



<b>2.3 private/public buildings</b>	<i>Member States shall ensure that by 31 December 2020, all new buildings are nearly zero- energy buildings and after 31 December 2018, new buildings occupied and owned by public authorities are nearly zero-energy buildings.</i>	EPBD article 9.1a/b	private/public	Third Revision of Minimum Energy Performance Requirements (2018-2020) aims at fulfilling the requirements of EPBD
<b>2.4</b> In case that a additional or separate definiton(s) exists (e.g. for different building types), please add a new sheet by using the button on the right (to use this option Excel macros need to be activated).			click to add new sheet	
<b>3. Energy Balance / Calculation</b>				
<b>3.1 balance type</b>	<i>[...] The nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources, including energy from renewable sources Energy performance of a building means the calculated or measured amount of energy needed to meet the energy demand [...]</i>	EPBD article 2.2  EPBD article 2.4	not specified	
<b>3.2 physical boundary</b>	<i>This directive lays down requirements as regards the common general framework for [...] buildings and building units. [...] building' means a roofed construction having walls, for which energy is used to condition the indoor climate.</i>	EPBD article 1.2a  EPBD article 2.1	single building	pre-analysis is done for 3 types of reference buildings, but still subject to public consultation
<b>3.3 system boundary demand / energy uses included</b>				
<ul style="list-style-type: none"> <li>▪ <b>space heating, domestic hot water</b></li> <li>▪ <b>ventilation, cooling, air conditioning</b></li> <li>▪ <b>auxiliary energy</b></li> <li>▪ <b>lighting</b></li> <li>▪ <b>plud loads, appliances, IT</b></li> <li>▪ <b>central services</b></li> <li>▪ <b>electric vehicles</b></li> <li>▪ <b>embodied energy</b></li> </ul>	<i>[...] energy performance of a building means the calculated or measured amount of energy needed to meet the energy demand associated with a typical use of the building, which includes, inter alia, energy used for heating, cooling, ventilation, hot water and lighting.</i>	EPBD article 2.4	considered considered not considered considered not considered not considered not considered not considered not considered	

<b>3.4 system boundary generation / renewable energy sources included</b>				
<ul style="list-style-type: none"> <li>▪ <b>generation on-site</b></li> </ul>	<p><i>[...] The nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby.</i></p> <p><i>[...] energy from renewable sources means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.</i></p>	<p>EPBD article 2.2</p> <p>EPBD article 2.6</p>	<p>not defined</p>	<p>The pre-definition of the report gives RES-Shares but not how they are generated</p>
<ul style="list-style-type: none"> <li>▪ <b>generation near by</b></li> </ul>	<p><i>[...] minimum levels of energy from renewable</i></p>	<p>EPBD article 13.4</p>	<p>not defined</p>	
<ul style="list-style-type: none"> <li>▪ <b>generation external</b></li> </ul>	<p><i>sources [...] to be fulfilled, inter alia, through district</i></p>		<p>not defined</p>	
<ul style="list-style-type: none"> <li>▪ <b>crediting</b></li> </ul>	<p><i>heating and cooling [...].</i></p>		<p>not defined</p>	
<b>3.5 balance period / calculation step</b>	<p><i>[...] The methodology for calculating energy performance should be based not only on the season in which heating is required, but should cover the annual energy performance of a building [...]</i></p> <p><i>[...] requirements should be set with a view to [...] the cost-optimal balance between the investments involved and the energy costs saved throughout the lifecycle of the building [...]</i></p>	<p>EPBD preamble recital 9</p> <p>EPBD preamble recital 10</p>	<p>yearly</p>	<p>primary energy use of the reference buildings is given in kWh/m<sup>2</sup>/yr</p>
<b>3.6 monthly accounting limitation</b>			<p>select and describe right</p>	
<b>4. Accounting System</b>				
<b>4.1 normalization</b>	<p><i>[...] including a numerical indicator of primary energy use expressed in kWh/m<sup>2</sup> per year</i></p>	<p>EPBD article 9.3a</p>	<p>other</p>	<p>not specified</p>

<b>4.2 primary metric</b>	<i>The energy performance of a building shall be expressed in a transparent manner and shall include an energy performance indicator and a numeric indicator of primary energy use, based on primary energy factors per energy carrier, which may be based on national or regional annual weighted averages or a specific value for on-site production. [...] including a numerical indicator of primary energy use expressed in kWh/m<sup>2</sup> per year. [...] primary energy' means energy from renewable and non-renewable sources which has not undergone any conversion or transformation process</i>	EPBD Annex 1  EPBD 9.3a  EPBD article 2.5	primary / source energy (renewable part included)	primary energy use of the reference buildings is given in kWh/m <sup>2</sup> /yr with at least 25% of the use covered by RES
<b>4.3 secondary metric</b>			select and describe right	
<b>4.4 symmetric or asymmetric weighting</b>			select and describe right	
<b>4.5 time dependent weighting</b>	<i>Primary energy factors [...] may be based on national or regional yearly average values and may take into account [...] European standards</i>	EPBD 9.3a	select and describe right	not specified
<b>5. Further requirements</b>				
<b>5.1 fraction of renewables</b>	<i>Member States shall introduce [...] appropriate measures [...] to increase the share of all kinds of energy from renewable sources in the building sector [...]. By 31 December 2014, Member States shall [...] require the use of minimum levels of energy from renewable sources in new buildings and in existing buildings [...] [...] The nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources [...]</i>	RED article 13.4  EPBD article 2.2	defined	primary energy use of the all three reference buildings (residential and non-residential) is given in kWh/m <sup>2</sup> /yr with at least 25% of the use covered by RES (pre-analysis, results are subject to public consultation)
<b>5.2 temporal performance</b>				

▪ load match			select and describe right	
▪ grid interaction			select and describe right	
<b>5.3 energy performance or rating requirements</b>	<i>nearly zero-energy building means a building that has a very high energy performance [...]. The nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources [...] The energy performance [...] shall [...] include an energy performance indicator and a numeric indicator of primary energy use [...]</i>	EPBD article 2.2	select and describe right	
▪ energy performance indicator				
▪ numeric indicator of primary energy use		EPBD Annex 1	residential: 180 kWh/m <sup>2</sup> /yr non-residential: defined	calculation done for three reference buildings 2 residential (different climate zones have different technical
<b>5.4 general framework / prescriptive requirements</b>	<i>The methodology shall [...] take into consideration: thermal characteristics (thermal capacity, insulation, passive heating, cooling elements, and thermal bridges), heating installation and hot water supply, air-conditioning installations, natural and mechanical ventilation, built-in lighting, the design, positioning and orientation of the building, outdoor climate, passive solar systems and solar protection, [...], internal loads</i>	EPBD Annex 1	defined	see report for relevant tables
<b>5.5 definition of comfort level &amp; IAQ requirements (for winter and summer season, beside other national directives)</b>	<i>This Directive [...] takes into account [...] indoor climate requirements [...] The methodology shall [...] take into consideration: [...] indoor climatic conditions [...] That includes [...] indoor air-quality, adequate natural light [...].</i>	EPBD article 1.1 EPBD Annex 1 EPBD preamble recital 9	defined	see report for relevant tables

<b>5.6 monitoring procedure</b>	<i>[...] energy performance of a building means the calculated or measured amount of energy needed [...] Member States shall encourage the introduction of intelligent metering systems [...] and the installation of automation, control and monitoring systems [...]</i>	EPBD article 2.4  EPBD article 8.2	not defined	
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