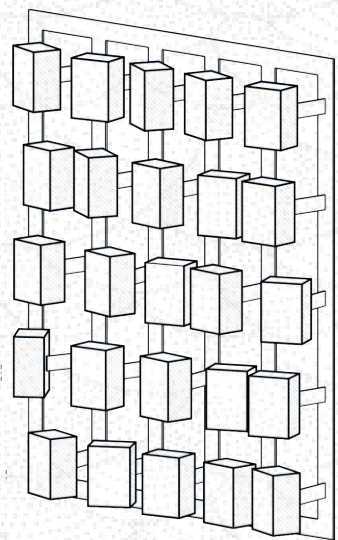




A large number of Denmark's wind farms are spread throughout the country in vast rural areas or offshore locations in the ocean. In the goal to use 100% renewable sources of energy by 2050, finding modes of green energy production in all settings - even populated urban locations is very important. This means safe technology that does not disturb daily life but promotes life. The Refshaleøen pier characterises these qualities.

The dock on the southern edge of the site allows not only water taxis to access the area but also the water pedestrian users of the proposed Blue Route. One of the two 'mouths' of the structure opens directly to the dock as well as the underlying entry to the internal deck and pool area.



Cladding the Refshaleøen Pier are Vibrowind panels. This technology involves the harvesting of power through the kinetic energy of small moving foam cubes when wind breezes through. Able to generate energy from much lower wind speeds than wind turbines, the energy made is comparable to that of solar panels. Each block laminated with iridescent dichroic 3M film, the blocks consequently reflect and glitter as the sun hits each surface while they flutter through the wind.

The looping spaces of the structure makes the co-existence of different terrains and landscapes possible. While the internal hub promotes life by the water and activities such as sunbaking and swimming, most of the pre-existing nature of the site is retained and reinvigorated as an open parkland.

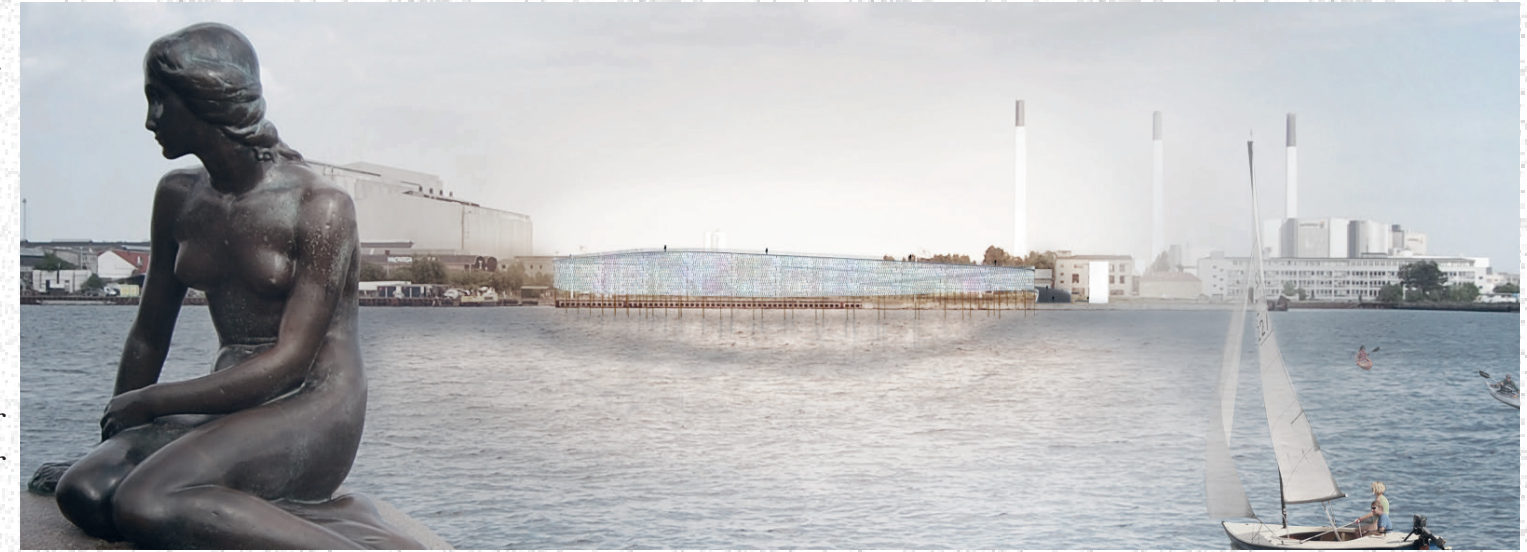


Greeting the individuals at the site is a glowing information tower, broadcasting energy production levels, facts, tips and community messages. This information is also accessible through a mobile phone app connected to the data on the tower. Powered by the energy generated at the site, the tower stores excess energy in an encased substation.



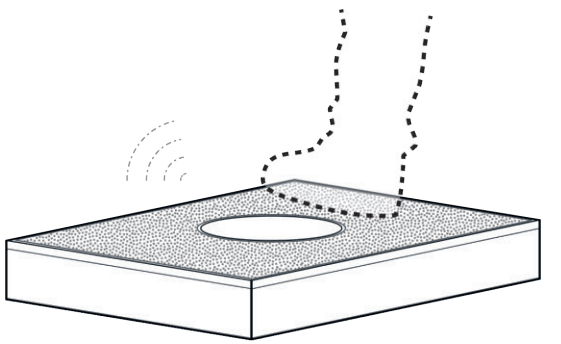
Looking at the future climate change of Copenhagen in a positive light, the predicted warmer weather and longer duration of summer opens the doors to more summer activities. The beautiful setting of the Copenhagen harbour should be embraced and reactivating Refshaleøen with this structure brings people to the area for social gatherings with water and summer activities just as Havnebadet and Ofelia Beach has done every summer further down the harbour.

Just as the Black Diamond, Opera House, Playhouse Theatre and Little Mermaid have brought life and excitement to the harbour front of Copenhagen, The Refshaleøen Pier aims to do the same. Directly speaking to The Little Mermaid, the form offers a scenic pier to view other landmarks of the city in a different perspective whilst in itself becoming the new glittering gem of the Copenhagen harbour.



The enclosed space of the pier opens to a wide deck of recycled timber. Aside from a large space for people to sunbake by the water, the change of terrain and openness is ideal for accommodating large scale events and festivals. With Refshaleøen holding past events from food festivals to the annual Distortion summer festival, the space is flexible enough to accommodate a vast range of activities.

30% of the walkable surface area of the Refshaleøen Pier is installed with Pavegen Tiles. This technology harvests power through the kinetic energy generated from pressure placed into the tile such as human footsteps and bicycles. The complete ease of subconsciously generating energy is an exciting interaction for the visitors of the pier, giving them a direct contribution via energy to the city. The top surface of the tile is made of 100% recycled car tyres and the base is 80% constructed of recycled materials.



With the use of bicycles as one of the most common modes of transport in Denmark, it is essential to provide bicycle parking for the people interacting with the site and local district. The twisting arches of the structure curves and defines smaller spaces, making clear hubs of program, such as this parking area, possible.