granular approach, by looking at locally available energy sources, including waste heat, and the potential for reduced heat demand. This would respect the application of the energy efficiency first principle and would contribute towards the realisation of the concept of a district approach to energy planning and renovation as well as smart energy system integration that can take place only at the level of a territory.

## 2.10 Can the following principles ensure overall consistency of energy efficiency and renewable energy as key policies for decarbonisation?

(use a rating scale of 1 to 6, where 1 = strongly disagree and 6 = strongly agree)

	1	2	3	4	5	6	No opinion
* Having distinct energy efficiency and renewable targets is the best avenue to decarbonisation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* Member States' progress towards decarbonisation targets should be the primary indicator to assess the renewables and energy efficiency policies and measures.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Member States need to progress on both energy efficiency and renewables to reach their decarbonisation targets.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* Non-binding nature of national renewable and energy efficiency targets allows Member States to choose cost-efficient decarbonisation paths.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Energy efficiency policies and measures should be prioritised where fossil-based energy solutions are currently used.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

## \* 2.11 How could synergies between the EED and the Renewables Energy Directive be strengthened in the future?

1000 character(s) maximum

A better alignment between these two directives is needed. It is crucial to integrate in both directives the application of energy efficiency first principle and ensure that renewable energy sources are produced, distributed and consumed in the most efficient way.

## \* 2.12 How could synergies between the EED and the Energy Performance of Buildings Directive be strengthened in the future?

1000 character(s) maximum

To promote a coordinated approach to renovation and strengthen the coherence between EED and EPBD, it is necessary to link the effort to renovate public buildings with Art 2a EPBD. Art 7 can promote EE measures in the building sector and generate additional energy savings resulting from deep staged renovations and deep renovations including envelope elements (ie. roofs, walls, windows), lighting and technical buildings systems (i.e. building automation, control and energy management systems). Art 7 should make the best use of digital technologies to measures real time savings.

The energy performance of buildings cannot be seen without its interaction with the surrounding energy system and the neighbouring buildings. If Minimum Energy Performance Standards for public buildings are introduced (part of EPBD revision), a clear link with Art 5 should be established. Comprehensive assessment for efficient heating and cooling and CHP (Art 14) should be made at the same time as drafting LTRS.

## \* 2.13 How could synergies between the EED and the Emission Trading System (ETS) be strengthened in the future, especially in the context of a possible extension of the ETS?

*1000 character(s) maximum*

A European carbon pricing in the building sector can only work effectively and efficiently as part of a well-designed broader policy mix and it should never be considered as a replacement for existing or emerging high impact measures to boost energy efficiency. Carbon pricing policies should complement the energy efficiency regulatory framework and support schemes. They cannot replace energy efficiency policies in buildings because of the non economic nature of several market barriers, low price elasticity (reaction of energy efficiency / fuel switching measures to price signal) and the ownership structure of buildings.

## \* 2.14 How could synergies between the EED and the Effort Sharing Regulation be strengthened in the future?

*1000 character(s) maximum*

There are interactions between energy efficiency policies and ESR as they target to a large extent the same sectors. For example, national energy efficiency policy measures put in place to implement the Energy Efficiency Directive (EED) are often the main instruments for Member States to meet their ESR targets. In particular, the EED's energy savings obligations under Article 7 usually target key ESR sectors, such as buildings and transport. Building related policies should be kept in the Effort Sharing Regulation sectoral scope with increased ambition (achieving -55% by 2030 will require increased efforts in both the ESR and EU ETS).

During the revision process the Commission must ensure that existing synergies and interlinkages are being well captured and their impact thoroughly assessed.

## \* 2.15 How could EU citizens - and especially young people - be more engaged and contribute to achieving a higher ambition of energy efficiency?

*1000 character(s) maximum*

Engagement is proportionally correlated to awareness. The latter is resulting from a strengthened educational effort. While younger generations are acutely aware of the climate emergency, (i.e. "Greta" effect), they are less engaged in energy efficiency as such. Hence, greater efforts should be made to educate the youngsters on the links between energy efficiency and efforts to stave off climate change. Education and training for jobs in high-potential sectors such as buildings should be made accessible and promoted towards young generation. The European Climate Pact and European Bauhaus should be used to raise awareness, to ensure engagement and to fill the existing skills gap thorough training and assistance.

**\* 2.16 The “Energy Efficiency First” principle is established in energy legislation to contribute to a higher energy efficiency ambition. Which measures in your view could be implemented to ensure the principle is consistently applied? (multiple options possible)**

- Providing more information to users on energy efficiency and energy consumption of products and infrastructures, considering their life-cycle.
- Requiring that the “energy efficiency first” principle is applied to all relevant EU energy policies related to the whole energy value chain
- Requiring that the “energy efficiency first” principle is applied to all relevant national energy policies related to the whole energy value chain
- Developing guidelines on implementation in relevant policy, planning and investment decisions
- Developing mechanisms to monitor implementation of the principle at national level
- Others (please specify)
- None

Please elaborate on your answer:

*1000 character(s) maximum*

Energy efficiency first principle is the acknowledgment that Europe's biggest domestic energy source is energy efficiency. The principle should be considered before but also in the course of: (i)planning, (ii) designing policies and measures and (iii) deciding on investment concerning energy infrastructure, policies and measures in the area of energy security and internal energy market.

In practice, the principle aims to:

- ensure that energy saving solutions are not overlooked or undervalued;
- collect reliable and measurable data which will allow to value the long-term economic, environmental and social costs and benefits of energy efficient solutions;
- remove barriers preventing energy efficiency improvements;
- develop and enforcing concrete policies, which will prioritize investment in energy efficiency.

**\* 2.17 Is there a need to develop a common methodology on the application of the “Energy Efficiency First” principle in energy networks investment programmes and operation practices?**

- Yes, and it should be developed by the European Commission, ENTSO(-e,-g), national energy regulator, TSO, other
- Yes, and it should be accompanied by an appropriate monitoring mechanism
- No, there are already specific documents and methodology developed on this
-

No, this would intrude into the independence of the National Regulatory Authorities

- No, the energy networks in the EU are too diverse to be covered by a common methodology (principle of subsidiarity)
- No, while the case can be made for a common methodology, it would be too cumbersome to implement in practice
- Other (please specify)

\* If you selected 'other', please specify here:

In addition to those mentioned above, district energy stakeholders should also be involved in developing the common methodology.

Additional skills, notably from the demand-side, are also needed and must be involved to successfully develop a common methodology on the application of the EE1st principle.

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## This is the end of Part I.

If you wish to contribute on technical aspects of different articles, please continue with part II.

Do you want to continue with part II on the technical aspects of different articles?

- Yes
- No

If you decide to end the survey here, we thank you very much for your valuable contribution.

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## Part II – Technical questions on specific Articles of the Energy Efficiency Directive

The EED lays down a set of measures aimed 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 - and those are as follows:

- **Articles 1 & 3 (energy efficiency targets)** sets the EU headline energy efficiency targets for 2020 (of 20%) and for 2030 (of at least 32.5%) and Member States have to set their national indicative targets and indicative contributions in view of achieving those headline targets for 2020 and 2030 respectively. Member States shall report annually on the progress towards their national indicative energy efficiency targets and

submit National Energy Efficiency Action Plans ('NEEAPs') every three years, starting from 2014. For the headline EU 2030 target, Member States shall fulfil the planning and reporting obligations under the Governance regulation (set their national contributions towards the EU 2030 target and define the national measures to fulfil those contributions in the National energy and Climate Plans to be submitted to the Commission by end 2019).

- **Article 5 (exemplary role of public bodies' buildings)** requires that Member States renovate 3% (or implement alternative measures resulting in equivalent savings) of their central government buildings of over 500 m<sup>2</sup> which do not meet the cost-optimal energy efficient standards. This threshold dropped to 250 m<sup>2</sup> as of 9 July 2015.
- **Under Article 6 (purchasing by public bodies)** central governments have the obligation to purchase energy efficient products, buildings and vehicles, and Member States should encourage public bodies of local and regional government do so as well. This Article was evaluated in 2016[24], however the findings were not conclusive given that the implementation had just started and it was too early to assess the impact[25].
- **Article 7 (energy saving obligations)** sets an obligation on Member States to achieve new energy savings each year (of 1.5% of the annual energy sales for the period 2014-2020 and of 0.8% (0,24% for Malta and Cyprus) of the final energy consumption for the period 2021-2030) by putting in place an energy efficiency obligations scheme or other policy measures. Article 7 is responsible for about half of the energy savings the EED is expected to deliver. As mentioned above, this Article was amended as part of the focused EED review in 2016 (amending Directive EU/2018/2002). Under
- **Article 8 (energy audits and energy management systems)** Member States must ensure that large companies have their first energy audit by 5 December 2015 and then every four years. The review of the implementation of the definition of small and medium size enterprises for the purposes of Article 8(4) is carried out in a separate process (in line with the amended Article 24(12)).
- **Articles 9 to 11 (metering and billing)** provide requirements for metering and billing of energy use. As mentioned above, those Articles were already amended as part of the focussed EED review in 2016 (amending Directive EU/2018/2002) by adding new, more precise and specific provisions applicable for thermal energy (heating and cooling)[26]. Electricity related provisions were transferred to the recast Electricity Directive (EU) 2019/944. For an overview and a detailed discussion of the changes made please refer to Commission Recommendation (EU) 2019/1660 of 25 September 2019 on the implementation of the new metering and billing provisions of the Energy Efficiency Directive 2012/27/EU[27].
- **Article 14 (promotion of efficiency in heating and cooling)** requires that Member States promote efficiency in district heating and cooling systems and carry out comprehensive territory-wide assessments of the potential for efficient heating and cooling by 31 December 2015 which should be resubmitted again by 31 December 2020 (on basis of the updated methodology and the amended Annex VIII and part of Annex IX)[28]. It also requires individual cost-benefit analysis to be carried out in the context of

the planning and permitting of certain types of installation (thermal electricity generation, industrial installations, district heating and cooling network), in order to assess the potential benefits of high-efficient cogeneration installation or utilising waste heat from nearby industrial installations(Art. 14(5) and 14(7)).

- **Article 15 (energy transformation, transmission and distribution)** requires that Member States ensure that energy efficiency is taken into account in energy transformation, transmission and distribution and contains specific provisions to this end. Certain of these (parts of Art. 15(5) and Art. 15(8)) were removed as part of the focussed revision in 2018 and replaced with consolidation provisions in the new Electricity Market legislation.
- **Article 16 (on qualifications and accreditation schemes for providers of energy services and energy audits)** had a later transposition deadline than the rest of the Directive (31 December 2014) and it is also closely linked to the implementation of Articles 17 and 18.
- **Under Article 17 (information and training)** Member States shall ensure that information on available energy efficiency mechanisms and financial and legal frameworks is widely disseminated to all relevant market actors. The effectiveness of the implementation of this Article was assessed in 2017[29]. The findings of the assessment showed that while most of the Member States have put in place information and awareness raising measures, it is hard to assess their impact on the uptake of energy efficiency improvements and investments due to lack of robust monitoring results and ex-post evaluations.
- Member States are required to promote the energy services market under **Article 18 (energy services)** with a particular focus put on supporting the public sector including through the use of energy performance contracting. A number of reports to assess progress of energy service markets in the EU including the uptake of the energy performance contracting have been carried out by the JRC in the framework of an administrative arrangement with DG ENER.
- **Article 19 (other measures to promote energy efficiency)** requires the Member States to take action to remove regulatory and non-regulatory barriers to energy efficiency and to report on this to the Commission as part of their first National Energy Efficiency Action Plan (NEEAP). Progress made by Member States in relation to Article 19(1) was assessed on basis of the notified NEEAPs 2014 and 2017 and a report was published in 2019[30].
- **Article 20 (Energy Efficiency National Fund, financing and technical support)** provides that the Member States shall facilitate the establishment of financing facilities and that they may set up an Energy Efficiency National Fund. This Article was amended in the focussed EED review by adding additional requirements for the Member States and the Commission (providing guidance on how to unlock private investments).
- **Article 21 on the conversion factors** set out in Annex IV was amended for the purposes of reviewing the default coefficient - primary energy factor for electricity generation (in footnote 3) and which should be again reviewed by 25 December 2022

(as required by amending Directive EU/2018/2002). Article 24 (review and monitoring of implementation) contains reporting obligations for the Commission (while the reporting obligations for the Member States have been transferred to the Governance Regulation, (EU)2018/1999). This Article thus has been partially amended to ensure the coherence with the Governance framework and the amendments of Articles 3 and 7, and it is thus specifically targeted in this consultation.

### About you - What is your field of expertise?

- Energy policy
- Energy efficiency
- Energy audit and management
- Energy performance of buildings
- Heating and cooling
- Other (please specify)

If you selected 'other', please specify here:

### Article 1 and 3 - Energy efficiency targets

#### 3.1 How do you assess the level of ambition of the existing EU energy efficiency targets?

(too high - adequate level - too low)

	Too high	Adequate level	Too low	No opinion
For 2020 targets	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
For 2030 targets	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

#### 3.2 Could you please give your opinion on the current aspects of the Union's energy efficiency targets for 2020?

(Appropriate – Not appropriate – Difficult to say/ No opinion)

	Appropriate	Not appropriate	Difficult to say	No opinion
The nature of the target is not specified (whether it is binding or indicative)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Indicators used for defining the target: primary or final energy consumption	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Same level of ambition for both primary and final energy consumption	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Definition of the baseline (2007 Reference Scenario projections for 2020)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clarity of the target	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your answer here (optional):

The indicators used for defining the target should be primary and final (instead of "or"). It is absolutely essential that both final and primary energy consumption targets are binding and have the same level of ambition.

### 3.3 Could you please give your opinion on the following aspects of the national energy efficiency targets for 2020?

(Appropriate – Not appropriate – Difficult to say/ No opinion )

	Appropriate	Not appropriate	Difficult to say	No opinion
Approaches for setting national targets are not prescribed - Member States can chose the methodology and indicators for setting their target (s) (primary/ final energy consumption, savings or intensity)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Indicative nature of national targets (no sanctions for non-compliance)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
No reference values/formula at EU level for assessing the level of national ambition	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
No need to set intermediate milestones/ trajectory to targets	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Possibility to revise the national targets	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your answer here (optional):

### 3.4 Has the EED provided the right monitoring and enforcement mechanisms to achieve national energy efficiency targets?

- Yes
- No
- No opinion

Please explain your answer:

The current monitoring and enforcement mechanisms have been too weak to achieve the national energy efficiency targets. Those mechanisms need to be strengthened. To do so, the Commission should develop effective incentives and enforcement schemes, more transparency and accountability so that reported energy savings are more accurate and consistent across Member states. In this perspective, real energy performance thanks to digital solutions and IoT should be promoted to support delivering real results and GHG emission reductions.

In addition, the EED did not lead to enough stakeholder engagement in the monitoring process, which can be an essential element to monitor the implementation of the EED in the NECPs and thus ensure that energy efficiency policies deliver.

We take note that the Commission is rightly stepping up enforcement and we fully support strengthening the legal requirements for more effective implementation.

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## Article 5 – Exemplary role of central government buildings

### 3.5 Has the EED made central government buildings in your country more energy efficient?

- Yes
- No
- No opinion

Please explain your answer:

Article 5 has somewhat contributed to raising awareness about the need to make public buildings more energy efficient. the scope of Article 5 should be expanded. Currently, the provision applies to “buildings with a total useful floor area over 250m<sup>2</sup> owned and occupied by the central government”. This provision only concerns a small proportion of the European building stock (public buildings overall represent about 10% of the stock, while Article 5 would now apply to 0.2% of the stock. Article 5 should aim at realizing all available energy savings potential of all public buildings by covering the need for holistic deep staged renovations and deep renovation where envelope elements (ie. roofs, walls, windows) are upgraded alongside smart lighting and technical buildings systems (i.e. building automation and control, energy management systems, on-site electricity generation, systems using energy from renewable sources). In this respect, EPCs can be used to ensure, that besides renovating, improved performance is guaranteed over time.

The article 5 scope should be extended to all types of non-residential buildings, with milestones for renovation of both public and private buildings as announced in the EU Renovation Wave.

### 3.6 What are the main factors limiting central government in effective and efficient renovation of its buildings (multiple options possible)?

- Insufficient enforcement of the regulatory framework in my country
- Insufficient national budget earmarked for renovation
- Requirement to renovate can be achieved by alternative measures that are not clearly defined and are hard to monitor
-

Requirement to renovate does not apply to rented buildings and central government authorities often rent their buildings

- Other (please specify)

### **3.7 How do you assess the current 3% annual goal on renovation of central government's buildings in line with Article 5?**

- The 3% goal is too low and does not go beyond the standard rate of renovation
- The 3% goal is at an adequate level to promote renovation of central government's buildings
- The 3% goal is too high
- Other (please specify)

If you selected 'other', please explain here:

Irrespective of the annual goal on renovation, it is also important to add that the existing annual obligation does not drive any real energy performance or reduction of energy consumption. It should therefore be complemented by an energy management requirement, to ensure that buildings and their energy installations are properly and efficiently operated over time.

### **3.8 Given that additional energy efficiency efforts are needed, how could Article 5 be made more effective? (multiple options possible)**

- The obligation to renovate public buildings should be extended to regional and local authorities
- The obligation should be extended to include buildings simply occupied by the central government
- The obligation should be extended to include buildings simply occupied by the central, regional and local public authorities
- The obligation should target specific type of public buildings, such as schools and hospitals
- The required floor area to be renovated each year should be higher than 3% of all public buildings
- The obligation shall require deep renovations in order to reach higher than minimal energy standards
- Minimum energy performance requirements for owned and rented public buildings should be introduced
- Minimum levels of renewable energy use should be introduced
-

Public authorities should be required to adopt an energy management system and track buildings performance

- Wider approaches to achieving sustainable built environment (such as circular economy considerations) should be better considered for public buildings renovations
  - Other (please specify)
- 

## Article 6 – Purchasing by public bodies

**3.9 Has the requirement for central governments to purchase only products, services and buildings with high energy-efficiency performance helped to develop a market for energy efficiency products and services in your country?**

- Yes
- No
- No opinion

Please explain your answer:

**3.9.A Which are the main factors limiting the effectiveness of the rules on purchasing by public bodies under Article 6?** (multiple options possible)

- The scope is too limited as it applies only to the central government bodies
- It is too easy to evade the requirement to purchase highly energy efficient products, services or buildings on grounds such as cost-effectiveness, economic feasibility or technical suitability
- There is no obligation to apply Green Public Procurement criteria
- Public authorities lack specific guidelines to improve their purchasing practices
- It is too difficult for public bodies to identify energy efficient products in case they are not regulated under the EU Energy Labelling rules
- Other (please specify)

**3.10 Given that additional energy efficiency efforts are needed, how could Article 6 be made more effective?** (multiple options possible)

-

The energy efficiency requirement in public procurement should be extended to all levels of public administration (including to regional and local authorities)

- Requirements on reporting on energy used during the whole lifetime of procured goods and buildings should be gradually introduced
- A mandatory calculation of total cost of ownership shall be introduced for public procurement The references to limiting conditions (e.g. cost-effectiveness, economic feasibility, technical suitability) should be removed
- Other (please specify)

If you selected 'other', please explain here:

Introduction of mandatory B.I.M. in public procurement

## Article 7 – Energy Savings Obligation

### 3.11 Taking into consideration the required higher energy efficiency efforts for 2030, how do you assess the current level of ambition of Article 7(1) on energy savings obligation?

(too high - adequate level - too low)

	Too high	Adequate	Too low	No opinion
Please select your answer	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

### 3.12 What elements of Article 7 should be addressed to ensure the higher level of energy efficiency for 2030 (ranking the measures by using the scale 1-6, 1 – not important and 6 – very important; or No opinion)

	1	2	3	4	5	6	No opinion
Increase the ambition level of energy savings obligation for 2021-2030	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
Strengthen the additionality criteria for existing tax measures	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
Make the EEOS a mandatory instrument in all Member States	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
Require Member States to set a certain level of energy savings to be achieved in building renovations	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
Require Member States to set a certain level of energy savings to be achieved in transport	<input type="radio"/>	<input checked="" type="radio"/>					

Strengthen the monitoring and verification rules	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
Require Member States to target specific sectors with policy measures under Article 7	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
Set mandatory requirements to implement a specific share of policy measures to alleviate energy poverty	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
Other (please specify)	<input type="radio"/>	<input type="radio"/>					

## Article 8 – Energy audits and energy management systems

### 3.13 Current rules oblige enterprises that are not small or medium-sized to carry out every four years an energy audit to learn about their energy consumption profile and identify energy saving opportunities. Should these rules be changed?

- Yes
- No
- No opinion

Please explain your answer:

Audits should be broadened to solutions that additionally comprise concrete actions to improve energy efficiency. In this context, the revision should also accelerate the deployment of energy management systems based on digital interfaces, as well as EPCs.

The recommendations stemming from energy audits and in particular on measures with short pay-back period (less than 5 years) should be made mandatory across industry and their uptake should be incentivized. In particular, the financial incentives should be made available and conditional upon realisation of identified measures, inter alia, through the European Resilience and Recovery and Cohesion Funds.

Medium-sized companies should follow the same rules as large companies. In this context, it should be assessed whether such obligation should not rather be linked to the energy consumption of the company and not only to the size.

### 3.13.A Would the following option address the shortcomings you have observed

(select one answer for every option)?

Obligation to carry out energy audits should:	I fully agree	I agree	Neutral	I disagree	I fully disagree	No opinion
depend on energy consumption and not size or ownership	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
depend only on size of the enterprise but not on who owns it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

depend both on energy consumption and on size	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
be made more frequently than every four years	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
be accompanied by an obligation for enterprises to implement certain measures identified in energy audits	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
be accompanied by a requirement to disclose non-sensitive information from energy audits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
include recommendations for utilising renewable energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Include recommendations on resource efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

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## Articles 9-11 - Metering for gas

**3.14 To what extent has the EED contributed to final customers being informed of actual gas consumption and costs properly and frequently enough to understand what drives their consumption and make informed choices about possible energy saving measures?**

- Contributed to a large extent
- Contributed to some extent
- Did not contribute
- I do not know

Please explain your answer:

These measures were not sufficient to promote higher energy savings. They would need to be complemented by other measures.

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## Article 14 - promotion of efficiency in heating and cooling and related Annexes and definitions

**3.15 Have the requirements under Article 14 increased energy efficiency in the heating and cooling sector in your country?**

- Yes
- No
- No opinion

Please explain your answer:

Article 14 has the potential to enhance the contribution of District Heating Networks to energy savings. It has introduced comprehensive assessments for efficient heating and cooling and CHP, as well as cost-benefit analysis for planning new investments. Such assessments should be systematically integrated with Energy Efficiency First principle considerations in view of improving the design of national, regional and local energy supply policies.

**3.16 What was the impact in your country of the requirement to carry out a cost-benefit analysis under Article 14(5) in the following areas**

(please rank: Very high – High – moderate – Low – Very low)

	Very high	High	Moderate	Low	Very low	No opinion
It increased energy efficiency of energy supply	<input type="radio"/>	<input checked="" type="radio"/>				
It increased energy efficiency of heating and cooling networks	<input type="radio"/>	<input checked="" type="radio"/>				
High-efficiency cogeneration was more often deployed	<input type="radio"/>	<input checked="" type="radio"/>				
Efficient district heating and cooling was more often deployed	<input type="radio"/>	<input checked="" type="radio"/>				
Increased reuse of waste heat from industry	<input type="radio"/>	<input checked="" type="radio"/>				
It increased reuse of waste heat from services (including ICT)	<input type="radio"/>	<input checked="" type="radio"/>				

**3.17 Given that additional energy efficiency efforts are needed, how could Article 14 and related Annexes and definitions (Article 2) be made more effective? To what extent do you agree that the following measures should be implemented**

(use a rating scale of 1 to 6, where 1 = strongly disagree and 6 = strongly agree)

	1	2	3	4	5	6	No opinion
Minimum requirements for efficient district heating and cooling should be strengthened;	<input type="radio"/>	<input checked="" type="radio"/>					
Minimum requirements for efficient district heating and cooling should be established separately for networks and generation units;	<input type="radio"/>	<input checked="" type="radio"/>					
Minimum requirements for high-efficiency cogeneration should be strengthened;	<input type="radio"/>	<input checked="" type="radio"/>					

Minimum requirements for high-efficiency cogeneration using fossil fuels should be stricter;	<input type="radio"/>	<input checked="" type="radio"/>					
The Comprehensive assessments in line with Article 14(1) should explicitly cover renewable energy potentials in heating and cooling;	<input type="radio"/>	<input checked="" type="radio"/>					
The requirement to address the potential identified in the Comprehensive assessments through policies and measures should be strengthened;	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
The requirements for a cost-benefit analysis in line with Article 14(5) should be based on primary energy savings;	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
Member States should better ensure that costs and benefits of more efficient heating and cooling supply are taken into account in infrastructure and investment planning and permitting;	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
Planning and permitting of infrastructure generating waste heat or cold should take into consideration geographical proximity of a potential demand (heat sink) for this energy;	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
Member States should introduce specific energy efficiency indicators for district heating and cooling to ensure that operators improve energy efficiency of their generation and reduce network losses;	<input type="radio"/>	<input checked="" type="radio"/>					
Other (please specify).	<input type="radio"/>	<input type="radio"/>					

**3.18 Which of the following measures would be important to increase energy efficiency of data centres? (select one answer for each option)**

Rules should ensure that:	Very important	Important to some extent	Not important	No opinion
large data centres are encouraged to be located where their waste heat can be used	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
the potential for waste heat reuse is assessed when new data centres apply for planning permissions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
existing provisions to exploit industrial waste heat potential are strengthened	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your answer (optional):

## Article 15 – Energy transformation, transmission and distribution

### 3.19 Do electricity and gas networks (transmission and distribution) operate in the most energy efficient way in your country?

- Yes
- No
- I don't know

Please explain your answer:

We have no specific information to share on this point from a national perspective. However, increasing the share of renewable energy sources and growing penetration of electric vehicles create new challenges for the electricity networks, especially on the distribution side. Given the growing pressures on the grids, the article should encourage network operators to reduce energy losses, implement cost-efficient and energy-efficient infrastructure investment programmes and properly account for the energy efficiency and flexibility of the grid.

As we are moving towards a more integrated energy system, this is also true for gas and district heating.

### 3.20 Which are the main factors limiting energy efficiency improvements of the networks in your country? (multiple options possible)

- The regulatory authorities discouraged investments by not accepting the investment in the Regulatory Asset Base;
- Financing for investments is not easily available;
- The tariff structure is not conducive to the minimization of energy losses in the grids;
- The capital expenditure would result in an unacceptable increase of network tariffs for the final consumers;
- The efforts needed to upgrade the physical infrastructure of the grid would disturb households;
- The authorisation of permits is too long;
- The environmental impact of upgrading the infrastructure would be larger than that of the energy wasted in the grids;
- Other (please specify)

If you selected 'other', please explain here:

Improve the monitoring of energy efficiency in transformation and distribution networks through the establishment of a Smart Grid Indicator: Monitoring the readiness of a grid to support active contributions to

energy efficiency, either directly within the grid or indirectly outside the grid, can be monitored by looking at the deployment of suitable solutions. Such monitoring could be part of a broader smartness monitoring process.

## Article 16 – Availability of qualification, accreditation and certification schemes

### 3.21 Are you aware of the certification schemes, accreditation schemes and equivalent qualification schemes for providers of energy services, energy audits, energy managers and installers available in your country?

- Yes
- No
- No opinion

Please explain your answer:

Member States should add to the certification and accreditation schemes, those schemes that help assess the different components of an EPCs against a set of reference criteria for the minimum standard that is expected on the market.

### 3.21.A What are the benefits of having the certification and/or accreditation schemes in your country? (multiple options possible)

- It allows ensuring the availability of skills (e.g. providers of energy services, energy auditors, energy managers and installers etc.);
- Allows ensuring quality of energy services offered by energy service providers including energy services companies (ESCOs);
- Increases confidence in the energy services sector;
- Facilitates the development of energy services markets;
- Other (please specify).

### 3.22 How you would assess the effectiveness of the existing certification and/or accreditation schemes in your country?

	Effective	Effective to some extent	Not effective	I do not know/ no opinion
Please select your answer	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your answer:

Although such schemes are more and more available across Member States, their design is not necessarily the most appropriate to really promote certain professions and to ensure technical competence and quality

of services. More focus on the latter should be developed within existing and emerging schemes to make them more effective. Well-developed, accreditation and certification schemes can certify and guarantee the availability, quality and technical competence of energy efficiency experts and services providers. This should help increase awareness about available solutions and their benefits, and thus enhance trust. However, quality criteria and quality checks are often missing in existing schemes and the proliferation of schemes and labels in some countries has generated an increasing complexity, which goes against the original aim of such schemes (which should be to support the development of qualified experts and providers)

**3.23 In your view, has the EED (Article 16) contributed to setting up the certification and/or accreditation schemes and/or equivalent qualification schemes, including training programmes?**

- Yes
- No
- No opinion

Please explain your answer:

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**Article 18 – Energy services**

**3.24 Have the requirements under Article 18 contributed to the development of energy services market in your country?**

- Yes
- No
- No opinion

Please explain your answer:

Art 18 EED contributed to the development of energy services, however barriers persist. In order to effectively stimulate the EPC market in the EU, a transition from a voluntary to a mandatory approach is needed. Article 18 should require that all large non-residential buildings that undergo renovation put in place energy management systems.

The Eurostat Guidance Note on the recording of energy performance contracts in government accounts should be promoted. In order to assess the possibility for an introduction of a scalable and replicable solution for off-balance sheet treatment for energy efficiency investments conceded by private sector companies, the EED should foresee a consultation with relevant stakeholders.

**3.24.A Which were the most important factors that contributed to the development of the energy services market in your country?**

*at most 3 choice(s)*

- Information about energy services has been made available to SMEs and consumers;
- Model for energy performance contracts have been developed and deployed in practice (?);
- Certification and accreditation schemes for energy services providers ensures that the needed skills are available;
- Financing and support mechanisms has been made available;
- Regulatory framework has been properly set;
- Other (please specify).

**3.25 What possible elements should be considered as part of the EED revision to improve the functioning of energy services and energy performance contracting?**

- Introduction of reporting requirements for Member States on the certified energy services providers, number of energy performance contracts concluded in the public sector etc.;
- Introduction of requirements for independent monitoring and verification of energy performance contracts;
- Strengthening of requirements on independent market intermediaries /facilitators/ one-stop shops to increase trust and facilitate the use of energy services/ energy performance contracting;
- Other option(s). (please specify)

If you selected 'other', please explain here:

In order to effectively stimulate the EPC market in the EU, a transition from a voluntary to a mandatory approach is needed. Article 18 should require that all large non-residential buildings that undergo renovation put in place energy management systems. The Eurostat Guidance Note on the recording of energy performance contracts in government accounts should be promoted. In order to assess the possibility for an introduction of a scalable and replicable solution for off-balance sheet treatment for energy efficiency investments conceded by private sector companies, the EED should foresee a consultation with relevant stakeholders.

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**Article 19 – Other measures to promote energy efficiency**

**3.26 How do you perceive the existence of regulatory, legal or administrative barriers to energy efficiency in the following areas:**

	Very significant	Somewhat significant	Not significant	No opinion

Split incentives between the owner and the tenant (s) of a building	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Split incentives between owners in multi-owner properties	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Investments in energy efficiency by individual public bodies prevented due to national or regional rules on public purchasing annual budgeting or accounting	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Please explain your answer:

## Article 20 – Energy Efficiency National Fund, financing and technical support

### 3.27 Has Article 20 facilitated access to finance for energy efficiency projects in your country?

- Yes
- No
- No opinion

Please explain your answer:

We do not dispose of several information concerning the facilitation of financing for EE projects via Art 20. However, we believe that Art 20 is important. Between 2014 and 2020, the EU Cohesion policy allocated a budget of around €14 billion to improve the energy efficiency of buildings across Europe. Even greater amounts are likely to be available for this purpose in the 2020-2027 programming period and in the framework of the EU Recovery and Resilience Plans. To ensure cost-effective use of public funds, Art 20 should condition the expenditure of EE resources to the implementation of energy managements systems or energy audits conducted pre- and post- intervention, and to credible monitoring systems that measure real energy savings.

### 3.28 What was the impact of Article 20 in your country in the following areas?

	Very low	Low	Moderate	High	Very high	No opinion/ difficult to assess
Setting up an Energy Efficiency National Fund or a similar national financial support scheme for energy efficiency in households	<input type="radio"/>	<input checked="" type="radio"/>				

Setting up specific financing facilities for increasing energy efficiency in different sectors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Setting up specific technical support schemes for increasing energy efficiency in different sectors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Dissemination of best practice in the field of financing energy efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Using revenues from annual emission allocations under Decision No 406/2009 /EC for the development of innovative financing mechanisms for improving the energy performance of buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Article 21 – Conversion factors and Annex IV

### 3.29 Should Annex IV on “Energy content of selected fuels for end use” be revised? If so, how?

- Yes
- No
- No opinion

Please explain your answer:

### 3.30 In your view, how could the default Primary Energy Factor (the coefficient referred to in footnote (3) of Annex IV) facilitate decarbonisation?

*1000 character(s) maximum*

The Primary Energy Factor is intended to provide information about the actual efficiency of a given energy mix, to inform investment choices, in particular applied to buildings renovations and construction of new buildings. For the PEF to correctly play this role, its value needs to be based on a robust and transparent methodology, referring to the latest available EU statistics, to be reviewed regularly to account for the changes in the average EU energy mix. Moreover, a well-designed PEF should duly consider upstream energy losses and be based on geographical and seasonal considerations, which have an impact on the real energy mix in use at different times and in different areas. In our view the development of such methodology would greatly help to gather correct information about the efficiency gain of a given energy mix.

This is the end of the survey. Thank you very much for your valuable contribution.

## References

- [1] The Roadmap and Inception Impact Assessment was published on 3 August and was made available for public feedback until 21 September 2020: <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12552-EU-energy-efficiency-directive-EED-evaluation-and-review>
- [2] Regulation (EU) 2018/1999
- [3] Definition provided in Article 18(2) of the Regulation, EU(2018)1999 on the Governance of the Energy Union and Climate Action
- [4] Directive 2010/31/EU
- [5] Regulation (EU) 2017/1369
- [6] Directive 2009/125/EC
- [7] Directive (EU) 2018/2001
- [8] Directive 96/61/EC
- [9] Regulation (EU) 2018/842
- [10] Amending Directive (EU) 2018/2002
- [11] <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>
- [12] Articles 1&3 on headline energy efficiency targets, Art 7 on energy saving obligations, 9-11 on metering and billing, 15(2), 20, 22-24, footnote 3 in Annex IV, Annex V, a new Annex VIIa, Annex IX
- [13] Cf. Article 24(15) and Article 3(6) of the revised EED
- [14] COM(2019) 640 final
- [15] COM (2020) 562 final
- [16] COM(2020) 562 final
- [17] COM/2020/564 final
- [18] COM(2020) 954 final
- [19] A report from the Task Force is available here: [https://ec.europa.eu/energy/sites/ener/files/report\\_of\\_the\\_work\\_of\\_task\\_force\\_mobilising\\_efforts\\_to\\_reach\\_eu\\_ee\\_targets\\_for\\_2020.pdf](https://ec.europa.eu/energy/sites/ener/files/report_of_the_work_of_task_force_mobilising_efforts_to_reach_eu_ee_targets_for_2020.pdf)
- [20] Article 24(15) of the EED requires to carry out a general evaluation by 28 February 2024.
- [21] See <https://ec.europa.eu/info/sites/info/files/better-regulation-guidelines-evaluation-fitness-checks.pdf>
- [22] Notably – but not limited to – the Renovation Wave initiative (COM(2020) 632), given that a significant share of energy and resource savings are expected to come from renovation of buildings, the EU Strategy for Energy System Integration (COM(2020) 299 final), the Digital Strategy (COM(2018) 7118 final), the forthcoming Zero Pollution Action Plan and new Circular Economy Action Plan (COM(2020) 98 final). Energy efficiency is relevant especially in the context of actions identified in the Commission's Recovery Plan[1], which need to be reflected in the national Recovery and Resilience Plans.
- [23] COM(2020) 456 final
- [24] SWD(2016) 402 final
- [25] See [https://ec.europa.eu/energy/sites/ener/files/documents/3\\_en\\_autre\\_document\\_travail\\_service\\_part1\\_v3.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/3_en_autre_document_travail_service_part1_v3.pdf)
- [26] While removing thermal energy from the original provisions thereby restricting their scope to electricity and gas. Subsequently also electricity has been removed from their scope and instead regulated under the provisions of the recast Electricity Directive (EU) 2019/944: [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\\_.2019.158.01.0125.01.ENG&toc=OJ:L:2019:158:TOC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2019.158.01.0125.01.ENG&toc=OJ:L:2019:158:TOC)
- [27] See e.g. section 1.1. and 1.3 of the annex: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1574946822907&uri=CELEX:32019H1660>
- [28] C(2019) 6625 final
- [29] [https://ec.europa.eu/energy/sites/ener/files/final\\_report\\_of\\_assessment\\_of\\_the\\_implementation\\_status\\_and\\_effectiveness.pdf](https://ec.europa.eu/energy/sites/ener/files/final_report_of_assessment_of_the_implementation_status_and_effectiveness.pdf)
- [30] [https://publications.jrc.ec.europa.eu/repository/bitstream/JRC115314/assessment\\_of\\_progress\\_made\\_by\\_member\\_states\\_in\\_relation\\_to\\_article\\_19\\_final.pdf](https://publications.jrc.ec.europa.eu/repository/bitstream/JRC115314/assessment_of_progress_made_by_member_states_in_relation_to_article_19_final.pdf)

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