

SUNBATH

POWER

SunBath generates approximately **750,000 kW** of electricity via the Seebeck Effect (the latent capacity for an electrical charge to pass between differences in temperature). This can be done with virtually no moving parts. SunBath generates and captures this energy via five discreet site elements: the Solar Pond, the Catalyzing Pool, the Attenuating Pool, the Minto Wheel, and the Harbor.

DELIGHT

Beyond power, SunBath also generates delight. Partaking in Copenhagen's rich culture around both thermal and harbor bathing, SunBath uses the subsidiary heat from the solar pond and power generation process to create a series of large public baths. SunBath is thus both an infrastructural and civic amenity. Indoor and outdoor public pools, baths, and bathing platforms wrap the solar pond and extend into the harbor.

a The Solar Pond:

The 14,700 Square Meter Salt Gradient Solar Pond gathers and efficiently stores solar heat.

b The Catalyzing Pool:

An array of heat pipes carry heat from the Solar Pond to the Catalyzing Pool where it is brought into contact with the cold water of the harbor. Energy is generated via a series of Thermoelectric generators (TEGs) which operate based on the temperature difference between the water in the Solar Pond and the water in the harbor.

c The Attenuating Pool:

Warmed water from the Catalyzing Pool flows into the Attenuating Pool where it is further heated by a series of large dark "hot rocks" which, because of their albedo and thermal mass, absorb solar heat and release it slowly into the water.

d The Minto Wheel:

The Minto Wheel sits within the Attenuating Pool and is powered by the temperature difference between the water in the Attenuating Pool and the surrounding air. The Minto Wheel pumps water from the harbor to the catalyzing pool, supplying the catalyzing pool with a constant flow of cold water. It also serves as a symbol for the project, it's scale and copper spokes making it a legible part of Copenhagen's skyline.

e The Harbor:

The harbor is utilized as a source of cold water. Its size and connection to the Øresund supply a limitless supply of cold water for the system.

c The Attenuating Pool:

Outdoor public bathing begins at the Attenuating Pool. This pool is warmed by the excess heat (heat that escapes the conversion process) from the Solar Pond. This heat powers the Minto Wheel and makes for a comfortable year-round public pool.

f The Cinema Pool:

A second large outdoor pool sits opposite the Attenuating Pool. In summer the Cinema Pool acts as a beach during the day, at night it becomes a place to lounge in the pool while taking in an outdoor movie – projected onto the Western face of the Bath House. In the winter the Cinema Pool transforms into an ice skating rink.

g The Harbor Bath:

A true testament to its commitment to sustainability, Copenhagen has created of the cleanest harbors in the world – enjoy it! The Harbor Bath is 265 linear meters of harbor fun. Visitors enjoy bathing, recreational and professional swimming, diving, water sports, and play of all kinds.

h The Bathhouse:

The 6,000 sq. meter Bathhouse contains a 2,500 sq. meter indoor pool, showers, changing rooms, a café, and saunas.

i The Caldarium:

The Caldarium is a 1500 sq. meter pool accessible via the bathhouse that is heated by the solar pond. Here bathers can relax year-round in the warm solar waters.

