

Work Packages

01

Requirements and Specifications of FlexCHES Solutions

Definition of technical requirements.
Definition of FlexCHES' use cases and scenarios

02

Development of interoperable HESS

Development of blockchain-based platform and of connecting HESS

03

Open Flex-Platform

RT Digital Twin and flexibility services provider. Open knowledge platform

04

Demonstration and Validation

Preparation of pilots and validation of FlexCHES solutions

05

Dissemination, communication and Exploitation of results

Incentive-based business model.
IPR & Exploitation strategies

06

Management and Project coordination

Kick-of meeting



FlexCHES



FlexCHES



“Flexibility services based on Connected and interoperable Hybrid Energy Storage System”



About the project

FlexCHES project proposes cutting-edge solutions based on digital twin concept, Virtual energy storage systems (V ESS) and Distributed Ledger Technology (DLT) to revolutionize the existing practices. Based on the aggregation of Connected Hybrid Energy Storage System (CHES), FlexCHES improves the grid stability while increasing the profitability of its installations by guaranteeing various ancillary services at the distribution and transmission network levels.



FlexCHES



THE VISION

Revolutionise the existing paradigms of energy storage by developing a multi-level flexibility approach based on Virtual Energy Storage System (V ESS) that can store surplus energy through hybrid energy storage systems (HES) and modify their behavior and architecture to support unpredictable growth and change of demand, climate and market.

FlexCHES will enhance the innovation storage capacity and competitiveness of the smart grids in Europe based on V ESS-centric approaches to address uncertainties and weaknesses related to the extensive integration of variable renewable energies into the electricity market.



THE VALUE

The value of FlexCHES is to guarantee a strict green V ESS and minimise the energy curtailment. This will be reached by ensuring the transparency and traceability of stored energy in parallel with information sharing while protecting private data related to each actor. Also, we embrace creativity and innovation to deliver flexibility services and the best practical outcomes.intelligent business.



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