

Proposal for new energy requirements 2015

Chapter 14 Energy

Section 14-1. General requirements

- 1) A building shall be designed and constructed such that its energy need are low and can, as far as possible, be met by renewable energy sources.
- 2) The energy requirements apply to the building's heated usable floor space (BRA).

Section 14-2. Energy efficiency requirements

- 1) The building's total net energy needs shall not exceed the following limits and shall at the same time satisfy the requirements in section 14-3. – {specific limits will be calculated when the Regulation is laid down.¹}
- 2) In multi-function buildings, the building shall be divided into zones based on the building's classification and the respective energy limits that shall be met in each zone.
- 3) Calculations of a building's energy needs must be made in accordance with Norwegian standard NS 3031 or an equivalent European standard.
- 4) In the case of commercial buildings, the energy budget must be calculated using real values for the specific building. Such calculations shall be additional to the control calculations made using standardised values.
- 5) Apartment buildings with a central heating system and commercial buildings shall have purpose shared energy meters for room heating, ventilation heating and hot water.

Section 14-3 Minimum requirements for energy efficiency

- 1) The following values must be met:

<i>U-value external walls [W/(m² K)]</i>	<i>U-value roof [W/(m² K)]</i>	<i>U-value floor on ground and above open air [W/(m² K)]</i>	<i>U-value windows and doors, including frames [W/(m² K)]</i>	<i>Leakage figures at 50 Pa pressure differential (air change per hour)</i>
≤ 0.22	≤ 0.18	≤ 0.18	≤ 1.2	≤ 1.5

U-values shall be calculated as mean values for the various building components.

- 2) Pipes, equipment and ducts connected to the building's heating system must be insulated. The thickness of the insulation must be optimal from the perspective of energy efficiency and calculated in accordance with the Norwegian standard or an equivalent European standard.

Section 14-4 Energy supply requirements

The Ministry will examine two alternatives for section 14-4, first paragraph:

- 1) Alternative A: The installation of fossil fuel heating installations is not permitted.
Alternative B: The installation of fossil fuel heating installations is not permitted with the exception of gas boilers for peak loads.
- 2) Buildings with heated usable floor space (BRA) of more than 1,000 m² shall have multi source heating systems.

This does not apply to small houses.

¹ This depends on the ongoing revision of underlying calculation standard (EN 15603) that the Norwegian standard for energy calculations (NS 3031) is based on.

3) Small houses must be constructed with chimneys.

Section 14-5 Exceptions

1) The following values apply to leisure homes with less than 150 m² of heated usable floor space (BRA) and cog jointed external walls:

<i>Dimension external walls:</i>	<i>U-value roof [W/(m² K)]</i>	<i>U-value floor on ground and above open air [W/(m² K)]</i>	<i>U-value windows and doors, including frames [W/(m² K)]</i>	<i>Leakage figures at 50 Pa pressure differential (air change per hour)</i>
≥ 8" cog jointed	≤ 0.13	≤ 0.15	≤ 1.2	≤ 3.0

2) Only sections 14-3 and 14-4, first paragraph, apply to buildings with less than 70 m² heated usable floor space (BRA).

3) In the case of buildings with less than 150 m² heated usable floor space (BRA), the energy efficiency limit required in section 14-2, first paragraph, may be increased by up to 10 kWh per m² per year, assuming that the following can be documented:

a. the total net energy needs over the building's life cycle will not increase.

or

b. renewable electricity generation of a minimum of 3,000 kWh per year on the property.

4) This chapter does not apply to buildings that will maintain a low indoor temperature if the building is designed and constructed to ensure that its energy need is reasonable.

5) If the requirements in this chapter cannot be combined with the preservation of cultural heritage monuments and sites of historic value, the requirements shall apply insofar as they are appropriate.

Chapter 1 General provisions

Section 1-2. The Regulation's application to particular projects

(2) For a leisure home with a single dwelling unit, the following applies:

f. chapter 14. For leisure homes with less than 150 m² of heated usable floor space (BRA), only the requirements in sections 14-3 and 14-5, first and fifth paragraphs, apply. The requirements in chapter 14 do not apply to leisure homes with less than 70 m² heated space usable floor space (BRA).