

### ANNEX III

#### **Comparative methodology framework to identify cost-optimal levels of energy performance requirements for buildings and building elements**

The comparative methodology framework shall enable Member States to determine the energy performance of buildings and building elements and the economic aspects of measures relating to the energy performance, and to link them with a view to identifying the cost-optimal level.

The comparative methodology framework shall be accompanied by guidelines outlining how to apply this framework in the calculation of cost-optimal performance levels.

The comparative methodology framework shall allow for taking into account use patterns, outdoor climate conditions, investment costs, building category, maintenance and operating costs (including energy costs and savings), earnings from energy produced, where applicable, and disposal costs, where applicable. It should be based on relevant European standards relating to this Directive.

The Commission shall also provide:

- guidelines to accompany the comparative methodology framework; these guidelines will serve to enable the Member States to undertake the steps listed below,
- information on estimated long-term energy price developments.

For the application of the comparative methodology framework by Member States, general conditions, expressed by parameters, shall be laid down at Member State level.

The comparative methodology framework shall require Member States to:

- define reference buildings that are characterised by and representative of their functionality and geographic location, including indoor and outdoor climate conditions. The reference buildings shall cover residential and non-residential buildings, both new and existing ones,
- define energy efficiency measures to be assessed for the reference buildings. These may be measures for individual buildings as a whole, for individual building elements, or for a combination of building elements,
- assess the final and primary energy need of the reference buildings and the reference buildings with the defined energy efficiency measures applied,
- calculate the costs (i.e. the net present value) of the energy efficiency measures (as referred to in the second indent) during the expected economic lifecycle applied to the reference buildings (as referred to in the first indent) by applying the comparative methodology framework principles.

By calculating the costs of the energy efficiency measures during the expected economic lifecycle, the cost-effectiveness of different levels of minimum energy performance requirements is assessed by the Member States. This will allow the determination of cost-optimal levels of energy performance requirements.