

## **Multi-energy system integration for a flexible power system: the RSE's demonstrator**

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The integration of several energy vectors, such as electricity, heating, cooling, gas and water, is one of the solutions to increase the diffusion of renewable energy sources, guaranteeing the flexibility necessary for the correct functioning of the electricity system. Multi-energy systems have been identified as a key strategy to reduce primary energy demand and increase electricity system flexibility. Within the research project MISSION (Multivector Integrated Smart Systems and Intelligent Microgrids for accelerating the energy transitiON), the RSE's Distributed Energy Resource Test Facility will be further developed to build a demonstrator of multi-energy systems integrating into the existing power system the heating and hydrogen carrier.