



New research project to drive decarbonisation of energy usage in Europe's buildings

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Decarbonising energy consumption in buildings is essential to achieve EU energy and climate goals. While the use of renewable electricity in buildings has grown steadily the uptake of renewable energy solutions for heating and cooling has been slower. The EU Horizon 2020 funded RES4BUILD project will address this challenge by developing integrated renewable energy-based solutions that are tailored to the needs and requirements of users and installers.

The consortium's multidisciplinary experts will work to improve the performance and reduce the cost of the most innovative components of the RES4BUILD solutions – by integrating PV/T collectors, magnetocaloric heat pumps, and a multi-source heat pump which are optimised through advanced control for increased performance in building systems. The various RES4BUILD solutions will be tested and validated in different climates with a thorough life cycle assessment, paving the way for bringing the developed solutions to the market and ensuring wide adoption.

Much progress was already shown at the second RES4BUILD General Assembly which took place from 20-21 November 2019 in Vries, the Netherlands. Project partners JIN Climate & Sustainability organised the meeting at one of the case study sites operated by Visio, who provide housing and day-care to clients with visual impairments. The project will feature a co-design process with stakeholders such as Visio. This will enable developers, service providers and end-users to ensure that resulting integrated energy systems meet the needs of the clients. Further case studies will take place across a range of suitable sites across Poland and the Netherlands, including multi-family buildings, primary schools, industrial buildings, home-owner associations and a shopping mall.

The project aims to deliver solutions that reduce our dependence on fossil fuels for electricity, heating and cooling in buildings. Through its work, RES4BUILD will devise a best practice approach to renovations of energy systems in a more integrated and systematic way, resulting in more efficient operation and optimised interaction with the grid, and thus a lower energy bill for European consumers. The co-design approach will assist with social inclusion and ultimately contribute to an accelerated energy transition.

RES4BUILD have joined forces with eight other H2020 projects working in the field of renewable energy technologies in buildings and have formed a cluster called "Building Energy Horizons" to collectively benefit from collaborative activities at technical and dissemination levels. For more information on the BE Horizons cluster, please see: res4build.eu/about/be-horizons

For more information on the project, please visit the newly launched project website at res4build.eu or follow the project on Twitter @RES4BUILD.





Notes for editors

The RES4BUILD project has received funding from the European union's Horizon 2020 research and innovation programme under grant agreement no. 814865. RES4BUILD – “Renewables for clean energy buildings in a future power system” will run for four years, from 2019 to 2023.

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Image caption: project partners along with workshop attendees at the meeting in Vries, the Netherlands ©RES4BUILD.