



CONCERTED ACTION
ENERGY PERFORMANCE
OF BUILDINGS



Concerted Action EPBD

Core Theme 5

**‘Towards 2020 –
Nearly zero-energy buildings’**

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Core Theme 5 of the Concerted Action EPBD

CECODHAS Housing Europe meets Solar Decathlon Europe 2014

Versailles, 3 July 2014

The Energy Performance of Buildings Directive (EPBD) - Recast



Directive 2010/31/EU of 19 May 2010: 30 Articles

- Common framework for a **methodology for calculating** the energy performance of buildings
- **Minimum requirements** to the energy performance of **new buildings**
- **Minimum requirements** to the energy performance of **existing buildings** and building elements/technical building systems when replaced/retrofitted
- National plans for increasing the number of **nearly-zero energy buildings**
- Energy **certification** of buildings
- Regular **inspection** of **heating** and **A/C systems**
- **Independent control systems** for energy performance certificates and inspection reports

18.6.2010 EN Official Journal of the European Union L 153/13

DIRECTIVE 2010/31/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 May 2010 on the energy performance of buildings (recast)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 194(2) thereof,

Having regard to the proposal from the European Commission,

Having regard to the opinion of the European Economic and Social Committee ⁽¹⁾,

Having regard to the opinion of the Committee of the Regions ⁽²⁾,

Acting in accordance with the ordinary legislative procedure ⁽³⁾,

Whereas:

- (1) Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings ⁽⁴⁾ has been amended ⁽⁵⁾. Since further substantive amendments are to be made, it should be recast in the interests of clarity.
- (2) An efficient, prudent, rational and sustainable utilisation of energy applies, inter alia, to oil products, natural gas and solid fuels, which are essential sources of energy, but also the leading sources of carbon dioxide emissions.
- (3) Buildings account for 40 % of total energy consumption in the Union. The sector is expanding, which is bound to increase its energy consumption. Therefore, reduction of energy consumption and the use of energy from renewable sources in the buildings sector constitute important measures needed to reduce the Union's energy dependency and greenhouse gas emissions.

Together with an increased use of energy from renewable sources, measures taken to reduce energy consumption in the Union would allow the Union to comply with the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC), and to honour both its long term commitment to maintain the global temperature rise below 2°C, and its commitment to reduce, by 2020, overall greenhouse gas emissions by at least 20 % below 1990 levels, and by 30 % in the event of an international agreement being reached. Reduced energy consumption and an increased use of energy from renewable sources also have an important part to play in promoting security of energy supply, technological developments and in creating opportunities for employment and regional development, in particular in rural areas.

(4) Management of energy demand is an important tool enabling the Union to influence the global energy market and hence the security of energy supply in the medium and long term.

(5) The European Council of March 2007 emphasised the need to increase energy efficiency in the Union so as to achieve the objective of reducing by 20 % the Union's energy consumption by 2020 and called for a thorough and rapid implementation of the priorities established in the Commission Communication entitled 'Action plan for energy efficiency: realizing the potential'. That action plan identified the significant potential for cost-effective energy savings in the buildings sector. The European Parliament, in its resolution of 31 January 2008, called for the strengthening of the provisions of Directive 2002/91/EC, and has called at various times, on the latest occasion in its resolution of 3 February 2009 on the Second Strategic Energy Review, for the 20 % energy efficiency target in 2020 to be made binding. Moreover, Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 ⁽⁶⁾, sets national binding targets for CO₂ reduction for which energy efficiency in the building sector will be crucial, and Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources ⁽⁷⁾ provides for the promotion of energy efficiency in the context of a binding target for energy from renewable sources accounting for 20 % of total Union energy consumption by 2020.

⁽¹⁾ OJ C 277, 17.11.2009, p. 75.

⁽²⁾ OJ C 200, 25.8.2009, p. 41.

⁽³⁾ Position of the European Parliament of 23 April 2009 (not yet published in the Official Journal), position of the Council at first reading of 14 April 2010 (not yet published in the Official Journal), position of the European Parliament of 18 May 2010 (not yet published in the Official Journal).

⁽⁴⁾ OJ L 1, 4.1.2003, p. 65.

⁽⁵⁾ See Annex IV, Part A.

⁽⁶⁾ OJ L 140, 5.6.2009, p. 136.

⁽⁷⁾ OJ L 140, 5.6.2009, p. 16.

Concerted Action EPBD III



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Supporting transposition and implementation of the recast EPBD

- From 2011 to 2015
- Funded under the Intelligent Energy Europe Programme (IEE)
- 7 Core Themes

CT1: Certification



CT5: Nearly Zero-Energy Buildings



CT2: Inspections



CT6: Compliance



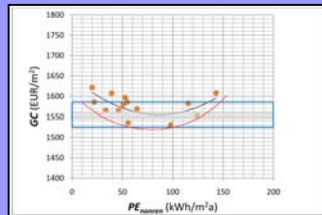
CT3: Training



CT7: Support Initiatives



CT4: Procedures and Cost-Optimal



FOR A SUSTAINABLE FUTURE

Conclusions of the CA work so far



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Extracts of interim report end of 2012:

CT1 Certification:

- Databases are pre-condition for managing and quality assurance of EPCs and monitoring of the implementation of recommendations

CT2 Inspection:

- Inspection procedures need to be improved: structure, simplified, database, cost-efficient, ...

CT3 Training of experts

- Improvement of training and evaluation of EPCs at the building owners necessary

CT4 Cost-optimal:

- Results show that there are some MS with present requirements below cost-optimal and other MS with even more demanding requirements



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**Implementing
the Energy Performance
of Buildings Directive (EPBD)**

FEATURING COUNTRY REPORTS 2012

www.epbd-ca.eu

Conclusions of the CA work so far



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Extracts of interim report end of 2012:

CT5 Nearly zero-energy buildings:

- Many details in national application of NZEB definition still under development
- Information exchange between MS important
- Major problem: Meeting point between NZEB definition and cost-optimum in 2019/2021
- Prediction of parameters not easy: performance of new technologies, future primary energy factors, cost developments, changing climate and lifestyle
- NZEB definitions should show a clear direction but might have to be adjusted at a later stage
- Pilot + demonstration projects, subsidy programmes are important
- Subsidy programmes show a win-win situation



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Extracts of interim report end of 2012:

CT6 Compliance and control:

- Keys to success: central database, automatic validation, flexibility in sanctioning system, monitoring
- Few experience with already running systems

CT7 Support initiatives

- In a climate of limited public sector capital the benefits of third party financing need to be highlighted
- Effectiveness of policy interventions should be monitored



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Specific points by CECODHAS



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EED Article 4 Roadmaps:

1. No need for nZEB definition (D)
2. NZEB objective is technically feasible -> need to increase the use of RES in multi-family buildings (EE, D)
3. Expectation for higher investments, incentives and stronger regulations (I, F)

EED Article 7 Obligations & Alternative Measures:

4. Obligations are not cost-efficient (S)

EPBD Article 5 Cost optimal:

5. Lower energy heating consumption in passive houses; higher maintenance costs for buildings with ventilation than for buildings without ventilation -> lower energy costs for heating are partly compensated by high costs of maintenance (A)
6. Passive house standard is NOT cost optimal for residential buildings (A)

1. nZEB definition is important for the orientation of the industry (and SHCs) -> further development of technologies, reduction of costs
2. RES ratio increases if final energy demand is reduced. RES inclusion more difficult in urban areas. Some MS aim at RES in district heating and electricity net.
3. F: NZEB is current requirement? -> no incentives possible. D: success with KfW subsidies (EnEV – 30 % is standard for new buildings)
4. S: EPBD: cost-optimal calculations showed current requirements are cost-optimal (would in general not be possible in countries like D)
5. Similar experiences at Fraunhofer IBP (GWG Munich): high maintenance costs/effort with decentral ventilation units
6. Passive houses receive subsidies in many MS. Therefore they are per definition not cost-effective.



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THANK YOU



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