



ENGINEERING WORKSHOP: Renewable Integration and Forecasting in Island Networks

July 28, 2017 | 8:30 AM – 12:30 PM | Jewel Grande Montego Bay Resort & Spa, Montego Bay, Jamaica

With the cost of solar continuing to decline, as well as other technologies, more and more solar and wind are integrated into the islands, making forecasting and planning critical for system operation. In this workshop, we will give the attendees tools to better understand and manage the application of solutions for modern grids.

TARGET GROUP: Engineers and Renewable Energy Developers

PRESENTERS:



Billy F. Yancey III
E.I.T. M.Sc.EE., Vice President
Product Management/
Senior Engineer at Electric
Power Engineers, Inc.



John W. Zack,
Ph.D., Vice President
of Grid Solutions at
AWS Truepower

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ACCOMMODATION: Jewel Grande Montego Bay Resort & Spa - All Inclusive

RATES: Single – US\$279, Double – US\$323

COURSE FEES: FREE

WORKSHOP AGENDA:

1. Grid integration studies
2. Monitoring programs
3. Custom wind/solar/load forecast system
4. Examples of recent RE variability events and implications for system operations
5. Recent Hawaii research efforts (DREAMS and SEAMS for SHINES)
 - i. *DREAMS: integration of forecasts into the EMS*
 - ii. *SEAMS for SHINES: optimal use of distributed storage and smart monitoring/control devices*
6. Energy Storage Integration
 - i. *Applications and benefits*
 - ii. *Integrating into operations*

LEARNING OUTCOMES:

1. Understanding of the studies necessary for integrating renewables
2. Methods for forecasting renewables and load
3. Lessons learned from recent projects in island systems integrating renewable forecasting into system operations
4. Benefits and operational constraints for introducing energy storage

ABOUT THE PRESENTERS:

Billy F. Yancey III, E.I.T. M.Sc.EE., *Vice President Product Management/ Senior Engineer at Electric Power Engineers, Inc.*

Billy F. Yancey III is the Vice President of Product Management at Electric Power Engineers, Inc. He specializes in renewable system design and grid integration studies. Mr. Yancey provides skilled Electrical Engineering support in electric grid operation and distribution and transmission studies on the integration of renewable energy. He also provides extensive research and literature reviews in conducting the screening study and evaluation of renewable energy projects interconnection impact on the electrical grid. He brings extensive experience in technology assessment and in reviewing grid regulatory system and operational protocols and has significant skills and understanding in renewable energy integration into the grid and any interference risk that utility studies must address. Additionally, Mr. Yancey has extensive experience in completing compliance testing for demonstration of generation compliance with grid codes. He received his Bachelor of Science degree in Engineering and Master of Science degree in Electrical Engineering from Arkansas State University and Texas A&M University respectively. Billy Yancey is also a Ph.D. candidate at Texas A&M University in the area of Sustainable Energy and has completed all the requirements of that degree.

John W. Zack, Ph.D., *Vice President of Grid Solutions at AWS Truepower*

Dr. John W Zack is the Vice President of Grid Solutions at AWS Truepower (AWST), a UL Company, and a global leader in renewable energy consulting services. He is also the President, Chief Scientist and co-founder of MESO, Inc., a company that specializes in the development and application of geophysical numerical models in a wide range of industries. In the early portion of his 19 years with AWS Truepower he directed the development of AWST's operational wind and solar power production forecasting system as well as the MesoMap wind resource assessment system. He currently oversees the delivery and evaluation of operational forecasts as well as efforts to further refine the forecast system and extend its applications. He is the author of numerous articles on atmospheric modeling and forecasting that have been published in scientific journals. He earned a BS degree in meteorology and oceanography from New York University and a Ph.D. in atmospheric sciences from Cornell University.