Position Papers

Clean Energy for All Europeans package

Revision of the Energy Efficiency Directive (EED)

Revision of the Energy Performance of Buildings Directive (EPBD)

By the European Alliance to Save Energy

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EUROPEAN ALLIANCE TO
SAVE ENERGY
Creating an Energy-Efficient Europe

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POSITION PAPER # 1

Clean Energy for All Europeans package: a horizontal opportunity for the implementation of the «Efficiency First» principle

The "Clean Energy for All Europeans" package proposed by the European Commission on 30 November 2016 is an important step forward in implementing the EU's Energy Union strategy and in supporting the EU's energy transition towards a carbon-neutral society by early mid 21st century.

The European Alliance to Save Energy (EU-ASE) firmly believes that the most cost-effective way to achieve the objectives of the Energy Union strategy is to place the "Energy Efficiency First" principle strategically across the various legislative dossiers of the package, i.e. wherever they make the most economic sense and provide maximum benefits to citizens, energy efficiency investments should be prioritised over investments in additional and unnecessary generation, transmission and distribution capacity.

Energy efficiency leads not only to monetary savings but to monetary gain and represents a clear business opportunity with a high return on investment (ROI). In addition, it provides tangible benefits to consumers through reduced energy bills, the generation of local jobs, a healthier indoor climate, improved air quality, energy security and higher productivity.

Both the long-term horizons (2030 and 2050) of some provisions and the proposal to draft "Integrated National Energy and Climate Plans" under the Governance 2030 Regulation can help in creating a holistic framework wherein energy efficiency is a key part of the energy transition. If properly defined and implemented, this framework could render the EU as an attractive market for energy efficiency investments.

We welcome, in particular, the proposed EU binding target for energy efficiency, because it will provide a clear market signal to the industrial and financial community and ensure a long-term framework for investments.

Although the proposals are a good starting point, however, work still needs to be done to improve their coherence and, in certain cases, increase their ambition. We look to both the European Parliament and Council to realise the full potential of these proposals in the forthcoming legislative co-decision procedure.

The following position papers outline our key policy recommendations to the Commission's proposals on the Energy Efficiency Directive (EED) and Energy Performance of Buildings Directive (EPBD).

The most cost-effective way to achieve the objectives of the Energy Union strategy is to place the "Energy Efficiency First" principle strategically across the various legislative dossiers of the package

The proposed EU binding target for energy efficiency will provide a clear market signal to the industrial and financial community and ensure a long-term framework for investments

POSITION PAPER # 2

Revision of the Energy Efficiency Directive (EED)

The Energy Efficiency Directive (EED) (2012/27/EU) is the EU's flagship legislation setting a framework for EU and national energy efficiency policies and measures to achieve the 2020 energy efficiency target.

EU-ASE welcomes the revision of the EED and calls upon the European Parliament and Council to consider the following recommendations with regard to two items:

1) the 2030 energy efficiency target (art. 1 & 3)

2) the energy savings obligation (art. 7)

1) 2030 ENERGY EFFICIENCY TARGET (ART. 1 & 3)

Keep the binding nature of the EU target to strengthen investor confidence

- A long-term EU binding target provides Member States with a clear direction to plan policies and set up energy efficiency strategies. Businesses need a clear and stable long-term framework at the European level to catalyse energy efficiency investments, which are a precondition to creating innovation. A binding target provides investment certainty and increases investor confidence.
- EU-ASE welcomes the binding nature of the target and strongly supports a transparent definition of national targets. Such targets should take into account their national cost-effective potential, progress they have made in increasing energy efficiency thus far, and the Union's 2030 energy efficiency target, which **must be expressed both in primary and final energy consumption.**
- A binding EU target enables regular monitoring and evaluation of both national and collective progress towards the achievement of the EU 2030 target and allows for ramping up of policies when needed.
- The **EU target on energy efficiency must be underpinned by dedicated policies and measures,** without which an optimal framework for enhanced energy efficiency cannot be created.

Increase the level of ambition

- The energy efficiency target should reflect the cost-effective potential for energy savings in key sectors at EU level. To contribute sufficiently to our COP21 commitment, the current linear annual increase at 1.5% of energy productivity must be maintained and increased all the way to 2030, and **we should head towards a 40% energy efficiency target.**

  This ambition is based on an in-depth evaluation of the aggregated savings potentials in key sectors (residential: 61%; transport: 41%; tertiary: 38%; industry: 26%)[1] . It is also in line with the position expressed on several occasions by the European Parliament during the current legislature and with the 2015 IEA estimate that, in Europe, approximately 70% of emissions cuts to stay below two degrees (2 °C) will need to come from energy efficiency.

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(1) *Fraunhofer ISI (2013): "Analysis of a European Reference Target System for 2030". The study is based on the most detailed bottom-up assessment of the cost-effective energy savings potentials, which considers dynamic aspects in the uptake of technologies. Fraunhofer ISI, together with pwc and TU Wien prepared a new report for the 2016 Impact Assessment of DG ENER which states that, using low discount rates, economic potentials may be 37% in 2030 for final energy and 40% for primary energy.*

2) ENERGY SAVINGS OBLIGATIONS (ART. 7)

Support the extension beyond 2020 of the 1.5% national savings obligation

- The requirement to increase energy savings by 1.5% per year under art. 7 is a central provision of the EED. The Commission estimates that approximately half of the additional savings needed to achieve a 30% energy efficiency target in 2030 will come from its extension beyond 2020.
- Art. 7 EED has triggered Member States to increase their endeavours towards efficiency policies and measures, including ESCO business models, leading to a "pulling" effect that has triggered savings, in particular for some business sectors directly involved in building renovation.
- The extension of the obligation period beyond 2020 to 2030 (and further) will create greater stability for investors and businesses working in the energy efficiency market, including ESCO business models, and support the emergence of new market actors. Cumulative saving periods will encourage investments with longer payback times.
- To ensure synergies and consistency across the package, the measures reported under art. 7 should also consider longer-term energy and climate goals. For example, **the definition and implementation of measures under art. 7 should have a strong alignment with art. 2.a EPBD** (the Member States' long-term building renovation strategies aimed at achieving a highly energy efficient, decarbonised building stock by 2050) in order to increase the building renovation rate and depth through the uptake of energy efficient solutions.

Promote actions to increase cost-effective energy savings

- The new formulation of art. 7 is much more straightforward than the current text. It is now clear that Member States can achieve the required energy savings through an energy efficiency obligation scheme (art. 7a), alternative measures (art. 7b), or a combination of both approaches. **EU-ASE supports this flexibility, because it offers Member States the ability to better adapt to different contexts and traditions while ensuring that the cumulative annual end-use energy savings target of 1.5% is maintained and actually achieved by Member States.**
- To date, the combined effect of the exclusions (from the baseline) and exemptions (up to 25%) have resulted in cumulative energy savings that correspond to only about half (0.75%) of the actual annual saving rate of 1.5%. While some of these provisions were intended to provide greater flexibility to Member States, evidence shows that Member States have used them simply to statistically reduce the target.
- It is **important that art. 7 EED promotes energy savings both in terms of primary and final energy.** In this sense, EU-ASE welcomes that Member States can count end-use savings as well as savings achieved in the energy transformation, distribution and transmission sectors - including efficient district heating and cooling infrastructures - towards the 1.5% national saving obligation target.
- With the current revision, any statistical tricks that might reduce this annual goal should be avoided. We believe that **new savings achieved from 1 January 2021 to 31 December 2030 must be additional to business as usual and must be evaluated against a transparently defined baseline.**

POSITION PAPER # 3

Revision of the Energy Performance of Buildings Directive (EPBD)

The Energy Performance of Buildings Directive (EPBD) (2010/31/EU) led to an overall modernisation of national regulations in the building sector and set requirements for new buildings. Its implementation, which is still underway and not optimal in many Member States, illustrates the importance of setting goals in advance to support change in a multi-stakeholder sector. However, the current EPBD does not sufficiently address the existing building stock, as recognised by the European Commission. The revision process is, therefore, an opportunity to tackle renovation through targeted legislation and financial incentives.

EU-ASE welcomes the review of the EPBD and calls upon the European Parliament and Council to consider the following recommendations, notably on two items:

1) the long-term renovation strategy (art. 2a)

2) technical building systems (art. 2.3, 8, 14 & 15)

1) LONG-TERM RENOVATION STRATEGY (ART. 2A)

Focus on the cost-effective potential of building renovation

- Existing buildings represent one of the largest opportunities for energy savings. Although buildings consume 40% of final energy in Europe, 75% of them were constructed with low (or no) energy efficiency requirements.
- Increasing the rate, quality, and effectiveness of building renovation is one of the biggest challenges for the coming decades. Building renovation cycles happen only every +30/50 years and the current rate of renovation is very low at 0.4–1.2% of the building stock per year. This indicates that art. 4 EED by itself has not sufficiently driven renovation activities since 2012 and that additional measures should be taken in the framework of the EPBD revision to speed up this process.
- Meeting the 2030 energy efficiency target requires a clear focus on renovation; therefore, EU-ASE calls on EU institutions to seize the opportunity provided with this revision to **put existing buildings at the centre of the EU's energy efficiency strategy**. In addition, renovation works and energy retrofits add almost twice as much value as the construction of new buildings, and construction SMEs contribute more than 70% of the value added in the EU building sector.[2]

Set a reliable and coherent EU framework for the definition of national long-term renovation strategies

- For greater consistency, **the Commission fittingly proposed to move art. 4 EED on building renovation to this Directive**, while including in the new article a vision for the decarbonisation of buildings by 2050.
- However, **the formulation of this new art. 2a EPBD is vague and must be strengthened with real Key Performance Indicators (KPIs)** to guide Member States in their planning and reporting efforts.

  Consequently, in our view:

  » The "Energy Efficiency First" principle must be firmly applied to buildings. A reduction of energy consumption through energy efficiency measures must be prioritised. Unfortunately, the Commission's proposal does not provide any definition on **the long-term 2050 goal to "decarbonise" the national building stock**. The concept **must be clarified to ensure that priority is given to measures and actions that reduce the energy demand of the EU building stock by 80% by 2050 compared to 2005 levels in the most cost-effective way**. The "Energy Efficiency First" principle should be reflected in this sense.

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(2) *Joint Research Center (2015): "Energy Renovation: The Trump Card for the New Start for Europe".*

- » Reliable long-term renovation strategies will provide businesses and the financial community with the necessary legal certainty and stable framework to boost investments in the building sector. **Member States shall identify a reliable renovation roadmap with intermediary mandatory milestones (renovation targets) to achieve mid-term and long-term objectives (2030, 2040, and 2050)**.
- » The national strategies must **cover the renovation of the entire national stock of residential and commercial buildings (both private and public). A differentiated approach and targets for buildings categories must be identified** to take into account cost competitiveness and streamline the mobilisation of financing.
- » **Trigger points for building renovation shall be also introduced by Member States in line with their legal framework and local conditions[3]** in order to maximise other investments occurring in the lifetime of the building - as is already happening in France, The Netherlands and the United Kingdom.
- » The suggested Annex I "General Framework for Integrated National Energy and Climate Plans" of the Governance 2030 Regulation proposes a binding template for Member States and sets national requirements for these renovation strategies. However, it lacks provisions on their transparent definition and involvement of the business/financial community, which are crucial conditions to ensure an alignment with the rapid evolution that the building sector is undergoing and to promote and upscale energy efficiency actions. **A requirement on stakeholder participation should be introduced to facilitate the development of the plans and their ownership by the business/financial community and society at large.**

- Renovation strategies should be planned within each specific national energy transition context so that the most effective options can prevail. The EPBD should indicate clearly the advantages of **planning in terms of districts and entire energy systems, rather than focusing only on individual buildings**, and should invite Member States to draft national renovation plans accordingly in order to reap the full potential of high-efficiency energy supply solutions and maximise the energy saving potential of the entire energy chain. In particular, when planning national renovation strategies, Member States must consider the positive contribution and great untapped potential of high-efficiency alternative solutions for heating and hot water provision to buildings, such as decentralised renewable (on-site and nearby) energy supply used in district heating and cooling and cogeneration.

Unlock the needed private investments in the building sector

- Accelerating investments in building renovation is key to supporting the actual implementation of national plans and increasing the current annual renovation rate. **Developing a long-term policy**

(3) *For example, Member States should decide the most appropriate trigger points (i.e., sale, rental, change of use, etc.) as well as which segment of the building sector they want to tackle first (i.e., commercial or private stock, social housing).*

(4) *As the International Energy Agency (IEA) outlined in its 2016 Energy Efficiency Market Report, in 2015 investors directed USD$221 billion into energy efficiency improvements - up 6% from 2014. Efficiency investments comprised 14% of the USD$1.6 trillion spent globally on energy last year, two-thirds higher than investment in conventional power generation.*

objective with clearly identified KPIs for the energy performance of the building stock would give the financial sector sufficient confidence to invest.

- The EU has increased the amount of public funds available for climate action. Private investors, representing a capital of $60 trillion at global level, are keen to invest in green businesses[4] . These resources must be unlocked and driven towards energy efficiency. **Making energy efficiency of (residential and non-residential) buildings an infrastructure priority**, as is already the case in Scotland, would contribute to attract the estimated €60–100 billion needed to be invested annually.
- Building renovation is still limited to small and jeopardised projects in fragmented residential buildings. To foster building renovation strategies, this issue must be addressed first while empowering and engaging end-users. In this sense, art. 2a.3 must be further strengthened. The Commission already correctly refers to three major challenges and opportunities for energy efficiency financing: a) more effective use of public funding, b) aggregation and assistance for project development, and c) de-risking energy efficiency investments[5] . **It is crucial to substantiate this article to make clear that national renovation strategies must be linked to existing (public and private) financial schemes and initiatives to support their achievement.**
- A renovation strategy enabling the unlocking of the investment needed for both short and long pay-back measures will facilitate the implementation of works that meet occupant expectations in terms of comfort and ensure the best results in terms of energy savings and CO2 emission reductions. As recently highlighted[6] , it is through a combination of building envelope renovation and active technologies that ambitious outcomes can be obtained, in line with the goal to reach an efficient and decarbonised building stock. Notably, a highly performing building envelope has a fundamental role to play in guaranteeing individual comfort and well-being of the occupants throughout the year.
- In addition to finance and awareness raising, new supporting tools are needed to encourage building owners to step into the renovation journey in a simpler manner. **Energy Performance Certificates (EPC) should evolve towards personalised individual renovation strategies that guide owners towards achieving performing and comfortable buildings**. Building renovation passports can provide a modern platform to supporting step-by-step renovation and offering full interactivity.

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(5) *They are identified in the "Smart Financing for Smart Buildings" initiative, also issued on 30 November 2016.*

(6) *Transolar/Tribu (2017)*

TECHNICAL BUILDING SYSTEMS (ART. 2.3/8/14/15)

Encourage the deployment of smart technologies and optimisation of technical building systems to ensure buildings operate efficiently

- In its current form, the EPBD does not fully embrace the cost-effective potential of either energy management at the building level through building automation, control and monitoring systems or of lighting systems.[7] Hence, **the enlarged scope of "Technical Building System" (TBS) in art. 2.3 is a step in the right direction and EU-ASE welcomes:**
  - » **The re-inclusion of lighting systems in the definition of TBS and requests that consistency is given to implementing articles.**

    Recent studies show that lighting represents 20–30% of final energy used today in non-residential buildings. Although ambitious minimum energy efficient requirements for lighting products are covered under the Ecodesign Directive, more can be done by looking at the system level. To achieve further savings, it will be important to define a mandatory system of requirements for new installation, replacement and upgrading of lighting systems.
  - » **The inclusion of building automation and control**, although it shall also include energy monitoring systems.

    Building automation, control and monitoring technologies are indeed a significant source of savings, improving both the comfort and consumption of buildings. In addition, they require low upfront investment and have payback times of only 2–5 years, while connecting buildings to the grid and enabling renewable energy integration. Between 30% and 50% energy savings have been achieved by implementing active energy efficiency solutions in existing buildings such as schools, hotels, office buildings, and multi-family buildings. The investment cost varies depending on the type of building and its initial energy performance (a range of €20–50/m2 can be considered).[8]
  - » Building automation and control functionalities are key to optimising building energy use and for maintaining high performance over time. This is acknowledged in the Commission's proposal, but main market barriers—split incentives and practical hurdles in construction/renovation projects—are not addressed adequately. To accelerate renovation and enable building connectivity to the energy system, **key functionalities shall be prescribed in non-residential buildings over 250 MWh/a and in residential buildings with central technical building systems of over 100kW power**. This option has the potential to unleash energy savings that pay back in very short timeframes, as is highlighted in the Commission's Impact Assessment of the EPBD recast. Additionally, appropriate control functionalities in individual rooms are needed, in particular in those residential buildings.

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(7) *The Commission's Impact Assessment found that the requirements set out in art. 8 EPBD, with regards to technical building systems, have not been sufficient to overcome barriers preventing the integration of technological progress such as building control and automation (BAC). Many Member States have failed to enforce regular inspections and ongoing maintenance.*

(8) *For full results: www.schneider-electric.fr/documents/Presse-France/dossier-presse/20130213_DPF_HOMES_FR.pdf*

Promote Smart Buildings that can ensure interaction and communication between on-site intelligent connected technologies, the owner, and the grid in order to improve their overall energy performance

- The introduction of a "smartness indicator" (SI) is an interesting proposal. **EU-ASE welcomes efforts to provide reliable, useful, accurate, simple information to building users regarding the energy performance of their buildings, which should be the ultimate objective of the SI and of the existing Energy Performance Certificate (EPC).**
- The SI must be improved, however. As proposed by the Commission, this new indicator should rate the readiness of the building to adapt its operation to the needs of the occupant and of the grid. **EU-ASE believes its scope should be enlarged to cover also enhanced energy saving capabilities.**

  In this sense, the vague description of the SI in art. 8.6 must be strengthened to reflect three key functionalities:

  - Readiness to adapt its operation mode in response to the needs of the occupant and at part-load conditions;
  - Readiness to maintain the building and its operation, including ways to improve the long-term energy performance of buildings;
  - Readiness to adapt its operation mode in response to the needs/situation of the electricity grid. This aspect shall cover demand response and the building's real-time flexibility capability to satisfy grid system requirements.
- A **common framework for its determination and calculation should be also added in the EPBD revision.** The current proposal leaves this task to the Commission through delegated acts, which might not ensure the required level of transparency in its definition. However, technical details that will evolve over time should be dealt with through a delegated act, while ensuring proper stakeholders consultation.

About EU-ASE

EU-ASE was established in December 2010 by some of Europe's leading multinational companies. The Alliance creates a platform from which our companies (1E, Danfoss, Ingersoll Rand, Kingspan, Knauf Insulation, Oracle Utilities, Philips Lighting, Saint-Gobain, Schneider Electric, Siemens and Veolia) can join with politicians and thought leaders to ensure the voice of energy efficiency is heard from across the business and political community.

EU-ASE members have operations across the 28 Member States of the European Union, employ over 340.000 people in Europe and have an aggregated annual turnover of €115 billion.

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