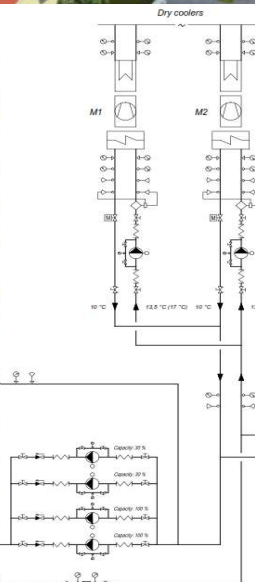


Økern Portal regeneration is designed to be a regional hub of high-end transport links and modern housing development in the center of Oslo. It aims to emerge as re-definition of public spaces and based on demolishing two adjacent buildings and adding a 50,000 square meter extension along the site's perimeter.

Økern Portal, OSLO, NORWAY

The new building takes the shape of a forest with pathways connecting the urban zone to the east and suburbia to the west.



4 Nos PCM Tanks
12,000 kWh
(3,410 Rt-h)

Økern Portal aims to achieve a BREEAM-excellent rating. Hence, it includes biodiversity through extensive green roofs and low energy consumption, waste, pollution to ensure a sustainable build and extended life cycle.

To this end M&E design utilise as much as off-peak energy as possible by dry coolers and **+13C (55F)** PCM based TES combination so majority of the year

PCM based TES design would not only operate the water chillers operating at their highest efficiency as well as shifting the day peak loads it enables to you significantly reduced number of chillers for the peak loads. Furthermore, TES would also provide a stand-by capability for the system as a whole.

Considering a lower night ambient condition which offers higher chiller efficiency in comparison with day as well as combining lower over-night utility cost this TES system's not overall annual running cost would be reduced but also by reducing the number of chiller as well as lower electricity consumption it offers significant environmental benefits.

