



## COMMENTS OF BING on the recast of Directive 2002/91/EC on the Energy Performance of Buildings

**BING represents the rigid polyurethane insulation Industry in Europe. Polyurethane is the most economic, efficient, high performance insulation material available, enabling effective insulation with minimal occupation of space.**

Directive 2002/91/EC is one of the most ambitious pieces of legislation ever adopted at European level. Although the national implementation turned out to be long and difficult, one can already see today the profound changes in national building regulations and construction practices triggered by the directive. Hence, in spite of all problems, the directive should be considered a success story.

Buildings account for about 40 % of the overall energy use in the EU and, with 27 % for residential and 30 % for commercial buildings<sup>1</sup>, offer the highest cost-effective savings potential.

The recast launched by the Commission offers the opportunity to correct the most important shortcomings of the current version. Based on the experience relating to the national implementation, BING wishes to submit the following proposals:

### Article 3 Adoption of a methodology

Current version	BING proposal
Member States shall apply a methodology, at national or regional level, of calculation of the energy performance of buildings on the basis of the general framework set out in the Annex. Parts 1 and 2 of this framework shall be adapted to technical progress in accordance with the procedure referred to in Article 14(2), taking into account standards or norms applied in Member State legislation. This methodology shall be set at national or	Member States shall apply a methodology, at national or regional level, of calculation of the energy performance of buildings on the basis of the general framework set out in the Annex. Parts 1 and 2 of this framework shall be adapted to technical progress in accordance with the procedure referred to in Article 14(2), taking into account standards or norms applied in Member State legislation. This methodology shall be set at national or

<sup>1</sup> Commission Communication "Action Plan for Energy Efficiency: Realising the Potential" COM(2006)545 final (page 7)

regional level. The energy performance of a building shall be expressed in a transparent manner and <b>may</b> include a CO2 emission indicator.	regional level. The energy performance of a building shall be expressed in a transparent manner and <b>shall</b> include a CO2 emission indicator.
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**Reason:**

*In the context of climate change and the post-Kyoto process, CO2 emissions become a major indicator, which end-users are increasingly aware of. The performance of a building should therefore also be expressed in terms of CO<sub>2</sub>.*

**Article 4 Setting of energy performance requirements**

<b>Current version</b>	<b>BING proposal</b>
<p>1. Member States shall take the necessary measures to ensure that minimum energy performance requirements for buildings are set, based on the methodology referred to in Article 3.</p> <p>When setting requirements, Member States may differentiate between new and existing buildings and different categories of buildings. These requirements shall take account of general indoor climate conditions, in order to avoid possible negative effects such as inadequate ventilation, as well as local conditions and the designated function and the age of the building. These requirements shall be reviewed at regular intervals which should not be longer than five years and, if necessary, updated in order to reflect technical progress in the building sector.</p> <p>2. The energy performance requirements shall be applied in accordance with Articles 5 and 6.</p> <p>3. Member States may decide not to set or apply the requirements referred to in paragraph 1 for the following categories of buildings:  — buildings and monuments officially protected as part of a designated environment or because of their special architectural or historic merit, where compliance with the requirements would unacceptably alter their character or appearance,  — buildings used as places of worship and for religious activities,  — temporary buildings with a planned time of use of two years or less, industrial sites, workshops and non-residential agricultural buildings with low energy demand and nonresidential agricultural buildings which are in use by a sector covered by a national sectoral agreement on energy performance,</p>	<p>1. Member States shall take the necessary measures to ensure that minimum energy performance requirements for buildings are set, based on the methodology referred to in Article 3 <b>and based on European energy performance requirements.</b></p> <p><b>BING supports the development of European minimum energy performance standards as proposed in the EU Energy efficiency action plan of October 2006. Their main objective should be to allow comparisons between the various national systems. They</b></p> <ul style="list-style-type: none"> <li>- <b>must take account of local conditions and the designated function and the age of the building;</b></li> <li>- <b>should be based on primary energy demand;</b></li> <li>- <b>should be tightened regularly to achieve passive house level for new buildings by 2015;</b></li> <li>- <b>must be drawn up for the building as a whole and for the most relevant components / systems (building shell, HVAC etc.);</b></li> <li>- <b>should give a level playing field and be technology neutral.</b></li> </ul> <p>3. Member States may decide not to set or apply the requirements referred to in paragraph 1 for the following categories of buildings:  — buildings and monuments officially protected as part of a designated environment or because of their special architectural or historic merit, where compliance with the requirements would unacceptably alter their character or appearance,  — buildings used as places of worship and for religious activities,  — temporary buildings with a planned time of use of two years or less, industrial sites, workshops and non-residential agricultural buildings with low energy demand and nonresidential agricultural buildings which are in use by a sector covered by a national sectoral agreement on energy performance,</p>

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<ul style="list-style-type: none"> <li>— residential buildings which are intended to be used less than <b>four</b> months of the year,</li> <li>— stand-alone buildings with a total useful floor area of less than 50 m<sup>2</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>— residential buildings which are intended to be used less than <b>two</b> months of the year,</li> <li>— stand-alone buildings with a total useful floor area of less than 50 m<sup>2</sup>.</li> </ul>
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**Reasons:**

*Art. 4.1: The development of European energy performance requirements should require the least ambitious Member States to accept stronger targets. At the same time, the burden of efficiency increases would be shared in a fairer way and distortions in competition could be avoided. Furthermore, it would allow comparisons between national rating systems, which are not possible today.*

*As outlined in the explanations regarding article 6, each partial renovation should be used to improve the energy performance of this particular component / system. Performance requirements should therefore be drawn up for both complete buildings and the most important components / systems.*

*Art. 4.3.: There is no good reason to exclude buildings which are used up to four months per year. A two-month period would be long enough to exclude seasonal holiday houses for most people.*

**Article 5 New buildings**

Current version	BING proposal
<p>Member States shall take the necessary measures to ensure that new buildings meet the minimum energy performance requirements referred to in Article 4.</p> <p><b>For new buildings with a total useful floor area over 1000 m<sup>2</sup>, Member States shall ensure that the technical, environmental and economic feasibility of alternative systems such as:</b></p> <ul style="list-style-type: none"> <li>— decentralised energy supply systems based on renewable energy,</li> <li>— CHP,</li> <li>— district or block heating or cooling, if available,</li> <li>— heat pumps, under certain conditions, is considered and is taken into account before construction starts.</li> </ul>	<p>Member States shall take the necessary measures to ensure that <b>all</b> new buildings meet the minimum energy performance requirements referred to in Article 4.</p>

**Reasons:**

*The most cost-effective way to achieve energy efficient buildings is to integrate all considerations required in the planning phase for new buildings. This enormous savings potential can only be tapped if the 1000 sqm threshold is abolished. This threshold is arbitrary, excludes 72 % of all buildings and is not related to any building category.*

*As the construction of new buildings usually requires buildings permits, authorities have an inexpensive and efficient tool to control the application of the revised article.*

*The requirement to assess the benefits of specific technologies should be removed as it distorts the market. The EPBD should simply demand a CO<sub>2</sub> and a primary energy target and then let the market prevail. This will stimulate creative and innovative solutions and put the focus on lowering a building's energy demand.*

## Article 6 Existing buildings

Current version	BING proposal
<p>Member States shall take the necessary measures to ensure that when buildings <b>with a total useful floor area over 1000 m<sup>2</sup></b> undergo major renovation, their energy performance is upgraded in order to meet minimum requirements in so far as this is technically, functionally and economically feasible.</p> <p>Member States shall derive these minimum energy performance requirements on the basis of the energy performance requirements set for buildings in accordance with Article 4. The requirements <b>may</b> be set <b>either</b> for the renovated building as a whole <b>or</b> for the renovated systems or components when these are part of a renovation to be carried out within a limited time period, <b>with the abovementioned objective of improving the overall energy performance of the building.</b></p> <p><i>(Major renovations are cases such as those where the total cost of the renovation related to the building shell and/or energy installations such as heating, hot water supply, air-conditioning, ventilation and lighting is higher than 25 % of the value of the building, excluding the value of the land upon which the building is situated, or those where more than 25 % of the building shell undergoes renovation.)</i></p>	<p>Member States shall take the necessary measures to ensure that when buildings <b>or systems / components</b> undergo major renovation, their energy performance is upgraded in order to meet minimum requirements in so far as this is technically, functionally and economically feasible.</p> <p>Member States shall derive these minimum energy performance requirements on the basis of the energy performance requirements set for buildings in accordance with Article 4. The requirements <b>shall</b> be set for <b>both</b> the renovated building as a whole <b>and</b> for the renovated systems or components when these are part of a renovation to be carried out within a limited time period, <b>or the renovation is limited to these systems and / or components.</b></p>

### Reasons:

*On average, less than 2 % of the building stock in the EU are replaced annually. Hence, the overwhelming share of energy savings must come from existing buildings. However, the current directive excludes 72 % of the EU building stock. In particular family houses offer a huge energy savings potential and need to be included.*

*For existing buildings, the economically most suitable moment to invest in energy efficiency is when they undergo renovation / retrofitting. However, most renovation works are not “major” in the sense of the directive but cover only individual systems and / or components of a building. Hence, the directive should apply a parallel strategy. In the case of “major renovation”, the goal should be to meet the minimum energy performance requirements for the complete building. If only individual systems / components undergo renovation, then the performance requirements set for these systems / components should be met.*

## Article 7 Energy performance certificate

Current version	BING proposal
<p>1. Member States shall ensure that, when buildings are constructed, sold or rented out, an energy performance certificate is made available to the owner or by the owner to the prospective buyer or tenant, as the case might be. The validity of the certificate shall not exceed 10 years. Certification for apartments or units designed for separate use</p>	<p>1. Member States shall ensure that, when buildings are constructed, sold or rented out, an energy performance certificate is made available to the owner or by the owner to the prospective buyer or tenant <b>as part of the building permit, notarial act and / or lease contract</b>, as the case might be. The validity of</p>

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<p>in blocks may be based:</p> <ul style="list-style-type: none"> <li>— on a common certification of the whole building for blocks with a common heating system, or</li> <li>— on the assessment of another representative apartment in the same block. Member States may exclude the categories referred to in Article 4(3) from the application of this paragraph.</li> </ul> <p>2. The energy performance certificate for buildings shall include reference values such as current legal standards and benchmarks in order to make it possible for consumers to compare and assess the energy performance of the building. The certificate shall be accompanied by recommendations for the cost-effective improvement of the energy performance. The objective of the certificates shall be limited to the provision of information and any effects of these certificates in terms of legal proceedings or otherwise shall be decided in accordance with national rules.</p> <p>3. Member States shall take measures to ensure that for buildings <b>with a total useful floor area over 1000 m<sup>2</sup></b> occupied by public authorities and by institutions providing public services to a large number of persons and therefore frequently visited by these persons an energy certificate, not older than 10 years, is placed in a prominent place clearly visible to the public. The range of recommended and current indoor temperatures and, when appropriate, other relevant climatic factors may also be clearly displayed.</p>	<p>the certificate shall not exceed 10 years. Certification for apartments or units designed for separate use in blocks may be based:</p> <ul style="list-style-type: none"> <li>— on a common certification of the whole building for blocks with a common heating system, or</li> <li>— on the assessment of another representative apartment in the same block. Member States may exclude the categories referred to in Article 4(3) from the application of this paragraph.</li> </ul> <p>2. The energy performance indicators used in the energy performance certificate for buildings shall <b>be expressed in terms of theoretical energy demand based on primary energy and quantify CO<sub>2</sub> emissions</b> and include reference values such as current legal standards and benchmarks in order to make it possible for consumers to compare and assess the energy performance of the building. The certificate shall be accompanied by recommendations for the cost-effective improvement of the energy performance. <b>The recommendations should be ranked according to the estimated savings potential.</b> The objective of the certificates shall be limited to the provision of information and any effects of these certificates in terms of legal proceedings or otherwise shall be decided in accordance with national rules.</p> <p>3. Member States shall take measures to ensure that for <b>all</b> buildings occupied by public authorities and by institutions providing public services to a large number of persons and therefore frequently visited by these persons an energy certificate, not older than 10 years, is placed in a prominent place clearly visible to the public. The range of recommended and current indoor temperatures and, when appropriate, other relevant climatic factors may also be clearly displayed.</p> <p><b>4. (new) Member States shall ensure that software used for the calculation of the energy performance is certified on the basis of objective criteria and provides an accurate rating for a building / flat.</b></p>
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**Reasons:**

*7.1. The phasing-in of the certificates at Member State level has shown that the certificate is not always presented to the new tenant / owner. This may be due to a lack of information on either side. It is also possible that the seller / landlord is not prepared to pay for the certificate or the*

*certificate indicates a poor performance of the building / flat, which the seller / landlord wants to hide. Such a situation must be avoided.*

*7.2. Certain countries allow the certificate to be based on real energy consumption for certain existing buildings. However, this makes it impossible for “consumers to compare and assess the energy performance of the building.” Only the theoretical energy demand provides a clear indication independently from the number of occupiers and their habits. Furthermore, it should be clearly stipulated that the certificate should indicate primary energy demand and CO2 emissions, as these are the main indicators of a building’s efficiency.*

*7.3. The directive on energy end-use efficiency and energy services clearly requires Member States to assume the role of forerunners in the field of energy efficiency. The display of the certificate would increase the awareness of the public and encourage public authorities to opt for more efficient buildings or undertake improvement measures.*

*7.4. Tests in a number of countries have shown that different software tools come to different ranking for same building. This jeopardizes the credibility of the certificate. Hence, measures must be taken to guarantee the quality of software tools.*

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