



Illinois Commerce Commission Energy Storage Webinar Series

Session 5: Battery Storage for Generation & Transmission & Distribution Deferral

Tuesday, January 11, 2022

1:00 PM to 3:00 PM (CT)

Presented by:
U.S. DOE Office of Electricity Energy Storage Program,
Illinois Commerce Commission,
and Sandia National Laboratories

Energy storage is the key to unleashing the power of renewables, relieving generation, transmission, and distribution demands, and hastening the energy transition to a decarbonized future. Illinois Commerce Commission Staff & Stakeholders are invited to participate in a series of energy storage webinars presented in collaboration with US DOE Office of Electricity Energy Storage Program and Sandia National Laboratories. Experts from the national labs, regional agencies and other organizations and institutions will provide content, with time for discussion and questions.

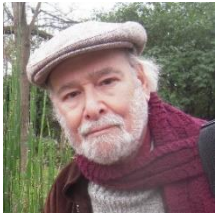
Agenda

January 11, 2022 – Battery Storage for Generation & Transmission & Distribution (T&D) Deferral

1:00 - 1:10	Introductory Remarks Dr. Imre Gyuk, Director, DOE Office of Electricity Energy Storage (ES) Program
1:10 - 1:35	Energy Storage for Generation and Transmission Applications Hisham Othman, Quanta Technology
1:35 - 2:00	Deploying Energy Storage as Transmission Assets Bob McKee, American Transmission Company
2:00 - 2:25	Energy Storage for Meeting Peak Load Angela Gould, California Energy Commission
2:25 - 2:50	Storage as Transmission: Policy and Regulatory Issues Jeremy Twitchell, Pacific Northwest National Laboratory
2:50 - 3:00	Discussion/Q&A



Speaker Biographies



Dr. Imre Gyuk, Director, DOE Office of Electricity Energy Storage (ES) Program

After taking a B.S. from Fordham University, Dr. Imre Gyuk did graduate work at Brown University on Superconductivity. Having received a Ph.D. in Theoretical Particle Physics from Purdue University he became a Research Associate at Syracuse. As an Assistant Professor he taught Physics, Civil Engineering, and Environmental Architecture at the University of Wisconsin. Dr. Gyuk became an Associate Professor in the Department of Physics at Kuwait University where he became interested in issues of sustainability. Dr. Gyuk joined the Department of Energy to manage the Thermal and Physical Storage program. For the past two decades he has directed the Electrical Energy Storage research program in the Office of Electricity, developing a wide portfolio of storage technologies for a broad spectrum of applications. He supervised the \$185M ARRA stimulus funding for Grid Scale Energy Storage Demonstrations and is now partnering with the States on numerous storage projects for grid resilience. His work has led to 12 R&D 100 awards, two EPA Green Chemistry Challenge Awards, and Lifetime Achievement Awards from ESA and NAATBatt. He is internationally recognized as a leader in the energy storage field.



Hisham Othman, Quanta Technology

Hisham leads the transmission and regulatory compliance consulting practice at Quanta Technology LLC providing technical and economic advisory services supporting regulated utilities, energy developers, and RTOs to address their evolving and challenging business needs. Dr. Othman has 30 years of technical and managerial experience in the electricity sector with an emphasis on grid integration of renewables, energy storage, and business strategy. Hisham worked with leading teams that introduced the Thyristor-Controlled Series Capacitor, Implemented the first ISO/RTO operational and business IT system in the US, Implemented the largest distributed 40 MW solar system on utility poles in the World, designed and implemented a high penetration fuel abatement solar-diesel system, and extensively modeled, analyzed, and invested in energy storage applications. Hisham holds a PhD in Electrical Engineering from the University of Illinois at Urbana-Champaign.



Bob McKee, American Transmission Company

Bob McKee is Strategic Projects Director for American Transmission Company (ATC), a stand-alone transmission company based in Wisconsin. In this role, Bob leads the development, evaluation and execution of strategic and innovative initiatives, such as adopting new types of technologies and assets and offering new services for transmission customers. Prior roles include leading ATC's Federal Regulatory Relations & Policy function and the team in Transmission Planning focused on regional planning. Bob has held several leadership positions in the Midcontinent Independent System Operator (MISO) stakeholder process, including serving as Chair of the Planning Advisory Committee. Bob holds an MBA from the University of Wisconsin - Madison, a Ph.D. in political science from the University of Illinois at Chicago, and a BA in journalism and political science from Eastern Illinois University.



Angela Gould, California Energy Commission

Angie Gould is the supervisor and technical lead for the Renewable Integration team in the California Energy Commission's Energy Research and Development Division. The Renewable Integration team invests in technologies and strategies that optimize increasing amounts of renewable generation on the grid and accelerate the adoption of smartly integrated distributed energy resources and electrification. Angie has been with the CEC for 15 years.



Jeremy Twitchell, Pacific Northwest National Laboratory

Jeremy Twitchell is an energy research analyst at the Pacific Northwest National Laboratory, where he leads the equitable regulatory environment area of the PNNL Energy Storage Program and assists in distribution system planning research. In those roles, he is responsible for reaching out to states to provide technical assistance in analyzing energy storage and other developing energy resources and incorporating them into utility planning and procurement activities. Prior to joining PNNL, Jeremy spent five years at the Washington Utilities and Transportation Commission, where he was the staff lead for the development of policies associated with the treatment of energy storage in utility resource planning and rulemaking. His work has supported integrated resource planning, which included development of a distribution planning rule. He participated in multiple utility advisory groups on energy efficiency and resource planning, provided expert testimony in the areas of rate design and resource acquisition, and oversaw renewable resource portfolio standard compliance. He also testified before the Washington State Legislature and prepared a report to the Legislature on best practices in distribution system planning. He has presented on the topics of energy storage, renewable resource portfolio standards, and renewable resource integration at regional, national, and international conferences.