

New LCA and LCoH Task Welcomes Participants & Collaboration

As announced in the Solar Update Newsletter, Issue 76 (December 2022), IEA SHC Task 71 on Life Cycle and Cost Assessment for Heating and Cooling Technologies began work earlier this year and found itself right in the midst of a heated debate on heating systems for single-family homes in Europe. But, this topic is not exclusive to central Europe as governments around the world realize the importance of heating within the energy sector. The good news is that this Task is still open to experts interested in joining.

Due to the fast dynamics in the field of Heating and Cooling Technologies and the consequent rapid development of their regulation, countries are discussing the most effective guidelines, and many are introducing specific legislation and standards to ensure a positive environmental impact of Heating and Cooling Technologies. For this reason, SHC Task 71 will focus on ecological (LCA) and economic (LCoH) assessments, analyze the differences in regulations, and observe their dynamic development throughout the Task duration.

Countries have chosen a variety of approaches, from financial incentives to efficiency standards. What they all have in common is the aim to expand the renewable energy supply and maximize its ecological use. Subtask A is collecting specific regulations and describing them along four key features:

1. Certification standards
2. Emission standards
3. Disposal and recycling
4. Grid requirements

At the end of this year, Subtask A will publish an overview of the data. The goal is to allow easier comparability and produce implementation strategies. Furthermore, the Task is focused on cooperation with other IEA Technology Collaboration Programmes (TCPs) and aims to include as many technologies and regulations as possible.

To expand the scope, SHC Task 71 wants to emphasize that contributions and new Task members are always welcome!

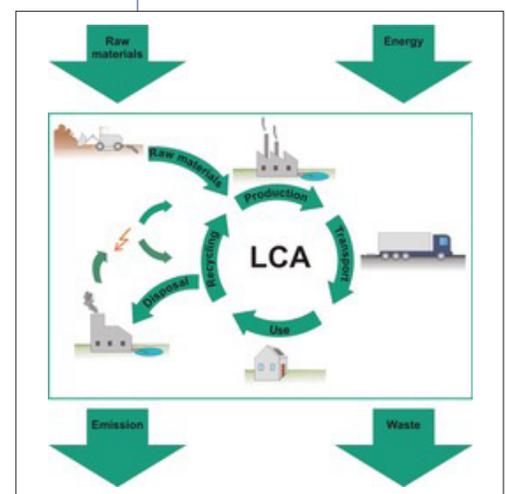
Any projects researching regulations can contact the Task Manager, Dr. Karl-Anders Weiss. Task membership also includes updates on regulation changes. Future laws might focus more on the circular economy, recycling solar modules, and reducing negative environmental impacts during the Life Cycle.

The Task work is divided into five Subtasks:

- Subtask A: Cooperation with ongoing or upcoming SHC Tasks and related Tasks from other TCPs

Users and investors want heating that is sustainable and efficient. But so far there is no way to assess heating technologies across the board. SHC Task 71 aims to close this gap by introducing methodologies and comparable data formats and providing heating reference systems and scenarios.

KARL-ANDERS WEISS
Task Manager



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- Subtask B: Methodology adaption
- Subtask C: Data of different technologies and components
- Subtask D: Reference systems and their requirements, scenarios and optimization
- Subtask E: Dissemination, networking and policy involvement

Even though countries are still joining – China, Spain, France, Italy, Germany, and the UK have officially joined – work has begun in all the Subtasks. With the countries already participating and more interested in joining, Task 71 will draw from a wide range of expertise.

One of the main focuses of our Task is cooperation with other IEA TCPs – PVPS (Photovoltaic Power Systems), DHC (District Heating and Cooling), EBC (Energy in Buildings and Communities), HPT (Heat Pumping Technologies), ES (Energy Storage), IETS (Industrial Energy-Related Technologies and Systems), SolarPACES (Solar Power & Chemical Energy Systems), and Hydrogen.

Collaboration Opportunities with Other IEA Technology Collaboration Programmes

The Task kicked off online in late March 2023 with scientists and experts from Europe and beyond. The two-day event showed great anticipation by everyone to finally get working.

Early on, the team decided to get partners from the industrial sector even more involved. To accomplish that, it was decided to link existing events, such as trade shows and congresses, with SHC Task 71 workshops. At the next Task Meeting in October 2023, the first workshop with industry partners will be held.

The upcoming Task Meeting will be the first one held in person. It will take place on October 18 - 20, 2023, at the Fraunhofer Institute for Solar Energy Systems ISE in Freiburg, Germany. It starts with a public Industry Workshop and an agenda that includes time for an in-depth look at the current challenges and requirements. After the Task Subtask Leaders will introduce their Subtasks and what they have achieved so far. And German PV and heating industry representatives will present their views on the market situation and LCA and LCOH for their respective products. The main focus will be to encourage a lively discussion between the participants and the experts and to define new ways for industry to contribute to the Task.

The Task Meeting will focus on the ongoing work and the national projects in the participating countries. In addition, there will be a session on collaboration with other IEA TCPs where they can present their TCP and discuss links between the TCPs. The Task Meeting will end with a lab tour on Friday.

Are you interested in participating in the Industry Workshop? Email Kyra Sophie Rimrodt at Kyra.sophie.rimrodt@ise.fraunhofer.de.

Are you interested in learning more or in joining this SHC Task? Contact the Task Manager, Karl-Anders Weiss at karl-anders.weiss@ise.fraunhofer.de.