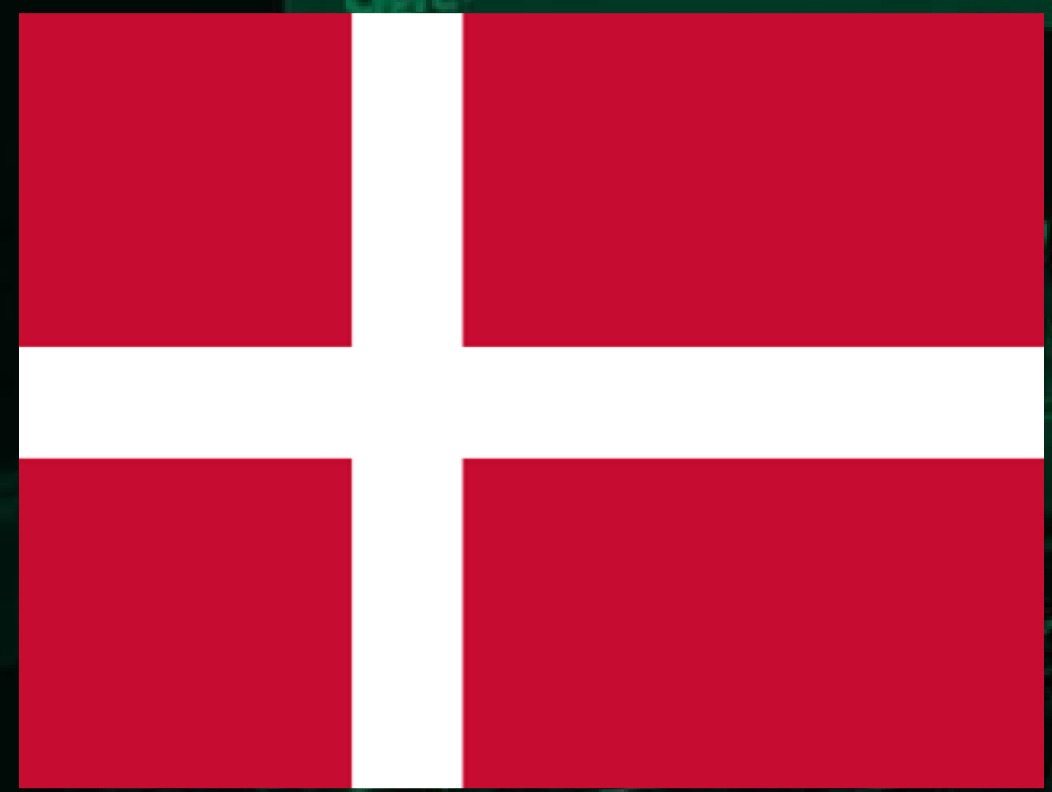


Wednesday, 26 May 2021

15:00-16:00 CET

The Future Power System with Integrated Energy Storage

Webinar organised by CIGRE NGN Denmark



CIGRE Next Generation Network

CIGRE Next Generation Network (NGN) seeks to facilitate a successful transition into the power systems industry for students and young professionals by providing technical resources and networking opportunities for personal and technical development.

CIGRE NGN DK would like to provide a platform for Denmark-based members (but not only) recent research results and system operations experience related to the rapid transformation and challenges imposed on networks and markets by increased amounts of renewable energy penetration.

Date and Time: Wednesday, 26 May 2021 @ 15:00-16:00 CET

Platform: MS Teams

Registration: Eventbrite

Agenda:

15:00 – 15:05	Opening
15:05 – 15:15	Introduction of CIGRE NGN DK
15:15 – 15:30	Speaker I – <i>Battery Electric Vehicle Integration into the Grid</i> by Lisa Calearo, Technical University of Denmark (DTU)
15:30 – 15:45	Speaker II – <i>Hybrid Power Plants as Solution of Future Power System Challenges</i> by George Alin Raducu, Vattenfall
15:45 – 15:55	Q&A in plenum
15:55 – 16:00	Closing

Join Us

CIGRE NGN DK: <https://www.cigre.dk/new-generation-network.html>

For enquiries: Daniela Pagnani, DAPAG@orsted.dk



Battery Electric Vehicle Integration into the Grid:

Experiences from the Danish V2G Project ACES

Electric vehicles (EVs) are much more than just a means of transportation. Their large storage capacity can potentially stress local grids when considering charging needs, but it can also offer flexibility, if enabled by smart charging and vehicle-to-X technologies. This presentation provides an overview of experiences from the Danish vehicle-to-grid (V2G) project ACES (Across Continents Electric Vehicle Services), with highlights on charging needs and grid impact, frequency control from EVs and battery degradation.

Lisa Calearo

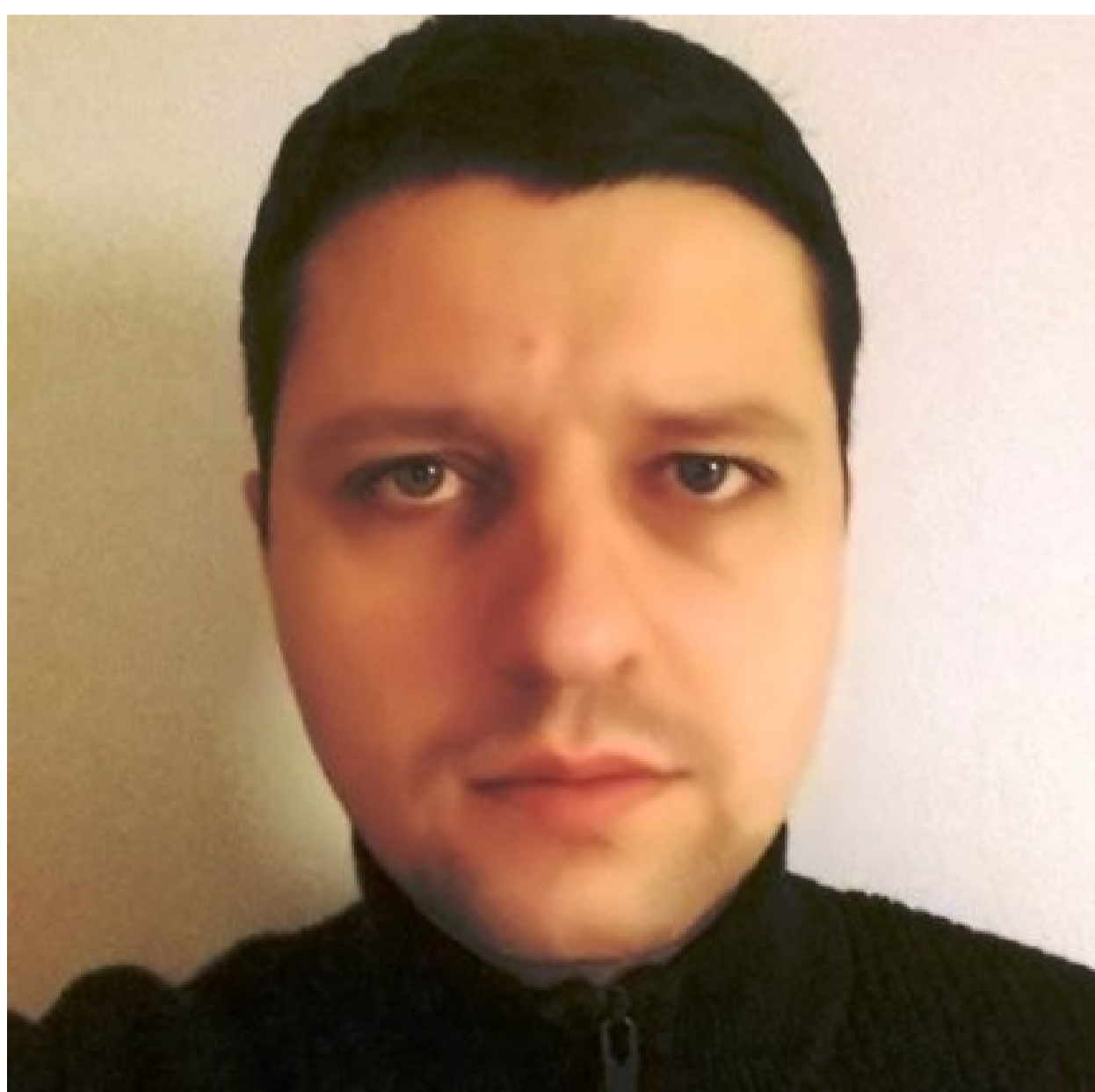


Lisa Calearo is a CIGRE NGN DK member and is currently pursuing the Ph.D. degree on "Large-Scale Integration of Distributed Energy Resources in Islanded Power Systems considering User Needs" with DTU. She received the double M.Sc. degree in electrical engineering from the University of Padova (Italy) and in sustainable energy from DTU. Her current research interests include electric vehicles power system integration and grid service support, battery degradation, distribution grid modelling, simulation and testing.

Hybrid Power Plants as Solution of Future Power System Challenges

With an increased rate of renewable energy generation, power systems are more and more confronted with different types of challenges. Intermittent energy generation due to fluctuations in weather conditions is one of the challenges, while high volatility of the electricity market spot prices can be seen as another type of challenge for utility companies such as Vattenfall. In Vattenfall view, hybrid power plants are the solution, because they can combine the advantages of different technologies. Specifically, energy storage systems can solve many of the power system challenges. This presentation will address different applications where energy storage systems are included and describe what type of services/functionalities can be fulfilled by such systems.

George Alin Raducu



George Alin Raducu holds a M.Sc. degree in Power Electronics and Drives from Aalborg University. Currently, he is working in Vattenfall Vindkraft Denmark as Product Manager. His main focus areas are in regard with optimisation and control solutions tailored for wind farms, solar parks as well as hybrid power plants, i.e. the integration of different renewable energy generation systems together with storage systems and/or hydrogen units under the same grid connection point.

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