AGENDA AS OF 30 SEPTEMBER 2026

Important: This preliminary program is subject to changes. It is strongly recommended to check back regularly.

Presentation titles and authors/co-authors are updated continuously.

TUESDAY, 29 SEPTEMBER 2026

09:30 Start Registration

WORKSHOP WELCOME & INTRODUCTION

14:00 – 14:20 | Thomas Ackermann (Energynautics, Germany)

SESSION 1 – KEYNOTE SESSION

14:20 – 16:10 | Session Chair: Thomas Ackermann (Energynautics, Germany)

14:20 – 15:40 Presentations (20 min. each)

- **From Renewable Integration to System Integration: A Portuguese TSO Perspective**
  Susana Ludovino (REN, Portugal) (Submission-ID WISO26-410)
- **Definition of an Energy Storage Strategy for Portugal for 2040**
  João Peças Lopes (INESC TEC, Portugal) (Submission-ID WISO26-403)
- **Challenges and Opportunities in Renewable Energy Integration into Distribution Grids**
  Ana Lopes (E-Redes, Portugal) (Submission-ID WISO26-375)
- **Long-term Vision of the Portuguese Power Supply Mix for RFNBO Production and Export**
  Ricardo Aguiar, P. Partidário, P. Martins (Directorate-General for Energy and Geology, Portugal) (Submission-ID WISO26-171)

15:40 – 16:10 Discussions

16:10 – 16:40 COFFEE BREAK | GROUP PHOTO

SESSION 2A – GRID FORMING PRACTICAL EXPERIENCE

16:40 – 18:45 | Session Chair: Jens Fortmann (HTW Berlin, Germany)

16:40 – 18:20 Presentations (20 min. each)

- **Grid-Forming Behaviour Evaluation on Celtic HVDC Interconnector**
  P. Rault, V. Costan, J. Liger, T. Prevost (RTE, France), M. Val Escudero, J. Ruddy (Eirgrid, Ireland), E. Sanchez Sanchez, E. Rokrok, C. Verdugo, R. Renner (Siemens Energy, Germany), R. Lemaire (RTE international, France) (Submission-ID WISO26-110)
- **Grid Forming Inverter Experience in Texas**
  J. Billo, F. Huang (ERCOT, USA) (Submission-ID WISO26-373)
- **Comparison of Centralized and Distributed Compensation Strategies to Ensure Converter Driven Stability in the Finnish Power System**
  O.-P. Janhunen, O. Kara, L. Linnamaa (Fingrid Oyj, Finland) (Submission-ID WISO26-196)
- **Protection Coordination for Grid Forming Offshore Wind Farms Connected through Diode HVDC to Large Loads**
  S. Wang, Y. Sun (Shell Global Solutions International, Netherlands), Z. Zeng, D. Yang (Eindhoven University of Technology, Netherlands), B. Palethorpe, D. Ganeshpure (Shell Global Solutions International, Netherlands) (Submission-ID WISO26-291)
- **New VSM-Split Control Concept for Grid-Forming Wind Power Plants: Enhancing Stability and Damping Under Grid Disturbances**
  E. S. Mannadiar, H. Becker (University of Kassel | Fraunhofer IEE, Germany), A. Abels (WRD Wobben Research and Developmen, Germany), C. Hachmann (University of Kassel | Fraunhofer IEE, Germany) (Submission-ID WISO26-097)

18:20 – 18:45 Discussions

SESSION 2B – IBERIAN GRID ASPECTS

16:40 – 18:45 | Session Chair: Alberto Pico (EPRI Europe, Ireland)

16:40 – 18:28 Presentations (18 min. each)

- **The Iberian Blackout 28/04/2025 - What lessons for the future**
  J. Peças Lopes (INESC TEC, Portugal)
- **Grid incident in Spain & Portugal – Conclusions Regarding Conformity Assessment Procedures**
  S. Weiss, C. Scheefer, M. Meuser (FGH Zertifizierungsgesellschaft mbH, Germany) (Submission-ID WISO26-317)
- **VRE Overbuilding and Proactive Curtailment: Assessing the Firm Power Paradigm for a Reliable Iberian Grid**
  C. B. Crespo (University of Lisbon, Portugal), R. Amaro e Silva (University of Lisbon, Portugal | MINES Paris, France), M. C. Brito (University of Lisbon, Portugal) (Submission-ID WISO26-342)
- **Reserve Activation Under Network Constraints in a High-Renewable 2030 Portuguese Scenario**
  P. Graça, V. Sousa, A. Couto, A. Estanqueiro (LNEG – Laboratório Nacional de Energia e Geologia, Portugal) (Submission-ID WISO26-181)
- **High-level Integration of Portuguese Industrial Sector Decarbonization Roadmaps**
  R. Aguiar, P. Martins, P. Partidário (Directorate-General for Energy and Geology, Portugal) (Submission-ID WISO26-187)
- • **Dynamic Linepack Management and Hydrogen Blending in the Portuguese High-Pressure Natural Gas Network: Thermodynamic, Economic, and Power Grid Impacts**
  J. Fontoura (INESC TEC, Portugal), Z. S. Mourão, F. J. Soares (INESC TEC | University of Porto, Portugal) (Submission-ID WISO26-224)

18:28 – 18:45 Discussions

SESSION 2C – GRID CODE DEVELOPMENT

16:40 – 18:45 | Session Chair: Eckard Quitmann (Energynautics, Germany)

16:40 – 18:20 **Presentations (20 min. each)**

- **ENTSO-E's Ongoing Guidance Document on National Implementation of NC RfG 2.0 Grid Forming Requirements**
  J. Giner Folqués (ENTSO-E, Europe) (Submission-ID WISO26-405)
- **What's Next for European Network Codes? New Requirements for Emerging Grid Technologies**
  B. Schowe-von der Brelie (FGH Research Association (FGH) e.V., Germany), S. M. Ali (FGH GmbH, Germany), P. Tavassoli (FGH Zertifizierungsgesellschaft mbH, Germany) (Submission-ID WISO26-260)
- **Technical Requirements for Connecting Data Centers**
  D. Stenzel (TenneT TSO, Germany), C. Schöll (TransnetBW, Germany), A. Büttner (50Hertz Transmission, Germany), V. Schulz (Amprion, Germany) (Submission-ID WISO26-010)
- **New Technical Requirements for Large Demand Facilities in Finland**
  L. Linnamaa, I. Luukkonen, V.-V. Vaara, O.-P. Janhunen (Fingrid Oyj, Finland) (Submission-ID WISO26-076)
- **How to Make Large Loads Contribute to Grid Stability Using Advanced Grid-Forming BESS**
  D. Duckwitz, S. Aust, A. Knobloch (SMA Solar Technology AG, Germany) (Submission-ID WISO26-378)

18:20 – 18:45 **Discussions**

SESSION 2D – FLEXIBILITY OPTIONS

16:40 – 18:45 | Session Chair: Alberto Dognini (EPRI Europe, Ireland)

16:40 – 18:28 **Presentations (18 min. each)**

- **Large Load Forecasting, Risk Mitigation, and Flexibility**
  T. Mai (ESIG, USA) (Submission-ID WISO26-383)
- **A Comparative Study of Flexibility Valuation Methods in Renewable Energy Communities**
  J. C. Agrela, L. Rodrigues, T. Soares, J. Villar (INESC TEC, Portugal) (Submission-ID WISO26-169)
- **Flexible PV/Battery Power Forecasting and Firm Power Commitment Application**
  M. Pierro, L. Fialho, G. Barchi (EURAC Research, Italy) (Submission-ID WISO26-082)
- **Demand Response as a Flexibility Mechanism in the Brazilian Power System**
  W. Silva (Aeronautics Institute of Technology – ITA, Brazil), G. Vieira (University of São Paulo – USP, Brazil), E. Gurski (University of São Paulo – USP | Federal University of Technology-Parana – UTFPR, Brazil), L. Simone, L. F. Lourenço, M. Salles (University of São Paulo – USP, Brazil) (Submission-ID WISO26-295)
- **Coordinating Battery Storage in Energy Sharing Communities: Effects on Flexibility Allocation Across Assets, Renewable Integration, Cost, and Sizing**
  L. M. Schneider (Weihenstephan-Triesdorf University of Applied Sciences, Germany | Grazer Energieagentur, Austria), D. Hahn, A. Zeiselmair (Weihenstephan-Triesdorf University of Applied Sciences, Germany) (Submission-ID WISO26-087)
- **Flexibility Challenges in Central Asian Power Systems: Evidence from Dispatch Modeling of Large-Scale Wind and Solar Integration in Kazakhstan and Uzbekistan**
  R. Isaev (GIZ, EURECA Project, Uzbekistan), A. Mirzaev (Coordinating Dispatch Center "Energia", Uzbekistan) (Submission-ID WISO26-122)

18:28 – 18:45 **Discussions**

18:45 NETWORKING EVENT / POSTER RECEPTION

FOYER / TERRACE

WEDNESDAY, 30 SEPTEMBER 2026

SESSION 3A – PRACTICAL IMPLEMENTATION OF GRID FORMING FOR WIND

08:45 – 10:40 | Session Chair: Vidushi Dembi (WindEurope, Belgium)

08:45 – 09:50 **Presentations (20 min. each)**

INTRODUCTION

V. Dembi (WindEurope, Belgium)

PART I – PRESENTATIONS

- **Wind Industry Perspective on Grid Forming Capabilities in Europe**
  I. Skrypalle (Vestas, Denmark) (Submission-ID WISO26-333)
- **Grid Forming Control of DC Connected Offshore Wind Parks: Requirements, Technical Limitations and Contribution to Instantaneous Reserve**
  S. Höhn, G. Deiml, K. Jakob (TenneT TSO, Germany), T. Neumann, P. Winter, K. Günther (Amprion, Germany) (Submission-ID WISO26-325)
- **Influence of Offshore Wind Farm Electrical Networks on Grid Forming Control Performance at Point of Connection**
  D. A. Ganeshpure, D. Wu (Shell Global Solutions International, Netherlands), S. Engelken, H. Soltani, G. K. Andersen, T. Lund (Vestas Wind Systems, Denmark), H. Gong, Y. Liao, J. B. Kwon (Energinet, Denmark) (Submission-ID WISO26-307)

PART II – Moderated panel discussion with the presenters (40 minutes)

- **Conclusion**

SESSION 3B – DISTRIBUTION GRID ASPECTS

08:45 – 10:40 | Session Chair: Karin Kritzinger (Agora Energiewende, Germany)

08:45 – 10:25 **Presentations (20 min. each)**

- **Increasing Penetrations of Rooftop PV and Home Batteries in Australia**
  J. Dyson (Azzo, Australia) (Submission-ID WISO26-406)
- **Shifting Responsibilities: The Growing Role of Distribution Levels in Reactive Power Provision by Wind Energy in Germany**
  R. Ebel, K. Pfeiffer, K. Platta, K. Malekian Boroujeni (BTU Cottbus-Senftenberg, Germany) (Submission-ID WISO26-168)
- **The Orchestrator: Grid-Friendly Activation of Quartier Flexibility in Distribution Networks**
  P. Hülsemann, T. S. Urane, T. Sharma, R. Rao (Fraunhofer ISE, Germany) (Submission-ID WISO26-210)
- **From Grid Constraints to Smart Planning: Managing DER-driven Challenges in Distribution Networks**
  F. Monachesi (Siemens, Italy) (Submission-ID WISO26-380)
- **Attributing Operational Limitations in Preventive Control of Low-Voltage Grids Using Controlled Counterfactual Replay**
  S. Fayed, F. Schuldt, K. von Maydell, C. Agert (German Aerospace Center – DLR, Germany) (Submission-ID WISO26-305)

10:25 – 10:40 **Discussions**

SESSION 3C – GRID CODE ASPECTS

08:45 – 10:40 | Session Chair: Claudia Zanabria (RTE, France)

08:45 – 10:05 **Presentations (20 min. each)**

- **The Growing Complexity of Dynamic Grid Integration Studies Across Europe**
  M. Ali, B. Schowe-von der Brelie, N. Corte, J. Doell (FGH GmbH, Germany) (Submission-ID WISO26-332)
- **How Grid Codes Drive the Design of Large-Scale Ptx Facilities: A 300 MW Hydrogen Case Study**
  M. Lerstad, T. Neiva, J. Bédos Ulvin (ABB, Norway) (Submission-ID WISO26-190)
- **Riding Through Grid Faults: Centralized vs Decentralized UPS in Data Centres**
  A. Bullen, M. Ghazavi Dozein (Monash University, Australia), N. Mahdavi (CSIRO Energy Centre, Australia), D. J Hill (Monash University, Australia) (Submission-ID WISO26-036)
- **Impact of Grid Code Requirements on Post-Contingency Static Voltage Stability in the Nordic Transmission System**
  L. Kuhrmann, P. Chen, L. Göransson, F. Johnsson (Chalmers University of Technology, Sweden) (Submission-ID WISO26-014)

10:05 – 10:40 **Discussions**

SESSION 3D – EXTREME WEATHER EVENTS

08:45 – 10:40 | Session Chair: Irene Danti Lopez (EPRI Europe, Ireland)

08:45 – 10:25 **Presentations (20 min. each)**

- **A Comparison of Dunkelflaute Events and their Potential Impacts on Future Energy Systems in Different Regions**
  H. Holttinen (Aalto University, Finland), A. Couto, A. Estanqueiro (LNEG, Portugal), D. Flynn (UCD, Ireland), M. McPherson (University of Victoria, Canada), M. Koivisto (DTU, Denmark), N. Helistö (VTT, Finland), J. Dobschinski (Fraunhofer IEE, Germany), M. Korpås (NTNU, Norway), H. Svendsen (SINTEF, Norway), S. M. Martinez (University Castilla La Mancha, Spain), B. Frew, S. Cohen (National Laboratory of the Rockies NLR, USA), A. Botterud, Z. Zhou (Argonne National Laboratory ANL, USA) (Submission-ID WISO26-191)
- **Capturing Climate Change, Large-Scale Wakes and Forecast Uncertainty in Pan-European Energy System Analyses**
  M. Koivisto, S. Nayak, M. Bahmani, A. Mathieu (DTU Wind and Energy Systems, Denmark) (Submission-ID WISO26-185)
- **From Scarcity to Surplus: A Threshold-Based Characterization of Dark Doldrum and Bright Breeze Events in European Power Systems**
  M. Dorn, N. Rapp, M. Noskiewicz, L. Sarter, K. Foerderer, J. Hoffmann, S. Waczowicz, V. Hagenemeyer (Karlsruhe Institute of Technology, Germany) (Submission-ID WISO26-046)
- **VRE Forecast-Error-Driven Imbalances in Future Nordic Power Systems Under Alternative Sector-Coupling Scenarios**
  M. Bahmani, S. Nayak, M. Hansen Bahl (Technical University of Denmark – DTU, Denmark), E. Cuisinier (Cresym, Belgium), T. Heggarty (Réseau de Transport d'Electricité – RTE, France), Y. Huang (TotalEnergies OneTech, France), K. Das, M. Koivisto (Technical University of Denmark – DTU, Denmark) (Submission-ID WISO26-129)
- **How Representative are Different Weathers Years for Long-term planning of Energy Systems? Evidence from Multi-Decadal Pan-European Weather Data**
  S. Nayak (Technical University of Denmark – DTU, Denmark), Y. Liu (KTH Royal institute of Technology, Sweden), M. Bahmani, B. Olsen (Technical University of Denmark – DTU, Denmark), M. Amelin ((KTH Royal institute of Technology, Sweden), M. Koivisto (Technical University of Denmark – DTU, Denmark) (Submission-ID WISO26-163)

10:25 – 10:40 **Discussions**

10:40 – 11:10 COFFEE BREAK & POSTER SESSION

SESSION 4A – GRID-FORMING CAPABILITIES

11:10 – 13:00 | Session Chair: Slavomir Seman (Huawei Technologies, Germany)

11:10 – 12:30 **Presentations (20 min. each)**

- **Investigation of a Grid-Following and Grid-Forming Hybrid System with Reference to Overall Grid-Forming Behaviour**
  N. Gorkow, T. Sauer, B. Engel (Technische Universität Braunschweig - elenia, Germany) (Submission-ID WISO26-079)
- **Resilient Grids with Grid-Forming Solution: Market Opportunities and Technical Pathways**
  M. Takach, H. Liu, S. Ding, H. Ren, L. Zhao (Sungrow Power Supply, China) (Submission-ID WISO26-113)
- **Modeling Considerations for Black Starting an Offshore Wind Power Plant using Grid Forming Turbines**
  D. Kho, C. Fox, M. Bello, V. Singhvi (Electric Power Research Institute – EPRI, USA) (Submission-ID WISO26-314)
- **Current-Angle Neutral Limitation of Grid-Forming Converters: Why Scaling Is the Robust Default under Current Constraints**
  C. Schöll, F. Osterberg, T. Schaupp (TransnetBW, Germany) (Submission-ID WISO26-269)

12:30 – 13:00 **Discussions**

SESSION 4B – HVDC

11:10 – 13:00 | Session Chair: Amy Rose (Energynautics, Germany)

11:10 – 12:30 **Presentations (20 min. each)**

- **Enhanced Predictive Grid Forming Control for Converter-Based Transmission Systems.**
  A. Bolzoni, Y. Liu, M. Rossi (Hitachi Energy, Switzerland) (Submission-ID WISO26-054)
- **Modelling and Coordination of Dynamic Braking Systems for Multi-vendor Multi-terminal HVDC Grids with DC Circuit Breakers**
  J. Pouget (RTE, France), N. Krajisnik (Siemens Energy, Germany), C. Cardozo (RTE, France), P. Duellmann (Siemens Energy, Germany), P. Rault (RTE, France) (Submission-ID WISO26-157)
- **Modeling and Operational Characteristics Simulation of Large-Scale New Energy Transmission via HVDC**
  Y. Zhu (Shanghai Keliang Information Technology Co., China) (Submission-ID WISO26-368)
- **Energy Headroom Requirements for Converters in Multi-Terminal HVDC Systems - A Sensitivity Analysis**
  M. Kuhn, M. Deitert (RWTH Aachen University – IAEW, Germany), Z. Blatsi, R. Alvarez Valenzuela, P. Düllmann (Siemens Energy Global, Germany), W. Leterme (RWTH Aachen University – IAEW, Germany) (Submission-ID WISO26-221)

12:30 – 13:00 **Discussions**

SESSION 4C – GRID CODE TESTING

11:10 – 13:00 | Session Chair: Robert Schürhuber (Graz University of Technology, Austria)

11:10 – 12:30 **Presentations (20 min. each)**

- **Power Hardware-in-the-Loop Emulation of Electrolyser Stacks for Cost-Efficient Grid Compliance Testing**
  A. Virdee, S. Nayebossadri, A. Nambiar, K. Palanimuthu, I. Yousuf, S. Foster, M. Smailes (ORE Catapult, United Kingdom) (Submission-ID WISO26-292)
- **Impact of Test Equipment on Low-Voltage-Ride-Through Testing of Grid-Following and Grid-Forming Inverters: A Comparative Analysis**
  Z. Zhang, R. Schuerhuber (Graz University of Technology, Austria) (Submission-ID WISO26-013)
- **Evaluation of a Novel Current Limitation Control Strategy for Grid-Forming Inverters Under European Grid Code Requirements**
  N. Wiese (University of Kassel, Germany), C. Zanabria (Réseau de Transport d'Electricité – RTE, France), W. Shan (University of Kassel, Germany) (Submission-ID WISO26-335)
- **Space Vector Based Assessment of Grid-Forming and Grid-Following Converters in Theory, Simulation and PHIL Experiments**
  P. Hackl, Z. Zhang, R. Schuerhuber (Graz University of Technology, Austria) (Submission-ID WISO26-201)

12:30 – 13:00 **Discussions**

SESSION 4D – REGULATORY/MARKET ASPECTS

11:10 – 13:00 | Session Chair: Yoh Yasuda (University of Strathclyde, United Kingdom)

11:10 – 12:30 **Presentations (20 min. each)**

- **Challenges and Emerging Solutions for Electricity Markets with High vRES Shares**
  A. Estanqueiro (LNEG – Laboratório Nacional de Energia e Geologia, Portugal), M. Korpås (NTNU, Norway), P. Härtel (Fraunhofer IEE, Germany), D. Flynn (University College Dublin, Ireland), M. R. Hesamzadeh (KTH Royal Insitute of Technology, Sweden), D. Pudjianto (Imperial College London, United Kingdom), N. Helistö (VTT, Finland), A. Couto (LNEG, Portugal), G. Strbac (Imperial College London, United Kingdom), H. Holttinen (Recognis, Finland), M. Koivisto (Technical University of Denmark – DTU, Denmark) (Submission-ID WISO26-290)
- **The Impact of European Energy Transition Scenarios on the Iberian Electricity Day-ahead Market**
  V. Sousa, A. Couto, P. Graça, A. Estanqueiro (LNEG – Laboratório Nacional de Energia e Geologia, Portugal) (Submission-ID WISO26-180)
- **Variable Renewable Expansion and Operational Challenges in the Brazilian Power System**
  W. N. Silva (Aeronautics Institute of Technology – ITA, Brazil), E. Gurski (University of São Paulo – USP | Federal University of Technology-Parana – UTFPR, Brazil), G. Vieira, E. E. Rego, L. F. Lourenço, M. Salles (University of São Paulo – USP, Brazil) (Submission-ID WISO26-294)
- **Policy Priorities to Enable Energy Transition at the Distribution Grid**
  A. Zomorodi Moghadam (Energynautics, Germany) (Submission-ID WISO26-397)

12:30 – 13:00 **Discussions**

13:00 – 14:00 LUNCH

SESSION 5A – STABILITY ASPECTS

14:00 – 15:40 | Session Chair: Milica Latinović (SIANS Technologies, Germany)

14:00 – 15:20 **Presentations (20 min. each)**

- **A Comprehensive Review of Power System Stabilizer Design Methodologies**
  L. Cai (University of Rostock, Germany), Y. Hou (Energy Research Institute of Shandong Academy of Sciences, China), T. Veith (Rottenburg University of Applied Sciences, Germany) (Submission-ID WISO26-037)
- **Measurement-Based Impedance Investigation and Stability Analyses of PV Parks and their Components**
  F. Hans (Fraunhofer ISE, Germany), J. Schräder (Helmut Schmidt University, Germany), C. Siedle, S. Rogalla (Fraunhofer ISE, Germany) (Submission-ID WISO26-056)
- **Analysis of Transient Overvoltages in High Wind Power Feed-In Scenarios within an Energy Control Automatic System**
  S. Ratajczak, C. Wirtz (FGH e.V., Germany), A. Kroggel, H. Jürgensen (Schleswig-Holstein Netz, Germany), S. Krahl (FGH e.V., Germany) (Submission-ID WISO26-162)
- **Impedance-Based Stability Analysis of Converter-Level Outer-Loop Control Under Weak Grid Conditions**
  F. Nordlund, R. Rogersten, F. Hohn, O. Lennerhag (Svenska kraftnät, Sweden) (Submission-ID WISO26-048)

15:20 – 15:40 **Discussions**

SESSION 5B – TRANSMISSION PLANNING

14:00 – 15:40 | Session Chair: Daniel V Pombo (EPRI Europe, Ireland)

14:00 – 15:20 **Presentations (20 min. each)**

- **Building the Future Grid: Transmission Planning to Achieve VRE at Scale**
  A. Rose (Energynautics, Germany) (Submission-ID WISO26-389)
- **An Automated Methodology for Optimal Placement of a Grid Boosters for Curative Congestion Measures**
  M. Abdaljawwad, J. Stanly, J. Hoffmann, V. Hagenmeyer (Karlsruhe Institute of Technology – KIT, Germany) (Submission-ID WISO26-159)
- **Energy Resource Data-Driven Constraints in Long-Term Energy Planning for Energy Transition**
  D. Ferreira Martínez, F. J. Soares (INESC TEC, Portugal) (Submission-ID WISO26-083)
- **Locational Value and Revenue Redistribution for Wind and Solar: A Nodal Deep Dive into the German Electricity Market**
  J. Joe Padua (Brandenburg Technical University – BTU, Germany) (Submission-ID WISO26-367)

15:20 – 15:40 **Discussions**

SESSION 5C – OFFSHORE WIND HVDC

14:00 – 15:40 | Session Chair: Nigel Schofield (University of Huddersfield, United Kingdom)

14:00 – 15:20 **Presentations (20 min. each)**

- **Small-Signal Modelling of Offshore Energy Hubs**
  A. J. Duvivier, B. Sævarsson, D. Müller, N. A. Cutululis (Technical University of Denmark – DTU, Denmark) (Submission-ID WISO26-059)
- **Stability and Compliance Assessment of Converter-Dominated Offshore HVDC Systems: Linking Dynamic Phenomena to Test Procedures**
  S. Shcherbakov, S. Bernal-Perez (Technical University of Valencia, Spain) (Submission-ID WISO26-119)
- **Energy Dissipation in Offshore Energy Hubs Under Emergency Power Control**
  M. Kamenica, D. Müller, O. Saborío-Romano, G. Yang (Technical University of Denmark – DTU, Denmark), R. Jakobsen (Ørsted Wind Power, Denmark), F. Skoett (Siemens Energy, Denmark) (Submission-ID WISO26-186)
- **Digital-Twin Screening of Grid-Forming Support for Weak Power Systems**
  N. Khan (Aalborg University Energy Systems), M. Rezkalla, K. Dowlatabad (Ørsted, Denmark), R. Teodorescu (Aalborg University, Denmark) (Submission-ID WISO26-400)

15:20 – 15:40 **Discussions**

SESSION 5D – ELECTROLYZER SYSTEM MODELLING

14:00 – 15:40 | Session Chair: Megha Gupta (Technical University of Denmark – DTU, Denmark)

14:00 – 15:30 **Presentations (18 min. each)**

- **An Open Source Physical Based RMS Electrolyser Model for Power System Stability Studies**
  C. Zanabria, J. Simoulin, J. Callec, G. Torresan, A. Guironnet (RTE R&D, France), M. Thibert, V. Costan (RTE-CNER, France) (Submission-ID WISO26-277)
- **Power Quality Analysis and Methodology in Hydrogen Power Plants**
  A. De Andres, L. Beloqui, F. De La Fuente (Power Consulting at Hitachi Energy, Spain) (Submission-ID WISO26-274)
- **Analytical Frequency-Domain Impedance Modelling of Large Converter-Interfaced Electrolyser for Grid Stability Assessment**
  P. Ayivor (TENNET TSO, Netherlands) (Submission-ID WISO26-029)
- **Validation of a Transient 90-bar Alkaline Electrolysis Model: Lessons from Project PEACE**
  H. J. Wiggenhauser, F. Razmjooei (German Aerospace Center – DLR, Germany), L. Röntzsch, H. Mahfouz (Brandenburg University of Technology Cottbus-Senftenberg – BTU, Germany), S.-A. Ansar (German Aerospace Center – DLR, Germany) (Submission-ID WISO26-364)
- **Unlocking the Potential of Solid Oxide Electrolysis Cell (SOEC) Systems for Grid Ancillary Services and Renewable Energy Integration**
  R. Lorenz, J. Hollmann, F. Sedeqi, D. Fortunati, M. Heddrich, S. A. Ansar (German Aerospace Center – DLR, Germany) (Submission-ID WISO26-251)

15:30 – 15:40 **Discussions**

15:40 – 16:10 COFFEE BREAK

SESSION 6A – POWER SYSTEM STABILITY AND FREQUENCY-DOMAIN MODELLING
16:10 – 18:30 | Session Chair: Jian Sun (Rensselaer Polytechnic Institute)

16:10 – 18:10 **Presentations (20 min. each)**

- **Comparison of Methods for the Assessment of Small-Signal Sub-, Supersynchronous and Harmonic Stability**
  T. Würl, B. Weise (DIgSILENT, Germany), J. P. Braun (FGH e.V., Germany), L. Rezai, H. Schulte (University of Applied Sciences HTW Berlin, Germany), H. Jin, Y. Zhang (University of Kassel, Germany), H. Becker, M. Fischer (University of Kassel | Fraunhofer IEE, Germany) (Submission-ID WISO26-147)
- **Damping of Electromechanical Oscillations via Modal-Based PSS Design in Grid-Forming Converter-Interfaced Generation**
  L. Cai (University of Rostock, Germany), Y. Hou (Energy Research Institute of Shandong Academy of Sciences, China) (Submission-ID WISO26-061)
- **Scalable Frequency-Domain Stability Methodology For Large-Scale Renewable Integration in the NSW CWO REZ**
  S. Bolik (Siemens PTI, United Kingdom), J. David (ACEREZ, Australia) (Submission-ID WISO26-135)
- **Different Control Structures – Similar System Responses: Observations on Damping and Frequency Behavior of Grid-Forming Inverters**
  B. Fischer, T. Bülo (SMA Solar Technology AG, Germany) (Submission-ID WISO26-336)
- **Detection and Mitigation of Subsynchronous Torsional Resonance Using a System-Level Immittance-Based Frequency-Domain Method**
  E. Behrouzian, R. Rogersten, O. Lennerhag (Svenska kraftnät, Sweden) (Submission-ID WISO26-018)
- **On the Assessment of Damping and Passive Behavior of Grid-Forming Inverters in the Frequency Domain**
  B. Fischer, D. Duckwitz, T. Bülo (SMA Solar Technology AG, Germany) (Submission-ID WISO26-337)

18:10 – 18:30 **Discussions**

SESSION 6B – SYNCHRONOUS CONDENSER APPLICATIONS
16:10 – 18:30 | Session Chair: Anders Stiger (Hitachi Energy, Sweden)

16:10 – 18:10 **Presentations (20 min. each)**

- **Critical Clearing Time Comparison of Synchronous Generators and Condensers in a Simplified Grid**
  A. Meghdadi, J. Harrington, E. Rivero, H. Marzooghi, M. Seiedaliseifabad, K. Summers, L. Frearson (ACEREZ, Australia) (Submission-ID WISO26-286)
- **Increasing Power System Stability – A Comparison of Different Compensation Systems**
  B. Thormann, R. Neumann (ANDRITZ Hydro, Austria) (Submission-ID WISO26-001)
- **Experience and Further Developments in Hybrid Synchronous Condenser Technology: Phoenix and Eccles**
  R. Rivas, A. Stiger (Hitachi Energy, Sweden), M. Young (SP Energy Networks, United Kingdom) (Submission-ID WISO26-047)
- **Hybrid Synchronous Condenser and Battery Energy Storage System to Support for the Dynamic Stability of a Wind-Powered Electrolyzer System in a Weak Grid**
  M. E. Sezgin (ABB, Denmark), T. Neiva, J.-B. Ulvin (ABB, Norway) (Submission-ID WISO26-195)
- **A Rotary Transformer Grid Interface for Hybrid Power Plants**
  S. Anjum (Lancaster University, United Kingdom), N. Schofield, Y. Hu (University of Huddersfield, United Kingdom), N. Zhao, R. Guo (Lancaster University, United Kingdom) ((Submission-ID WISO26-347)
- **Dynamic Stability Comparison of Grid-Forming BESS and Synchronous Condensers in a Low-Inertia Island Grid: The Martinique Case**
  K. Ogruk, C. Moreira (INESC TEC | University of Porto – FEUP, Portugal), J. M. Rodrigues (INESC TEC, Portugal) (Submission-ID WISO26-120)

18:10 – 18:30 **Discussions**

SESSION 6C – CERTIFICATION ACCORDING TO GERMAN GRID CODE

16:10 – 18:30 | Session Chair: Deepak Ramasubramanian (EPRI, USA)

16:10 – 17:50 **Presentations (18 min. each)**

- **From Guideline to Practice: Verifying Grid-Forming Inertia Provision for Extra-High-Voltage Grid Connections**
  F. Kalverkamp, J. Rauber, T. Röttgerding, S. Boecking, N. Wladasch, M. Kneer (FGH GmbH, Germany) (Submission-ID WISO26-026)
- **From Guideline to Practice: Grid-Forming Testing of a MW-Scale BESS according to VDE FNN at Fraunhofer IWES**
  P. Mostashar, F. Hans, S. Lauth (Fraunhofer IWES, Germany), R. Cohlst, C. Liu (Huawei Technologies, China) (Submission-ID WISO26-363)
- **Generic Model for Grid-Forming Unit Certification According to German VDE FNN Guideline**
  D. Masendorf, A. Ghoraba, P. Hirani (Energynautics, Germany) (Submission-ID WISO26-003)
- **Experimental Evaluation of Grid-Forming Requirements Based on the German VDE FNN Guidelines of Grid-Forming Capabilities**
  T. Erckrath, P. Unruh, R. Brandl (Fraunhofer IEE, Germany), M. Jung (Fraunhofer IEE, Germany | Hochschule Bonn-Rhein-Sieg, Germany) (Submission-ID WISO26-027)
- **From Guideline to Automation: Implementing the FNN requirements for Grid Forming Units in an Automated Compliance Testing Tool**
  J. Montoya, C. Bendfeld, R. Brandl (Fraunhofer IEE, Germany), M. Jung (Hochschule Bonn-Rhein-Sieg, Germany) (Submission-ID WISO26-077)

17:50 – 18:30 **Discussions**

SESSION 6D – TASK 19

16:10 – 18:30 | Session Chair: Gerd Heilscher (Ulm University of Applied Sciences – THU, Germany)

16:10 – 17:50 **Presentations (20 min. each)**

- **How Do Countries Deal with High PV Penetration – Assessment of Flexibility Options, Curtailment Strategies and Regulatory Frameworks for Power Systems**
  G. Heilscher (Ulm University of Applied Sciences – THU, Germany) (Submission-ID WISO26-392)
- **Increasing Grid Hosting Capacity: An International Comparison of DSO Practices**
  V. Krakowski (Hespul, France), G. Adinolfi (ENEA – Italian National Agency for New Technologies, Energy And Sustainable Economic Development, Italy), S. Fleischer Myrhe (Institute for Energy Technology, Norway), S. Freitas (Portuguese Association for Renewable Energies, Portugal), R. Guerrero Lemus (University of La Laguna, Spain), G. Heilscher (Ulm University of Applied Science, Germany), L. Hülsmann (Energynautics, Germany), D. Mende (Fraunhofer IEE | University of Kassel, Germany), J. Nasr (Energynautics, Germany), A. Reinders (Eindhoven University of Technology, Netherlands), J. Remund (Meteotest, Switzerland), S. Serôdio (Portuguese Association for Renewable Energies, Portugal), E. Shirazi (University of Twente, Netherlands), E. Stensrud Marstein (Institute for Energy Technology, Norway) (Submission-ID WISO26-032)
- **Concepts and Control Strategies for Highly Overpowered Grids**
  D. Mende (Fraunhofer IEE | University of Kassel, Germany), E. Toenges (University of Kassel, Germany), A. Schön (Fraunhofer IEE | University of Kassel, Germany), J. Seese (Fraunhofer IEE, Germany), G. Heilscher (Ulm University of Applied Sciences, Germany) (Submission-ID WISO26-212)
- **Resilience Assessment of a University Microgrid Based on Real High-Resolution Monitoring Data and KPI Analysis**
  A. Ortiz Peña (University of Castilla-La Mancha– UCLM, Spain), G. Adinolfi (ENEA – Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Italy), A. Honrubia Escribano (University of Castilla-La Mancha– UCLM, Spain), M. Abdou Tankari (University Paris Est, France), J. A K Smith, E. Jones (ENEA – Italian National Agency for New Technologies, Energy And Sustainable Economic Development, Italy) (Submission-ID WISO26-330)
- **On Flexibility, Storage and Curtailment in High VRE Power Grids**
  J. Remund (Meteotest, Switzerland), R. Perez (SUNY, USA), M. Perez (Clean Power Res., USA), M. Pierro (EURAC, Italy) (Submission-ID WISO26-209)

17:50 – 18:30 **Discussions**

18:45/19:30 Networking Dinner – to be booked separately –

THURSDAY, 01 OCTOBER 2026

SESSION 7A – HYBRID SYSTEMS AND GRID FORMING

09:00 – 10:40 | Session Chair: Rossano Musca (University of Palermo, Italy)

09:00 – 10:20 **Presentations (20 min. each)**

- **Grid Code Requirements for Connecting a Hybrid Power Plant including Storage Units. An overview of current legislation and recommendations for future requirements**
  M. Zamastil, B. Andresen (Aarhus University, Denmark) (Submission-ID WISO26-311)
- **Plant-Level Coordination of Hybrid Wind and Grid-Forming BESS in Weak Grids**
  R. Kabiri, C. Jackson, C. Schwarz (Vestas, Australia) (Submission-ID WISO26-266)
- **Power System Integration of the Hybrid Renewable Plants with Grid-Forming Battery Storages**
  S. Seman (Huawei Technologies, Germany), F. Zhu (Huawei Technologies, Netherlands), F. T. Riverso Perez (Huawei Technologies, Chile), F. Lomello (Huawei Technologies, Argentina), R. Cohlst (Huawei Technologies, Netherlands) (Submission-ID WISO26-376)
- **Operation of a Grid Forming BESS in a Medium Voltage Grid in the SUREVIVE Project**
  R. Denninger, R. Singer, A. Salzman, M. Aidam (Fraunhofer ISE, Germany), B. Karagyozova, H. Lens (IED University of Stuttgart, Germany) I. Liere-Netheler (Westnetz, Germany), V. Schöller (Schönergie, Germany) (Submission-ID WISO26-192)

10:20 – 10:40 **Discussions**

SESSION 7B – POWER QUALITY ASPECTS

09:00 – 10:40 | Session Chair: Kate Summers (ACEREZ, Australia)

09:00 – 10:00 **Presentations (20 min. each)**

- **Effect of Grid Forming Inverters on Grid Harmonics**
  T. Garn, B. O. Winter (TU Braunschweig – elenia, Germany), T. Weinmann (Technical University of Applied Sciences Augsburg, Germany), K. Wagner, G. Kerber (Hochschule München University of Applied Sciences, Germany), M. Finkel (Technical University of Applied Sciences Augsburg, Germany), B. Engel (TU Braunschweig – elenia, Germany) (Submission-ID WISO26-022)
- **Evolving Requirements for Wind Turbine Harmonic Models: Construction, Resolution, and Validation**
  S. H. Sønderskov, B. F. Exposto, G. K. Andersen (Vestas Wind Systems, Denmark) (Submission-ID WISO26-178)
- **Fast Simulation Methods for Harmonic Compliance Assessment of Inverter-Based Resources – Achieving High Accuracy**
  V. Akhmatov, M. Iversen, J. Clausen (AFRY, Denmark) (Submission-ID WISO26-015)

10:00 – 10:40 **Discussions**

SESSION 7C – POWER SYSTEM STABILITY ASPECTS

09:00 – 10:40 | Session Chair: Mohammad Moradzadeh (Elia Grid International, Belgium)

09:00 – 10:20 **Presentations (20 min. each)**

- **Optimal Grid-Forming Penetration for Power System Restoration from Offshore Wind Farms**
  R. Alves, L. McGrow, C. Booth, A. Egea Álvarez (University of Strathclyde, United Kingdom) (Submission-ID WISO26-231)
- **Modelling and Applications of Grid-forming Capable Wind and HVDC Plants in Modern Power Systems**
  S. Konstantinopoulos, M. Sarwar, D. Ramasubramanian, P. Mitra, A. Haddadi (EPRI, USA), V. M Mamaghani, A. Colot, A. Chaouachi, M. Moradzadeh (Elia Transmission, Belgium) (Submission-ID WISO26-071)
- **Repowering and Hybridization of Existing Wind and Solar Plants in Europe**
  D. V. Pombo, A. Pico, N. Marx Hermoso (EPRI Europe, Ireland) (Submission-ID WISO26-095)
- **A Frequency-Domain Dynamic Similarity Metric for Converter-Based Asset Validation**
  O. Alican (CITCEA-UPC, Spain), C. Zanabria, J. El-Feghali, A. Guironnet (RTE, France), E. Prieto-Araujo (CITCEA-UPC, Spain) (Submission-ID WISO26-340)

10:20 – 10:40 **Discussions**

SESSION 7D – HYDROGEN ASPECTS

09:00 – 10:40 | Session Chair: Daniel Duckwitz (SMA Solar Technology, Germany)

09:00 – 10:20 **Presentations (20 min. each)**

- **Dynamic Modelling of Thyristor-Based Rectifiers for Hydrogen Applications**
  L. Beloqui, D. Porto, M. González, M. Perez, F. de la Fuente (Power Consulting at Hitachi Energy, Spain) (Submission-ID WISO26-273)
- **A Framework for Online Monitoring of EIS Data Through DRT to Understand and Model Electrolyser Degradation**
  I. Echarri-Legarra (University of the Basque Country – EHU | Tekniker, Spain), J. Martinez-Rico (Tekniker, Spain), U. Fernandez-Gamiz (University of the Basque Country – EHU, Spain) (Submission-ID WISO26-297)
- **Adaptive Current-Controlled Single-Stage Current-Source Rectifier in PEM Electrolyzers for Ancillary Service and Fault Ride-Through Capability**
  A. M. Elhawash, R. Esteves Araújo, J. A. Peças Lopes (INESC TEC, Portugal | University of Porto, Portugal) (Submission-ID WISO26-118)
- **The Impact of Hydrogen Valleys on the Iberian Power System**
  R. Martinho (NOVA University – CENSE | INESC-TEC, Portugal), P. Fortes (NOVA University – CENSE | LNEG – Laboratório Nacional de Energia e Geologia, Portugal), T. A. Soares(INESC-TEC | Department of Electrical and Computer Engineering, Portugal) (Submission-ID WISO26-250)

10:20 – 10:40 **Discussions**

10:40 – 11:10 COFFEE BREAK

SESSION 8A – GRID CODES ASPECTS FOR WIND POWER PLANTS

11:10 – 13:00 | Session Chair: Tirinya Cheumchit (ENERCON Global, Germany)

11:10 – 12:30 **Presentations (20 min. each)**

- **From VDE FNN Compliance Tests to LPV Dynamic Equivalents: Modeling Grid-Forming Wind Turbines for Large-Scale Frequency Stability Studies**
  J. Brunner (University of Applied Sciences HTW Berlin, Germany), A. Himmelreich (FGH Zertifizierungsgesellschaft mbH, Germany), H. Schulte (University of Applied Sciences HTW Berlin, Germany) (Submission-ID WISO26-121)
- **Methodology and Project Experience – Measurement and Model Validation for Grid Integration of an Offshore Wind Farm with AC connection to the German High-Voltage Grid**
  J. Döll, E. Makki, C. Rampelt, L. Stitzing (FGH GmbH, Germany) (Submission-ID WISO26-331)
- **Power Plant Controller (PPC) Hardware-in-the-loop (HiL) Testing Beyond IEC 61400-21-2**
  S. Huang, K. Zarzavatsakis, M. Holzapfel, R. Alves, T. Lund (Vestas Wind Systems, Denmark) (Submission-ID WISO26-293)
- **POD-Q Function for Wind Power Plants Considering Communication Delays: System Design, Parameter Tuning, and Validation**
  J. Yang, L. Yu, X. Yu (Goldwind Science & Technology, China), Z. Yang (Goldwind Science & Technology | Shandong University, China), C. Liu (Goldwind Science & Technology, China) (Submission-ID WISO26-080)

12:30 – 13:00 **Discussions**

SESSION 8B – STATCOM ASPECTS

11:10 – 13:00 | Session Chair: Olli-Pekka Janhunen (Fingrid, Finland)

11:10 – 12:30 **Presentations (20 min. each)**

- **Technical Assessment of GFM E-STATCOM and GFL Offshore Wind Power Plant as Combined Solution for Weak Grid Connections**
  V. S. Tammana, S. Tian, B. Gomersall, B. Marshall (The National HVDC Centre, United Kingdom) (Submission-ID WISO26-161)
- **GFM e-STATCOM as a Stability Anchor for Multi Converter Infinite Bus Network**
  S. Gupta, A. Jose, A. Radhakrishnan (GE Vernova, India), A. K Tiwari (GE Vernova, USA), P. Veena (GE Vernova, India), A. Makinen (GE Vernova, Finland) (Submission-ID WISO26-357)
- **High-Frequency Characterization of Supercapacitor Technology for E-STATCOM Integration Studies**
  R. Rivas, M. Akyuz, D. D. Dhanaseelan-Ramesh, L. Faria da Rocha, A. Bagheri, F. Wang (Hitachi Energy, Sweden), G N V Mohan, Y. P. Kumar (Hitachi Energy, India) (Submission-ID WISO26-098)
- **Feasibility of an Energy Storage STATCOM from the Finnish Transmission System Operator's Perspective**
  S. Stranden, O.-P. Janhunen, M. Hernesniemi, T. Hänninen (Fingrid Oyj, Finland) (Submission-ID WISO26-084)

12:30 – 13:00 **Discussions**

SESSION 8C – OFFSHORE WIND CONNECTIONS

11:10 – 13:00 | Session Chair: Bernhard Schowe-von der Brelie (FGH Research Association – FGH e.V, Germany)

11:10 – 12:30 **Presentations (20 min. each)**

- **Transmission System Design of Large Offshore Wind Power Plants**
  H. Khalilnezhad (Vattenfall, Netherlands), B. Nouri, S. Azarian Moghadam, M. Dernbach (Vattenfall Windkraft, Germany) (Submission-ID WISO26-278)
- **Optimal Black Start Restoration using Offshore Wind Power Plant**
  D. Kho, M. Bello, C. Fox, F. Zhang, L. Sundaresh, V. Singhvi (Electric Power Research Institute – EPRI, USA) (Submission-ID WISO26-316)
- **Connecting Offshore-Wind Farms to Shore through a Grid Intertie Based on a Low Frequency AC Transmission Regulated by Static Frequency Converters**
  M. Rossi, M. Basic, R. Ruiz, A. Sanchez (Hitachi Energy, Switzerland) (Submission-ID WISO26-226)
- **Subsea Substation for HVAC-connected Floating Wind Farms: Control and Protection Aspects**
  Q. Long, Y. Liu, J. Xu, S. Ingebrigtsen, T. Neiva, J.-B. Ulvin (ABB AS, Norway) (Submission-ID WISO26-176)

12:30 – 13:00 **Discussions**

SESSION 8D – COUNTRY STUDIES

11:10 – 13:00 | Session Chair: Franziska Hans (Fraunhofer ISE, Germany)

11:10 – 12:30 **Presentations (20 min. each)**

- **How has Scotland been Able to Accommodated Wind? – Past, Current and Future Trend of Curtailment and Flexibility Potential**
  Y. Yasuda, G. Hawker, C. MacIver, K. Bell (University of Strathclyde, United Kingdom) (Submission-ID WISO26-198)
- **Integrated Planning for Offshore Wind Grid Integration Under Demand Uncertainty: A Case Study from Atlantic Canada**
  S. Scholtysik (Net Zero Atlantic, Canada), P. Taiarol, C. Hogarth, D. Pantoja, M. Joaquin, M. Tunyan, E. Wicks (Stantec Consulting, Canada), L. Mettetal, N. Grady, B. Joseph, M. Macmillan, P. de Vasconcellos Oporto, C. Zhang, L. Alagappan, A. Olson (Energy and Environmental Economics – E3, USA) (Submission-ID WISO26-009)
- **Replacing or Augmenting Coal? Opportunities and Barriers for VRE Integration in Indonesia**
  P. Schierhorn (Energynautics, Germany) (Submission-ID WISO26-384)
- **Power System Stability Assessment under Gradual Thermal Plant Decommissioning and Photovoltaic Integration: A PSS®E Study of Hypthetical Network Inspired by the Huíla Region (Angola)**
  E. Luis, J. Inácio (Instituto Superior Politécnico de Tecnologias e Ciências - ISPTEC, Angola) (Submission-ID WISO26-276)

12:30 – 13:00 **Discussions**

13:00 – 14:00 LUNCH BREAK

SESSION 9A – GRID FORMING MODELLING

14:00 – 15:40 | Session Chair: Sigrid Bolik (Siemens, United Kingdom)

14:00 – 15:20 **Presentations (20 min. each)**

- **Impact of Grid-Forming Inverters on Power Systems: Automated EMT Study Framework**
  J. Ferry, F. Safargholi, H. Becker (Fraunhofer IEE | Universität Kassel, Germany), T. Degner (Fraunhofer IEE, Germany) (Submission-ID WISO26-205)
- **Comparison of Negative-Sequence Voltage Control for Grid-Forming Converters Under Asymmetrical Faults**
  L. Zhao (KTH Royal Institute of Technology, Sweden), Z. Li (Tsinghua University | National Institute of Clean and Low Carbon Energy, China), X. Wang (KTH Royal Institute of Technology, Sweden | Tsinghua University, China) (Submission-ID WISO26-259)
- **Use of a Dynamic Estimation Model for Improved Small-Signal Stability in Current-Controlled Grid-Forming Converters.**
  E. Ebinyu, A. Bruyere (University of Lille, France), Y. Laba, T. Prevost (Réseau de Transport de Electricité – RTE, France), X. Guillaud (University of Lille, France) (Submission-ID WISO26-318)
- **Frequency Dependent Impedance of Grid Forming and Grid Following Photovoltaic and Type-4 Wind Power Plants**
  H. Ellmann (FGH e.V., Germany), J. Fortmann, N. Klaes, M. Andrejewski, J. Brunner, N. Goldschmidt (University of Applied Sciences HTW Berlin, Germany), S. Krahl (FGH e.V., Germany) (Submission-ID WISO26-105)

15:20 – 15:40 **Discussions**

SESSION 9B – STABILITY FRAMEWORKS IN IBR-DOMINATED POWER SYSTEMS

14:00 – 15:40 | Session Chair: Katharina Hartz (Agora Energiewende, Germany)

14:00 – 15:00 **Presentations (20 min. each)**

- **Power System Stability Needs Assessment Framework**
  E. Tröster (Energynautics, Germany) (Submission-ID WISO26-408)
- **Quantifying Grid-Forming Requirements for System Strength: How Much and Where?**
  A. Gupta, B. Chaudhuri, M. O'Malley (Imperial College London, United Kingdom) (Submission-ID WISO26-267)
- **Determining System Needs for Transient Stability in IBR-Rich Power Systems: An Early Termination Approach for Efficiently Quantifying Dynamic Metrics**
  L. Pabon Espina (Fraunhofer IEE, Germany), M. Selwaness (Fraunhofer IEE | Frankfurt University of Applied Sciences, Germany), D. Strauß-Mincu, T. Degner (Fraunhofer IEE, Germany) (Submission-ID WISO26-319)

Panel Discussion

Panelists

- Jeff Billo (ERCOT, USA)
- Ambuj Gupta (Imperial College London, United Kingdom)
- Luis Pabón (Fraunhofer IEE, Germany)
- Kate Summers (ACEREZ, Australia)
- E. Tröster (Energynautics, Germany)

SESSION 9C – SIF BLADE

14:00 – 15:40 | Session Chair: Agustí Egea Álvarez (University of Strathclyde / SP Energy Networks)

14:00 – 15:20 **Presentations (20 min. each)**

- **SIF BLADE – Future Black Start Restoration from Low Carbon Technologies**
  D. Barlow (SPENergyNetworks, United Kingdom) (Submission-ID WISO26-173)
- **SIF BLADE – System Restoration Pathways Enabled by Offshore Wind and BESS in Scotland**
  M. Syed, E. Tsotsopoulou, V. Psaras, A. Radovanovic (WSP UK and Ireland, United Kingdom), A. Egea (SPENergyNetworks | University of Strathclyde, United Kingdom), D. Barlow (SPENergyNetworks, United Kingdom) (Submission-ID WISO26-179)
- **SIF BLADE – Exploring the Performance of HVDC-Connected Offshore Wind Farms in GB Restoration Under Grid Following and Grid Forming Control Strategies**
  A. Scott, Y. Chen, B. Marshall, B. Gomersall (The National HVDC Centre, United Kingdom) (Submission-ID WISO26-222)
- **Unlocking Black Start from Offshore Wind through Regulatory and Market Evolution**
  G. McFadzean (TNEI, United Kingdom), R. Keast (The Carbon Trust, United Kingdom), A. Babu (TNEI, United Kingdom), R. Watt, J. Inkpen (The Carbon Trust, United Kingdom) (Submission-ID WISO26-214)

15:20 – 15:40 **Discussions**

SESSION 9D –POWERING THE ENERGY TRANSITION: BUILDING CENTRAL ASIA – EU RESEARCH PARTNERSHIPS FOR RENEWABLE ENERGY AND REGIONAL GRID INTEGRATION

14:00 – 15:40 | Session Chair: Edith Koshkin (Deutsche Gesellschaft für Internationale Zusammenarbeit – GIZ, Germany)

14:00 – 14:40 **Presentations (10 min. each)**

- **Central Asia: A Living Laboratory for Future Power Systems**
  B. Löwentraut-Duran (GIZ, Uzbekistan) (Submission-ID WISO26-386)
- **Technical Challenges of Variable Renewable Energy Integration in the Central Asian Interconnected Power System**
  R. Isaev (GIZ, Uzbekistan) (Submission-ID WISO26-401)
- **Drivers and Needs of Central Asia – EU Research Cooperation**
  R. Modi (GIZ, Tajikistan) (Submission-ID WISO26-387)
- **Instruments for Central Asia - EU Cooperation**
  M. Spiesberger (ZSI - Zentrum für Soziale Innovation, Austria) (Submission-ID WISO26-391)

- Panel (45 min.)
  Unlocking Impactful Central Asian – EU Academic and Research Partnerships (45 min.)

15:25 – 15:40 **Discussions**

15:40 – 16:10 COFFEE BREAK

SESSION 10A – GRID FORMING VALIDATION

16:10 – 18:30 | Session Chair: Daniela Pagnani-Harbech (Ørsted, Denmark)

16:10 – 18:10 **Presentations (20 min. each)**

- **OptiTransient: Framework and Key Findings for Transient Performance of Grid-Forming Assets**
  S. Eichner, R. Singer (Fraunhofer ISE, Germany), S. Ratajczak, Jansen, C. Wirtz (FGF e.V., Germany), R. Klosse (EESYST Energie Elektrische Systemtechnik, Germany), M. Fürst (Windtest Grevenbroich, Germany) (Submission-ID WISO26-049)
- **A P-HIL-Based Certification Approach of the FNN Fictitious Island Test for Grid-Forming Units**
  C. Bendfeld (Fraunhofer IEE, Germany), R. Brandl (Fraunhofer IEE | Hochschule Bonn-Rhein-Sieg University of Applied Sciences | European Distributed Energy Resources Laboratories e.V, Germany), D. Gonschor (Hochschule Bonn-Rhein-Sieg University of Applied Sciences, Germany), M. Jung (Fraunhofer IEE | Hochschule Bonn-Rhein-Sieg University of Applied Sciences, Germany) (Submission-ID WISO26-232)
- **Residential PV Hosting Capacity Under High EV Adoption: A Swedish Low-Voltage Grid Study**
  E. Perotti, F. Da Corte Vecchino, T. Lundblad, N. Mattsson, M. Taljegard (Chalmers University of Technology, Sweden) (Submission-ID WISO26-206)
- **Evaluating Converter Transient Behavior during Asymmetric Fault Ride Through**
  G. Schöpf, P. Hackl, Z. Zhang, R. Schürhuber (Graz University of Technology, Austria) (Submission-ID WISO26-064)
- **Experimental Validation of Islanding Detection Failure Induced by Grid-Forming Inverters**
  W. Dirksen, G. Bremer, H. Behrends (German Aerospace Center – DLR, Germany) (Submission-ID WISO26-066)
- **Field Testing: Operation of Grid-Forming Inverters in a Medium Voltage Distribution Grid**
  T. Weinmann, M. Finkel (Technical University of Applied Sciences Augsburg, Germany), K. Wagner, G. Kerber (Hochschule München, Germany), T. Garn, B. Engel (Technical University of Braunschweig – elenia, Germany) (Submission-ID WISO26-144)

18:10 – 18:30 **Discussions**

SESSION 10B – OSCILLATIONS

16:10 – 18:30 | Session Chair: Nickie Menemenlis (Hydro-Québec, Canada)

16:10 – 18:10 **Presentations (20 min. each)**

- **Pinpointing Root Cause of Oscillations: Analysis of Real Oscillation Events in Australia and Denmark**
  J. Lu (Imperial College London, United Kingdom), Y. Chen (Imperial College London, United Kingdom | The University of Bath, United Kingdom), D. Bhattacharjee, B. Chaudhuri, M. O'Malley (Imperial College London, United Kingdom), M. Binet, C. Linden (Australian Energy Market Operator – AEMO, Australia), N. Qin, A. Pilkaer Expethit (Energinet, Denmark) (Submission-ID WISO26-175)
- **A Digital Twin for Early Warning of IBR-Induced Oscillations**
  G. Covarrubias Maureira, M. S. Javaid, B. Chaudhuri, M. O'Malley (Imperial College London, United Kingdom), D. Anaya, I. Dytham, J. Ramachandran, X. Zhou (National Energy System Operator – NESO, United Kingdom) (Submission-ID WISO26-235
- **Application of Dissipating Energy Functions for Tracking and Mitigation of Sub-Synchronous Oscillations in the Scottish Transmission System**
  C. Henderson, F. Macleod, A. Egea-Àlvarez, C. Brozio (SP Energy Networks, United Kingdom), I. Gutierrez, K. Mcphillie (ScottishPower Renewables, United Kingdom), X. Zhou, J. Ramachandran, N. Harvey (National Energy System Operator – NESO, United Kingdom) (Submission-ID WISO26-145)
- **Subsynchronous Oscillations and Damping Torque Assessment of SGs Interacting with Grid-Forming STATCOMs: Insights from Landesbergen**
  Y. Khayat (Aalborg University, Denmark), P. Mitra (Hitachi Energy, Sweden), S. Höhn, M. Latinovic (TenneT TSO, Germany), M.-A. J. Prud'Homme (Hitachi Energy, Sweden), F. Pröbstl (TenneT TSO, Germany), S. Golestan (Aalborg University, Denmark) (Submission-ID WISO26-092)
- **Wide-Band Oscillation Detection in PEID-Dominated Power Systems Based on Waveform Measurements**
  C. Carlsson, D. Reimhult, N. Eriksson, O. Lennerhag (Svenska kraftnät, Sweden) (Submission-ID WISO26-089)

18:10 – 18:30 **Discussions**

SESSION 10C – ANCILLARY SERVICES FROM WIND POWER PLANTS

16:10 – 18:30 | Session Chair: Johanna Vorwerk (Technical University of Denmark – DTU, Denmark)

16:10 – 17:50 **Presentations (20 min. each)**

- **Pilot Project on Frequency Containment Reserve Provision by a Portuguese Wind Farm**
  N. Taveira (ENERCON, Portugal), J. Palomares, E. Juan, C. Blanco (ENERCON España, Spain), C. Xavier, A. Matos, H. Carvalho, J. Silva (FINERGE, Portugal), A. Duarte (ENGIPROT, Portugal) (Submission-ID WISO26-334)
- **Enabling HVDC Systems for Inertia Contribution from DC-ConnectedWind Power Plants**
  R. Rosso, A. Adylbekova, J. Bonilla, S. Dadjo Tavakoli, R. H. Renner, C. Verdugo, M. Wang, R. Alvarez (Siemens Energy Global, Germany), S. Höhn, G. Deiml, J. Hagel (TenneT TSO, Germany), K. Günther, P. Winter, T. Neumann (Amprion, Germany) (Submission-ID WISO26-326)
- **Inertia Response Analysis of Grid-Forming MMC-HVDC Systems**
  Z. Xu, L. Zhao (KTH Royal Institute of Technology, Sweden), X. Wang (KTH Royal Institute of Technology | Tsinghua University, Beijing, China), I. Jahn (KTH Royal Institute of Technology, Sweden) (Submission-ID WISO26-365)
- **Type 5 Wind Turbine Synchronous Wind Turbines: Grid-Forming System Strength and the Differential that Makes the Difference**
  G. Henderson (SyncWind Power, Italy), V. Gevorgian (National Laboratory of the Rockies – NLR, USA), D. Flynn (University College Dublin, Ireland) (Submission-ID WISO26-202)
- **A PSCAD Co-Simulation Approach for the Investigation of Electromechanical Interactions in Wind Turbine-Generator Systems for Future Grid-Control Concepts**
  K. Ohrmann, J. Rabe (Fraunhofer IWES, Germany), M. Grohe (Düsseldorf University of Applied Sciences, Germany), F. Hans (Fraunhofer IWES, Germany), M. Laubrock (Nordex Energy, Germany) P. Mostashar, A. Zuga (Fraunhofer IWES, Germany), H. Wrede, V. Meyering (Düsseldorf University of Applied Sciences, Germany) (Submission-ID WISO26-348)

17:50 – 18:30 **Discussions**

SESSION 10D – BATTERY STORAGE OPERATION

16:10 – 18:30 | Session Chair: Hannele Holttinen (recognis.fi, Finland)

16:10 – 17:50 **Presentations (20 min. each)**

- **Value of Energy Storage of Different Storage Duration: Analysis and Implications.**
  K. Ogimoto, Y. Iwafune, K. Kataoka (The University of Tokyo, Japan), H. Azuma, S. Segawa, A. Isonaga, T. Wachi (J-POWER Business Service Corporation, Japan) (Submission-ID WISO26-268)
- **Economic Dispatch Optimization of a Hybrid Power Plant Considering Turbine Loads and Battery Degradation**
  F. Zheng, C. L. Bottasso (Technical University of Munich – TUM, Germany) (Submission-ID WISO26-053)
- **Unlocking Latent Grid Support Capabilities in Existing Renewable and BESS**
  A. Pico, D. V. Pombo, N. Marx Hermoso (EPRI Europe, Ireland) (Submission-ID WISO26-093)
- **The Rapid Uptake of BESS in Australia: The Good, the Bad and the Extraordinary Impact on the Market!**
  J. Dyson (AZZO, Australia) (Submission-ID WISO26-390)
- **Bilevel Energy Management System for REC Promoters**
  S. Bayo Besteiro, S. Doménech, F. De Sousa, R. Silva, J. Villar (INESC TEC, Portugal) (Submission-ID WISO26-213)

17:50 – 18:30 **Discussions**

18:30 – 20:00 POSTER RECEPTION

– FOYER –

FRIDAY, 02 OCTOBER 2026

SESSION 11A - POWER SYSTEM OPERATIONAL ASPECTS

08:45 – 10:40 | Session Chair: Alice Turnell (Energynautics, Germany)

08:45 – 10:25 **Presentations (20 min. each)**

- **Impact of Heterogenous Inertia Distribution on the Dynamics of the Continental Europe Power System**
  R. Musca, M. G. Ippolito (University of Palermo, Italy) (Submission-ID WISO26-150)
- **Spatial Variability and Parameter Sensitivity of RoCoF Following System Splits in Low-Inertia Power Systems**
  S. Eberlein, L. Pabon Ospina (Fraunhofer IEE, Germany), M. van der Straeten, M. Mittelstaedt (Amprion, Germany) (Submission-ID WISO26-152)
- **Generator Control Settings and their Impact on Voltage Stability: Operational Case Studies and Contributions to Modern Power Systems**
  E. Monnot (EDF R&D, France), L. Chatonnet (EDF DTG, France) (Submission-ID WISO26-174)
- **Security-Constrained Unit Commitment Considering Reactive Constraints**
  M. Giuntoli (Hitachi Energy Research, Germany), M. Jawad (Hitachi Energy Research, Poland), L. Peter (Hitachi Energy Research, Germany), F. Ghawash (Hitachi Energy Research, Poland), A. Chattopadhyay, A. Shirsat (Hitachi Energy Research, USA), G. Cabour (Hitachi Energy Research, Canada), M. Subasic (Hitachi Energy Research, Germany), I. Harjunkoski (Hitachi Energy Research, Germany) (Submission-ID WISO26-012)
- **Advanced Production Simulation and Unit Commitment in PyPSA**
  R. Alsayyed (Energynautics, Germany) (Submission-ID WISO26-394)

10:25 – 10:40 **Discussions**

SESSION 11B – HYBRID POWER PLANTS

09:00 – 10:40 | Session Chair: Ana Estanqueiro (LNEG, Portugal)

09:00 – 10:00 **Presentations (20 min. each)**

- **Renewable Baseload Power with DC-Coupling**
  G. Schelling (Hitachi Energy, Switzerland) (Submission-ID WISO26-280)
- **Designing Co-located Wind-Solar-Storage Systems for Constant Power Output**
  M. Gupta, R. Zhu, K. Das (Technical University of Denmark – DTU, Denmark) (Submission-ID WISO26-130)
- **Interoperability and Control Aspects for Hybrid Power Plants Providing Voltage Control and POD-Q Services**
  L. Petersen (Vestas Wind Systems, Denmark), V. Chindu T S (Vestas Wind Systems, India), K. Nayebi, M. D. Riis (Vestas Wind Systems, Denmark) (Submission-ID WISO26-184)

10:00 – 10:40 **Discussions**

SESSION 11C – GRID SECURITY, CONGESTION AND RESERVES

08:45 – 10:40 | Session Chair: Bernd Engel (SMA Solar Technology, Germany)

08:45 – 10:25 **Presentations (20 min. each)**

- **From Feasibility Contraction to Operational Fragility: Geometry-Conditioned Entropy Indicators for Power Systems**
  N. Menemenlis, J. Raymond (Hydro-Québec, Canada), P. Dersin (Luleå University of Technology, Sweden), D. Komljenovic (Hydro-Québec, Canada) (Submission-ID WISO26-007)
- **Uncertainty-Aware Congestion Forecasting Schemes for Enhanced Redispatch Management in Medium-Voltage Distribution Grids**
  H. Schlachter (German Aerospace Center – DLR, Germany), T. Purevdorj (Carl von Ossietzky University Oldenburg, Germany), D. Jung, F. Schuldt, H. Behrends (German Aerospace Center – DLR, Germany), A. Rauh (Carl von Ossietzky University Oldenburg, Germany), K. von Maydell (German Aerospace Center – DLR, Germany) (Submission-ID WISO26-197)
- **Co-Optimising Stability and AI Data Centre Demand in IBR-Dominated Power Systems**
  Y. Yu, W. Xu, M. O'Malley, F. Teng (Imperial College London, United Kingdom) (Submission-ID WISO26-239)
- **Investigation of the Inertia Equivalence at Different Voltage Levels Within a Simulation-Based Grid Study**
  T. Sauer, M. Pape, S. Pöschl, L. Landahl, B. Engel (TU Braunschweig, Germany) (Submission-ID WISO26-154)
- **Reactive Power Provision from a Utility-Scale PV Plant: Field Measurements and Loss Modeling**
  R. Grab (Fraunhofer ISE, Germany), H. Koeppe (TU Braunschweig – elenia, Germany), S. Montag (MOVE ON Energy GmbH, Germany) (Submission-ID WISO26-021)

10:25 – 10:40 **Discussions**

SESSION 11D – POWER SYSTEM FORECASTING

09:00 – 10:40 | Session Chair: Elisabetta Perotti (Chalmers University of Technology, Sweden)

09:00 – 10:20 **Presentations (20 min. each)**

- **Improving Close-To-Real-Time Grid Security Assessment Through Measurement-Based Forecast Calibration**
  N. Kidane, J. De Schutter, J. A. Lehner (TransnetBW, Germany) (Submission-ID WISO26-296)
- **Weather-based Alert Tool for Balancing Reserves Activation in Near 100% Renewable Power Systems**
  A. Couto, A. Estanqueiro (LNEG – Laboratório Nacional de Energia e Geologia, Portugal) (Submission-ID WISO26-229)
- **Scientific vRE Forecasting in Indonesia**
  A. Ramanan (GIZ Indonesia, Indonesia), H.-P. Waldl, B. Kumar (Overspeed, Germany), A. Febiorama (GIZ Indonesia, Indonesia) (Submission-ID WISO26-398)
- **Weather-Driven Large-Scale AI Forecast Time Series Simulation for Long-Term Power System Planning**
  A. Mathieu, S. Nayak, M. Kovoisto (Technical University of Denmark – DTU, Denmark) (Submission-ID WISO26-177)

10:20 – 10:40 **Discussions**

10:40 – 11:00 COFFEE BREAK

SESSION 12A – EMT MODELLING

11:00 – 12:40 | Session Chair: Julia Matevosyan (ESIG, USA)

11:00 – 12:20 **Presentations (20 min. each)**

- **Systematic EMT Modelling of Large Power Networks for High Solar/Wind Integration Studies – Model and Network Reduction Based Approach**
  C. Phurailatpam, M. Numan, D. Flynn (University College Dublin, Ireland) (Submission-ID WISO26-327)
- **Validation of a Phasor-Domain Modeling Approach for Small-Signal Analysis of Converter-Dominated Grids**
  C. Zanabria, V. Costan (Réseau de Transport d'Electricité – RTE, France), O. Alican (CITCEA-UPC, Spain), J. El-Feghali, T. Prevost (Réseau de Transport d'Electricité – RTE, France), E. Prieto Araújo (CITCEA-UPC, Spain), M. Chiaramello (Réseau de Transport d'Electricité – RTE, France), C. F. Mugombozi (Hydro Québec – IREQ, Canada), A. Guironnet (Réseau de Transport d'Electricité – RTE, France) (Submission-ID WISO26-352)
- **Lessons Learned from Oscillation Event Replication in Electromagnetic Transient Simulation**
  A. Thant, N. Smith, E. Mickelson (North American Electric Reliability Corporation – NERC, USA), M. Beskar, J.-M. Brown (Southern California Edison, USA) (Submission-ID WISO26-370)
- **Performance Evaluation of a Phasor-Domain Series Capacitor–MOV Model Through EMT Benchmarking**
  J. Gómez, F. De Marco (DIgSILENT, Germany) (Submission-ID WISO26-033)

12:20 – 12:40 **Discussions**

SESSION 12B – GRID OPERATION AND SYSTEM SERVICES

11:0 – 12:40 | Session Chair: Björn Andresen (Aarhus University, Denmark)

11:00 – 12:20 **Presentations (20 min. each)**

- **Innovative Grid Operation Methods Across Voltage Levels: Accelerating the Integration of Wind and Solar**
  A. Schoen, A. Altayara (Fraunhofer IEE | University of Kassel, Germany), T. Fabian (Fraunhofer IEE, Germany), J. Heid (Fraunhofer IEE | University of Kassel, Germany), H. Cao (Fraunhofer IEE, Germany), J. Haack-Stappel (University of Kassel, Germany), I. Hammermeister (Fraunhofer IEE, Germany), E. Tönges (University of Kassel, Germany), A. Gamba (Fraunhofer IEE | University of Kassel, Germany), N. Bornhorst (University of Kassel, Germany), D. Mende (Fraunhofer IEE | University of Kassel, Germany) (Submission-ID WISO26-343)
- **Data-Driven Quantification of Dynamic Couplings Between Power System Needs for Optimised Service Delivery**
  A. Nakiganda, M. O'Malley (Imperial College London, United Kingdom) (Submission-ID WISO26-240)
- **An Interoperability Gateway for Integrating DER Assets**
  V. Melo, A. Jony, G. Sampaio, P. Pascoal, J. Rodrigues (INESC TEC, Portugal) (Submission-ID WISO26-255)
- **Market Assessment on Integration of Offshore Bidding Zones under Advanced Hybrid Coupling**
  P. Schierhorn (Energynautics, Germany) (Submission-ID WISO26-395)

12:20 – 12:40 **Discussions**

SESSION 12C – ISLAND AND MICROGRIDS

11:00 – 12:40 | Session Chair: Ricardo Prata (Siemens, Portugal)

11:00 – 12:20 **Presentations (20 min. each)**

- **Supporting Caribbean Utilities: A Technical Assessment of PV Integration in Island Grids**
  H. Rühle, V. Breburda, A. Turnell (Energynautics, Germany) (Submission-ID WISO26-388)
- **Methodology on Integration and Operation of Renewable Hybrid Systems on Port Areas**
  E. Giraut, S S. Villanueva, S. Ormaechea (ITG | National Technology Centre, Spain), E. Llarena, S. Cal, R. Castelo, P. Lara, J. Fernández, (Instituto Tecnológico y de Energías Renovables – ITER, Spain) (Submission-ID WISO26-234)
- **A Distributed Edge-Computing Platform for ADMM-Based Voltage Control in Smart Grids**
  G. Sampaio, V. Melo, A. Jony, R. Bessa, P. Pascoal, J. Rodrigues (INESC TEC, Portugal) (Submission-ID WISO26-258)
- **Renewable-Integrated Port Microgrid Energy Management with Modular Asset Modelling and Storage Dispatch**
  P. Costa (INESC TEC | University of Porto – FEUP, Portugal), J. Almeida, R. Rodrigues, D. Martínez, A. Carrillo Galvez (INESC TEC, Portugal), T. Soares (INESC TEC | University of Porto – FEUP, Portugal), F. Oliveira, H. Bernardo (INESC TEC, Portugal), Z. Mourão (INESC TEC | University of Porto – FEUP, Portugal), F. J. Soares (INESC TEC, Portugal) (Submission-ID WISO26-149)

12:20 – 12:40 **Discussions**

SESSION 12D – PV FORECASTING

11:00 – 12:40 | Session Chair: Ricardo Andrade (INESC TEC, Portugal)

11:00 – 12:00 **Presentations (20 min. each)**

- **Seasonal Forecasting of Photovoltaic Energy Generation in Germany Using Ensemble Climate Predictions**
  A. Happ, M. Arsalan (FraunhoferIEE, Germany), A. Tyagi (Fraunhofer IEE | University of Kassel, Germany), J. Wandel, C. Dalelane (German Meteorological Service, Germany), M. Siefert (FraunhoferIEE, Germany), A. Paxian (German Meteorological Service, Germany) (Submission-ID WISO26-134)
- **Tokenized Time Series Representations for Variable Renewable Energy Forecasting with Exogenous Predictors**
  M. Wanek (TU Berlin, Germany) (Submission-ID WISO26-065)
- **Improving Aggregated PV Power Forecasting via Zero-Shot Learning: Handling Unmeasured and Poor-Quality Parks**
  S. Beddar-Wiesing, D. Trau Beinert, A. Braun (Fraunhofer IEE, Germany) (Submission-ID WISO26-281)

12:00 – 12:40 **Discussions**

12:40 – 12:50 SHORT BREAK

SESSION 13 – CLOSING SESSION

12:50 – 13:50 | Session Chair: Juan Giner Folqués (ENTSO-E, Belgium)

12:50 – 13:20 **Panel Discussion**

TOPICS ADDRESSED

COMPLIANCE OF VRE TECHNOLOGY WITH RFG 2.0 REQUIREMENTS: CHALLENGES AND OPPORTUNITIES

Panelists:

- **Daniel Duckwitz (SMA Solar Technology, Germany)**
- **Eckard Quitmann (Energynautics, Germany)**
- **Inga Skrypalle (Vestas, Denmark)**
- **Claudia Zanabria (RTE, France)**

13:20 – 13:40 **Discussions**

13:40 – 13:50 **Closing Remarks**

13:50 – 14:50 LUNCH

POSTER PRESENTATIONS

- **Sustainability Assessment of Manufacturing Materials for the Hydraulic Variable Inertia Flywheel**
  L. Reese, A. Rettig, C. Jauch (Flensburg University of Applied Sciences, Germany) (Submission-ID WISO26-017)
- **Enhancing Grid Integration of Solar PV through Battery Energy Storage for Open Access Consumers under Time-Varying Tariff and Deviation Constraints: A Real-Time Study from Tamil Nadu**
  N. Chenniappan (The Tamil Nadu Power Distribution Corporation | Anna University, India), S. Kumar Subramanian (S.A. Engineering College Chennai, India), A. Gunasekaran, M. Nagaraj Tamil Nadu Power Distribution Corporation, India) (Submission-ID WISO26-023)
- **Event-Driven Energy System Sizing for Self-Sufficient Electrified Container Terminals**
  A. Galvez (INESC TEC, Portugal), P. Costa (INESC TEC | University of Porto - FEUP, Portugal), R. Rodrigues, J. Almeida (INESC TEC, Portugal), T. Soares, Z. Mourão (INESC TEC | University of Porto - FEUP, Portugal) (Submission-ID WISO26-038)
- **Retrofitting Wind Power Plants to Hybrid Wind–PV Power Plants: A Swedish Case Study**
  M. Koubar, D. Lingfors, J. Widén (Uppsala University, Sweden) (Submission-ID WISO26-039)
- **Comparative Analysis of an Extended Matching Control Method and a Synchronverter Based on VDE FNN Requirements for Grid-Forming Units**
  P. Weber, L. Hertle (Institute of Electric Energy Systems and High-Voltage Technology – IEH | Karlsruhe Institute of Technology – KIT, Germany), D. Bohnet Millan, L. Tabari, M. Suriyah, T. Leibfried (Institute of Electric Energy Systems and High-Voltage Technology – IEH, Germany) (Submission-ID WISO26-042)
- **Assessment of Rotational Energy and Available Active Reserve of a Future Nordic Power System**
  L. V. K W Arachchige, P. Chen, M. Taljegard, L. Kuhrmann (Chalmers University of Technology, Sweden) (Submission-ID WISO26-044)
- **Negative Electricity Prices: Regulatory Drivers in the Context of German Wind Onshore Energy Expansion**
  K. Malekian Boroujeni, M. Bernecker, S. Radke, K. Platta, F. Müsgens (BTU Cottbus-Senftenberg, Germany) (Submission-ID WISO26-050)
- **Reactive Power Control Conflicts: When *Q(U)* Characteristic Curves Sabotage Voltage Maintenance and Reactive Power Market Potential**
  G. Gebhardt, J. Essers (TU Braunschweig – elenia, Germany), T. Henning, M. Müller (Avacon Netz GmbH, Germany), B. Engel (TU Braunschweig – elenia, Germany) (Submission-ID WISO26-055)
- **Grid-Constrained Energy Management of PV-Bess Systems: Full-Day Optimization Versus MPC Under Forecast Uncertainty and Battery Ageing**
  F. U. Rehman (University of L'Aquila, Italy | University of Southern Denmark – SDU, Denmark), K. Qian, H. Andersen, A. Manoharan (University of Southern Denmark – SDU, Denmark), C. Cecati, C. Buccella (University of L'Aquila, Italy) (Submission-ID WISO26-058)
- **Design and Dynamic Simulation of Liquid Hydrogen Transfer Assisted by Compressed Boil-off Hydrogen Gas**
  E. Lee, H. Kim, D. Chang (Korea Advanced Institute of Science and Technology – KAIST, South Korea) (Submission-ID WISO26-072)
- **Elastic Wave Velocity Measurements to Quantify Sample Disturbance of Thin-Walled Tube Samples**
  H. K. Marjadi (Dong-A University, South Korea), J.-H. Lee, S. Hong, J.-S. Jeon (Korea Institute of Civil Engineering and Building Technology, South Korea), J. Jang (Dong-A University, South Korea) (Submission-ID WISO26-073)
- **Efficient Parametrization of Generic Type IV Wind Turbine Models for Transient Stability: A Julia-Based Approach**
  J. Jiménez-Ruiz, A. Honrubia-Escribano (University of Castilla-La Mancha – UCLM, Spain), E. Gómez-Lázaro (Centre for Energy, Environmental and Technological Research – CIEMAT, Spain) (Submission-ID WISO26-074)
- **Renewable Energy Integration and Operational Flexibility in Wastewater Treatment Plants: A Techno-Economic Assessment**
  M. Herzog (john becker ingenieure | University of Bremen, Germany), P. Runte, J. Myzik (University of Bremen, Germany) (Submission-ID WISO26-085)

- **Spatio-Temporal Intelligence for Future Energy Systems**
  J. Dobschinski, T. Banze (Fraunhofer IEE | University of Kassel, Germany), A. Braun (Fraunhofer IEE, Germany), D. Callies (Fraunhofer IEE | University of Kassel, Germany), H. Ganal (Fraunhofer IEE, Germany), D. Geiger (Fraunhofer IEE | University of Kassel, Germany), A.-K. Goldmaier (Fraunhofer IEE, Germany), Y. Harms (Fraunhofer IEE | University of Kassel, Germany), D. Horst (Fraunhofer IEE, Germany), M. Kleebauer (Fraunhofer IEE | University of Kassel, Germany), C. Pape (Fraunhofer IEE,

Germany), L. Lauscher (University of Kassel | Fraunhofer IEE, Germany | Vrije Universiteit Brussel, Belgium), M. Pfennig (Fraunhofer IEE, Germany), B. Rieß (Fraunhofer IEE | University of Kassel, Germany), M. Siefert (Fraunhofer IEE, Germany), M. Wirth (University of Kassel | Fraunhofer IEE, Germany) (Submission-ID WISO26-090)

- **Electricity Procurement Strategies for Flexible Large-Scale Heat Pumps in District Heating Systems**
  V. Köppl (Weihenstephan-Triesdorf University of Applied Sciences, Germany), S. Lehner (Friedrich-Alexander-University Erlangen-Nürnberg, Germany), A. Zeislmair (Weihenstephan-Triesdorf University of Applied Sciences, Germany) (Submission-ID WISO26-096)
- **Stochastic Multi-Period Security-Constrained Optimal Power Flow via Approximated Chance Constraints**
  D. Reis, M. Simões, T. Soares, J. A. Peças Lopes (INESC TEC, Portugal) (Submission-ID WISO26-102)
- **C Comparison of Optimisation Tools for Integrating Renewable Energy into Large-Scale Co-located Industrial Plants**
  D. Saha, F. Iov (Aalborg University, Denmark) (Submission-ID WISO26-108)
- **Structured Modal-Energy Dissipation for Inter-Area Oscillations in Reduced Low-Inertia Power Systems**
  S. Kohlhaas, P.-I. Kotyczka (Technical University of Munich – TUM, Germany) (Submission-ID WISO26-111)
- **Analysis of Transformer Inrush Current During a Grid Black Start by a Three-Terminal HVDC System Connected to an Offshore Wind Farm**
  T. Shinno, T. Nakajima (Tokyo City University, Japan) (Submission-ID WISO26-114)
- **Hardware-in-the-Loop Simulation-Based Evaluation of a Supply-and-Demand Balancing Scheme Using Biogas Power Plants with Reused EV Batteries in Rural Microgrids**
  M. Motohashi (Tokyo City University, Japan), A. Hayashida (Hokkaido Research Organization, Japan), T. Nakajima (Tokyo City University, Japan) (Submission-ID WISO26-115)
- **Long-Term Economic Evaluation of V2x Operation in a Community Microgrid with Solar and Biogas Generation, EVs, and Reused Vehicle Batteries**
  T. Ishikawa (Tokyo City University, Japan), A. Hayashida (Hokkaido Research Organization, Japan), T. Nakajima (Tokyo City University, Japan) (Submission-ID WISO26-116)
- **Evaluation of Supply–Demand Balancing by Residential PV and Battery Systems Using Weather Forecasts and Inter-Household Cooperation**
  H. Keino, T. Nakajima (Tokyo City University, Japan) (Submission-ID WISO26-117)
- **The Feasibility of Using Positive Sequence Impedance for Assessing the Subsynchronous Interaction Possibility of Type 3 Wind Power in a Meshed Series Compensated Transmission Network**
  J. Kittilä, O.-P. Janhunen (Fingrid, Finland) (Submission-ID WISO26-123)
- **Evaluation of Dynamic Input-Output Characteristics of Frequency Meters for Fast Frequency Response Control of Grid-Following Inverters**
  A. Yamada (Tokyo City University, Japan), K. Nagamatsu, S. Sugimori, Y. Mitsugi (TMEIC Corporation, Japan), T. Nakajima (Tokyo City University, Japan) (Submission-ID WISO26-124)
- **Overcurrent Suppression Method for Grid-Forming Inverters Using Virtual Resistance and Active Power Reference Control Based on Operating Conditions**
  T. Shioya (Tokyo City University, Japan), S. Sugimori, Y. Mitsugi (TMEIC Corporation, Japan), T. Nakajima (Tokyo City University, Japan) (Submission-ID WISO26-125)
- **Improved IpDFT-Based Frequency Measurement for Fast Frequency Response Control of Grid-Following Inverters in Battery Energy Storage Systems**
  Z. Li, T. Nakajima (Tokyo City University, Japan), S. Sugimori, Y. Mitsugi (TMEIC Collaboration, Japan) (Submission-ID WISO26-126)
- **Ammonia Cracking Process with Molten Salt-Based Thermal Energy Storage for Green Hydrogen Supply Chain via Ammonia: Case Study of South Korea**
  H. Kim, E. Lee, D. Chang (Korea Advanced Institute of Science and Technology – KAIST, South Korea) (Submission-ID WISO26-127)
- **Grid-Forming Capabilities of PV-BESS for Frequency Control: Operational Insights and an Ancillary-Service Framework for the Tamil Nadu Power System**
  N. Chenniappan (Anna University | Tamil Nadu Power Distribution Corporation, India), S. K. Subramanian (Engineering College Chennai, India) (Submission-ID WISO26-132)

- **Investigation of the Mechanical Loading of Wind Turbines with Grid Forming Capabilities Under Disturbances**
  R. Kastrati, G. Bremer, R. Beckmann, F. Schuldt (Deutsches Zentrum für Luft-Raumfahrt – DLR, Germany) (Submission-ID WISO26-139)
- **A Multi-Source Hierarchical Framework for Net Load and Self-Consumption Forecasting in Distributed Grid Planning**
  R R. P. Marques (University of Porto, Portugal), W. E. Chumbi (São Paulo State University – UNESP, Brazil), S. Zambrano-Asanza (INESC TEC | University of Porto, Portugal), A. Carrillo-Galvez (INESC TEC, Portugal), T. A. Soares (INESC TEC | University of Porto, Portugal) (Submission-ID WISO26-146)
- **Stability Limits and Interoperability Criteria for Grid-Forming Inverters**
  R. Denninger (Fraunhofer ISE, Germany), H. Lens (University of Stuttgart – IED, Germany), S. Rogalla, B. Burger (Fraunhofer ISE, Germany) (Submission-ID WISO26-148)
- **RMS–EMT Stability Assessment of Isolated Inverter-Dominated Grids: The Role of Hydrogen Electrolyser Load Modelling**
  T. Siljegovic, A. Milosevic, A. Vukovic (Go2Power Consulting, Serbia) (Submission-ID WISO26-160)
- **Influence of Grid-Forming Converter Share, Grid Coupling Strength, and Grid Class on Medium-Voltage Grid Stability**
  I.-K. Nave, J. Ungerland (Fraunhofer ISE, Germany) (Submission-ID WISO26-165)
- **Analysis of Overvoltage Dynamics and Transmission-Distribution Interaction in Integrated Voltage Stability Assessments**
  C. Wirtz, S. Ratajczak (FGH e.V., Germany), A. Kroggel, H. Jürgensen (Schleswig-Holstein Netz, Germany), A. Moser (RWTH Aachen University – IAEW Germany), S. Krahl (FGH e.V., Germany) (Submission-ID WISO26-172)
- **Economic Evaluation of Electrolyser Participation in Ancillary Services Market**
  M. Rizwan (DNV, Norway), E. Petkovski (DNV Netherlands, Netherlands), E. A. Hektor (DNV, Norway) (Submission-ID WISO26-182)
- **Metaheuristic-based Planning of Energy Communities with Flexibility Market Support**
  T. Pintado (INESC TEC | University of Porto, Portugal), J. Villar, L. Rodrigues (INESC TEC, Portugal), T. Mendes (INESC TEC | University of Trás-os-Montes and Alto Douro, Portugal), T. Soares (INESC TEC | University of Porto, Portugal) (Submission-ID WISO26-199)
- **Hybrid PSP-PV-BESS Participation in Day-ahead and Intraday Markets**
  F. Taglioni, D. Reis, P. Kumar, T. Soares, B. Silva (INESC TEC, Portugal), V. Trovato (University of Trento, Italy) (Submission-ID WISO26-203)
- **A Technology-Agnostic Nonlinear State-Space Model of Renewable Power Plants for Stability Analysis**
  S. Armand, K. Das (Technical University of Denmark – DTU, Denmark), P. Kotyczka (Technical University of Munich – TUM, Germany), A. D. Hansen (Technical University of Denmark – DTU, Denmark) (Submission-ID WISO26-204)
- **Metaheuristic Approach for Optimal Sizing of Distributed Energy Resources in Energy Communities**
  T. Mendes (INESC TEC | University of Trás-os-Montes and Alto Douro, Portugal), J. Villar, L. Rodrigues, J. Morán (INESC TEC, Portugal), T. Pintado (INESC TEC | University of Porto, Portugal), T. Pinto (INESC TEC | University of Trás-os-Montes and Alto Douro, Portugal), T. Soares (INESC TEC | University of Porto, Portugal) (Submission-ID WISO26-207)
- **Improving Frequency Support Capability of Hybrid Power Plants in Low-Inertia Grids Using Grid-Forming Control**
  C. T. Søgaard, I. B. Rolsted, A. D. Hansen, K. Das, S. Pouraltafi-Kheljan (Technical University of Denmark – DTU, Denmark) (Submission-ID WISO26-208)
- **Modelling the Influence of Building Integrated Photovoltaics on Operations and Investments in the Electricity System at the National Level to Assess its Environmental Impact**
  J. Brisson, F. Claudon (CEA, France) (Submission-ID WISO26-217)
- **Impact of Measured vs. Virtual Current Feedback on the Stability and Operation of Grid-Forming Inverters**
  D. Bohnet Millan, P. Weber, A. Kohler, M. Suriyah, T. Leibfried (Karlsruhe Institute of Technology – KIT/IEH, Germany) (Submission-ID WISO26-219)
- **Grid-Aware Sizing of Battery Energy Storage Systems in Seaport Microgrids: A High-Granularity Optimization Framework for the Port of Sines**
  S. Zambrano-Asanza, A. Carrillo-Galvez, Z. Mourão, T. Soares (INESC TEC | University of Porto, Portugal) (Submission-ID WISO26-225)
- **Forecasting Electricity Consumption Time Series at NUTS-3 Level in Germany**
  A.-K. Goldmaier, R. Hindrikson (Fraunhofer IEE, Germany), A. Herzog (Fraunhofer IEE | University of Kassel, Germany), J. Ritter, C. Pape (Fraunhofer IEE, Germany), D. Jost (50Hertz Transmission, Germany), L. Franken, D. Horst (Fraunhofer IEE, Germany) (Submission-ID WISO26-227)
- **Practical Experience with Laboratory Determination of Wind Turbine Thévenin Equivalents following IEC 61400-21-4 Annex E**
  F. Hans, S. Natubhai Pithadiya, G. Quistorf (Fraunhofer IWES, Germany), M. A. Martinez Guillén, S. Sønderskov (Vestas Wind Systems, Denmark), J. B. Gil, R. de Paz (Barlovento AppPlus+, Spain) (Submission-ID WISO26-233)

- **Economic Impact of Forecast Errors on BESS Participation in Day-Ahead Electricity and Reserve Markets**
  M. Ebrahimi, M. Mohiti Ardakani, A. Sridhar, D. Steen, L. A. Tuan (Chalmers University of Technology, Sweden) (Submission-ID WISO26-242)
- **Coordinated Current Control for Wind Turbine Generators with Multiple Parallel Power Converters**
  F. Aust, M. Schütt, H.-G. Eckel (University of Rostock, Germany) (Submission-ID WISO26-253)
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  G. Giebel (Technical University of Denmark – DTU, Denmark), C. Draxl (EPRI, USA), C. Möhrlen (WEPROG, Denmark & Germany), H. Frank (German Meteorological Service, Germany), G. Kariniotakis (Mines Paris, France), J. Browell (University of Glasgow, United Kingdom), R. Bessa (INESC TEC, Portugal), D. Lenaghan (NESO, United Kingdom), J. Yan (North China Electric Power University – NCEPU, China), I. Schicker (GeoSphere Austria, Austria), N. Helistö (VTT, Finland), H. Holttinen (Recognis, Finland) (Submission-ID WISO26-261)
- **Evaluation of Black-Box IBR Modeling Methods**
  S. Matic (GE Vernova, USA) (Submission-ID WISO26-262)
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  A. Liliano, D. Tavares (Instituto Superior Politécnico de Tecnologias e Ciências - ISPTEC, Angola) (Submission-ID WISO26-284)
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  A. Yuen, A. Phadke (University of California Berkeley, USA) (Submission-ID WISO26-285)
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  P. Lytaev (University of Kassel, Germany), A. Scheidler (Fraunhofer IEE, Germany) (Submission-ID WISO26-288)
- **Analyzing Industrial Flexibility Participation in the Nordic Day-Ahead and Intraday Electricity Markets: An Electrified Asphalt Production Process Case Study**
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  Y. Harms (Fraunhofer IEE | University of Kassel, Germany), L. Albrecht (Fraunhofer IEE, Germany), P. Hahn (University of Kassel, Germany), A. K. Herzog, (Fraunhofer IEE, Germany) (Submission-ID WISO26-341)
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