

The use of thermochemical fluids

Main results / outcomes

TheGreefa project investigated the use of the salt solution, called thermochemical fluids (TCFs) in agriculture in energy transfer and storage. Multiple processes are required to convert thermal energy to chemical energy and vice versa, and it is essential to increase the efficiency of the TCF systems. The salt solutions have the potential to replace the most common current technologies, like thermal storage based on warm/hot water or phase change material which has high thermal losses and a lower energy density.

Practical recommendations

- Strengthening and expanding the EU's commitments to combat climate change and ensure effective implementation by member states is crucial. This involves setting more ambitious targets and promoting the transition to a low-carbon economy through widespread implementation of renewable energy sources.
- New policies should support energy efficiency across sectors and encourage innovations, research and development activities, and testing of new technologies.
- Developing new products, particularly for peak shaving, curtailment prevention, and congestion management, to secure predictable revenue streams for storage, both utility-scale and behind-the-meter, is necessary.
- When planning energy strategy, EU member states should facilitate and promote the implementation of new efficient solutions. This includes considering the dual role of the 'consumer-producer' of storage and applying the EU regulatory framework for energy, while removing barriers such as double taxation and facilitating permitting procedures.
- In the agricultural sector, it is essential to encourage the adoption of sustainable agriculture techniques, such as organic farming and pesticide and fertilizer reduction. Additionally, promoting the use of energy from renewable sources, including thermal storage, and applying circular economy principles in the food production and distribution chain are needed.

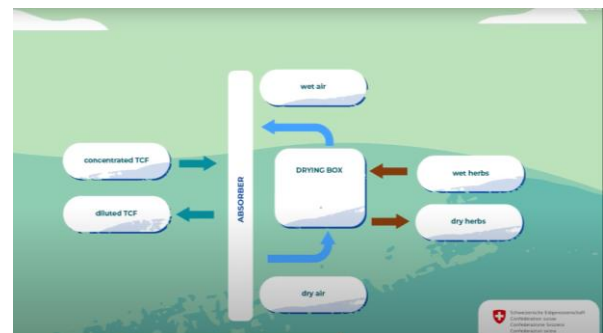
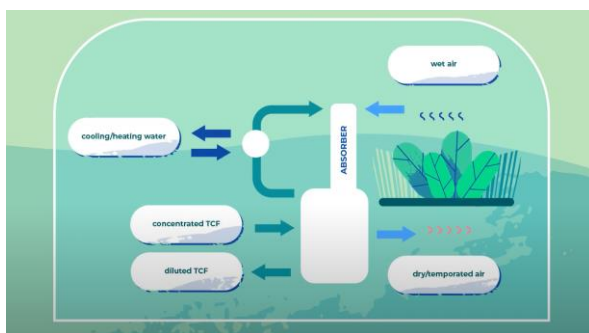


Figure 1 and 2: Caption of TheGreefa promotional video

Further information

[TheGreefa promotional video](#)

About this abstract

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AgroFossilFree is a H2020 multi-actor project that will evaluate the current status in EU agriculture regarding energy use and assess existing needs, allowing farmers to optimize agricultural production through more efficient energy use and reduced GHG emissions, resulting in economic, agronomic and environmental benefits. AgroFossilFree will create a framework under which critical stakeholders will cooperate to evaluate and promote the currently available Fossil-Energy-Free Technologies and Strategies (FEFTS) in EU agriculture. The project is running from October 2020 to September 2023.

Website: www.agrofossilfree.eu

