

QualyGridS Standardized <u>qualifying</u> tests of electrolysers for <u>grid</u> services

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This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking under grant agreement No 735485. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme and Hydrogen Europe and N.ERGHY



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State Secretariat for Education, Research and Innovation SERI This work is supported by the Swiss State Secretariat for Education, Research and Innovation (SERI) under contract number 17.00009.

Electrolyzers and Grid Service Markets



- Renewable energies → hydrogen → sector coupling for decarbonisation
- Strong market entry of electrolysers today still limited by costs
- Performing electricity grid services → improved revenues for electrolysers
- Approved and standardised electrolyser tests to verify which service an electrolyser can perform → help OEMs and customers



















QualyGridS project



Input

QualyGridS

Output

Requirements from the electric grids

Electrolyser technology boundaries and requirements

Existing standards

Development of Standardized test protocols for electrolyser grid services

Protocol and hardware validation in different electrolyser environments

Identification of new and update of existing KPIs for electrolysers

Identification and technoeconomical analysis of business cases Standardised test protocols for most promising grid services

Most promising grid services for electrolyser use

Updated KPIs for electrolysers (> 3MW) in grid services





















Steps done



- Overview of grid services
- First draft of testing protocols
- Experimental verification of protocols with 5 electrolysers
- Feedback from measurements results to improved draft
- Contact with IEC standardisation groups
- Overview economic evaluation of major European grid services





















Steps to come



- Second draft of testing protocols
- Experimental verification this draft
- Feedback from measurements results to finalized draft
- Submission as standard NWIP
- Detailed economic evaluation of some cases



















