



PRESS RELEASE

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This year has been very busy and productive for the CHESTER project. The consortium has been working hard on progressing to achieve the initial testing of the CHEST system. Today, CHESTER is one step further to deliver a real value proposition for future energy management.

The **Compressed Heat Energy Storage (CHEST) system**, which is a type of Carnot battery, is an **innovative power-to-heat-to-power energy storage system, combining three different technologies**. During the charging process, the electricity is converted into heat by a heat pump. Subsequently, the heat is stored in a thermal energy storage system based on Phase Change Materials (PCMs). Finally, during the discharging process, the stored heat is converted back into electricity using an Organic Rankine Cycle (ORC).

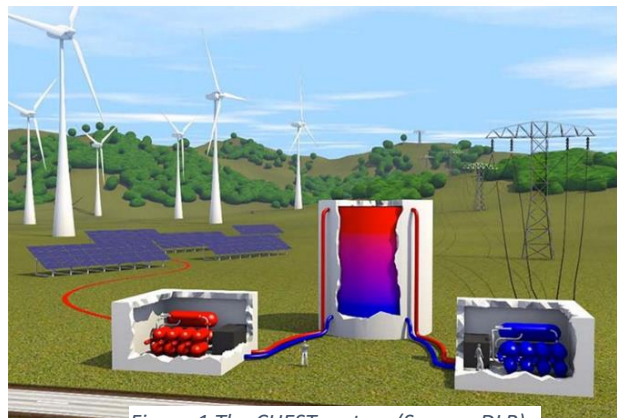


Figure 1 The CHEST system (Source: DLR)

During the past months, [DLR](#), in their laboratory located in Stuttgart (Germany), combined these three main components of the CHEST system and connected them to the heat source and sink as well as to the electrical power supply. The components were filled with the working fluids and the control systems were powered up. After an overall check, the commissioning of the CHEST system was performed. By completing the commissioning procedure and tests, the CHESTER project achieved an **important milestone** as well as the proof-of-concept for the first time showing a stable operation of the CHEST system.

The data from the previous test campaigns is currently being analysed and the next experiments are already planned. Further results and analyses from the operation of overall CHEST system are expected by the end of the project.



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