

Thermo-chemical heat pumps

Recycling heat to create energy-efficient cooling

Compact, cost-effective alternative to traditional air conditioning



Recycles heat into cooling

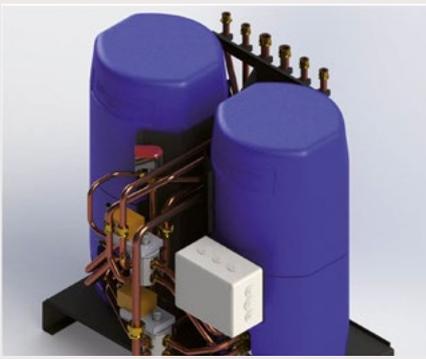
Easy, low-cost implementation

Models for domestic and commercial use

Non-toxic highly available materials

Compact unobtrusive units

Suitable for retrofits and new builds



The challenge

Cooling buildings without warming the planet

The business model for district heating networks and combined heat and power (CHP) plants is clear in the winter. In the summer, residual heat is wasted and both energy costs and CO₂ emissions rise as building occupiers turn to air conditioning for cooling and comfort.

SolabCool has developed a system that transforms heat into cooling. It enables heat producers and energy companies to enter a market for building cooling that is predicted to grow by five to 10 per cent a year by offering their end-users a cheaper alternative to traditional air conditioning.

The solution

New market opportunity for district heating, CHP and solar power

SolabCool is a compact cooling system, based on the principal of sorption cooling. Using non-toxic materials to chill buildings, it is powered by the excess heat from district heating networks, solar power generation or CHP systems that would otherwise be lost – particularly in summer.

SolabCool is available in two separate models:

- SolabCascade for commercial premises is a modular and scalable system, based on units offering maximum power of 5Kw
- SolabChiller for residential buildings is a unit that has been optimised for domestic use and offers maximum power of 5Kw

By powering cooling systems with ready-produced heat, SolabCool requires no further electricity generation, significantly reducing building overheads and carbon emissions.

Key features

SolabCool features the following benefits:

Easy connection to heat sources at CHP, district heating and solar plants to reduce installation time

Plug and play connection to end-users' heat distribution and cooling systems to ensure wide applicability

Use of non-toxic and highly available materials in the sorption cooling process to keep costs low

Compact, unobtrusive units that give end-users choice over internal or external locations for installation

Low power consumption, low maintenance and long lifecycle to minimise end-user intervention

Adjustable temperature controls enabling end-users to cool individual rooms or floors according to their needs

The value

A new source of revenue from solar or waste energy

SolabCool offers energy suppliers, district heating providers, and managers of solar generation and CHP plants a new product line and potential revenue stream with minimal investment in equipment and infrastructure.

Designed to be attractive to householders and other building owners, it offers them clearly identifiable cost savings, and is flexible enough to be installed in a wide variety of circumstances. SolabCool therefore opens up the broadest possible new market for energy companies and heat providers.

SolabCool systems have already been deployed by three heating projects in the Netherlands, as well as solar heating projects at the Universitat Politècnica de Catalunya (UPC) in Spain, Ecobel in Italy, and Gord in Qatar.



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