# SGBC NollCO<sub>2</sub> certification

#### Net zero carbon certification for new buildings developed by Sweden Green Building Council and its members





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# Why NollCO<sub>2</sub>-certification of buildings?

#### In 2015:

- Sweden's total domestic greenhouse gas emissions were 53 461 thousand tonnes CO2e
- Sweden's total emissions from the construction and real estate sector were 20 400 thousand tonnes of CO2e

Sweden aims to achieve net zero carbon by 2045 Total GHG emissions from the construction and real estate sector Tusen ton CO<sub>2</sub>e 25 000 20 000 Imported materials and services 15 000 Production in 10 000 Sweden 5 0 0 0 2008 2009 2010 2011 2012 2013 2014 2015 Källa och illustration: Boverket



### NollCO2 is an add-on certification





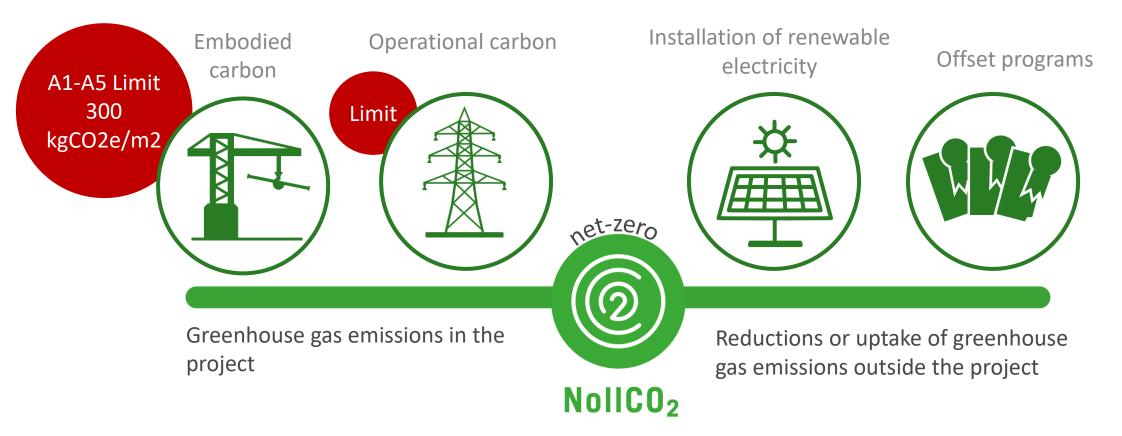
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### NollCO<sub>2</sub> - Net Zero Impact Model

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### Process step 1-4

#### 1. Reduction target



1.1 Calculate project baseline1.2 Verify that limit is possible to reach

#### 3. Reduce operational carboon



3.1 Operational carbon calculation3.2 Dialogue with engineers

#### 2. Reduce embodied carbon



2.1 Embodied carbon calculation2.2 Early dialogue with architect,manufacturers and entrepreneurs

#### 4. Renewable electricity (RES-E) production



4.1 RES-E production (and economics) calculation4.2 Offset calculation



#### Process step 5-7

#### 5. Offset remaining embodied carbon



5.1 Choose offsetting strategy5.2 Compensate within 5 years after finished building

#### 7. Verify and report



7.1 Verify for finished building7.2 Report 2:nd, 5:th year andthereafter each 5:th year

#### 6. Offset remaining operational carbon



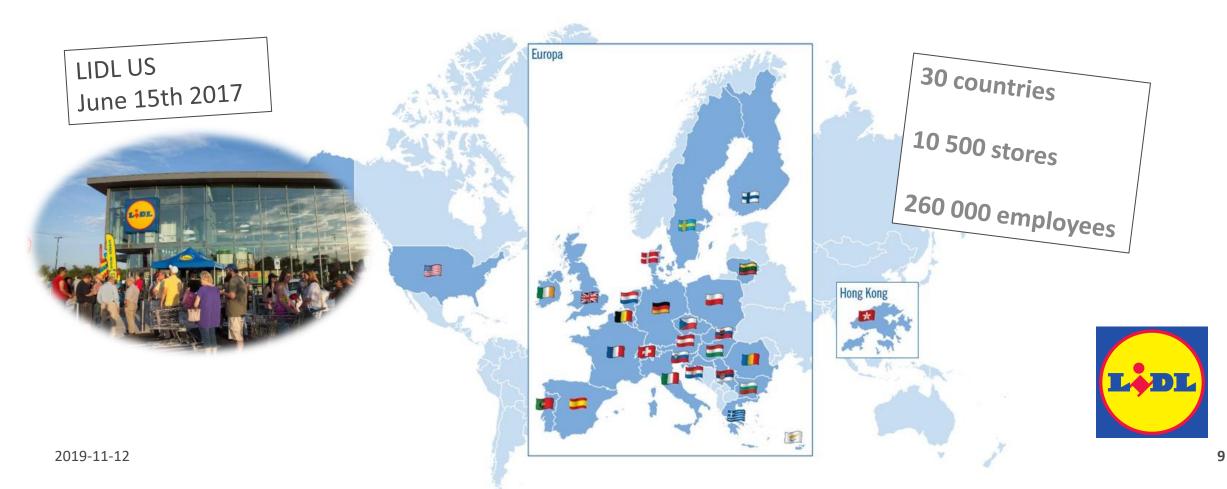
6.1 Choose offsetting strategy6.2 Compensate yearly using actual energy usage values

### Lidl Visby Sweden's First Climate-Neutral Building





### Lidl International



### Lidl Sweden

- Lidl aims to be Sweden's leading sustainable retail chain
- Transforming the image of Lidl by highlighting its high sustainability aims and achievements
- The long-term goal attract future employees as well as the conscious consumers of today and the future



### Lidl stores' sustainability certifications

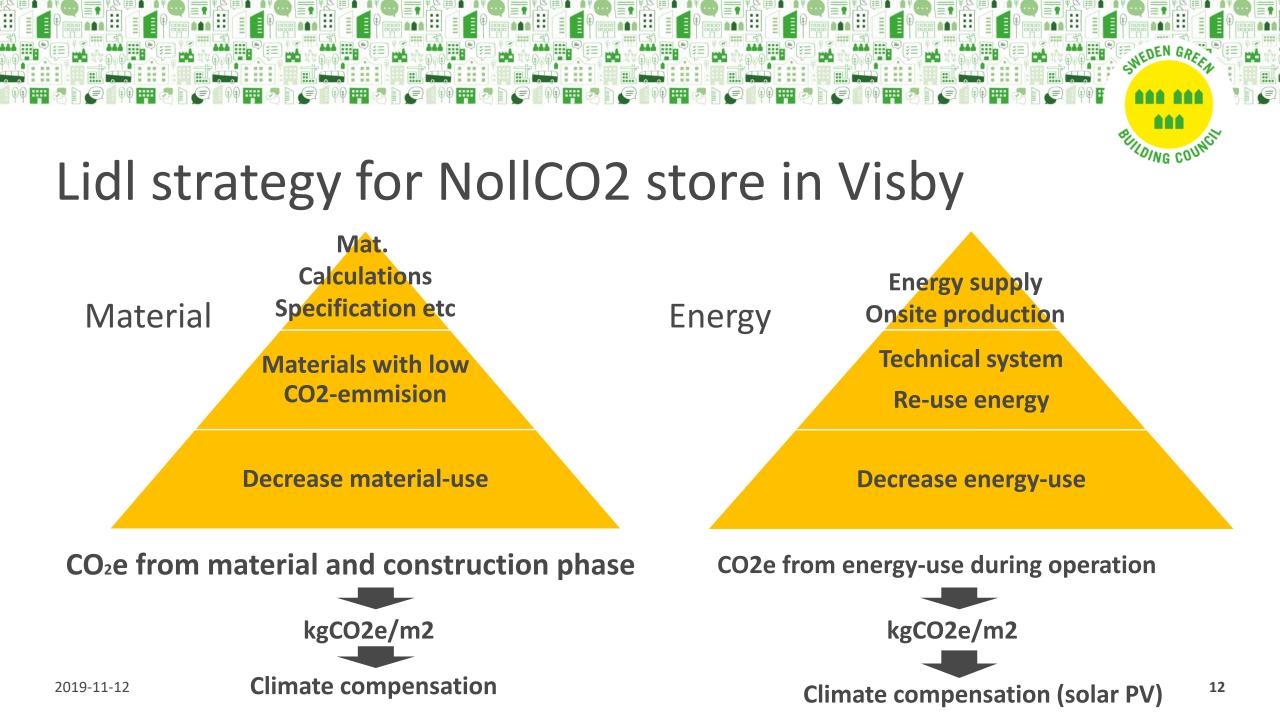
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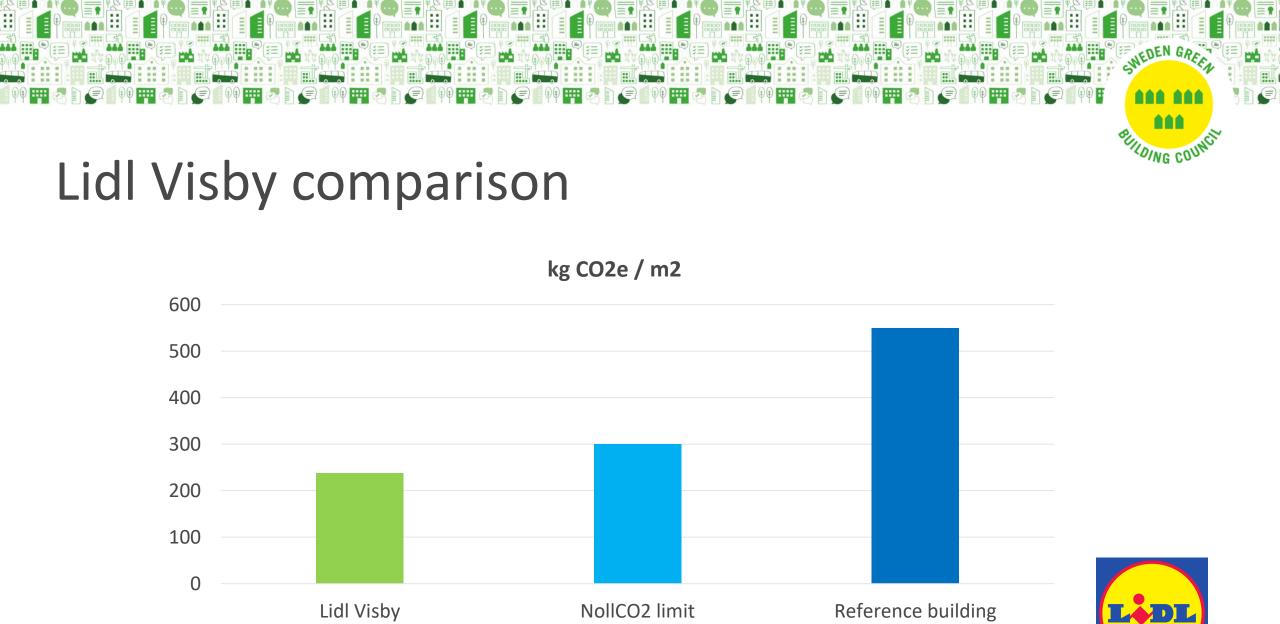
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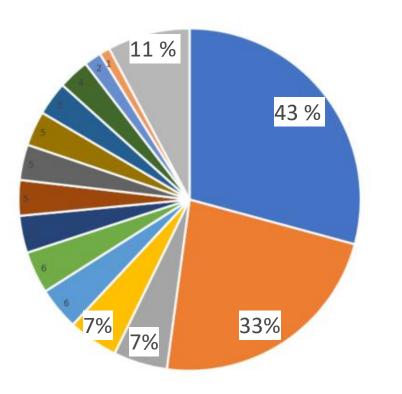
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### Lidl Visby – CO2 emissions per building element

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- Concrete
- EPS insulation
- Rebar
- Glazing
- Gypsum Board
- Cross-Laminated Timber
- Fibreglass Insulation
- Masonry
- Structural Steel Members

- Plywood
- Waterproofing

- Steel Plate
- Glulam Beams
- Fasteners
- Other

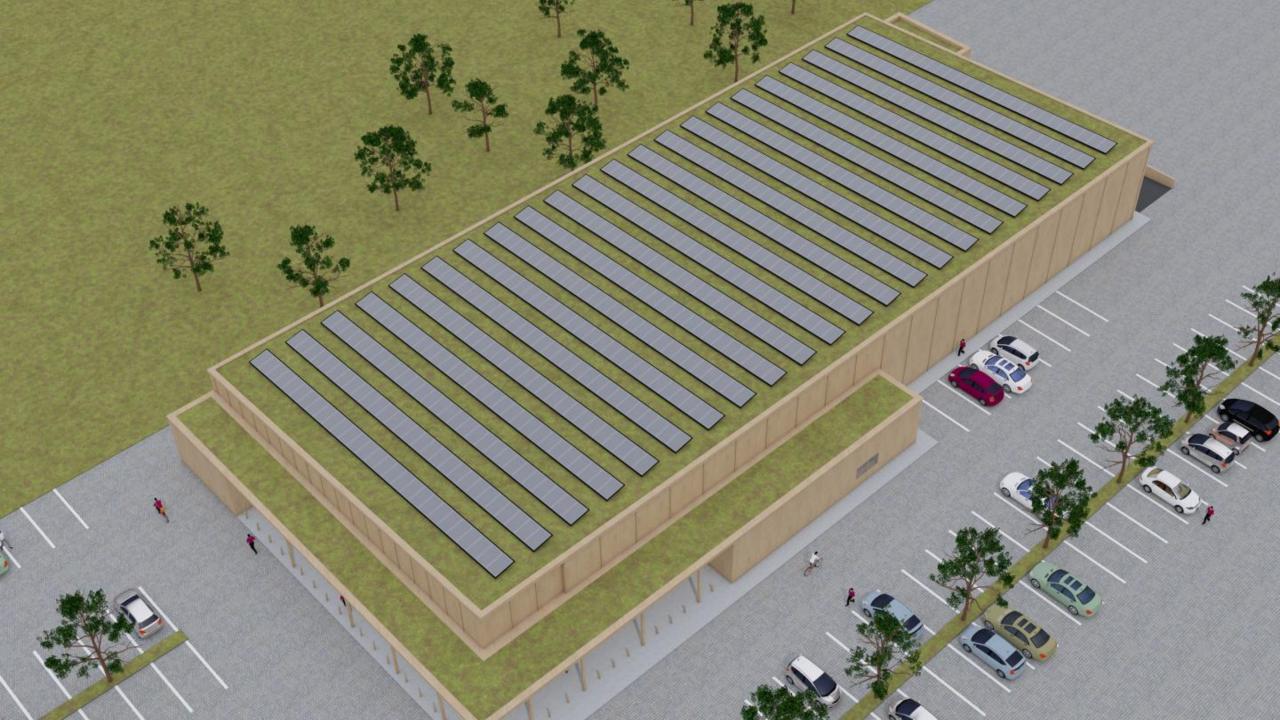


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### Thank you!



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