

Amager Bakke Waste-to-Energy Plant (Denmark)

Amager Bakke is a state-of-the-art waste treatment energy plant, one of the best in the world in terms of efficiency and environmental impact located in Copenhagen, Denmark. A unique feature of this plant is the ski slopes present at the top of the building, which makes it a great sports facility as well. This project was completed in 2017 by Platform.as.

Amager Bakke, also known as Amager Hill, is a household waste-to-energy plant designed by architect Bjarke Ingels Group to house a recreational centre on its roof (Copenhagenill). Commissioned in 2017, it incinerates the waste of more than 500,000 residents and 45,000 businesses each year, generating heat and electricity for almost 150,000 homes. The building has 43,000 m² of floor space and stands 85 m high. Equipped with the latest technology, the facility is exceptionally efficient and produces far more energy than the previous waste-to-energy plant it replaced.

Technically, the plant is designed to vary between operating modes, producing 0-63 MW of electricity and 157-247 MW of heat for the region, depending on local heat demand and electricity prices. The plant produces more clean water than it uses. Thanks to filtration technology and other technologies, it is expected that sulfur emissions will be reduced by 99.5% and NO_x by about 95% as well as dioxins and HCl and are believed to be the cleanest incineration plants in the world.