BASIC LCA FOR A MULTI STOREY RESIDENTIAL BUILDING

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Gronskar

ModernHus GRONSKAR
Mansion block, 8 stories
32 apartments
14 garage and 22 parking places
Building start: Spring 2007
Finish: Spring 2008
Gross area (BTA): 2,893 m²
Letable area (BOA): 2,249 m²
Energy for heating: 80 kWh/m²
District heating
A heat pump on exhaust air
Hollow concrete floor slabs
Prefabricated concrete elements for walls
Wall insulation: polystyrene
Mean U-value: 0.46 W/m²K
Builder: SKANSKA
Aim(s) of the case-study:
To test simplified LCA calculations on a typical new building, compare it with a reference building and communicate results with stakeholders (revised).

Status of the Case Study in April 2008
Energy and constructions data has been gathered
A SimaPro course has been attended

Organization of the work
Cooperation between Sweden, Malta and Italy

Main tasks to be developed
Define system boundaries and functional unit
Decide on scope of the work and who will do what
Perform LCA and find possible simplifications
Find a suitable way of presenting the results to stakeholders

Needs and expectations for collaborative work between Working Grp
Exchange of experience of LCA calculations for building structures
Exchange of suggestions for simplifications and LCA result presentation

Belgrade meeting discussions

Good to compare with reference – Swedish ref, Majroparken
Communication with stakeholders good
Stakeholders: residents, management people, Skanska
Certifying only the construction
Service life included?
Who designed the building, why did they chose this solution?
Nobody apart from Mauritz and Renata has SimaPro or similar tools
This means that we have to restrict the work very much.
  • Only energy use throughout operation phase - average data
  • Only materials production
  • Swedish data if not local is available
  • Minimum effect categories – those shown by Ricardo

Mauritz send more information on the project within 14 days and emissions on energy in Sweden Mauritz makes a template for emission from materials production