

GREEN SOLUTION HOUSE, BORNHOLM

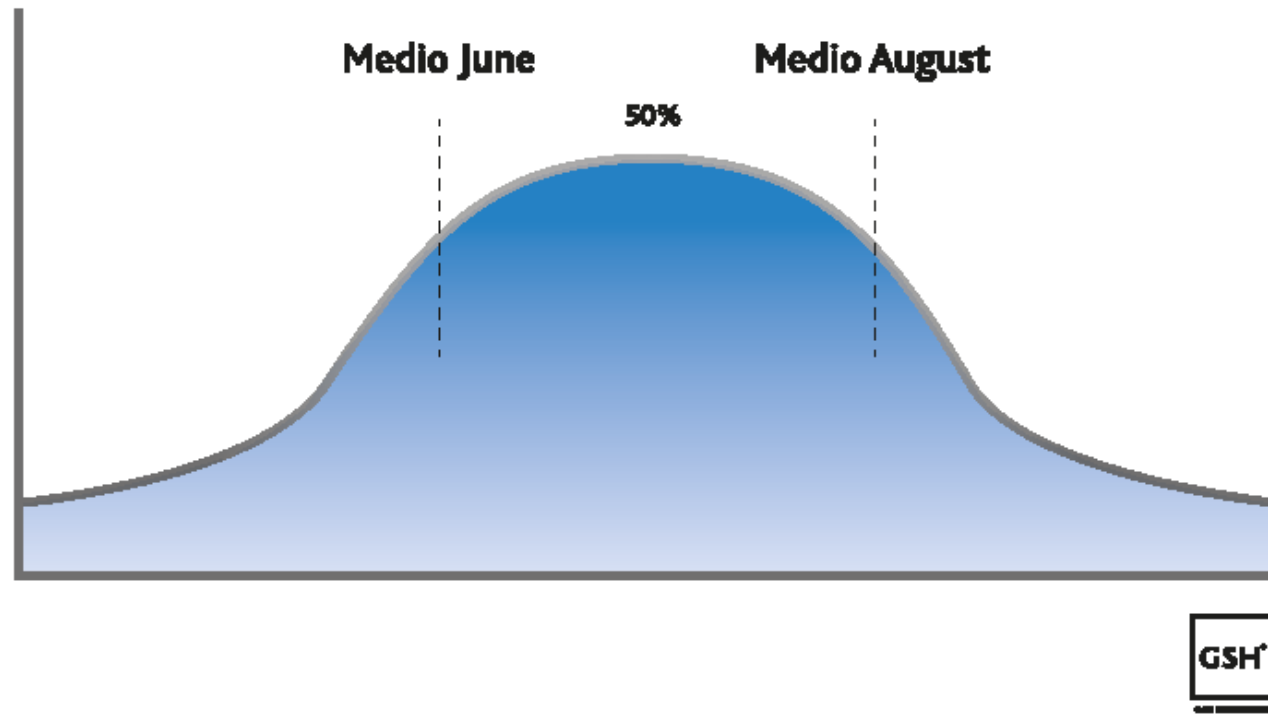
PHOTOGRAPHER ADAM MØRK

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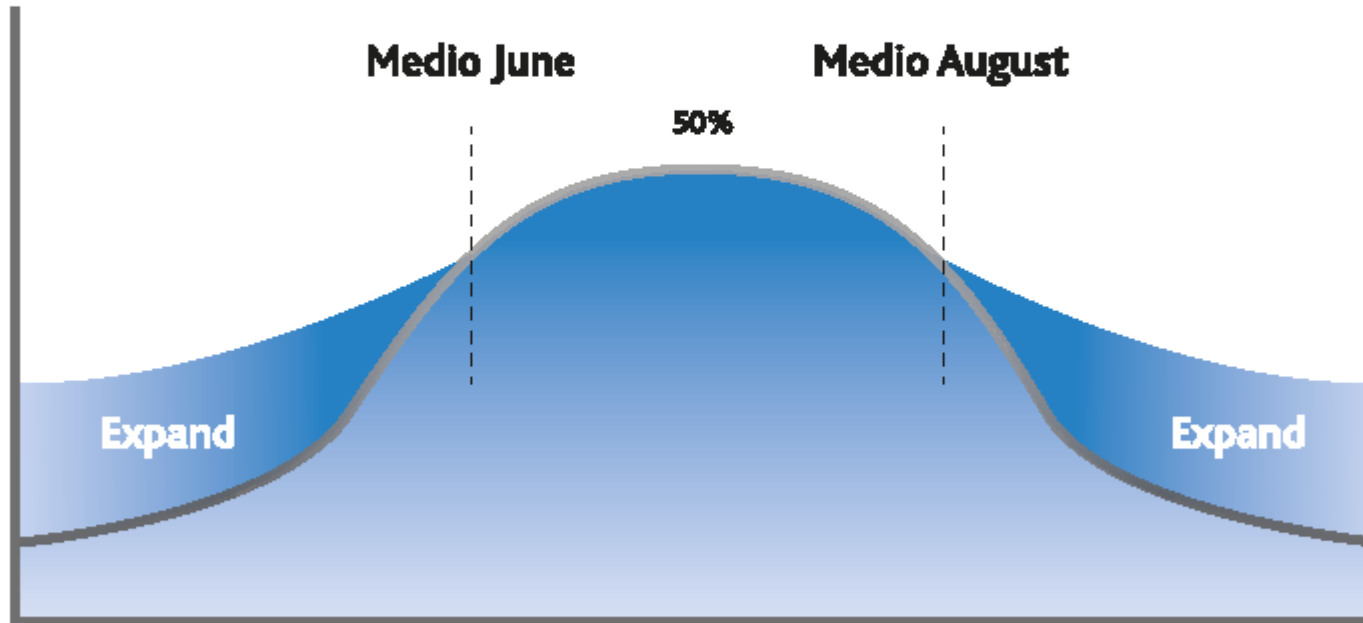
GREEN SOLUTION HOUSE



NUMBER OF TOURISTS ON BORNHOLM 620.000 PAX



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GREEN SOLUTION HOUSE

Green Solution House

The building itself is the reason to go



To demonstrate
green solutions



To promote
continuous improvement



To enable
knowledge sharing

A dense wall of green ferns with a white logo in the center. The logo consists of a stylized '7' followed by three vertical bars of varying heights, resembling a barcode or a stylized '7K'.

GREEN SOLUTIONS

Green Solutions

FOCUS AREAS



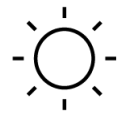
GREEN SOLUTION HOUSE



NATURE



WATER



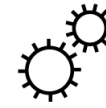
LIGHT



AIR



ENERGY



MATERIALS



NATURE



WATER



LIGHT



AIR



ENERGY



MATERIALS



GREEN SOLUTION HOUSE

TRIPLE STRATEGY

Holistic Sustainability

The building is certified by the German Sustainable Building Council (DGNB)

Based on the criteria of the Active House vision

Inspired by the Cradle to Cradle life cycle concept.





LIGHT

ENERGY



GREEN SOLUTION HOUSE

EMBRACING DAYLIGHT

Designing with Daylight

The cycle of natural light is fundamental to our wellbeing and ability to maintain a healthy circadian rhythm. When it comes to daylight, improved productivity and focus means saving on energy. The conference rooms at Green Solution House accommodate meetings in broad daylight. Inside the hotel rooms, daylight conditions have been optimized with retrofitted glass balconies. Our focus on daylight has created well-lit spaces and better user experience, resulting in less energy consumption.





LIGHT

ENERGY



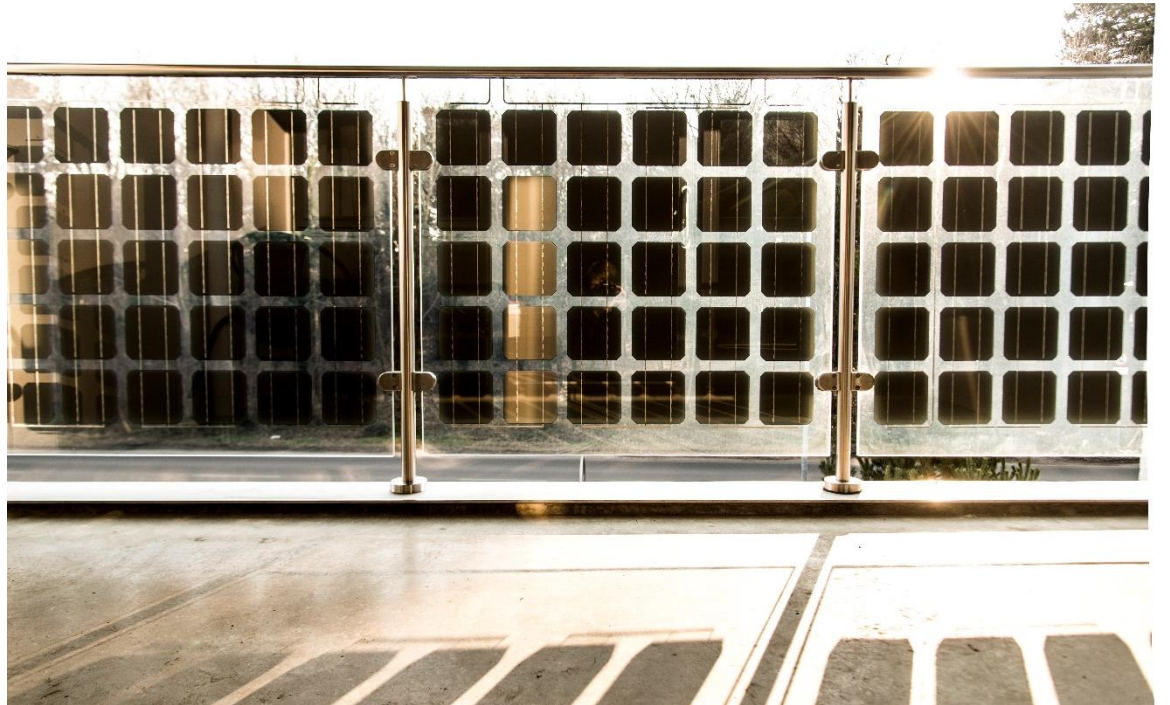
GREEN SOLUTION HOUSE

SOLAR BALCONIES

Gaia Solar Cells

During the retrofit of the main building, all balconies were changed from concrete to glass and those on the south façade were equipped with photovoltaic cells. Now the solar balconies produce an extra 5000 kWh of energy per year for the building. In addition, the glass balcony railings let significantly more daylight into the hotel rooms than before.

Who's behind it: Gaia Solar





LIGHT

AIR

ENERGY



ENERGY GENERATING SKYLIGHTS

VELUX Modular Skylights

Not only do our skylights provide plenty of daylight and ventilation, but the modularity of the system ensures minimal material waste during production, and the integrated photovoltaics generate energy. The VELUX Modular Skylights consist of a high performance composite material that offers excellent insulation properties, strength and thermal stability – and one third of the modular skylights have been fitted with integrated photovoltaics.

Who's behind it: VELUX, Foster+Partners, Solar-Future Energy





AIR

ENERGY



THERMAL BALANCE

Comfortable Indoor Climate

At Green Solution House we have been successful in balancing the thermal environment for optimal indoor comfort. We achieve comfort by balancing natural ventilation, mechanical ventilation and our heating strategy in response to the seasons. This strategy has resulted in the highest score possible in the Active House analysis of comfort in the building. We use diffuse ventilation to supply fresh air through permeable acoustic panels in the conference center and restaurant ceiling.

Who's behind it: Steenbergs Tegnestue, Rambøll





ENERGY

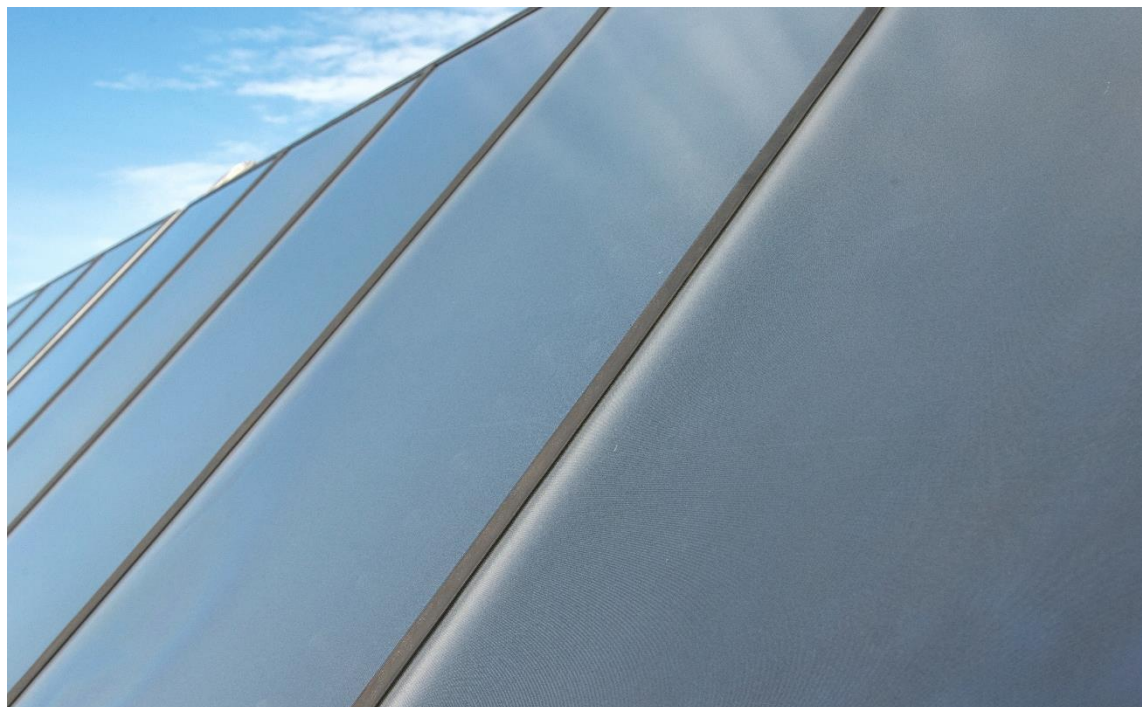


GREEN SOLUTION HOUSE

RENEWABLE ENERGY

On-Site Energy Production

At Green Solution House we produce energy. Solar cells generate electricity and our on-site pyrolysis plant converts organic waste to electricity and heat. Hot water comes from a solar thermal plant integrated into the landscape. We converted our 30 year old swimming pool into a thermal energy storage system. To keep an eye on operations, we display our energy consumption and on-site production with a custom visualization and any excess energy is sold back to the Bornholm grid.







Green Solution House

WINNER



of the Active House label contest

PICTURES BY ADAM MORK



GREEN SOLUTION HOUSE

