



120 meters (393 feet)

122 meters (400 feet)



**The Crows Nest**  
visitors can “enter the wind” on the viewing platform, experiencing the same force that allows SAIL to generate utility-scale electricity.

**Steel frame structure**  
minimal use of structural material to reduce embodied energy.

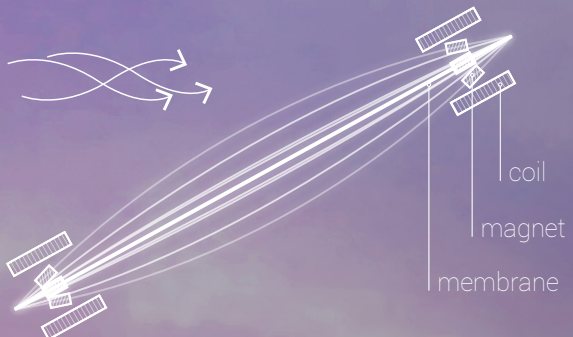
**Aluminum Windbelt frames**  
utilizes entire surface area of structure to generate power, and reduces weight load on structure.

**The Main Mast**  
elevator shaft and stairwell provides access to the viewing platform.

SAIL pushes the vertical limits of the site, rising 122 meters (400 ft.) into the air. As the tallest structure on Refshaleøen, and a prominent object on the Copenhagen skyline, SAIL becomes a highly visible representation of Denmark’s ambitious voyage toward the 2020 energy goals and a renewable energy future.

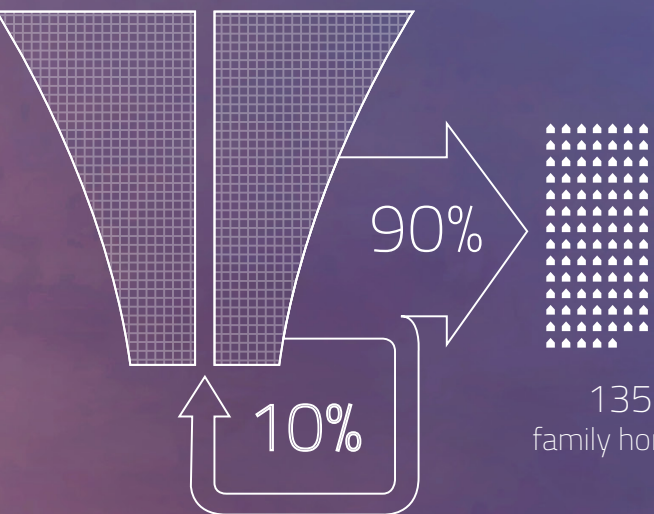
SAIL is constructed of approximately 6975 aluminum frames, each containing 20 Windbelts. These components are assembled into an array that faces the prevailing winds on site, supported by steel beams. The 139,500 Windbelts will generate an estimated 602,604 kWh annually, enough to power 135 homes. SAIL’s modular nature would allow for the structure to be deconstructed and reassembled throughout the city as part of a dispersed renewable energy network, allowing the art to live on even after the site has been redeveloped.

The site at Refshaleøen has been left almost entirely undisturbed, allowing for large gatherings and events to happen with SAIL acting as a visual backdrop. Visitors to the site are invited to “enter the wind” at the apex of the tower, becoming part of the energy infrastructure that powers the city.



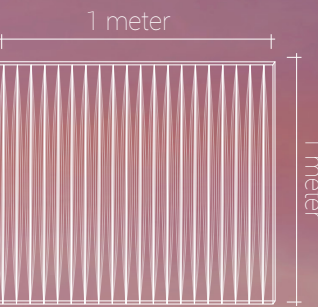
**SAIL**  
50,220 kWh monthly  
602,640 kWh annually

The SAIL is built from **6975 Windbelt frames**, supported by a steel structure. 10% of power generated is reinvested into SAIL to light the structure and convey people up to the viewing platform. The other 90% is sent to the grid; enough to power 135 Danish homes.



**1 WINDBELT**  
0.36 kWh monthly  
4.32 kWh annually

**Windbelts** use a thin tensioned membrane that catches the wind and vibrates through a phenomenon called aeroelastic flutter. Magnets on the end of the membrane oscillate between copper coils, generating an electric current.



**1 WINDBELT FRAME**  
7.2 kWh monthly  
86.4 kWh annually

Each 1x1 meter aluminum **frame** houses **20 Windbelts**. Individual frames can be attached together to form an array of any size.