



5th July 2018  
KKL - Lucerne  
Switzerland

# EUROPEAN GRID SERVICE MARKETS symposium 2018

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5th July 2018  
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**Welcome**  
*Christoph Imboden*  
*Regine Reißner*  
**EUROPEAN GRID**  
**SERVICE MARKETS**  
symposium  
**2018**



# European Grid Service Markets Symposium

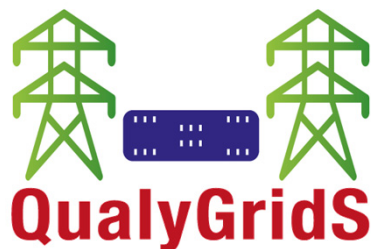


**Welcome to the**  
**Lucerne University of Applied Sciences and Arts**  
School of Engineering and Architecture

6 departments, the eldest founded in 1877  
6500 students in 18 bachelor and 12 master programs, 4'500 students in  
advanced education programs, > 500 research projects

# European Grid Service Markets Symposium

## QualyGridS Standardized qualifying tests of electrolysers for grid services



**Work programme topic:** FCH-02-1-2016: Establishing testing protocols for electrolyzers performing grid services

**Duration:** 01/2017-12/2019

**FCH-JU contribution:** To total project 1.996.795 €



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





# Administrative information

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Breaks

- 11.15 – 11.30 Networking coffee break in front of the club room
- 12.30 – 13.30 Business lunch on the terrace, coffee in the exhibition & in front of the club room
- 15.30 – 16.00 Networking coffee in front of the club rooms

17.00 Summary

17.15 Grid-apéro & fuel cell exhibition in the exhibition area

19.30 Networking Dinner on the Lake

- 19.20 Boarding, lake side of KKL pier 5/6
- 22.30 Stop at Brunnen (early return opportunity by train)
- 23.15 back at Lucerne

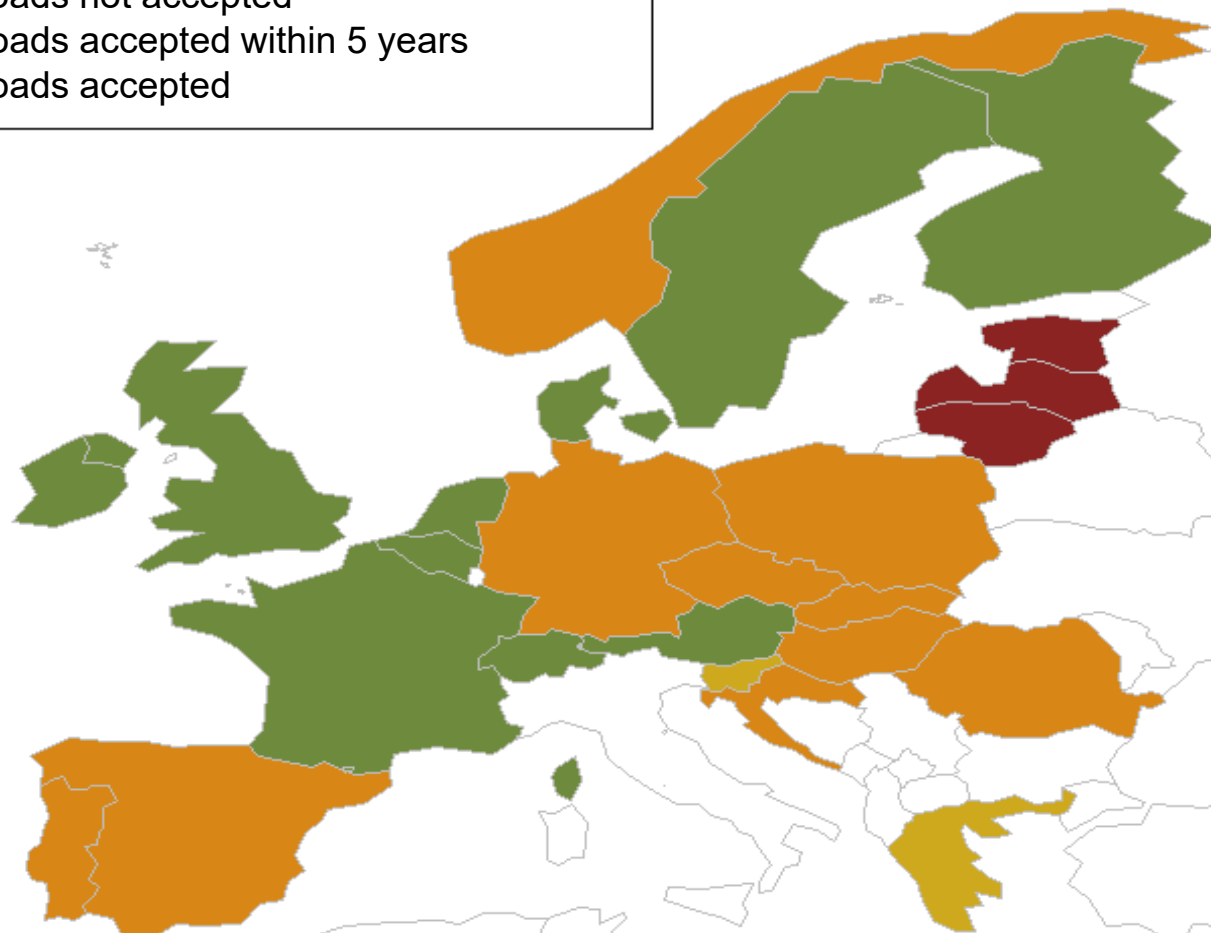
# European Grid Service Markets

Symposium



LM for Frequency Containment Reserve

- FCR does not exist
- Loads not accepted
- Loads accepted within 5 years
- Loads accepted







## The presentations today:

10.15	Clean Energy Package and development of new markets for grid services	<u>Matti Supponen</u> , DG Energy, European Commission, Brussels/BE
10.45	Opportunities for storage units based on the <u>Enexis</u> smart storage units (SSU) project	Fons Jansen <u>Enexis B.V.</u> Tilburg/NL
11.15	Networking coffee break	
11.30	Flexibility market development in Baltic states	<u>Elis Paas</u> <u>Elering AS</u> , Tallinn/ <u>Estland</u>
12.00	Impact of RES in Croatia to usage of ancillary services	<u>Davor Bošnjak</u> , <u>Danko Marčić</u> HEP/HR, Mileta Krsmanovic (presenter)
12.30	Business lunch on the terrace of KKL, coffee in the exhibition & in front of the club rooms	

# European Grid Service Markets

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## The presentations today:

### Experience with Business Models

13.30	European hydrogen, fuel cell and electrolyser industry and grid services: contributions, business expectations, needs	Jorgo Chatzimarkakis Hydrogen Europe, Brussels/BE
14.00	Flexible operation of technologies through sector coupling	Jessica Thomsen, <u>Noha Saad Hussein</u> , Niklas Hartmann Fraunhofer ISE, Freiburg/DE
14.30	Hydrogen as the solution to many problems. <u>But how and when?</u>	Andrei Zschocke <u>Uniper Innovation</u> , Essen/DE
15.00	Optimization strategies for the operation of renewable energy units in smart markets	Alexander Dreher, <u>Fraunhofer IEE</u> (Institute for Energy Economics and Energy System Technology), Kassel/DE
15.30	Networking <u>coffee break</u>	



# European Grid Service Markets

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## The presentations today:

16.00	ENERGY market design instead of ELECTRICITY market design	Matthias Sulzer SCCER FEEBD, <u>Empa</u> , Zurich/CH
16.30	Empirical data on DSM potentials in the services sector	Ulrich Reiter <u>TEP Energy</u> , Zurich/CH
17.00	Discussion and conclusion	Chr. Imboden, <u>HSLU Lucerne</u> /CH Regine <u>Reißner</u> , DLR, Stuttgart/DE
17.15	<u>Grid apéro</u> & fuel cell exhibition	
19.30	<b>Networking: great Dinner on the Lake</b> (optional, together with EFCF ) Boarding 19.20, lake side of KKL pier 5/6 – back 23.15; 22.30 short stop in <u>Brunnen</u> for early return by train	