15th Wind Integration Workshop

International Workshop on Large-Scale Integration of Wind Power into Power Systems as well as on Transmission Networks for Offshore Wind Power Plants

15 - 17 November 2016 | Vienna, Austria
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- **Power System Restoration: How Could Wind Energy Generators be Included into Today’s Restoration Plans?**
  H. Becker, D. Mende, T. Hennig, A. Akbulut, L. Hofmann (Fraunhofer IWES, Germany)

- **Improved Feed-in Management with Wind Turbines**
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- **Overplanting in Offshore Wind Power Plants in Different Regulatory Regimes**
  C. Wolter, H. K. Jacobsen (DTU, Denmark), G. Rogdakis, L. Zeni (DONG, Denmark), N. Cutululis (DTU, Denmark)

- **Cost Efficient Large Scale Onshore Wind Integration**
  G. F. W. Brauner (Vienna University of Technology, Austria)

- **Uncertainty Quantification of the Real-Time Reserves for Offshore Wind Power Plants**
  T. Göçmen, G. Giebel, P.-E. Réthoré, J. P. Murcia Leon (DTU, Denmark)

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14:00 – 15:20 / 17 November 2016 / Room Grand Waterfront 1 / Session chair: Julija Matevosjana (ERCOT, USA)

- **The Value of Frequency Keeping and Governor Response to New Zealand**
  J. Shipper, A. Wood, A. Miller (University of Canterbury, New Zealand), C. Edwards (Transpower, New Zealand)

- **Performance of df/dt-based Inertia Control during Emergency Islanding**
  D. Duckwitz (Fraunhofer IWES, Germany)

- **Power System Frequency Stability Control Strategy by Means of VSC-HVDC**
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14:00 – 15:20 / 17 November 2016 / Room Grand Waterfront 3 / Session chair: Hanna Emanuel (Enercon, Germany)

- **New Revisions of FGW Power Quality Guidelines**
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- **The Upcoming European Network Code and its Impact on Commissioning and Operation of Distributed Generation**
  F. Kalverkamp, J. Langstädtler, M. Meuser (FGH Certification, Germany)

- **What Shall I Do with a Conventional UVRT-Test Rig to Carry out OVRT-Tests and other Tests Required for a Full Model Validation**
  R. Klosse, K. Küch (WindGuard Certification, Germany), F. Loh (GE Renewable Energy, Germany)

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15:30 – 16:30 / 17 November 2016 / Room Grand Waterfront 1 – 3

The contributions and discussions of this session are not part of the proceedings.
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G. Doyle de Doile (ANEEL – Brazilian National Electricity Agency, Brazil)

Connection of OWPPs to HVDC Networks Using VSCs and Diode Rectifiers: an Overview
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The Capacity Value in Systems with Multiple Regions and Technologies
A. Knaut [EWI – Institute of Energy Economics, Germany], S. Hagspiel (University of Cologne, Germany), J. Peter [EWI – Institute of Energy Economics, Germany]

Basic Characteristics of Synchronous-Compensator-Commutated Inverter (SCI) / HVDC System for Wind Power Plants with Series-Connected Wind Turbine Generators
S. Nishikata, F. Tatsuta (Tokyo Denki University, Japan)

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H. Matayoshi, T. Senju (University of the Ryukyus, Japan), T. Funabashi, T. Kato (Nagoya University), A. M. Howlader (University of Hawaii, Hawaii)

Integrated Electromagnetic-Mechanical Design Method for Optimized Superconducting DC Wind Generators
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Improvement of Transient Stability of Power Systems by Output Power Control of PMSG-based Wind Power Plant
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Enhanced Short-Term Wind Power Forecast using the Augmented Time Series Model for Power Grid Integration
D. Kim, J. Hur, H. Han (Sangmyung University, Korea)

Estimation of Potential Wind Power Plant Energy Production Losses Caused by Curtailments Due to Power System Security Issues: Polish Case
M. Bajor (IEn – Institute of Power Engineering, Poland)

Possible Improvements for Present Wind Farm Models Used in Optimal Wind Farm Controllers
J. Kazda, T. Göçmen, G. Giebel, N. A. Cutululis (DTU, Denmark)

Grid Frequency Analysis for Assessing the Stress on Wind Turbines
A. Glose, H. Thiesen, C. Jauch (Flensburg University of Applied Science, Germany)

Integrating the Excellent Wind Resources in North-West Eurasia for a Sustainable Energy Supply in Europe
D. Bogdanov, C. Breyer (Lappeenranta University of Technology, Finland)

Incorporation of Flow-Based Grid Modelling in Multinational Transmission Expansion Planning
L. Åmellem, M. Korpås, M. Kristiansen (Norwegian University of Science and Technology, Norway)

Reliability Study of Two Offshore Wind Farm Topologies
O. Giesecke, R. Karlsson, K. Morozovska, P. Hilber (KTH Royal Institute of Technology, Sweden)

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W. Kuehn (Frankfurt UAS, Germany)

Modelling of Grid-Connected VSCs for Power System Small-Signal Stability Analysis in DVC Timescale
H. Yuan, J. Hu (Huazhong University of Science and Technology, China) (Submission-ID WIW16-275)