

National plan for increasing the number of nearly zero - energy buildings in Austria



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By: **Wolfgang Jilek**

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1 Starting point

Please give a short overview of your national building stock. Describe the most important characteristics and emerging needs. Additionally, illustrate the chronological development of national requirements on the energy performance of buildings (for an example, see guidance document)

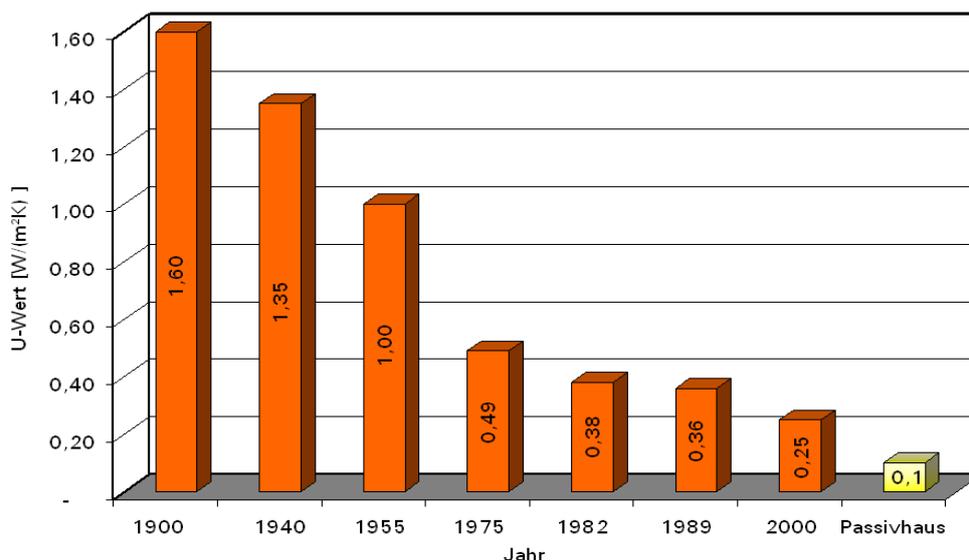
Because of the variety of climate the Austrian Länder (= provinces which are responsible for the building codes and many other energy related parts of legislation) show very different buildings. In urban areas (except Vienna) the building structure is mainly 3 to 6 storey buildings in the central areas, with some few higher buildings and mainly 2 to 4 storey buildings around the centre. Vienna is the only town with some areas of higher buildings and sky scrapers.

The usual building material had been bricks and wood, modern non-residential buildings are built with concrete. Since the late 80ies wooden residential two storey buildings have seen a renaissance and recent buildings use wood even for more than two or three storeys.

As for energy performance it can be said that the Austrian system of subsidizing residential buildings (called "Wohnbauförderung") has introduced elements of energy saving and the use of renewables from 1984 onwards thus leading to a very high energy performance, triple glazed windows and u-values of walls below 0,15 W/m²K are becoming the standard for residential buildings and partly for non-residential buildings, too.

The subsidizing system has triggered the quality of walls, roofs, windows etc. leading the development towards the NZEB standard which should be reached by 2020, but in 2013 there were already more than 10.000 passive buildings in Austria which have a much higher performance level than the so called "Niedrigstenergiegebäude", corresponding to the NZEB.

The following table shows the development of the u-values of walls in the building code of the Land (province) of Styria.



2 Application of the definition of nearly zero-energy buildings

Please indicate how a nearly zero-energy building is defined within national context and explain underlying assumptions and factors that provide the rationale for the chosen definition.

Austria has drawn up its **National Plan** for increasing the number of NZEB including the detailed application in practice of the definition of nearly zero-energy buildings and intermediate targets for improving the energy performance of new buildings by 2015. This document had been sent to the European Commission and will be found under

http://ec.europa.eu/energy/efficiency/buildings/implementation_en.htm

It includes inter alia four numerical indicators:

- heat demand (Heizwärmebedarf = HWB) expressed in kWh/m², year,
- primary energy use expressed in kWh/m², year
- CO₂-emission expressed in kg/m², year,
- Energy performance factor (Gesamtenergieeffizienzfaktor), without dimension

3 Intermediate targets for improving the energy performance of new buildings in order to ensure that by 31 December 2020 all new buildings are nearly zero-energy buildings

Please report the 2015 targets ensuring that by 31 December 2020 all new buildings are nearly zero-energy buildings. Also explain how they relate to and help to ensure that all new buildings are nearly zero-energy buildings by 31 December 2020.

See also **National Plan**.

3.1.1 Qualitative 2015 targets: Interim energy related requirements for new residential and non-residential buildings

Requirements on fraction of renewable energies: no fraction defined

Requirements on useful energy demand: no useful energy demand defined, the final energy demand is defined in the OIB-guideline 6 ("OIB-Richtlinie 6") according to the National Plan (see <http://www.oib.or.at/>).

Requirements on primary energy demand: See National Plan.

3.1.2 Quantitative 2015 targets: Share of nZEB according to official nZEB definition on all newly constructed buildings (define reference parameter e.g. number of buildings, floor area, volume etc.):

As mentioned above, the building codes (of the nine Austrian Länder) will successively follow the timeline of the National Plan. The NZEB level will be mandatory by the end of 2020 as provided in the directive.

Beyond this development "passive buildings" cover a growing share of all kinds of buildings, not only residential ones; more than 10000 have already been realized (see <http://www.igpassivhaus.at/>). Inter alia, Austrian activities have led to the first place of the world wide "solar decathlon".

4 Intermediate targets for improving the energy performance of new buildings in order to ensure that by 31 December 2018, new buildings occupied and owned by public authorities are nearly zero-energy buildings

Please report here the 2015 targets ensuring that by 31 December 2018 all new public buildings are nearly zero-energy buildings. Also explain how they relate to and help to achieve that by 31 December 2018, all new public buildings are nearly zero-energy buildings

Generally, public buildings have to follow the same rules as residential and non-residential buildings mentioned under chapter 3, but two years earlier.

4.1.1 Qualitative 2015 targets: Interim energy related requirements for new public buildings

Requirements on fraction of renewable energies: -

Requirements on useful energy demand: -

Requirements on primary energy demand: -

4.1.2 Quantitative 2015 targets: Share of public nZEB according to official nZEB definition on all newly constructed public buildings (define reference parameter e.g. number of buildings, floor area, volume etc.):

See 3.1.2

5 Policies and measures for the promotion of all new buildings being nearly zero-energy buildings after 31 December 2020

5.1 Residential buildings

5.1.1 Relevant regulations

The OIB-guidelines have been implemented in the building codes:

Burgenland	08/01/2013
Kärnten	01/10/2012
Niederösterreich	06/11/2013
Oberösterreich	01/07/2013
Salzburg (guideline 2007 still in place)	
Steiermark	01/01/2013
Tirol	01/09/2013
Vorarlberg	01/01/2013
Wien	01/01/2013

5.1.2 Relevant economic incentives and financing instruments

See annex 2

5.1.3 Energy performance certificates' use and layout in relation to nZEB standard

See OIB-guideline 6

5.1.4 Supervision (energy advice and audits)

Energy advice has a long tradition in Austria (starting in the early 80ies). Besides professionals and civil engineers the nine Länder have installed a common system for the formation and qualification of energy advisers and consultants organised by ARGE EBA (Arbeitsgemeinschaft EnergieberaterInnen-Ausbildung):

[http://www.stmk.wifi.at/eShop/bbDetails.aspx/Qualifizierung-EnergieberaterIn-nach--ARGE-EBA---Teil-A-\(Grundkurs\)/@/bbnr/551383/](http://www.stmk.wifi.at/eShop/bbDetails.aspx/Qualifizierung-EnergieberaterIn-nach--ARGE-EBA---Teil-A-(Grundkurs)/@/bbnr/551383/)

[http://www.stmk.wifi.at/eShop/bbDetails.aspx/Qualifizierung-EnergieberaterIn-nach--ARGE-EBA---Teil-F-\(Fortgeschrittene\)/@/bbnr/551393/](http://www.stmk.wifi.at/eShop/bbDetails.aspx/Qualifizierung-EnergieberaterIn-nach--ARGE-EBA---Teil-F-(Fortgeschrittene)/@/bbnr/551393/)

in most Länder energy consulting is mandatory if subsidies are given (e.g. within the "Wohnbauförderung"-system.

5.1.5 Information (tools)

There are manifold information activities and tools provided by the energy agencies which are supported by the Länder governments, e.g.

<http://www.tobgld.at/index.php?id=978&L=3>

<http://www.energiebewusst.at/>

<http://www.enu.at/enu-english>

<http://www.esv.or.at/english/home/>

<http://www.salzburg.gv.at/energieberatung>

<http://www.lev.at/>

<https://www.energie-tirol.at/>

<https://www.energieinstitut.at/>

<http://www.wienenergie.at/eportal/ep/channelView.do/pageTypeId/11889/channelId/-22149>

5.1.6 Demonstration

Demonstration objects can be found via links to the energy agencies (see 5.1.5),

the Chamber of Civil engineers <http://www.arching.at/baik/>,
the IG Passivhaus <http://www.igpassivhaus.at/>

5.1.7 Education and training
See 5.1.4

5.2 Non-residential buildings

5.2.1 Relevant regulations
See residential buildings

5.2.2 Relevant economic incentives and financing instruments
See residential buildings

5.2.3 Energy performance certificates' use and layout in relation to nZEB standard
See residential buildings

5.2.4 Supervision (energy advice and audits)
See residential buildings

5.2.5 Information (tools)
See residential buildings

5.2.6 Demonstration

5.2.7 Education and training
See residential buildings

5.3 From your point of view, how would you evaluate the current measures that are in force? Please also try to describe the existing gap between what is in force and what should be in force in order to ensure that after 31 December 2020, all new buildings are nearly zero-energy buildings. Are there precise measures planned for the future?

Since building codes correspond to the National Plan, building subsidies have always had and will have a more ambitious level of energy performance than the building codes (until 2020) and information is well installed the goals of the EPBD should be realised until the end of 2020. At the moment, only additional information campaigns are planned in some of the Länder (see energy agencies).

6 Policies and measures for the promotion of all new buildings occupied and owned by public authorities being nearly zero-energy buildings after 31 December 2018

6.1 All new buildings occupied and owned by public authorities
6.1.1 Relevant regulations See residential buildings
6.1.2 Relevant economic incentives and financing instruments See residential buildings
6.1.3 Energy performance certificates' use and layout in relation to nZEB standard See residential buildings
6.1.4 Supervision (energy advice and audits) See residential buildings
6.1.5 Information (tools) See residential buildings
6.1.6 Demonstration See residential buildings
6.1.7 Education and training See residential buildings
6.2 From your point of view, how would you evaluate the current measures that are in force? Please also describe the existing gap between what is in force and what should be in force in order to ensure that after 31 December 2018, all new public buildings are nearly zero-energy buildings. Are there precise measures planned for the future?
Since building codes correspond to the National Plan, building subsidies have always had and will have a more ambitious level of energy performance than the building codes (until 2020) and information is well installed the goals of the EPBD for public buildings should be realised until the end of 2018. At the moment, only additional information campaigns are planned in some of the Länder (see energy agencies).

7 Policies and measures for the promotion of existing buildings undergoing major renovation being transformed to nearly zero-energy buildings

7.1 Residential buildings
7.1.1 Relevant regulations See residential buildings
7.1.2 Relevant economic incentives and financing instruments See residential buildings
7.1.3 Energy performance certificates' use and layout in relation to nZEB standard See residential buildings
7.1.4 Supervision (energy advice and audits) See residential buildings
7.1.5 Information (tools) See residential buildings
7.1.6 Demonstration See residential buildings
7.1.7 Education and training See residential buildings
7.2 Non-residential buildings
7.2.1 Relevant regulations See residential buildings
7.2.2 Relevant economic incentives and financing instruments See residential buildings
7.2.3 Energy performance certificates' use and layout in relation to nZEB standard See residential buildings
7.2.4 Supervision (energy advice and audits) See residential buildings
7.2.5 Information (tools) See residential buildings
7.2.6 Demonstration See residential buildings
7.2.7 Education and training See residential buildings
7.3 From your point of view, how would you evaluate the current measures that are in force? Please also try to describe the existing gap between what is in force and what should be in force in order to stimulate the transformation of buildings that are refurbished into nZEB. Are there precise measures planned for the future?
See residential buildings

8 Additional Information

Please fill in any additional information on actions taken to increase the number of nearly zero-energy buildings in your country.

See energy agencies and annex 2.

9 Possible improvements

Where do you see most room for improvement in order to increase the number of nearly zero-energy buildings in your country? Please also try to give examples for appropriate measures.

Currently, a large resistance movement against the National Plan (being the relevant road Map towards NZEB) has risen and the leading groups organizing the resistance, especially the Austrian Chamber of Commerce and parts of the commercial building industry, argue with high prices and a thus unaffordable level of investment costs of residential buildings.

Several studies have been worked out during the last few years a showing that passive house standard (which is still much more ambitious than NZEB) is accepted by some groups of people who are well prepared to live in such a house and to use it the special way it offers. In this case, costs are between 5 and 7 percent higher than those of ordinary "actual building code" houses. Other studies – also used to justify the above mentioned resistance – show, that people living in a NZEB can have the same needs of energy consumption for conditioning their building as those living in less efficient buildings, due to their behaviour which does not correspond to the possibilities a NZEB offers.

Better information for people using NZEB or passive house standard is necessary and information campaigns are in preparation.

Annex 1 - Definition of nZEB

1. General Information	
Country	Austria
Name of regulation ,directive, certification scheme	Building codes of nine Länder basing on "OIB-Richtlinie 6" (= OIB-guideline 6): http://www.oib.or.at/ National Plan (timeline until 2020) http://ec.europa.eu/energy/efficiency/buildings/implementation_en.htm
Editor of regulation, directive, certification scheme	OIB/Länder
Year of introduction of current version	Click and choose. Burgenland 08/01/2013 Kärnten 01/10/2012 Niederösterreich 06/11/2013 Oberösterreich 01/07/2013 Salzburg (guideline 2007 still in place) Steiermark 01/01/2013 Tirol 01/09/2013 Vorarlberg 01/01/2013 Wien 01/01/2013
benchmark of current version (Select one)	<input type="radio"/> Energy Autonomous building <input type="radio"/> Efficient buildings <input type="radio"/> Net zero energy buildings <input type="radio"/> Plus energy buildings <input checked="" type="radio"/> Nearly zero energy buildings <input type="radio"/> Zero energy buildigns <input type="radio"/> Other
Integration and consideration in national directive	Please add explanation/ comment/ source not considered
2. Field of Application	
2.1 Building category Select one and describe right is this typology included in the directive? Are special requirements or exceptions defined for this typology? If more than one definition exists, you can duplicate this appendix for each of them.	
<i>Member States shall ensure that all new buildings are nearly zero- energy buildings by 31 December 2020 respectively after 31 December 2018 (occupied and owned by public authorities). For the purpose of the calculation buildings should be adequately classified into the [...] categories. References: EPBD article 9.1a/b, EPBD Annex I.</i>	
Category <input type="radio"/> Residential <input type="radio"/> Non-residential <input checked="" type="radio"/> Residential and Non-residential	Building categories slightly differ from the EU-guideline: 1) office buildings 2) kindergardens and primary schools 3) sec./high schools, universities 4) hospitals 5) care homes 6) guest houses 7) hotels 8) restaurants 9) buildings for special events 10) sports facilities 11) wholesale and retail trade service buildings 12) indoor swimming pool 13) other conditioned buildings
single family houses	included in the directive See National Plan
apartment blocks	included in the directive See National Plan
Offices	included in the directive See National Plan
educational buildings	included in the directive See National Plan

hospitals	included in the directive	See National Plan
hotels and restaurants	included in the directive	See National Plan
sports facilities	included in the directive	See National Plan
wholesale and retail trade service buildings	included in the directive	See National Plan
other types of energy-consuming buildings	included in the directive	See National Plan
2.2 New/retrofit buildings Select one and describe right. If more than one definition exists, you can duplicate this appendix for each of them.		
<i>New, and existing buildings that are subject to major renovation, should meet minimum energy performance requirements adapted to the local climate.</i> <i>Member States shall furthermore [...] stimulate the transformation of buildings that are refurbished into nearly zero-energy buildings. Reference: EPBD preamble recital 15, EPBD article 9.2.</i>		
<input type="radio"/> New buildings <input type="radio"/> Retrofit <input checked="" type="radio"/> New and retrofit	See OIB-Richtlinie 6 National Plan	
2.3 Private/public buildings Select one and describe right. If more than one definition exists, you can duplicate this appendix for each of them.		
<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. Reference: EPBD article 9.1a/b</i>		
<input type="radio"/> Private <input type="radio"/> Public <input checked="" type="radio"/> Public and private	See OIB-Richtlinie 6 National Plan	
3. Energy Balance and calculation		
3.1 Balance Type Describe how renewable energy is calculated / included in the energy balance (e.g. renewable heat from solar thermal collectors reduces energy use for heat and DHW; renewable electricity reduces/compensates delivered electricity). <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</i> <i>Energy performance of a building means the calculated or measured amount of energy needed to meet the energy demand [...]. Reference: EPBD article 2.2, EPBD article 2.4</i>		
<input type="radio"/> energy demand vs energy generation <input type="radio"/> energy import vs energy export <input type="radio"/> virtual balance between demand and generation <input type="radio"/> not specified <input checked="" type="radio"/> other	"Energy performance" is calculated as "total energy efficiency factor" (=Gesamtenergieeffizienzfaktor f_{GEE}) (see also OIB-Leitfaden Energietechnisches Verhalten von Gebäuden, http://www.oib.or.at/)	
3.2 Physical boundary Select the widest possible boundary and describe right if/which further subdivisions are possible <i>This directive lays down requirements as regards the common general framework for [...] buildings and building units.</i> <i>[...] building' means a roofed construction having walls, for which energy is used to condition the indoor climate.</i> <i>Reference: EPBD article 1.2, EPBD article 2.1</i>		
<input type="radio"/> single building	According to Austrian rules it is allowed/possible to calculate energy indicators for one unit (apartment) or a building cluster built at the same time for the same purpose.	

<input type="radio"/> building unit <input type="radio"/> building unit <input type="radio"/> building site <input type="radio"/> cluster of buildings <input type="radio"/> quarter or city <input checked="" type="radio"/> other			
3.3 System boundary demand / energy uses included Define if this load sector is included in the energy balance calculation (other requirements like maximum consumption values can be described below under item 5, further requirements). <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. Reference: EPBD article 2.4</i>			
space heating, domestic hot water	<table border="1"> <tr> <td>considered</td> <td>Please add explanation/ comment/ source</td> </tr> </table>	considered	Please add explanation/ comment/ source
considered	Please add explanation/ comment/ source		
ventilation, cooling, air conditioning	<table border="1"> <tr> <td>considered</td> <td>Please add explanation/ comment/ source</td> </tr> </table>	considered	Please add explanation/ comment/ source
considered	Please add explanation/ comment/ source		
auxiliary energy	<table border="1"> <tr> <td>considered</td> <td>Please add explanation/ comment/ source</td> </tr> </table>	considered	Please add explanation/ comment/ source
considered	Please add explanation/ comment/ source		
lighting	<table border="1"> <tr> <td>considered</td> <td>for non-residential buildings only</td> </tr> </table>	considered	for non-residential buildings only
considered	for non-residential buildings only		
plug loads, appliances, IT	<table border="1"> <tr> <td>not defined</td> <td>Please add explanation/ comment/ source</td> </tr> </table>	not defined	Please add explanation/ comment/ source
not defined	Please add explanation/ comment/ source		
central services	<table border="1"> <tr> <td>not defined</td> <td>Please add explanation/ comment/ source</td> </tr> </table>	not defined	Please add explanation/ comment/ source
not defined	Please add explanation/ comment/ source		
electric vehicles	<table border="1"> <tr> <td>not defined</td> <td>Please add explanation/ comment/ source</td> </tr> </table>	not defined	Please add explanation/ comment/ source
not defined	Please add explanation/ comment/ source		
embodied energy	<table border="1"> <tr> <td>not defined</td> <td>Please add explanation/ comment/ source</td> </tr> </table>	not defined	Please add explanation/ comment/ source
not defined	Please add explanation/ comment/ source		
3.4 System boundary generation / renewable energy sources included Select and explain right (e.g. only in building's physical footprint, on-site, on-site incl. import of off-site renewables like pellets, wood chips, rape oil etc.). How is CHP (based on non-renewable energy carriers like natural gas or oil) included? <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. [...] energy from renewable sources means energy from renewable non-fossil sources, namely wind, solar, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases. [...] minimum levels of energy from renewable sources [...] to be fulfilled, inter alia, through district heating and cooling [...]. Reference: EPBD article 2.2, EPBD article 2.6, EPBD article 13.4</i>			
generation on-site	<table border="1"> <tr> <td>considered</td> <td>Included in the total energy efficiency factor</td> </tr> </table>	considered	Included in the total energy efficiency factor
considered	Included in the total energy efficiency factor		
generation near by	<table border="1"> <tr> <td>considered</td> <td>Included in the total energy efficiency factor</td> </tr> </table>	considered	Included in the total energy efficiency factor
considered	Included in the total energy efficiency factor		
generation external	<table border="1"> <tr> <td>considered</td> <td>Included in the total energy efficiency factor</td> </tr> </table>	considered	Included in the total energy efficiency factor
considered	Included in the total energy efficiency factor		
crediting	<table border="1"> <tr> <td>not defined</td> <td>Please add explanation/ comment/ source</td> </tr> </table>	not defined	Please add explanation/ comment/ source
not defined	Please add explanation/ comment/ source		
3.5 Balance period / calculation step What is the defined period of time over which the balance is calculated? Is the calculation period divided into calculation steps (e.g. one hour, one month or one heating and/or cooling season)? <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 [...]. Reference: EPBD preamble recital 9</i> <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 [...]. Reference: EPBD preamble recital 10.</i>			
<input type="radio"/> Life cycle balance <input checked="" type="radio"/> Yearly <input type="radio"/> Seasonal <input type="radio"/> Other	requirements (set in the National Plan) are set with a view to the cost-optimal balance between the investments involved and the energy costs saved throughout the lifecycle of the building (corresponding to the cost optimum, see also http://ec.europa.eu/energy/efficiency/buildings/implementation_en.htm)		
3.6 Monthly accounting limitation Is a monthly accounting limit defined? Is it based on end energy (e.g. monthly electricity generation compensates monthly electricity loads) or on primary energy (any monthly generation compensates any loads)? Are surpluses transferred to an annual balance?			
<input checked="" type="radio"/> monthly source based end energy crediting	Please add explanation/ comment/ source		

<input type="radio"/> monthly primary energy crediting <input type="radio"/> nothing defined <input type="radio"/> other	
4. Accounting system	
4.1 Normalization	
<p><i>[...] including a numerical indicator of primary energy use expressed in kWh/m² per year. Reference: EPBD article 9.3a</i></p>	
<input type="radio"/> person <input type="radio"/> gross floor area <input type="radio"/> net floor area <input type="radio"/> gross volume <input type="radio"/> net volume <input type="radio"/> usable floor area <input type="radio"/> treated floor area <input type="radio"/> conditioned area <input checked="" type="radio"/> other	<p>4 indicators have to be calculated (and shown on the first page of the energy performance certificate):</p> <ol style="list-style-type: none"> 1. Heat demand (“Heizwärmebedarf”) in kWh/m², year 2. Primary energy demand in kWh/m², year 3. CO₂-emissions in kg/m², year 4. Total energy efficiency factor (without dimension)
4.2 Primary metric	
<p>Indicate which metric is used for the energy performance calculation / energy balance and give input on (the source of) the conversion factors on the right. Possible sources are e.g. EN 15603 or national and regional codes.</p>	
<p><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. Reference: EPBD Annex 1.</i></p>	
<p><i>[...] including a numerical indicator of primary energy use expressed in kWh/m² per year. Reference: EPBD 9.3a</i></p>	
<p><i>[...] primary energy’ means energy from renewable and non- renewable sources which has not undergone any conversion or transformation process. Reference : EPBD article 2.5</i></p>	
<input type="radio"/> energy need <input type="radio"/> energy use <input type="radio"/> delivered/site energy <input type="radio"/> primary / source energy (renewable part included) <input type="radio"/> primary / source energy (renewable part not included) <input type="radio"/> (equivalent) carbon emissions <input type="radio"/> exergy <input type="radio"/> energy costs <input type="radio"/> environmental credits <input type="radio"/> points (labeling system) <input checked="" type="radio"/> other	<p>“Energy performance” is calculated as “total energy efficiency factor” (=Gesamtenergieeffizienzfaktor f_{GEE}) (see also OIB-Leitfaden Energietechnisches Verhalten von Gebäuden, http://www.oib.or.at/)</p>

4.3 Secondary metric	
<input type="radio"/> energy use <input type="radio"/> energy need <input type="radio"/> delivered/site energy <input type="radio"/> primary / source energy (renewable part included) <input type="radio"/> primary / source energy (renewable part not included) <input type="radio"/> (equivalent) carbon emissions <input type="radio"/> exergy <input type="radio"/> energy costs <input type="radio"/> environmental credits <input type="radio"/> points (labeling system) <input checked="" type="radio"/> other	See 4.2
4.4 Symmetric or asymmetric weighting	
<input checked="" type="radio"/> symmetrical weighting <input type="radio"/> asymmetrical weighting	Please add explanation/ comment/ source
4.5 Time dependent weighting	
Static: no time dependent weighting (annual constant weighting/factors) Quasi-static: seasonal/monthly average weighting factors Dynamic: weighting factors based on shorter time periods /hourly basis (according to energy offer and demand in the grid)	
<i>Primary energy factors [...] may be based on national or regional yearly average values and may take into account [...] European standards. Reference: EPBD 9.3a</i>	
<input checked="" type="radio"/> static conversion factors <input type="radio"/> quasi static conversion factors <input type="radio"/> dynamic conversion factors	Static conversion factors based on national yearly average values (see OIB-Leitfaden and OIB-Richtlinie 6)
5. Further requirements	
5.1 Fraction of renewables	
Select and describe right if guidelines are given for any fraction of renewable energy and indicate how/at which level a certain fraction is calculated (e.g. solar thermal heat might be a fraction of energy use, electricity from PV a fraction of delivered energy.)	
<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 [...] Reference: RED article 13.4</i> <i>[...] The nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources [...]Reference : EPBD article 2.2</i>	
<input type="radio"/> defined	Please add explanation/ comment/ source

<input checked="" type="radio"/> not defined <input type="radio"/> defined in other regulation	
5.2 Temporal performance Describe if any requirements are given for a temporal match between on-site energy load and on-site energy generation (load match) and which calculation procedures are applied.	
Load match <input type="radio"/> defined <input checked="" type="radio"/> not defined	Please add explanation/ comment/ source
Grid interaction <input type="radio"/> defined <input checked="" type="radio"/> not defined	Please add explanation/ comment/ source
5.3 Energy performance or rating requirements Are limitations given for a standard energy rating, an energy indicator or maximum demands for heating, cooling, embodied energy, demand of appliances, etc.? If yes, type the values and give explanations on the right <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 [...]</i> <i>The energy performance [...] shall [...] include an energy performance indicator and a numeric indicator of primary energy use [...]. Reference : EPBD article 2.2, EPBD Annex 1.</i>	
Performance or rating <input checked="" type="radio"/> defined <input type="radio"/> not defined <input type="radio"/> defined in other regulation	For energy performance see National Plan, the extent of renewable energy use is not defined but dependant on the total energy performance.
Energy Performance indicator Is an energy performance indicator defined? If yes, type the values and the according unit.	Energy performance factor (Gesamtenergieeffizienzfaktor), without dimension (see National Plan).
Numeric indicator of primary energy use Is a numeric indicator of primary energy use defined? If yes, type the values and the according unit.	Primary energy use expressed in kWh/m ² , year (see National Plan).
5.4 General framework / prescriptive requirements Describe which guidelines are given for: Thermal characteristics (insulation, thermal bridges, thermal capacity, passive heating, internal loads, solar protection) Efficiency of installations (hot water supply, air-conditioning, lighting fan power)	
<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. Reference: EPBD Annex 1</i>	
See National Plan, OIB Leitfaden, OIB Richtlinie 6	

<input checked="" type="radio"/> defined <input type="radio"/> not defined <input type="radio"/> defined in other regulation	
<p>5.5 Definition of comfort level & IAQ requirements (for winter and summer season, beside other national directives)</p> <p>Describe which guidelines are given for indoor climatic conditions, minimum or maximum indoor temperature, minimum lighting levels/ daylight availability, minimum ventilation rates/ natural ventilation, indoor air quality, max. CO2 levels, etc.</p>	
<p><i>This Directive [...] takes into account [...] indoor climate requirements [...] Reference: EPBD article 1.1</i> <i>The methodology shall [...] take into consideration: [...] indoor climatic conditions [...] Reference: EPBD Annex 1</i> <i>That includes [...] indoor air-quality, adequate natural light [...]. Reference:</i> <i>EPBD preamble recital 9</i></p>	
<input type="radio"/> defined <input type="radio"/> not defined <input checked="" type="radio"/> defined in other regulation	<p>Please add explanation/ comment/ source</p>
<p>5.6 Monitoring procedure</p> <p>Describe if and how a monitoring mandatory is formulated; calculated or measured values are used; an evaluation of the indoor environmental quality is considered; which calculation step is used.</p>	
<p><i>[...] energy performance of a building means the calculated or measured amount of energy needed [...] Reference: EPBD article 2.4</i> <i>Member States shall encourage the introduction of intelligent metering systems [...] and the installation of automation, control and monitoring systems [...]. Reference: EPBD article 8.2</i></p>	
<input type="radio"/> defined <input checked="" type="radio"/> not defined	<p>Please add explanation/ comment/ source</p>

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