

SYMPOSIUM: Safeguarding the accelerated upgrade and integration of large-scale sustainable energy systems

Energy systems urgently need an acceleration of their technological upgrade to achieve societal and environmental goals. The symposium gathers experts from industry and academia to reflect on the main R&D challenges and their prospective solutions.

Date and time: 10 May 2023 09:15 till 14:00.

Location: Co-Creation Centre of The Green Village (Van den Broekweg 4, 2628 CR Delft)

Routes:

- **Co-Creation Centre:** <https://www.thegreenvillage.org/hoer-kom-je-er/> (Symposium)
- **Aula Congress Centre:** <https://map.tudelftcampus.nl/nl/poi/aula-congrescentrum/> (Posters-Lunch)

Organizer and chairperson: José Rueda (TU Delft, Resilient Sustainable Energy Systems)

PROGRAMME (The symposium main language is English)

09:15 Arrival and registration

09:45 Welcome and program overview

Lucas van Vliet (TU Delft, Dean of the Faculty of Electrical Engineering, Mathematics and Computer Science) and Margriet Rouhof (TenneT, Strategy and Innovation).

10:00 Digital transformation towards self-organizing energy systems

Pedro Vergara (TU Delft, Electrical Distribution Systems) and Koen Kok (TU/e, Intelligent Energy Systems)

10:20 Stability and control laws for power electronic converter dominated systems

José Rueda (TU Delft, Resilient Sustainable Energy Systems) and Mario Ndreko (TenneT, Connection Network Codes)

10:40 Interoperable Control & Protection for HVDC networks

Marjan Popov (TU Delft, Power System Protection), and Wilhelm Winter (TenneT, HVDC Planning)

11:00 Discussion panellists and audience 1

11:20 Break

11:40 Artificial intelligence for monitoring and adaptive mitigation of operational threats

Jochen Cremer (TU Delft, Machine learning for energy systems), and Matija Naglič (TenneT, Business Developer System Operations)

12:00 Cyber security of future operation of the integrated energy system

Alex Stefanov (TU Delft, Control Room of the future), Bas Kruimer (DNV, Business Director)

12:20 Discussion panellists and audience 2

12:40 Posters & lunch (Foyer/1st Floor of Aula Congress Centre. Mekelweg 5, 2628 CC Delft)

14.00 End of symposium.

This symposium takes place prior to the valedictory speech of Mart van der Meijden, professor of Large Scale Sustainable Power Systems. His speech starts at 15.00 hours in the Aula Congress Center of TU Delft (hall open at 14:30 hours; route: <https://map.tudelftcampus.nl/nl/poi/aula-congrescentrum/>).

Tip: Parking is possible at P2 Sports (route: <https://www.tudelftcampus.nl/p-sports/>), close to the Green Village. Approx. 5 minutes' walk between the Green Village and the Aula Congress Centre.