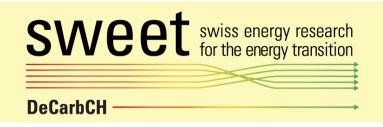
DeCarbCH Newsletter November 2021



Von SWEET DeCarbCH <info@sweet-decarb.ch>

An <info@sweet-decarb.ch> Datum 2021-11-02 15:11





DeCarbCH Newsletter November 2021

Dear DeCarbCH Partners,

This is the 2nd and last newsletter of the year.

We started the SWEET DeCarbCH project with a kick-off meeting in June 2021. Since then, all research partners have been meeting regularly to:

- get to know each other better,
- · work together under the best possible conditions, and
- be able to start fullfilling all tasks in the individual work packages.

Our <u>management team</u> also meets regularly to ensure that all administrative points are running their normal course.

We are also actively organizing the first face-to-face Networking Conference on

25/26 April 2022 (see more information).

In this newsletter, Work Package 01 "Thermal Energy System Modeling at the Mesoscale" led by Dr. Jonathan Chambers from UNIGE is presented in more detail. The main goals of the work package are explained in an interview with Jonathan.

We also had the opportunity to conduct an exclusive interview with the SWEET office team. Check it out.

Furthermore, the newsletter offers the following content.

Content

- 1. Interview with Dr. Jonathan Chambers from UNIGE
- 2. NEWS from WP01: Thermal Energy System Modelling at the Mesoscale
- 3. <u>DeCarbCH publication on geospacial sensitivity analysis for heat</u> <u>decarbonization</u>
- 4. Geospatial energy analysis and planning tool
- 5. Presentation of DeCarbCH WP01 at CISBAT conferency.
- 6. The new SWEET Energy Data Platform is coming next year
- 7. FURTHER NEWS
- 8. <u>The Lunch Talks on Pinch Analysis and Socio-Economical challenges are</u> <u>on YouTube</u>
- 9. <u>RENEW-HEAT investigates technological and regulatory approaches to</u> <u>facilitate the switch to renewable heating systems</u>
- 10. KTT Workshop for SWEET initiatives
- 11. <u>1st DeCarbCH Networking Conference</u>, 25/26 April 2022
- 12. <u>EVENTS</u>
- 13. Lunch Talk Industrial Heat Pumps
- 14. Lunch Talk Thermal Network
- 15. Interview with Laura Ding, Nathalie Rüegg, and Andreas Haselbacher from the SWEET Office

Don't forget to follow us on <u>LinkedIn</u>, <u>Twitter</u>, and <u>YouTube</u>, where the first two Lunch Talks on Pinch Analysis and Socio-Economic Challenges are already available for viewing.

We are hoping to see you at the last two Lunch Talks of the year on <u>Industrial</u> <u>Heat Pumps</u> and <u>Thermal Networks</u>.

We, the DeCarbCH team, take this opportunity to wish you all the best for 2022, in the hope that health conditions improve and teams can start meeting in real life, and we look forward to hearing from you.

All the best, The DeCarbCH team

Interview with Dr. Jonathan Chambers from UNIGE





Dr. Jonathan Chambers is the leader of Work Package 01: Thermal Energy System Modelling at the Mesoscale

Question: Could you describe the topic of your WP and how it relates to DeCarbCH?

Answer J. Chambers: The topic of our WP is to improve the understanding of the thermal energy system at the system level to propose cost-effective decarbonization pathways for heating & cooling in Switzerland. To address these challenges, we need models of the provision of thermal energy services at the building stock scale. These models will serve to understand the situation of the present day and explore future transition scenarios.

Q: What are the major challenges?

J. Chambers: Currently, there is limited understanding of the thermal energy system, as previous research has focused primarily on electricity. Therefore, these issues cannot be solved by looking at individual technologies or sectors in isolation. Rather, different technologies need to be modeled to show the impacts and technology needs, e.g., seasonal storage.

Q: What are the main objectives of your WP?

J. Chambers: This WP aims to improve the state-of-the-art thermal energy system models by integrating a range of existing and novel heating & cooling technologies and data sources. We will apply state-of-the-art modeling theory and methods with a mesoscale spatiotemporal resolution. This implies a relatively high resolution, which means looking at hectare squares for groups of buildings, but with large geographic coverage. This allows for a much broader view than case studies while capturing more nuance than national statistical studies.

Q: What are the expected outcomes?

J. Chambers: The thermal and electric energy systems will be harmonized and linked by sector coupling to explore scenarios and generate thermal energy system transition pathways. The ultimate outcome of this work package is to support energy planning at the local, cantonal, and national levels.

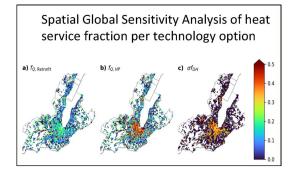
Q: Could you provide some examples?

J. Chambers: Within DeCarbCH, WP01 takes a unique position as crosscutting work package. This includes combining the results of the other work packages, such as case studies and model impacts on the whole thermal energy system across different regions. In addition, an open energy data platform will be set up to store all results and energy data from Switzerland for sharing the same information.

Q: A final word for our readers?

J. Chambers: The main deliverables include a comprehensive thermal energy system model, publications, and reports with detailed recommendations for policymakers, the public, energy agencies, and industry. We are looking forward sharing our findings with you and please contact us when you see opportunities for collaboration, regardless whether you are affiliated to DeCarbCH or not!

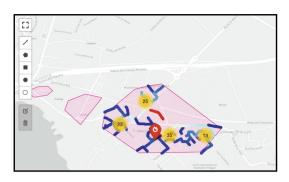
NEWS from WP01: Thermal Energy System Modelling at the Mesoscale



DeCarbCH publication on geospatial sensitivity analysis for heat decarbonisation

A spatially resolved sensitivity analysis reveals high geographic variability of potential costs and cost uncertainties.

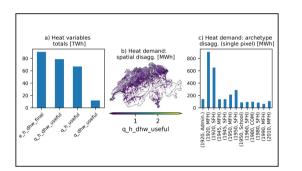
read more



Geospatial Energy Analysis and Planning Tool

With SIG and Viteos, and IT startup geoimpact, we are developing tools that make geospatial energy analysis and planning algorithms accessible.

read more



Presentation of DeCarbCH WP1 at CISBAT conference

Presentation of geospatial datasets and discussion of salient issues in data curation and reuse for Swiss research, and efforts underway to survey research needs.

read more



The new SWEET Energy Data Platform is coming next year

As part of SWEET DeCarbCH and CROSS, we are developing a energy data platform with technical and non-technical data and information on energy models.

read more

FURTHER NEWS

You Tube

The Lunch Talks on

- Pinch Analysis, and
- Socio-Economical Challenges

are available on <u>YouTube</u> and the presentation slides on our <u>DeCarbCH Website</u>.

read more



RENEW-HEAT is a new project that investigates technological and regulatory approaches to facilitate the switch to renewable heating systems.

Project partners involved are:

- <u>INDP</u>,
- <u>University of Basel</u>,
- <u>FHNW</u>,
- <u>University of Geneva</u>, and
- <u>OST</u>.

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Knowledge & Technology Transfer (KTT) Workshop for SWEET initiatives

This workshop provided insight into the development of the KTT Toolbox, a collection of practical knowledge sharing methods put together for the SWEET programme.

<u>read more</u>



1st DeCarbCH Networking Conference, 25/26 April 2022, Seminarzentrum Campus Sursee

Save the dates!

The DeCarbCH Networking Conference enables the exchange within the DeCarbCH community, with academic research partners and with industrial and public partners.

read more

All the News on the Website





This Lunch Talk is taking place online on **9/11/2021**.

REGISTER

- Lunch Talk -Thermal Networks

This Lunch Talk will be held online on 7/12/2021.

REGISTER

Interview with Laura Ding, Nathalie Rüegg, and Andreas Haselbacher from the SWEET Office







Schweizerische Eidgenossenschaft Confédération suisse



Confederazione Svizzera Confederaziun svizra

> Bundesamt für Energie BFE Swiss Federal Office of Energy SFOE

The "SWiss Energy research for the Energy Transition" (SWEET) Office consists of three people: Laura Ding, who is responsible for the evaluation and monitoring of consortia and projects, Andreas Haselbacher, who is responsible for programme development and calls for proposals, and Nathalie Rüegg, who is responsible for administrative, financial, and legal aspects, and communication. You can find more information about the people behind SWEET in the <u>interview</u> with energie-cluster.ch (in German).

Question: What makes the SWEET programme special and distinguishes it from other funding programmes?

SWEET Office: The SWEET programme supports inter- or transdisciplinary consortia that implement a portfolio of interrelated research and pilot and demonstration projects over 6 to 8 years. Consortia should consist of partners from the higher education sector, research institutes, the private sector, and partners from the public sector such as cantons, cities, communes, and districts/regions. The consortia submit proposals to the SWEET Office in response to dedicated calls focused on Switzerland's Energy Strategy 2050 and long-term climate-policy goals.

Q: What do you find most exciting in DeCarbCH?

SWEET Office: We welcome the broad nature of the consortium with 10 members and the large number of cooperation partners. We expect the consortium to make concrete advances toward the decarbonization of heating and cooling and hope that these advances will be widely adopted.

Q: The SWEET funding programme started recently. What is currently going on? What are the next steps?

SWEET Office: From the first call with the theme <u>"Integration of renewables</u> into a sustainable and resilient Swiss energy system", there are four ongoing consortia, DeCarbCH being one of them. In addition, four <u>SOUR</u> projects on the same theme started this autumn. Thus, there are currently two open SWEET calls: Call 1-2021 "<u>Living & Working</u>" is in the full proposal phase, and four consortia were invited to submit a full proposal. Call 2-2021 <u>"Critical</u> <u>Infrastructures, Climate Change, and Resilience of the Swiss Energy System</u>" is in the pre-proposal phase until December 3. We are in the process of preparing further calls for proposals, the themes, and dates of which will be communicated in the coming weeks.

Q: A final word for our readers?

SWEET Office: We wish DeCarbCH well and encourage you to collaborate with DeCarbCH as well as other SWEET consortia. Meeting the goals of Switzerland's Energy Strategy and long-term climate policy requires that the Swiss research and innovation expertise be focused, which can only be achieved through close collaboration.

Any question can be sent to info@sweet-decarb.ch





DeCarbCH has received funding from the SFOE in their <u>SWEET</u> programme.

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