

One Click LCA Norge reference buildings



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Background for reference building requirements

Norwegian market has a number of construction greenhouse gas reduction relevant programs, including BREEAM NOR 2016, as well as Statsbygg, Futurebuilt and other requirements. These include a definition of the reference building for GHG accounting.

One Click LCA is approved for BREEAM NOR 2016 Mat 01 with 100 % verified potential score ([see certificate](#)) and also certified for compliancy EN 15978 standard ([see certificate](#)).

Reference buildings in One Click LCA Norge

One Click LCA Norge implements reference buildings for all building types covered by Norwegian construction regulations. Details for all building types can be found [online](#). Reference buildings follow regulation and today's practice, and do not assume any particular environmental specifications for materials. Their purpose is to represent the market average. The reference buildings materials aim to represent market average, using European average data when no Norwegian average data is available.

One Click LCA implements and ensures all reference buildings created represent relevant building type created to fulfil the following regulations and standards:

- Byggeteknisk forskrift TEK 17
- NS 3031 Beregning av bygningers energiytelse - Metode og data
- prNS 3720, Metode for klimagassberegninger for bygninger (draft as of this writing)
- NS-EN 15978. Sustainability of construction works...
- NS3451:2009 Bygningsdelstabell
- NS 3457-3:2013 Klassifikasjon av byggverk. Del 3 Bygningstyper
- Statsbygg and Futurebuilt rules for GHG accounting for construction projects

The above list covers all standards relevant for materials and energy GHG accounting. Further, in case of passivhus energy level being chosen for modelling, the tool allows using:

- NS 3701:2012 Kriterier for passivhus og lavenergibygninger – Yrkesbygninger
- NS 3700:2013 Kriterier for passivhus og lavenergibygninger – Boligbygninger

Development and validation of the One Click LCA Norge reference buildings

The reference buildings model was developed and validated on assignment from Statsbygg together with the leading Norwegian experts in the field from A/S Civitas and Context AS, who have implemented the previous reference buildings models.

One Click LCA Norge includes two modules which include the reference building, tidligfase-tool for early phase consideration and NS 3720-tool for design and construction phase. Tidligfase-tool is based on reference buildings with fixed area and number of floors, scaled by BTA. Design phase tool uses reference building creation tool which allows adjusting building area and number of floors (split to heated and unheated and above and underground floors), scaled on size for realistic material use. Buildings have shoebox shape, with their depth meeting regulations for their use e.g. for daylighting.

Further information

Information about all the BREEAM NOR 2016 credits One Click LCA Norge can support can be found [online here](#). Any questions are welcomed at support@bionova.fi.