

## IRES2020 Web Summit 25 & 26 May 2020

### Program Monday 25 May

Time	Opening Session
09:00	Prof. Peter Droege President EUROSOLAR – European Association of Renewable Energy
09:10	Prof. Dr. Ingo Stadler TH Koeln, IRES Chairman
09:20	<b>Keynote</b> Prof. Dr. Hans-Martin Henning Director Fraunhofer Institute for Solar Energy Systems ISE IRES Chairman 2021

Time	Energy System Analysis
10:00	<b>Thermal Storage Operation In District Heating Systems</b> Christian Thommessen, Univ. Of Duisburg-Essen
10:20	<b>Interaction Of Energy Storage and Synthetic Fuels in Long-Term Decarbonization Scenarios</b> Dr. Diana Böttger, Fraunhofer IEE
10:40	<b>The Role of Storage and Power-to-X Technologies in Fully Defossilised Energy System: A Case Study for Ethiopia</b> Oyewo Ayobami Solomon, Lappeenranta University of Technology
11:00	<b>Probability of Correct Decision-making at Triggering of Load-Shifting for low CO<sub>2</sub>-intensity via simple Grid Frequency Monitoring</b> Prof. Stefan Krauter, Univ. Of Paderborn
11:20	<b>Storage Control Power Plant</b> Natalie Melnik, HAW Hamburg
11:40	<b>Simulation of a Multilevel Storage Model for a Renewable German Electricity System</b> Nico Wehrle, Mendel University Brno
12:00	<b>New Concepts of Renewable Energy Storage</b> Sampson Tetteh, Aalto University

## Program Monday 25 May

Time	Case Studies & New Ideas
12:30	<b>Giga Scale Pit Storage as Essential Part of District Heating System</b> Keith O'Donovan, AEE Intec
12:50	<b>Challenges Associated With The Construction And Operation Of Seasonal Storage For A Small Solar District Heating System: A Multi-Objective Optimization Approach</b> Mohamed Abokersh, Universitat Rovira i Virgili
13:10	<b>Harnessing Flexibility from Circular Economy: Case Åland Islands</b> Kirsikka Kirivanta, VTT
13:30	<b>Use of Pressurised Oxidation of Cu<sub>2</sub>O as a Means of Improving the Performance of Redox Based Thermochemical Energy Storage Systems</b> Sike Wu, Univ. of Newcastle
13:50	<b>Experimental Validation Of A Hybrid Power-To-Heat Storage Based On High Temperature Phase Change Materials To Enhance Sector Coupling And Flexibility</b> Patricia Royo, Univ. de Zaragoza
14:10	<b>Performance Evaluation of a Cylindrical PEM Fuel Cell and the Stack</b> Suseendiran Sekkarapatty, Indian Institute of Technologie Madras
14:30	<b>Industrial-scale Methanol Plant for Renewable Electricity Storage</b> Annukka Santasalo-Aarnio, Aalto University

Time	Thermochemical Energy Storage
15:00	<b>Developing and Stabilizing Salt-Hydrate Composites as Thermal Storage Materials</b> Gayaneh Issayan, Univ. of Applied Sciences Upper Austria
15:20	<b>Improving Power Output for K<sub>2</sub>CO<sub>3</sub> by Incorporating Ions</b> Natalia Mazur, Eindhoven Univ. of Technology
15:40	<b>Solid Sorption Refrigeration With Calcium Chloride Methanlates On Technical Scale</b> Prof. Oliver Opel, FH Westküste / Westcoast Univ. of Applied Science
16:00	<b>Numerical Modeling of Thermochemical Heat Storage using CaO/Ca(OH)<sub>2</sub></b> Gabriele Seitz, Univ. of Stuttgart
16:20	<b>Adsorbed Renewable Energy Gas Storage</b> Dr. Georg Klepp, TH OWL iFE
16:40	<b>Core-Shell Composites LiCl@SiO<sub>2</sub> For Thermochemical Energy Storage With High Storage Density</b> Dr. Aleksandr Shkatulov, Eindhoven University of Technology

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### Program Tuesday 26 May

Time	Thermal Energy Storage
10:00	<b>A Comparison Study of Sensible and Latent Thermal Energy Storage used in Domestic Hot Water Solar Heating System</b> Josip Batista, University of Rijeka
10:20	<b>Electricity Storage With A Solid Bed High Temperature Thermal Energy Storage System (HTTES)</b> Dr. Guenter Schneider, enolcon GmbH
10:40	<b>Storing Solar Energy in Redox-Particles: Pilot Scale Tests with a Rotary Kiln and a Vertical Moving Bed</b> Dr. Stefania Tescari, German Aerospace Center (DLR)
11:00	<b>Effect on geometry to minimize the heat losses on Borehole Thermal Energy Storage (BTES)</b> Sai Suryavenkatesh Villa, Aalto University
11:20	<b>First Findings on the Operation of a High-Temperature Storage System (Project High-T-Stor)</b> Dr. Stefan Lechner, TU Mittelhessen; THESA
11:40	<b>Global Warming Potential of Gravitational Storage Systems</b> Martin Hiertz, Univ. of Applied Sciences Cologne

## Program Tuesday 26 May

Time	Latent Heat Storage
12:30	<b>Thermal Behaviour of Paraffins, Fatty Acids, Salt Hydrates and Renewable Based Oils as PCM</b> Evdoxia Paroutoglou, Danish Building Research Institute, Aalborg University
12:50	<b>Development of Phase Change Materials Based on Mixtures of Salt Hydrates</b> Christoph Rathgeber, ZAE Bayern
13:10	<b>Design And Performance Analysis Of A Latent Heat Storage For The Operation Of A High-Temperature Methanol Fuel Cell</b> Lisa Deinert, Fraunhofer UMSICHT
13:30	<b>Experimental and numerical Investigation of Encapsulated PCM with variable Material Data</b> Valerie Pabst, Technische Hochschule Ulm
13:50	<b>Experimental research on melting of paraffin in a latent thermal energy storage</b> Igor Wolf, University of Rijeka
14:10	<b>Storage efficiency of cold-crystallizing long-term heat storage material</b> Konsta Turunen, Aalto University
14:30	<b>Evaluation of the effect of PCMs on the room temperature in a commercial office</b> Juanita Solani Guzmán, Fraunhofer ISE
14:40	<b>The Rotating Drum Heat Exchanger as an efficient and fully controllable heat exchanger for Latent Heat Thermal Energy Storage</b> Jonas Tombrink, German Aerospace Center
15:00	<b>Integration of Buildings as Energy Storage in a Smart Grid</b> Sabine Krutzsch, Hochschule für Technik und Wirtschaft Berlin

## Program Tuesday 26 May

Time	Electrochemical Storage
15:30	<b>Recent Trends in Flow Battery Development and Commercialisation</b> Dr. Anthony Price, Swanbarton Limited
15:40	<b>Energy Storage - The next era of the Energy Sector</b> Debmalya Sen, Customized Energy Solutions
16:00	<b>A Decision Making Tool Based Analysis of Onboard Electricity Storage</b> Tanay Sidki Uyar , Marmara Univ. Istanbul
16:20	<b>Heating Decarbonization with Renewable Gas and P2H - Tariff Policy vs. End-User Investments</b> Robert Weiss, VTT Technical Research Centre of Finland
16:40	<b>Load Profile Analysis of Medium Voltage Regulating Transformers on Battery Energy Storage Systems (BESS)</b> Dr. Robert Beckmann, German Aerospace Center
17:00	<b>The Role of Batteries in High Power Charging Infrastructure</b> Dr. Karin Jahn, Fraunhofer IFAM
17:20	<b>Experimental Investigation On Phase Change Materials For Thermal Management Of Lithium-ion Battery Packs</b> Stephan Tahler, Fachhochschule Kärnten
17:40	<b>Potential of Electric Vehicles for Providing Regulating Power Based on German Mobility Behavior</b> Dr. Mohammed Hijjo, Univ. of Stuttgart