

# The 4<sup>th</sup> Estonian DC Innovation Workshop

## Enhancing Energy Performance of Buildings

November 22, 2023, TalTech – Mektory EnergyHub, Raja 15, 12618 Tallinn, Estonia

### AGENDA (ESTONIAN TIME, CET+1)

**9:30 - 10:00** Ice-Breaking Coffee

**10:00 - 11:00** **Intro: Energy Performance of Buildings: Benefits, Challenges and Opportunities**

10:00 - 10:20 "Zero Emission Buildings" Jarek Kurnitski, TalTech (EE)

10:20 - 10:40 "Low-Impact Modular Pattern Buildings" Renee Puusepp, Creatomus Solutions (EE)

10:40 - 11:00 "Energy Efficient Electrification Technologies for Buildings and Neighborhoods",  
Dmitri Vinnikov, TalTech (EE)

**11:00 - 12:15** **DC Systems and Technologies**

11:00 - 11:15 "The Importance of Convergence" Harry Stockman, DC Systems (NL)

11:15 - 11:30 "Current/OS, The Leading Community in DC Prosumer Installations"  
Yannick Neyret, CurrentOS Foundation (NL)

11:30 - 11:45 "Testing and Demonstration of DC Power Applications" Marco Stieneker, Maschinenfabrik Reinhausen (DE)

11:45 - 12:00 "Operation of an MV/LV DC Microgrid Connecting High Power Converters"  
Katharina Hetzenecker, RWTH Aachen (DE)

12:00 - 12:15 "Power Electronics Based Circuit Protection for DC Microgrids" Kenan Askan, Eaton (AT)

12:15 - 12:30 "LVDC Underlay Grids Based on Solid-State Transformers" Benedict Mortimer, RWTH Aachen (DE)

**12:30 - 13:00** Lunch

**13:00 - 14:00** **DC Tools and Applications**

13:00 - 13:15 "Second Life Battery Storage in DC Microgrids" Laurens Mackay, DC Opportunities (NL)

13:15 - 13:30 "Residential prosumer power profiles and how can battery storage and DC technologies help"  
Andrei Blinov, TalTech (EE)

13:30 - 13:45 "Towards DC-Powered Home Appliances: An Induction Heating Cooker Case Study"  
Oscar Lucia, University of Zaragoza (ES)

13:45 - 14:00 "DCIDE - Software to Design Microgrids at the Speed-of-Thought"  
Giel Van Den Broeck, Direct Energy Partners (BE)

**14:00 - 15:00** **Residential Energy Storage Systems**

14:00 - 14:15 "Industrial and Utility Scale Storage Systems" Andre Lindvest, Energiapartner (EE)

14:15 - 14:30 "Distributed Generation System Design with the Purpose to Reduce Self-Generated Energy Losses"  
Audrius Jonaitis, Kaunas University of Technology (LT)

14:30 - 14:45 "Overview of Residential Storage Systems" Ilya Galkin, Riga Technical University (LV)

14:45 - 15:00 "Role of Power Electronics and Energy Efficiency in Storage Systems" Dimosthenis Pefititsis, NTNU (NO)

**15:00 - 15:30** Coffee break

**15:30 - 17:00** **Grid-Interactive Buildings and Communities**

15:30 - 15:45 "Prosumers and Utility Grid" Hardi Hõimoja, Elektrilevi (EE)

15:45 - 16:00 "Energy Router for Grid Interactive Residential Buildings" Oleksand Husev, TalTech (EE)

16:00 - 16:15 "Empowering Consumers to Power the World" Tarvo Õng, Fusebox Energy (EE)

16:15 - 16:30 "Pioneering Grid-Interactive Buildings Through Demand Response: The Role of AI"  
Juri Belikov, R8 Technologies (EE)

16:30 - 16:45 "Energy Positive Districts and Energy Sharing Between Buildings" Tarmo Korõtko, TalTech (EE)

**16:45 - 17:00** **Wrap-Up Discussion**

#### Contacts:

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