



EUROCITIES STATEMENT ON THE REVIEW OF THE ENERGY PERFORMANCE OF BUILDINGS DIRECTIVE (EPBD)



Energy efficiency is a major issue in our local efforts to mitigate climate change but also in providing green jobs and addressing energy poverty. As European cities, we manage extensive portfolios of public buildings and we can also, depending on our legal authority and financial and administrative capacity, regulate, incentivise and assist with improving the energy efficiency of privately owned buildings. However, improving private buildings remains particularly challenging.

Overall assessment of the EPBD

The directive has helped to improve the energy performance of buildings in our cities, in particular the energy standards of public and new buildings. The energy performance achieved in public and new buildings is often even better than the mandatory standards. The EPBD has contributed to triggering innovation in the building sector and boosting demand for new build low-energy buildings.

However, the directive did not provide a sufficient framework for improving the energy efficiency of existing private buildings, which remains one of the biggest challenges. 92% of the building stock in the EU from 2005 will still exist in 2020 and 75% in 2050¹. While the directive allows for exemptions for buildings of special architectural, of historical merit, and buildings used for worship, it should offer more models corresponding to the variety of existing building stock, such as buildings with very low energy efficiency, social housing, and buildings that are not officially listed under a protection programme but have a high artistic, architectural and/or cultural value. For those types of buildings, incentives would work better than mandatory standards.

In addition, the directive focussed attention on the energy efficiency of buildings at national level and helped to raise public awareness. Slow national implementation or frequent changes in national legislation have limited the impact of the directive in some member states.

Good practices

As city authorities we have actively supported the implementation of the directive in our cities but also taken additional action to improve the energy efficiency of buildings.

¹ European Commission (2008), <http://bit.ly/21omMBa>

- **Training**

We put in place training schemes and structured exchange processes for designers, architects, engineers and craftspersons on topics such as passive house standards, technical installations and sustainable city districts. Educational institutions have also supported training for craftspersons. We need continued funding for training activities and support for SMEs to become greener and more energy efficient.

- **Awareness raising**

We continue to raise awareness of energy efficiency through the organisation of information sessions and workshops, through targeted advertisements, websites and mapping of energy demand, and by setting up dedicated information points, shared action plans at city level and training for users of energy efficient buildings.

- **Funding schemes**

National and EU funding schemes for energy efficient renovation, such the ELENA facility, have been vital to supporting our local actions. City authorities use or promote the uptake of these funding streams through, for instance, low interest loans or brokering dialogue between property owners, energy companies and providers of technical services for energy efficiency. Where possible, we provide local funding as well, such as the Oslo Climate and Energy Fund².

- **Interventions at district level**

We carry out different projects and initiatives in our cities to tackle energy efficiency at district level. Examples include providing an overview of neighbourhood energy systems³, creating a smart city district in a former student area⁴ and feasibility and business case studies. We also develop and improve district heating and cooling systems, including through EU-funded projects⁵ and in close cooperation with local district heating companies. These systems use a variety of low-carbon energy sources and technologies, such as wood pellets, gas from waste water treatment plants, waste incineration and combined heat and power (CHP). Awareness raising is also important. For example, Rotterdam has developed energy potential maps for citizens showing the current energy consumption and energy efficiency potential to help implement renovation strategies at district level⁶.

Energy Performance Certificates (EPCs)

Energy Performance Certificates have helped increase the rate of energy efficiency renovation, but often there is little evidence of the degree of renovation in municipal and private buildings after they have been sold, and renovations are often driven by national government priorities, regulations and resources available.

The effectiveness of the certificates depends largely on their national implementation; their credibility and effect differ significantly depending on when and how certificates

² The municipal energy conservation fund was created in 1982, and built up through a surcharge on electricity. Since then, it has supported projects resulting in total energy savings of 1.3 TWh of energy per year, or about 10% of what the city uses.

While the original source of funds no longer exists, activities are now paid from the interest on the fund, within guidelines set by the City Council. www.oslo.kommune.no/politikk-og-administrasjon/miljo

³ odysseus-project.eu

⁴ www.triangulum-project.eu/triangulum-project

⁵ For instance, www.celsiuscity.eu, www.grow-smarter.eu/home

⁶ www.rotterdamclimateinitiative.nl/nl/energieatlas/energieatlas-rotterdam

have been introduced. For instance, a 2014 survey from the Flemish Government⁷ showed that nearly 74% of consumers in Flanders believe that the EPC result for residential buildings is reliable and is a good indicator. However, only 56% of building professionals agree with this. In the Netherlands, the certificates were only introduced in 2015 and are unfit for purpose, as they are based exclusively on the year that a building was first constructed, disregarding the actual energy performance of the building.

The certificates are not always suitable for the assessment of large or complex buildings with mixed residential and commercial usage or mixed ownership, and can only show a static performance result that does not factor in the energy behaviour of the user. When EPCs are produced only for individual apartments without assessing the whole building, this can be a barrier to improving the energy efficiency of communal areas.

The revised directive should provide more guidance and rules to ensure the quality of energy performance assessments and auditors' skills. EPCs should reflect the real degree of efficiency of the buildings and consider the energy behaviour of the users as much as possible⁸. Work should also continue on how to support the use of EPC results to encourage energy efficient renovation⁹.

Mandatory renovation targets

The Energy Efficiency directive already sets a target of 3% public building renovation per year for buildings owned by national governments. New mandatory targets may increase renovation rates, including for existing private buildings. However, the implementation of high mandatory targets could result in sub-optimal renovation or be ineffective without accompanying incentives.

Funding

We use various funding sources to promote energy efficient buildings. EU funds, including Horizon 2020, play an important role but sometimes they require too much administrative involvement, experience and international cooperation. The high level of competition for EU funds can also be discouraging.

EU funding often rewards technical innovation over better management. It would be helpful to focus more on better management and governance, which have an important potential for energy efficiency but require financial resources to develop and implement. The duration of European projects should be longer to account for ambitious local targets for energy efficiency, which often require a long-term strategy and therefore more time for implementation.

Revenues from auctioning under the EU Emission Trading Scheme (ETS) could significantly support energy efficiency and climate action if they were made available to city authorities for local measures. Private funding continues to be important for new construction or renovation projects, so supportive framework conditions for private funding are important. We would need more adequate financing models at national level

⁷ VEA (2014): <http://bit.ly/1MZd3aP>

⁸ For instance, net energy consumption should be the metric used to verify the energy efficiency of a building. If (only) the amount of purchased energy is taken into account, increased self-consumed energy production on site can be mistaken for increased energy efficiency.

⁹ See for instance the results of the LEAF project on 'Low Energy Apartment Futures' www.lowenergyapartments.eu

that have profitable payback systems and address the whole building instead of concentrating only on building parts such as windows or roofs.

The EU should also explore if and how to promote further innovative solutions such as Green Bonds¹⁰. Zero-interest loans can also provide effective support. For example, the ‘Salix’ loan in the UK worked well to deliver 100% interest-free capital for the public sector to improve energy efficiency and reduce carbon emissions. It could be extended to small and medium size enterprises as well.

Work on financing models that address existing buildings with several co-owners and rented buildings and apartments should continue. The model of the UK Green Deal, where tenants pay over the years for the cost of the renovation, remains promising. While the Green Deal has often not worked well in practice for reasons such as administrative complications and excessive interest rates, the model should be further developed and improved so that it can deliver.

When it comes to working at district level, EU funding for knowledge sharing and developing heating and cooling networks could help extend efficient solutions to more cities across Europe.

Energy poverty

We tackle energy poverty in our cities through various measures, for instance providing citizens with guidance on energy efficient behaviour and promoting energy efficient renovation for low-income households. EU and national support can be helpful, for instance when national social services offer financial support, or to finance local projects that improve the energy efficiency of low-income households. Zero-interest loans can encourage energy efficiency for some low-income households as well.

District heating systems can lower the cost of energy generation, as can cooperative schemes that negotiate cheaper energy provision with suppliers¹¹.

Renewables

Many member states countries and cities have put in place minimum requirements on renewable energy supply for new builds or public buildings. Targets alone are insufficient to address the issue, especially when the ownership of the building is fragmented and a unanimous agreement is required to take action. Furthermore, in several countries targets do not address existing buildings or renovation projects at all. Requirements and incentives for renewables should not only focus on the design and performance of the building envelope itself but rather allow for a wide range of solutions, including for instance waste heat and combined heat and power (CHP). For example, German legislation allows for reducing minimum requirements on renewables by compensating with higher standards of energy efficiency.

¹⁰ finans.goteborg.se/en/greenbonds

¹¹ Cardiff Cymru - collective energy switching: bit.ly/1ReGZ8g