

DeCarbCH Newsletter

July 2026



Dear DeCarbCH Partners,

We are pleased to share the latest updates from SWEET DeCarbCH. In this edition, you will find highlights from the [5th DeCarbCH Annual Networking Conference](#), updates on our work in [Industry Heating & Cooling](#), [Thermal Networks & Buildings](#), and [Thermal Energy Storage](#), along with information about [Upcoming Events & Training Opportunities](#).

For questions, please contact us at info@sweet-decarb.ch, and don't forget to follow us on [LinkedIn](#).

We wish you a wonderful summer!

[The DeCarbCH Management Team](#)

5th DeCarbCH Annual Networking Conference



Beginning of March 2026, DeCarbCH members and cooperation partners met to present and discuss ongoing research activities and discuss and plan Phase II and develop a roadmap for concrete, impact-oriented outputs and activities.

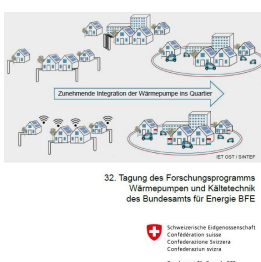
[Find all posters](#)

Industry Heating & Cooling



Electrification of a Rectification Unit Operation: Using Pinch Analysis to Support Industrial Sustainability Goals

The example of Syngenta Crop Protection AG in Kaisten illustrates how a pinch analysis can lead to a concrete electrification concept with considerable savings in energy, costs, and CO₂. [Read more](#)



32nd Symposium of the SFOE Research Programme on Heat Pumps and Refrigeration Technologies, 24 June 2026

The conference covered a broad range of topics, including heat pump solutions for residential, commercial, and industrial applications, the use of

flammable refrigerants, and approaches to improving operational energy efficiency. [Read more](#)

15TH IEA HEAT PUMP CONFERENCE

15th IEA Heat Pump Conference, 26–29 May 2026, Vienna

Under the theme Decarbonization through Innovation, more than 800 experts from academia, industry, policy, and finance came together to discuss and showcase the key role of heat pumps in the global energy transition. OST and the University of Geneva made a strong contribution with several conference papers and workshop presentations during the event. [Read more](#)



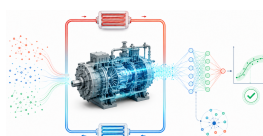
ASTRA - A Carnot-Based Pre-Screening Method to Support High-Temperature Heat Pump Integration in Industries

At the Heat Pump Conference in Vienna (26-29 May 2026), the University of Geneva presented ASTRA, a methodology combining pinch analysis, thermodynamic screening, and genetic algorithms to rapidly identify promising industrial heat pump integration strategies. [Read more](#)



ASTRA - Webinar: Finding the Optimal Heat Pump Configuration

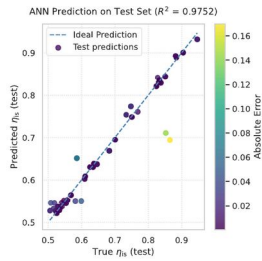
In a webinar, the current capabilities and future roadmap of the ASTRA Framework (AI-Based Superstructure Thermal System Automated Design), developed to automate the sizing, placement, and integration of industrial heat pump systems, were presented. [Watch the webinar](#)



Faster and More Accurate Industrial Heat Pump Design

At the Swiss Heat Pump Conference, an automated framework for industrial heat pump integration as well as AI-based efficiency model trained on around 4,000

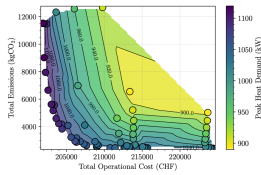
operating points from leading manufacturers was presented. [Read more](#)



Data-Driven Prediction of Compressor Efficiency for High-Temperature Heat Pumps

At the High-Temperature Heat Pump Symposium 2026, the University of Geneva presented an AI-based approach for predicting compressor isentropic efficiency using around 4,000 operating points collected from leading compressor and heat pump manufacturers. The methodology supports more accurate performance prediction and techno-economic assessment of industrial heat pump systems operating above 100 °C. [Read more](#)

Thermal Networks & Buildings



Optimal multi-objective demand side management in integrated district heating and cooling networks

A new study evaluates demand-side management (DSM) leveraging building thermal inertia against rule-based control (RBC) in a Zürich iDHC network. [Read more](#)



National Interest in Heat Supply: A Missing Piece of Switzerland's Energy Transition? A new study from ZHAW

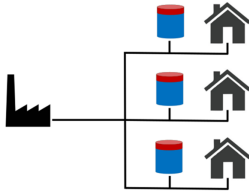
While renewable energy projects in Switzerland can benefit from the status of "national interest," most thermal energy systems, such as district heating networks, do not qualify. A study by ZHAW shows that clear national targets and legal criteria for heat supply are missing. Establishing them could help speed up approval processes and support the energy transition. [Read more](#)



Case Study Wallisellen - Energy Network SaisonLink

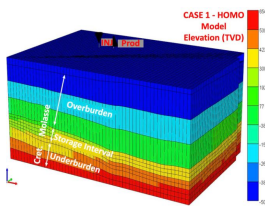
The case study in Wallisellen reached a milestone and entered the planning phase in 2026. This phase defines supply areas in greater detail, refines the cost estimates and the supply concept named SaisonLink. [Read more](#)

Thermal Energy Storage



Real-Time Control of Decentralized Heat Storages for Peak-Load Reduction

Analysis of historical demand data from a district heating network in Zurich reveals a key insight: local optimization at individual customer sites alone has limited system-wide impact. Coordinated control across multiple storages is essential to unlock their full potential. [Read more](#)



Aquifer Thermal Energy Storage in the Swiss Lower Freshwater Molasse

A study by the University of Geneva integrated available subsurface data to develop a workflow for quantifying the potential for efficient, safe, and sustainable heat storage in Swiss fluvial reservoirs. [Read more](#)

[Find more news](#)

New Publications

Arpagaus, C. (2026): **High-temperature heat pumps: market overview, state of the art, and application potential**. Clean Techn Environ Policy 28, 148. <https://doi.org/10.1007/s10098-026-03452-5>

Bahadori, R., Speich, M., & Ulli-Beer, S. (2026): **Retrofitting District Heating-Strategic directions**. In Energies (Vol. 18, Number 14, p. 3759). Zenodo. <https://doi.org/10.5281/zenodo.19820125>

Upcoming Events & Courses



20 August 2026

[Course: “Energy Storage – Theory and Applications”](#)

The course covers both current needs and applications, as well as expected changes under Switzerland’s Energy Strategy 2050, particularly the significant increase in the share of renewable energy sources.



1 September 2026

[5th SWEET Conference](#)

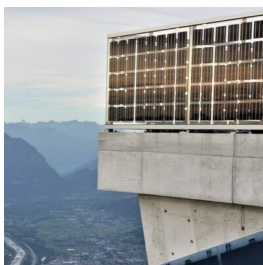
Research Meets Practice: Presentations, discussions, and the SWEET synthesis.



3 September 2026

[Continuing Education Course: “Industrial Heat Pumps”](#)

The four-day continuing education course at OST in Buchs provides theoretical and practical knowledge as well as direct exchange with experts.



7 September 2026

[CAS Renewable Energy and Technology](#)

The CAS at OST provides knowledge and competencies in various energy technologies and the efficient use of energy.

15 September 2026

[5th SWEET Conference – 1 September 2026, Bern](#)

An initiative of VfA Buchs and the IES Support Association.



16 September 2026

[Hybrid Continuing Education Course: "Energy Optimization with Pinch Analysis"](#)

The programme is aimed at professionals in the fields of energy, process, environmental, and building engineering, as well as stakeholders from industry, SMEs, and public authorities.



29 October 2026

[Course: "Sector Coupling – Harnessing the Synergy Potential of the Energy Sectors"](#)

This course explores the interconnection of electricity, heating, and mobility as part of a holistic and sustainable energy future. It provides a solid understanding of the underlying concepts, technologies, as well as the regulatory and economic framework conditions, and demonstrates how sector coupling can be leveraged effectively for your organisation or projects.



2026-2027

[Training and Continuing Education in District Heating](#)

Thermische Netze Schweiz provides training and continuing education in district heating, offering a wide range of seminars, webinars, courses, and events in Switzerland and internationally.

[Find more events](#)

Any thoughts about this newsletter? Send your feedback and questions to info@sweet-decarb.ch



DeCarbCH has received funding from the SFOE in their SWEET programme.

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SWEET DeCarbCH
Room B 609
Boulevard Carl-Vogt 66
Genève 1205
Switzerland

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