

## EPEE CONTRIBUTION TO THE EU CONSULTATION ON THE EED REVIEW

JANUARY 2016

*The key messages of the EPEE contribution to the EU consultation the EED review include:*

- *The necessity to couple renewable energies and demand side flexibility measures*
- *The necessity to include better monitoring and obligations on sizing, installation, maintenance and control*
- *The necessity to continue measures (in particular Art. 7) after 2020 and revise the related targets*
- *The necessity to fully implement and enforce existing legislation*
- *The necessity for cross-referencing, where appropriate, with other measures in particular with EPBD*

### Part I – General questions

#### **1. Article 1: Subject matter and scope and Article 3: Energy efficiency target**

##### **1.2. How has the EED worked together with the Effort Sharing Decision, other energy efficiency legislation (on buildings, products and transport) and ETS? Could you describe positive synergies or overlaps?**

In a nutshell, the following key improvements and synergies of existing legislation offer major potential to increase the energy performance of buildings and indirectly, achieve the EU energy efficiency target for 2030:

- EED Art 8 should include a requirement on regular maintenance to allow for constant monitoring and subsequent optimization of the technical building systems. It should also include an obligation to properly consider the cost-efficient recommendations from the energy audits and to implement such measures, which could be linked to financial and fiscal incentives.
- Energy Audits under EED Art 8 should be used to assess technical building systems and fulfilment of maintenance requirements (EPBD Art 4, 8, 14/15) on the building portfolio, and being made mandatory.
- NZEB requirements under EPBD Art 9 should first be extended to all public buildings (EED Art 6 and 5) and secondly to all renovations (EED Art 4).

##### **1.4. What are the main lessons learned from the implementation of the EED?**

There are two main lessons learned from the implementation of the EED. The first one is that the implementation of the EED matters, in the sense that its implementation has an impact. The second is that the implementation of specific measures is difficult e.g. renovation rates.

### **1.5. Which factors should the Commission have in mind in reviewing the EU energy efficiency target for 2030?**

The 2030 target should be reviewed using a proper Impact Assessment as a basis. Various studies have shown that the cost-efficiency of energy efficiency target level is much higher than the agreed 27% (Fraunhofer ISI<sup>1</sup> & Ecofys study<sup>2</sup>). A 40% binding energy efficiency target would send the right signal.

In particular, the following points would contribute to achieving a higher target:

- The implementation and enforcement of existing legislation;
- The contribution of non-residential buildings: for example, Art. 8 should include an obligation to implement recommendations resulting from the energy audits;
- A connection between emission targets, energy supply and inclusion of renewable energies needs to be made to ensure enough flexibility on the demand side taking into account fluctuations of energy supply resulting from the increased use of renewable energies. Thermal networks and thermal connectivity e.g. with heat pump technology play an important role in that context.

### **1.6. What should the role of the EU be in view of achieving the new EU energy efficiency target for 2030?**

The EU should ensure that all EU legislations which have a potential in achieving energy savings – EED, EPBD, and RED – are coherent and correctly implemented. To do so, the EU should set specific measures supporting the achievement of the Energy Efficiency targets; set some underlying ‘must win’ targets, such as building up of demand side flexibility (DSF); and ensure that measures are followed up by assessment and focus on the removal of barriers in the Member States.

Knowing that the Governance system of the Energy Union foresees a comprehensive reporting of national energy plans by the Member States, the EU will have a very important role in making sure that these plans are consistent with the overall Energy Union and that they fulfil EU legislative requirements. Overall, the governance system should allow the Commission to follow national implementation and enforcement of EU legislation, particularly on energy efficiency, which will feature as a part of the overall energy plan.

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<sup>1</sup> Analysis of a European Reference Target System for 2030, Fraunhofer ISI, October 2013, [http://energycoalition.eu/sites/default/files/Fraunhofer%20ISI\\_ReferenceTargetSystemReport.pdf](http://energycoalition.eu/sites/default/files/Fraunhofer%20ISI_ReferenceTargetSystemReport.pdf)

<sup>2</sup> Costs and Benefits of Energy Efficiency Targets, ECOFYS, November 2015, [http://www.foeeurope.org/sites/default/files/energy\\_savings/2015/ecofys-costs-benefits-e-efficiency-targets-231115.pdf](http://www.foeeurope.org/sites/default/files/energy_savings/2015/ecofys-costs-benefits-e-efficiency-targets-231115.pdf)

**1.7. What is the best way of expressing the new EU energy efficiency target for 2030:**

- Expressed as energy intensity
- Expressed in an absolute amount of final energy savings
- Expressed in both primary and final energy consumption in 2030
- Expressed only in primary energy consumption in 2030
- Expressed only in final energy consumption in 2030
- Other (please specify)

**1.8. For the purposes of the target, should energy consumption be:**

- Expressed as energy, regardless of its source (as now)
- Expressed as avoided non-renewable energy
- Expressed as avoided fuel-use (but including biomass)
- Other (please specify)

Primary and final energy consumption are basic measures

## **2. Article 6: Purchasing by public bodies of energy efficient buildings, goods and services**

**2.1. In your view, are the existing EU energy efficiency requirements for public procurement sufficient to achieve the needed impact of energy savings?**

No. The article 6 of the EED is restricted to ‘central government’ purchasing, which is a very narrow scope thereby greatly limiting the EED’s impact. Although Member States are supposed to encourage all public authorities to follow similar rules, it is yet unclear whether this has had any effect.

Most of the national procurement rules that implement this article have only been in place since 2014 so further impact can be difficult to assess. However, EPEE members are aware of these rules in several countries and perceive they are starting to have an impact.

As a result, EPEE believes that the requirements of Article 6 should be extended to all public authorities, and clear performance levels should be set for buildings. All buildings newly built or rented by public authorities should meet Nearly Zero Energy standards by 2018 as required in EPBD.

**2.2. How could public procurement procedures be improved in the future with regard to high energy efficiency performance?**

EPEE believes a cross reference to Article 67 of the public procurement Directive shall be made in Article 6 and Annex III EED ensuring that contracting authorities base the award of public contracts on total cost of ownership.

EPEE believes that the EPBD nZEB target should be applied to all public buildings in EED. Moreover, this represents a good moment to establish coherence between EED and EPBD, and provide a clear definition and guidance regarding calculation methodologies for.

Regarding services, we would like to highlight the role of maintenance to achieve energy efficiency targets. The current scope of the requirements applicable to services as set out in point e of Annex III is very limited. Considering the impressive untapped potentials related to the use of building automation technologies, the monitoring of building operational performance could be made mandatory for sizeable energy users in the public buildings segment.

### **3. Article 7: Energy efficiency obligation schemes**

#### **3.1. Are you aware of any energy efficiency measures that have been carried out or are planned in your country, by the utilities or third parties in response to an energy efficiency obligation scheme?**

Yes. The French Government reports that the implementation of Article 7 included operations of which 90.1% were performed in the building sector, as confirmed by a study conducted by Ricardo Consulting on the implementation of Article 7, demonstrates that measures taken at the national level focus on the building sector. More specifically, 48% of expected and notified energy savings will come from improvements made in buildings<sup>3</sup>. The French government notified the following energy saving initiatives and policies to the Commission: the Energy Savings Certificates; the Sustainable Development tax credit; the 0% interest rates Eco-Loan; and the Energy Passports & Renovation guarantee fund. In particular, the Energy Savings Certificates initiative appear to be the most efficient tool of the national energy saving arsenal<sup>4</sup>.

#### **3.2. In your view, is Article 7 (energy efficiency obligation scheme or alternative measures) an effective instrument to achieve final energy savings?**

Yes, the mapping of Energy Efficiency opportunities is forcing local utilities to put in place energy efficiency measures directly and to put a value on it.

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<sup>3</sup> Study evaluating the national policy measures and methodologies to implement Article 7 of the Energy Efficiency Directive, February 2015, <http://rekk.hu/downloads/projects/Final%20Report%20on%20Article%207%20EED.pdf>

<sup>4</sup> Information letter on Energy Certificates, Ministry of Sustainable Development, Energy and Environment, October 2015, p. 1, [http://www.developpement-durable.gouv.fr/IMG/pdf/151001\\_Lettre\\_d\\_information\\_CEE.pdf](http://www.developpement-durable.gouv.fr/IMG/pdf/151001_Lettre_d_information_CEE.pdf)

Article 7 is the only article in the EED which holds MS accountable to a measurable and significant outcome, while allowing for some flexibility in the choice of instruments. This is why we recommend to delete the ‘sunset clause’ and extend the article beyond 2020; this will incentivise the creation of long-term measures and national schemes to deliver energy savings.

Because it seems unlikely that the 1.5% annual energy saving target will be achieved, we recommend to the Commission to be more precise in the way this target can be achieved. Measures could include minimum mandatory energy efficiency measures in the building sector (. Deploying renewable energy in buildings, through energy efficiency technologies such as Heat Pumps or solar energy combined with condensing boilers, would represent a no regret option.

**3.3. What are, in your view, the main challenges or barriers to implementing Article 7 effectively and efficiently in your country? Please select up to 5 options from the list.**

- To select or introduce the right set of measures for achieving 1.5% energy savings (annually)
- Too great flexibility to use wide range of measures: energy efficiency obligation scheme and alternative measures
- Strong opposition from energy suppliers and distributors to set up an energy efficiency obligation scheme
- Lack of effective enforcement
- Lack of sufficient knowledge and skills of involved parties
- Lack of awareness (by the end-users) of the energy efficiency obligation schemes or alternative measures
- Developing the calculation methodology in line with the requirements of Annex V
- Ensuring sound and independent monitoring and verification of energy savings
- Avoiding double counting
- High administrative burden
- Ensuring consistent application of the requirements with other energy efficiency legislation (e.g. building codes)
- Limited timeframe (2014-2020) that makes it hard to attract investment for long term measures
- Other (please specify)

**3.4. Do you believe that the current 1.5% level of energy savings per year from final energy sales is adequate?**

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- No opinion

According to the Impact Assessment on the 2030 framework published in January 2014, a scenario with GHG40/EE30 implies a 2% target for EEOS between 2020 and 2030. This figure should be kept in mind when the EED is revised as simply lifting the “sunset clause” will not be sufficient for the EU to reach its 2030 target. Because of the extensive flexibility and derogations allowed by Article 7, the savings being achieved through the application of the Article are not currently at 1.5%, but rather at 0.8%. This leads to a missed savings opportunity.

In addition, the possibility to account for demand side flexibility (DSF) in the achievement of the target shall be assessed. DSF could count as savings in so far as they are allowing efficient use of energy thereby allowing for a certain amount of renewable energies to be fed into the system. DSF also contribute to energy efficiency by discouraging consumption at times of peak demand.

**3.5. Should energy efficiency obligation schemes have specific rules about energy savings amongst vulnerable consumers?**

Yes, we believe that monitoring and ensuring return on investments should pave the way to financing schemes for vulnerable consumers.

## **4. Articles 9-11: Metering, billing information and cost of access to metering and billing information**

**4.1. Overall adequacy: Do you think the EED provisions on metering and billing (Articles 9-11) are sufficient to guarantee all consumers easily accessible, sufficiently frequent, detailed and understandable information on their own consumption of energy (electricity, gas, heating, cooling, hot water)?**

No. The need for information is wider than just smart meters and include building automation technologies as a whole. The installation of active control systems shall be encouraged at the same level as intelligent metering systems. Article 9 shall also specify that consumers shall be charged for their actual consumption and not by square meters, otherwise there is no incentives for behaviour change.

**4.3. Should such conditions of being technically feasible and/or cost effective be harmonised across the EU?**

Yes, we believe that such conditions of being technically feasible and/or cost effective should be harmonised across the EU in a way that such harmonisation facilitates a common transparent market for demand side flexibility (DSF). In addition, it should be required, when heat cost allocators are installed in accordance with Article 9(3), which they are built together with valves and radiator sensors.

**4.4. How would these conditions of being technically feasible and/or cost effective affect the potential for energy savings and consumer empowerment?**

Yes, consumers could be remunerated for their participation in demand side flexibility (DSF) and they could also be encouraged to utilise excess capacity (cooling and heating or electricity generation).

## **5. Article 20: Energy efficiency national fund, financing and technical support**

**5.1. What should be the most appropriate financing mechanisms to significantly increase energy efficiency investments in view of the 2030 target?**

Today, incentives for energy efficiency and incentives for technologies using renewable energy are treated separately, without taking into account the overall building's consumption and how to reduce demand. In reality, the two incentives could be combined into one energy efficiency incentive system, based on a single energy efficiency calculation from external energies.

A more general perspective on financing would be to treat public investments and subsidies for energy efficiency and renewable flexibility till 2030 outside of the Maastricht budget criteria.

From another perspective, by making efficient building technologies mandatory including the service to check their efficiency, Member States would not have to subsidize the energy efficiency measures as the generalisation of high efficiency equipment and systems would make prices drop. In addition, a single market with a lot of high efficient equipment will make European manufacturers more competitive abroad.

**5.2. Should there be specific provisions aimed at facilitating investment in specific areas of energy efficiency?**

Yes

 Building renovation

- Efficient appliances and equipment in households
- District heating and cooling network development
- Energy use by industries
- SMEs
- Companies
- City and community infrastructures in relation to transport, waste heat recovery, waste-to-energy
- Other (please specify)

Thermal networks and thermal connectivity of prosumers.

**5.3. Do you agree that one way to increase the impact of energy efficiency investments could be through making the energy performance/savings monitoring mandatory under Article 20 whenever public funds/subsidies are used for EE investments? Such monitoring could be done, for example, via on-line platforms, by users in the regular intervals.**

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- No opinion

## **6. Article 24: Reporting and monitoring and review of implementation**

**6.1. Do you think that the existing reporting and monitoring system under the EED is a useful tool to track developments with regard to energy efficiency in Member States?**

No. The national reports stemming from EED (and also EPBD) should be streamlined and harmonised so that stakeholders can better understand national situations and compare energy policy choices in various member states. Efficient reporting and monitoring systems are simply necessary to fully implement and enforce existing legislation.

The planned Governance system of the Energy Union could bring about a streamlined reporting of member states' energy plans – that would also highlight the fact that energy efficiency legislation needs to be part of the national energy plan and how it needs to be taken into account when any new energy infrastructure and policy priorities are decided.

## Part II – Technical questions (on Articles 6 and 7)

### **7. Article 6: Purchasing by public bodies of energy efficient buildings, goods and services**

#### **7.1. Do you believe that measures on public procurement of energy efficient products, services and buildings should become mandatory also for public bodies at regional and local levels?**

Yes, as it is the easiest way to ensure enforcement. There should also be clear guidance on how such procurement should be done, and how energy efficiency should be measured to ensure technology neutrality and that the cost of the energy consumption of the 'use phase' is included, in line with Article 67 of the new public procurement Directive 2014/24. We believe a cross reference to Article 67 of the public procurement Directive 2014/24 shall be made in Article 6 and Annex III EED thereby ensuring that contracting authorities base the award of public contracts on total cost of ownership.

#### **7.4. Do you think that there is sufficient guidance/framework to know what is meant by "energy efficient products, services and buildings"?**

No. The guidance is not always harmonised and clear for public authorities. Regarding services, the energy efficiency of equipment is ensured through regular servicing and maintenance. This should be taken into account when public authorities tender for technical building systems or entire buildings, and should be included in the contract. The current scope of the requirements applicable to services as set out in point Annex III is very limited. Considering the impressive untapped potentials related to the use of building automation technologies, the monitoring of building operational performance could be made mandatory for sizeable energy users in the public buildings segment. Cost-effective renovation could also be made mandatory for public buildings within the framework of EPCs. In addition, the extension of the scope of Article 8 EED on energy audits to public authorities shall be assessed in particular for publicly owned educational buildings where the savings potential are very high.

#### **7.5. While energy efficient products will be cheaper to operate, their initial cost might be higher and a longer period of time will be needed to "pay back" this higher cost. Is this a problem and if so, how can public authorities overcome it?**

Public authorities could overcome this hurdle by basing their financing on payback via monitoring or ESCO engagements. Furthermore, tenders for public procurement should include the cost of the energy consumption of the 'use phase' in line with Article 67 of the public procurement Directive 2014/24 as stated above.

## 8. Article 7: Energy efficiency obligation schemes

### 8.1. Emerging evidence suggests that most of the measures introduced under Article 7 have long lifetimes (20-30 years) and will continue have an impact beyond 2020. Do you share this view?

Yes and No. While passive improvements such as insulation may yield those lifetime performances, HVACR system efficiency performances are dependent on maintenance. As a result, their energy savings performances are conditioned to monitoring and maintenance schemes. Furthermore HVACR systems typically have lifetimes that are shorter – around 10-15 years.

### 8.2. What is your view on the potential benefits (listed) of energy efficiency obligation schemes?

	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
Lower energy bills for consumers	X				
Better awareness of energy efficiency potential by consumers					X
Better relationship between energy suppliers, distributors and customers		X			
Lower energy generation (and transmission) costs for the utilities		X			
Improved business and administrative environment for up-coming innovative energy services		X			
Aggregation of small-scale investments (pooling/bundling)		X			

Development of new financing models – e.g. energy performance contracting		X			
Stimulation of energy efficient renovation of buildings	X				
	There are significant numbers of building measures implemented to reach the 1.5% target. Ricardo AEA (2015) estimates that 48% of the savings from article 7 sector in buildings specifically.				
Increased competitiveness in the energy markets					X
Other					

**8.4. If you think that some requirements of Annex V need more precise guidance please list those requirements and specify briefly what further information you think would be useful.**

There has been a high focus on passive measures (building envelope), thus missing the active measures e.g. technical systems (heating and cooling), control functions and continuous monitoring which present considerable energy savings potential with lower upfront investment (typically 30 € per m<sup>2</sup>) and short return on investment of around 2-3 years<sup>5</sup>. For this reason, as the energy efficiency obligation schemes

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<sup>5</sup> eu.bac

play a key role in retrofitting the building stock, we recommend that additional sub-clause should be added in Annex V to reflect the above observation.

**8.5. As you might know, the current framework of Article 7 is set until 2020, linked to the energy efficiency target for 2020, which will expire at the end of 2020. In your view, should the Article 7 obligations continue beyond 2020 in view of the new energy efficiency target for 2030?**

Yes

- The amount of savings to be achieved should be set at a more ambitious level for post 2020 (exceeding the existing 1.5%)**
- The energy efficiency obligations scheme should be kept as the only possible instrument to achieve the required savings
- The possibility to choose between the energy efficiency obligations scheme and/or alternative measures should be retained
- The possibility to exclude sales in transport from the baseline should be removed
- The possibility to exclude sales in transport from the baseline should be kept but restricted to the fixed amount to ensure the level playing field
- The exemptions under paragraph 2 – applying a lower calculation rate (for the first years), and excluding sales in ETS industries, as well as allowing savings from measures targeting energy generation and supply – should be removed altogether
- The exemptions under paragraph 2 should be retained but the level and number of exemptions should be reviewed** → We are down the road now and soft implementation measures is non-sense. The many exemptions and alternative make the whole EED and its targets weaker.
- The possibility for 'banking and borrowing' energy savings from different years should be removed (paragraph 7(c))** → We are down the road now and soft implementation measures is non-sense.
- The possibility for 'banking and borrowing' energy savings should be kept with a possibility to count savings towards the next obligation period (paragraph 7(c))
- Other (please specify)** → Energy savings could be accompanied by alternative demand side flexibility (DSF) measures. DSF could count as savings in so far as they are allowing for a certain amount of renewable energies to be fed into the system. In addition, the scope of eligible measures allowed under Article 7 should be clarified and expanded.

**8.6. Do you think that the scope of eligible measures allowed under Article 7 should be clarified?**

Yes, if Article 7 is modified and new measures are introduced then clarification will be needed.

**If yes, please explain your answer further:**

- The scope of eligible measures should only be end-use energy savings (as it is at the moment)
- The scope of eligible measures should be expanded to include DSF (demand side flexibility)
- Other (Please specify)

**If the scope should be expanded, please specify which of the following possibilities would be appropriate:**

- Measures to switch fossil fuel heating and cooling fully or partially to renewable energy (e.g. through individual appliances, district heating and cooling, centralised distributed units supplying larger building complexes or groups of buildings)
- Measures to increase efficiency of district network infrastructure and generation, including through thermal storage facilities
- Measures to make energy generation from small scale generation more efficient, below the ETS threshold
- Switch to self-consumption, auto-generation and energy positive buildings
- Participation in demand response, including from providing storage capacities
- Primary energy savings from the utilisation and recovery of waste heat (e.g. in district networks)
- Savings from energy management systems
- Energy savings from better organisation of activities
- Other (please specify)

**8.7. Would there be benefits in greater harmonisation of some of the requirements of Article 7 to allow more consistent implementation across Member States?**

Provision of Article 7/Annex V	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
Calculation methods	X				

Materiality					X
Additionality					X
Lifetimes			X		
Price demand elasticities <sup>6</sup> for taxation measures in real terms	X				
Indicative list of eligible energy saving measures	X				
Monitoring and verification procedures		X			
Reporting		X			
Other					

**8.8. Please state which best practice examples could be promoted across the EU and how?**

Please see answer 3.1

**8.10. Would it be appropriate and useful to design a system where some types of energy savings achieved in one Member State would count towards obligations carried out either by governments or by economic operators in another country, just as the option to cooperate on greenhouse gas emissions reductions already exists?**

In principle obtaining the highest impact per investment in the EU makes sense. Monitoring and following up would be more difficult across borders. If such a certificate is established, then it should only be for a certain amount and it should be traceable e.g. 10%-20%.

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<sup>6</sup> Price demand elasticity is a measure used in economics to show the responsiveness, or elasticity, of the quantity demanded of a good or service.

**8.11. Would it be appropriate and useful to design a system where energy efficiency obligations would also include elements aiming at gradually increasing the minimum share of renewable energy applicable to energy suppliers and distributors?**

Yes, as pointed out previously, efficiency in the long-term may be endangered if renewable energies / demand side flexibility are not included in the balance share.

**8.12. Could the option of establishing an EU wide 'white certificate' trading scheme be considered for post 2020?**

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- No opinion

In principle this makes sense to obtain the highest impact per investment in the EU. The monitoring and follow up would face larger difficulties across borders. If such a certificate is established, then it should only be for a certain amount and it should be traceable e.g. 10%-20%.