



POLISH AND NORWEGIAN CITIES
together for climate and energy

FROGNER STADIUM, OSLO

SPORTS FACILITIES WITH COMMON ENERGY SOLUTIONS

Sector: Energy efficiency

Timeframe: 2014 – 2017

Location: Frogner, Oslo, Norway

PROJECT BACKGROUND

For more than a hundred years the Frogner stadium has attracted competitors and ordinary people for outdoor skating. Among the most famous users was the figure skater Sonja Henie who trained here in the 1930's. The new skating hall along the stadium will be named after her.

PROJECT DESCRIPTION

In addition to a new ice and multi-use hall, the project includes a common energy solution for the whole sports and activity centre, including Frogner (outdoor) stadium and Frogner swimming pool. An ice rink for figure skating, short-track and sledge hockey and a multi-use hall will be part of the new development along with a café. The facility will be an important addition to the recreational facilities of the area.

The plan for the facility is to make the halls subterranean with a roof that is incorporated in the green park space above. The roof area can function as a recreation area, a tribune facility, green space and a location for solar cells.

The common energy solution for the whole sports and activity centre including outdoor stadium, park

and swimming pool will reduce the total energy requirement by at least 30 percent, compared to comparable facilities.

Low carbon strategy for the projects includes

- Re-use of the surplus heat from the ice machines and the swimming pool
- Central location near public transport and improved facilities for cyclists
- Plus-house standard for the new buildings
- 30 percent reduced energy requirement for the entire Frognerpark facility
- Shared use of the space
- Low carbon materials
- Green roof ensures efficient land use and storm water safety (adaptation to climate change)

PROJECT RESULTS

30% reduction in energy use, 50% reduction in greenhouse gas emissions.

Still in an early phase, detailed results are not yet available. Significant gains related to carbon emissions and energy efficiency are prerequisites.



MORE INFORMATION

Future Built web site:

www.futurebuilt.no/prosjektvisning?lcid=1033&projectID=265049

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Existing Frogner stadium:

www.frognerstadion.no

Existing swimming facility:

www.oslo.kommune.no/natur-kultur-og-fritid/svømmehaller-i-oslo/frognerbadet