

- 154** **Assessing the benefits of wind power curtailment in a hydro-dominated power system**
J. Evans, Z. Shawwash, D. Smith
- 155** **Insertion of distributed generation into rural feeders**
R. Mohr, R. Moreno, H. Rudnick
- 156** **Incorporation of wind power over the next 20 years and the associated wind integration costs**
T. Molinski

2.1. EXPERIENCES -FIELDS AND LABS

Thursday, 30th July
 (8.30 - 10.30)

rapporteur : R. Dugan

- 211** **CERTS microgrid laboratory Test Bed**
J. H. Eto, R. Lasseter, B. Schenkman, John Stevens, D. Klapp, H. Volkommer, E. Linton, H. Hurtado, J. Roy
- 212** **Analysis of data obtained in demonstration test about battery energy storage system to mitigate output fluctuation of wind farm**
K. Yoshimoto, T. Nanahara, G. Koshimizu
- 213** **Infrastructures for the integration and control of small distributed energy resources into power grids**
O. Gehrke, H. Bindmer
- 214** **Field experience of power frequency overvoltages in wide-scale photovoltaic systems**
E. Navarro, F. J. Pazos
- 215** **Integration of DER into power system operation through Virtual Power Plant concept applied for voltage regulation**
J. Oyarzabal, J. Marti, A. Ilo, M. Sebastian, D. Alvira, K. Johansen
- 216** **Improving Smart Grid Interoperability through Collaborative Demonstrations**
M. Wakefield

2.2. PROTECTION -FAULT RIDE-THROUGH

Thursday, 30th July
 (11.00 - 13.00)

rapporteur : S. Salem

- 221** **Differential ROCOF relay for Loss-of-Mains Protection of Renewable Generation using Phasor Measurement over Internet Protocol**
D.M. Laverty, D.J. Morrow, R. Best, P.A. Crossley
- 222** **The impacts and countermeasures of distribution relay protection with wind power connected**
Yang guosheng, Li xin, Zhou zexin
- 223** **Analysis of advanced distribution protection approaches and their compatibility with distributed generation**
C. Abbey
- 224** **Dynamic line rating protection for wind farm connections**
H. T. Yip, C. An, G. Lloyd, R. Ferris, M. Aten
- 225** **Cancelled - On the assessment of voltage ride-through - needs of the power transmission grid**
L. de Souza, I. Visconti, T. de Assis, R. Moss
- 226** **Grid integration of wind energy converter - experiences of low voltage fault ride through (LVFRT) measurements and certification procedures**
T. Smolka, W. Schwardt, M. Dang, D. Henriod
- 227** **Effect of grid disturbances on fault ride through behavior of MV-connected DG-units, in especially CHP-plants**
E.J. Coster, J.M.A. Myrziak, W.L. Kling

2.3. MODELLING AND SIMULATION

Thursday, 30th July
 (15.00- 17.00)

rapporteur : R. Iravani

- 231** **Cancelled-Aggregated modelling of wind farms - model verification**
K. Rudion, A. G. Orths
- 232** **A P-Q capability chart approach to characterise grid connected photo voltaic units**
F. Delfino, G. B. Denegri, M. Invernizzi, R. Procopio, G. Ronda
- 233** **Probabilistic methods for renewable energy sources and associated electrical loads for Southern African distribution systems**
C. T. Gaunt, R. Herman, B. Becker

- 234** **Method for studying and mitigating the effects of wind variability on frequency regulation**

U.D. Annakkage, D.A. Jacobson, D. Muthumuni

- 235** **Optimized autonomous power system**

P. Lombardi, Z. A. Styczynski

- 236** **Cancelled - System operation using heat load management facilitate wind power integration**

J. Kennedy, D. Flynn, B. Fox

2.4. MICROGRIDS

Friday, 31st July
 (8.30 - 10.30)

rapporteur : R. Wakefield

- 241** **The added value of reliability to a microgrid**
C. Marnay
- 242** **Protection of microgrids with a high penetration of inverter-coupled energy sources**
T. Wijnhoven, T. Loix, G. Deconinck, J. Driesen
- 243** **Optimal control and management of distributed generation units in an islanded microgrid**
A. A. Ghadimi, H. Rastegar
- 244** **Operation of dispersed power systems including wind farm in micro grid**
T. SHINJI
- 245** **Cancelled - A methodology for economic analysis and design of microgrids**
C. Abbey, G. Joos
- 246** **BC hydro perspective on distribution islanding for customer reliability improvement**
J. Peralta, H. Iosfin, S. (Xiaosu) Tang
- 247** **Life cycle cost, efficiency and environmental impact**
R. Wies

2.5. FORECASTING AND STORAGE

Friday, 31st July
 (11.00 - 13.00)

rapporteur : J. Oglevie

- 251** **Forecasting For Utility-Scale Wind Farms, The Power Model Challenge**
J. Parkes
- 252** **Modeling the solar radiation of PV in the UAE using neural networks**
L. Chaar, L. A. Lamont, M. Karkoub
- 253** **Wind power and photo voltaic prediction tools for balancing and grid operation**
B. Ernst, F. Reyer, J. Vanzetta
- 254** **SAGIPE : A real-time data acquisition system for the massive integration of wind generation in Hydro-Québec's power system**
V. Balvet, J. Bourret, J.-E. Maubois
- 255** **Wind Farms with Energy Storages integrated at the Control Power Market**
S. Völler, A.-R. Al-Awaad, J.F. Verstege
- 256** **Electric energy storage and its tasks in the integration of wide-scale renewable resources**
Z. Styczynski on behalf of WG C6.15

3. GENERAL ISSUES - CONCLUSIONS

Friday, 31st July
 (15.00- 17.00)

rapporteur : N. Hatzigiargyriou

- 301** **Connection requirements and grid codes for distributed generation**
P. Gomes, A. C. Barbosa Martins, C. Ribeiro Zani, S. L. A. Sardinha
- 302** **Experience with grid code development for wind generation in Europe and North America**
P. Gardner, M. Tremblay, D. Price
- 303** **How New Technology Developments will Lower Wind Energy Costs**
D.L. Hoffman, T.S. Molinski