

Press Release



Communication & Public
Relations Office, Promotion
and

Telephone: 22894304

Email: prinfo@ucy.ac.cy

Website: www.ucy.ac.cy/pr



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DSM4islands: New project explores Demand-Side Management in islanded power systems as a driver for the Energy Transition



The new 3-year project “DSM4islands”, an acronym for “Integrated Demand-Side Management as flexibility driver for the energy transition using the example of island power systems”, kicked off in December 2024 with the participation of the PV Technology Laboratory of the University of Cyprus and the local company EPL Technology Frontiers Ltd in a transnational network. The project aims to develop solutions that demonstrate the value of Demand-Side Management (DSM) for maximising the share and enhancing the reliable operation of Variable Renewable Energy (VRE) in islanded power systems across various geographies and climates.

“DSM4islands” represents a dynamic CETPartnership aiming to accelerate the clean energy transition, with a total cost of €1.45 million, and is coordinated by Energynautics GmbH, Germany. To successfully implement “DSM4islands” and address key challenges of the clean energy transition, a highly skilled transnational consortium has been assembled, covering all research and integration aspects. This consists of two renowned research institutions, the University of Cyprus (Cyprus), and the University of Palermo (Italy), which have joined forces with three well-known private companies in the renewable energy sector, namely, Energynautics GmbH (Germany), EPL Technology Frontiers Ltd (Cyprus), and Exalto Energy & Innovation S.r.l. (Italy). The total funding secured for the University of Cyprus is €338.550,00 and for the national partner, EPL Technology Frontiers, it is €153.857,60.

The “DSM4islands” project addresses key R&I themes: (a) Large-scale renewable generation and system flexibility and reliability, (b) Energy storage technologies and systems for flexibility services, (c) System integration and flexible operations, and (d) Innovative flexibility sources and flexibility markets.

The project's uniqueness stems from its application of DSM to island power systems, enabling the rapid integration of high VRE shares. This makes island systems an ideal testing ground to evaluate the broader value of DSM for large-scale power networks. To this end, the DSM solution will be applied to the islands of Cyprus and Lampedusa, allowing the collection of learnings that can be applied to other islands and microgrids, as well as to DSM products and processes.

Importantly, DSM can substantively contribute to the EU energy and climate objectives, by assisting in the optimisation of energy consumption and minimising associated emissions. This is particularly significant in

the context of the EU-28, with well over 16 million EU citizens living in over 2000 islands within those Member States.

Moreover, the anticipated DSM solutions will have the potential to be adapted and applied to other islands, power systems, and larger networks, given the standardised control algorithms and data platforms that will be developed.

For more information regarding the project “DSM4islands”, you may contact the University of Cyprus Project Coordinator, Professor George E. Georghiou, at georghiou.george@ucy.ac.cy.

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