**Introduction**

The Energy Efficiency Directive (EED 2012/27/EU) is the headline piece of legislation on which the EU is pinning its hopes for the achievement of the 2020 energy efficiency target. If its provisions are ambitiously and fully implemented, then it will contribute about 75% of the energy efficiency improvements needed to reach the 2020 target.

Within the text, there are several elements that relate to buildings. To ensure that the potential of energy efficiency in the built environment is reached, EuroACE has compiled in this paper, its “TOP 10” issues for implementation of the EED. These are given in descending order of priority as seen from the point of view of the member companies of EuroACE in the expectation that our input can help the EU Commission in its own work on implementation of this important Directive.

### The EuroACE “TOP 10”

1. Preparation and implementation of comprehensive national long-term renovation roadmaps covering the whole existing EU building stock
2. Preparation of a detailed inventory, by building type and age, of the existing EU building stock that quantifies the actual energy consumption
3. Calculation of the potential contribution of deep renovation (including staged deep renovation) of the existing building stock to the achievement of long-term climate and energy goals
4. Greater support for the use of energy performance contracting and for the building of the energy services market
5. Roll-out of innovative financing instruments to incentivise and support the renovation of the existing building stock. This must include private and public instruments, especially EU Structural Funds, public procurement rules and functional fiscal incentives
6. Public bodies to take a leading role in spearheading ambitious renovation of their own buildings
7. Maximising the amount of deep renovation (including staged deep renovation) that results from the implementation of the Energy Efficiency Obligation Schemes that are required by the EED
8. Supporting and extending the use of energy audits in the commercial and tertiary building sectors with binding rules on implementing recommendations made by the auditor
9. Consistent and persistent use of information and awareness campaigns in order to keep the issue of energy efficient renovation of existing buildings at the forefront of climate and energy actions
10. Timely enforcement of the provisions of the EED, including coherence with related directives such as the Energy Performance of Buildings Directive.

A detailed commentary on each of these “TOP 10” issues follows in the coming pages.
#1 Preparation and implementation of comprehensive national long-term renovation roadmaps covering the whole existing EU building stock

Member States will be able to reap rapid, concrete results from renovation initiatives if, and only if, these are embedded in long term, coherent renovation roadmaps aimed at increasing the renovation rate and significantly reducing the energy consumption of existing buildings in each Member State. Article 4 requires Member States to establish long-term strategies for mobilising investment in the renovation of the national stock of residential and commercial buildings, both public and private. EuroACE believes that this requirement should mean that comprehensive national plans with a time horizon set at 2050 should quickly emerge in all EU Member States.

The process of developing National Roadmaps will help Member States to define a forward-looking set of policies and measures which reflect the specific nature of their building stock and market, as well as ensuring that Member States are able to position themselves within the framework of the EU’s transitional path to a competitive low-carbon economy by 2050.

Providing as part of these Roadmaps, a long-term perspective, with a defined 2050 target from which intermediary objectives to 2020, 2030, and 2040 are back-cast, will provide certainty and predictability for the buildings sector and for the financial sector, thus encouraging investment in energy efficiency, and ensuring that the sector can deliver on the EU’s climate, energy and growth objectives. It will give all business actors, and in particular industry, the confidence to develop new technologies, encouraging companies to play a more prominent role in the education & training challenges that belong to ambitious renovation programmes.

Finally, given that the building sector is characterised by long renovation cycles, it is important to adopt a holistic approach when assessing the building stock (building envelope, equipment, operation and maintenance) so as to ensure that any potential ‘lock in’ effect1 is minimised. This is particularly the case when proposing measures that will form part of a staged renovation spread over several years.

#2 Preparation of a detailed inventory, by building type and age, of the existing EU building stock that quantifies the actual energy consumption

As part of the national Renovation Roadmaps, it is essential to develop a clear overview of the extent of the existing building stock in each Member State by building type and age so that the savings opportunities currently dormant in the national building stock can be quantified. This will require the preparation of a detailed inventory of the existing building stock, which will, in turn, allow Member States to articulate their renovation programmes within the context of the country’s wider energy & climate policy.

Having accurate knowledge of the building stock will empower all actors in their own planning exercises and encourage bottom-up initiatives coordinated at the national level. Knowing the starting point will bring realism to national plans and make it easier to inscribe energy efficiency as a permanent component of the national agenda. It will also allow for precise monitoring of progress towards the achievement of long-term and interim targets.

#3 Calculation of the potential contribution of deep renovation (including staged deep renovation) of the existing building stock to the achievement of long-term climate and energy goals

Once the overall long-term target for renovation of the building stock is set and after completion of the inventory, Member States must move to accurately calculate the potential contribution that their renovation programme can make to the achievement of the wider climate and energy policy goals set for the EU. Energy efficient renovation of buildings contributes to a reduction in greenhouse gas emissions and a reduction in

---

1 The lock-in effect refers to the long cycle which characterises the building sector (40-60 years for energy efficient improvements), and the potential energy savings will be ‘locked-into’ the building until another renovation is considered at a later stage.
primary energy use. As a result it also makes it easier to reach renewable energy goals as they are set as a proportion of overall energy use.

Cost-effective approaches to achieving this potential must also be considered and should be set within the national context. It will, in defining these approaches, be preferable to incorporate a holistic vision of a building renovation, taking into account the long-term savings over the economic lifetime of a building (and not just simple pay-back periods).

To achieve the potential, it is likely that policies and measures will need to be put in place to encourage deep or staged deep renovation within a set of overarching renovation programmes for groups of buildings. Providing clarity and certainty to the market will increase the development of public-private partnerships, thereby helping to leverage more private investment which will deliver positive results for the broader economy, to the public coffers, and to society at large.

#4 Greater support for the use of energy performance contracting and for the building of the energy services market

The EED recognises the potential that energy services companies (ESCOs) and energy performance contracting (EPC) offer in the drive to increase energy efficiency in the EU building stock. Article 18 urges Member States to promote the energy services market through the dissemination of information about ESCOs, and through support for the use of energy performance contracting for renovations in public sector buildings (also highlighted in Article 5). As the Article also requires Member States to remove barriers to the use of EPC, the European Commission should, on a regular basis, issue a report detailing the barriers in each Member State and progress to remove them.

Such policies to increase the use of Energy Performance Contracting to finance and guarantee energy savings will play an important role in unlocking private capital for greater investment in energy efficiency measures in buildings. The European Commission’s EU-wide Energy Performance Contracting Campaign, launched in 2012 at the Renovate Europe Day Conference, will be very helpful in that respect, supporting Member States and market actors with the roll-out of a functioning energy services market

#5 Roll-out of innovative financing instruments to incentivise and support the renovation of the existing building stock. This must include private and public instruments, especially EU Structural Funds, public procurement rules and functional fiscal incentives

Financing is often put forward as a barrier to the uptake of energy efficient renovation of buildings. However, there is ample evidence to show that investment in energy efficient renovation delivers a good return and that there are plenty of sources of funding available that could be mobilised. It is time for the Member States, under the provisions of the EED, to pursue these resources. In addition, responsible purchasing by public bodies can further encourage and kick-start the market for energy efficient renovation of buildings.

Article 6 requires that Member States ensure central governments only purchase products, services and buildings with highly energy-efficient performance. This is a good measure that EuroACE believes should not be limited to central government, but rather extended to the regional and local levels, where local and regional public bodies should be encouraged to consider long-term energy performance in their purchasing decisions.

The EED encourages the use of National Energy Efficiency Funds as well as use of funds that are available through the EU Structural Funds to support energy efficient renovations. The establishment of solid financial mechanisms, such as revolving funds and “first loss” bank guarantee funds are needed to ensure that the energy savings potential of the EU building stock is realised.

EuroACE notes that the EED includes other provisions on the subject of financing, all of which need to be taken up in the years ahead. These include:
- **Article 19** that encourages Member States to take appropriate measures to remove regulatory and non-regulatory barriers to energy efficiency, with particular attention to the split incentive that exists between landlords and tenants and to the reform of public accounting rules. The European Commission should, on a regular basis, issue a report detailing the barriers in each Member State and progress to remove them.

- **Article 20** that foresees the creation of National Energy Efficiency Funds to help encourage and sustain the uptake of deep and planned staged deep renovations.

- **Recitals 50-54** support the use of other available European funds to co-finance building renovations, including at the regional and local levels through the EU Cohesion Fund and regional funds.

**Public bodies to take a leading role in spearheading ambitious renovation of their own buildings**

Public bodies spend public money and it should be necessary for them to ensure that all money is wisely spent. This is particularly the case when it comes to energy efficient renovation of its own building stock. This is because, as a first-adopter of highly energy efficient building renovations, public bodies can stimulate the construction sector and this assist it in travelling along the learning curve towards better, more cost-effective approaches to energy efficient renovation.

In short, public bodies should lead by example and **Article 5** requires that each Member State ensures that, as from 1 January 2014, 3% of the total floor area of heated and/or cooled buildings owned and occupied by its central government be renovated each year, to meet at least the minimum energy performance requirements outlined in the EPBD. Renovating public buildings should be seen by Member States as the opportunity for national governments to become frontrunners in stimulating the market and boosting synergies between market actors. Member States should request that the exemplarity of renovating central government buildings is followed by public buildings at large as well as buildings supported by public money. Exemplarity requires that both the rate and depth of renovation is ambitious and achievable based on a full life-cycle cost analysis approach, and that a holistic view on renovation be adopted.

Given the high visibility of public buildings in public life, taking this leading role will contribute towards raising awareness around the benefits of renovation.

**Maximising the amount of deep renovation (including staged deep renovation) that results from the implementation of the Energy Efficiency Obligation Schemes that are required by the EED**

EuroACE notes that **Article 7** requires Member States to set up energy efficiency obligation schemes, whereby energy distributors and/or retail energy sales companies must deliver annual savings equivalent to 1.5% of their annual energy sales to final customers. Encouraging customers to undertake the energy efficient renovation of their buildings should be viewed by utility companies as a feasible measure to achieving the 1.5% savings, which will generate beneficial results in the overall economy.

Member States should encourage utility companies to give strong incentives to customers to select deep renovations, through quality requirements, including highly progressive crediting for deeper renovations. Member States are also encouraged to link these utility obligations to the public sector renovation obligation in Article 5 to ensure a coherent strategy and ensure maximised benefits. The certification of savings achieved by third parties, such as Energy Services Companies (ESCOs), should be explicit and encouraged.

---

#8 Supporting and extending the use of energy audits in the commercial and tertiary building sectors with binding rules on implementing recommendations made by the auditor

In the same way as knowing the number of buildings and their energy performance is an essential prerequisite to the preparation of a comprehensive long-term renovation roadmap, the use of energy audits for building owners is an effective way to open their eyes to the potential dormant in their buildings.

The provisions of Article 8 address this issue by requiring large companies to undertake regular energy audits and by requiring Member State to encourage all companies to do so. EuroACE sees the extension of energy auditing to all commercial and tertiary buildings as a very useful tool that should be widely rolled out. However, in addition to the simple preparation of such audits, EuroACE believes that mechanisms to ensure that recommendations made as part of those audits must be taken up within a reasonable time period so that the auditing process leads to a reduction in energy demand.

#9 Consistent and persistent use of information and awareness campaigns in order to keep the issue of energy efficient renovation of existing buildings at the forefront of climate and energy actions

It is not sufficient to only pay attention to the issue of increased energy efficiency in buildings when a piece of legislation is in preparation, as the length of time between renovations of the same building is very long – sometimes up to 50 years! It is therefore crucial that on-going information and awareness campaigns form part of the work of the Member States in implementing the EED.

On this point, Article 17 requires that information about energy efficiency mechanisms and financial and legal frameworks be widely disseminated to all relevant market actors, and that awareness-raising and training initiatives to inform citizens be organised also at regional and local levels. Increasing knowledge and understanding about the multiple benefits of investing in energy efficient renovations is not only key to supporting the uptake and development of the market, but it is key in keeping the momentum going over time. This is particularly true in the context of encouraging home-owners and stimulating renovations in the residential sector, which represents 75% of the building stock in the EU.

#10 Timely enforcement of the provisions of the EED, including coherence with related directives such as the Energy Performance of Buildings Directive.

It should go without saying that good legislation needs good implementation and that good implementation often relies on effective enforcement. EuroACE believes that this will be particularly the case with the EED, given its broad scope and the perceived expense of putting it into effect.

Another aspect to ensuring the effectiveness of the EED, will be to make sure, as far as possible, that its provisions are reinforced by the effective and timely implementation of related legislation. This is particularly important for buildings as the provisions on the EED relate principally to existing buildings and there is already a directive that touches on this subject. That directive is the Energy Performance of Buildings Directive (EPBD), which principally touches on new buildings.

Ensuring coherence between the provisions of each of these directives should make the provisions of each easier to achieve. For example, ensuring that Member States only construct nearly zero energy buildings from the deadlines in the EPBD will ensure that the overall energy demand of the building stock will not rise over the decades to 2050, meaning that the renovation roadmaps can be constructed on the basis of the stock existing at the time they are drawn up.
Conclusion
EuroACE firmly believes that Member States must seize the opportunity presented to them in the EED to unlock the energy savings potential and the huge economic, social and environmental benefits which lie dormant in their building stock. To achieve an 80% reduction in the energy demand of the EU building stock by 2050, a rapid and accurate implementation of the EED, particularly the EuroACE “TOP 10”, is needed. Only with the preparation of long-term strategies for mobilising investment in renovation, a high level of exemplarity by the public sector at all levels, and adequate policies and incentives to increase both the rate and the depth of renovation, will Member States be able to reap the multiple benefits of increased jobs, greater well-being and higher public revenues.

Background
A high-level of ambition in the implementation of the buildings related elements of the Energy Efficiency Directive (EED 2012/27/EU) is a prerequisite to delivering on the EU’s energy, climate and growth agenda and beyond. To unlock the full potential of their building stock, Member States must ensure a complete and accurate implementation of the following EED elements:
- Article 4: Coherent, ambitious and long-term National Renovation Roadmaps
- Article 5: A high level of exemplarity of public buildings renovation
- Article 6: A holistic approach to public procurement
- Article 7: Maximizing building renovations through the energy efficiency obligation schemes or via the use of alternative measures to fulfil Art. 7.
- Article 17: Information and awareness raising around the benefits of renovations
- Article 18: Support and stimulus to the energy services and energy performance contracting market
- Articles 19 & 20, Recitals 50-54: Financing provisions to stimulate the market

The EED represents a genuine opportunity for Member States to unlock the multiple benefits in terms of jobs, growth and increased well-being that renovation of the existing buildings stock can bring. A full 40% of all energy in the EU is consumed in buildings. This is the largest consuming sector, ahead of transport and industry, in addition to being the sector with the largest cost-effective opportunity for savings. Indeed, according to the IEA’s World Energy Outlook 2012, 80% of the energy saving potential in the EU’s building stock still remains untapped. Unlocking this energy saving potential would deliver positive results for Member States in terms of reducing their crippling dependence on foreign imports, generating increased economic activity through the creation of local non-exportable jobs and improving the welfare of their citizens through reduced energy bills, reduced CO2 emissions (the building sector accounts for 36% of our CO2 emissions) and healthier homes as the indoor climate is improved through renovation works.

Despite the sound economic, societal and environmental arguments for renovating Europe’s building stock, and the fact that the complementary products and services needed to achieve an 80% reduction of the energy demand in buildings by 2050 are already available on the market, the huge energy savings potential of Europe’s buildings still remains untapped. Indeed, the barriers which prevent the successful uptake of such a strong case are mainly non-technological ones. The EED therefore represents the key legal enabling tool which, if implemented in a rapid and ambitious way, will ensure Member States unlock the energy savings potential and the huge economic opportunities that lie dormant in their buildings.

Adopting an integrated approach for renovating the EU building stock, designed with a long-term horizon tailored to accommodate the specific characteristics of each Member State, is crucial. These integrated approaches must include the right mix of incentives and obligatory measures to increase both the rate and the depth of renovation in a timely and progressive manner if we are to unlock the full potential of EU buildings and reach a reduction of 80% of energy demand of the EU buildings sector by 2050.

End
For further information:

Adrian Joyce
Secretary General
Tel. +32 (0) 2 639 10 10
E-mail: Adrian.Joyce@euroace.org

EuroACE represents Europe’s leading companies involved with the manufacture, distribution and installation of energy saving goods and services for buildings. EuroACE members have a total turnover of around €140 billion per year in efficiency-related business and they employ approximately 172,000 people in these activities in Europe. The mission of EuroACE is to work together with the EU institutions to help Europe move towards a more efficient use of energy in buildings, thereby contributing to Europe’s commitments on climate change, energy security and economic growth.

EuroACE Members (January 2013) are:

- Aeroco
- Bayer
- BASF
- Danfoss
- Eastman
- Ingersoll Rand
- Isover
- Johnson Controls
- Kingspan
- Knauf Insulation
- Philips
- Pu Europe
- Rockwool
- United Technologies
- Ursa
- VELUX