

# NECPUC/DOE/SNL/PNNL ENERGY STORAGE WEBINAR SERIES:

## Introduction to Energy Storage (ES)

**March 19, 2021 12:00 PM – 2:30 PM (EST)**

**Agenda & Speaker Biographies**

**Presented by New England Conference of Public Utilities Commissioners,  
U.S. DOE Office of Electricity Energy Storage Program,  
Sandia National Labs, Pacific Northwest National Lab, and Clean Energy States Alliance**

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Energy storage is a key ingredient in helping the region meet our energy goals. Storage can play an important role in unleashing the power of renewables, relieving generation, transmission, and distribution demands, and hastening our energy transition to a cleaner future. To further our knowledge and share information, NECPUC Commissioners and Staff are invited to participate in a series of energy storage webinars presented in collaboration with US DOE Office of Electricity Energy Storage Program, Sandia National Laboratories, and Pacific Northwest National Laboratory. Experts from the national labs, regional agencies and other organizations and institutions will provide content, with time for discussion and questions.

### **March 19, 2021 – Introduction to Energy Storage**

12:00 – 12:15	Welcome and Introductions Meredith Hatfield, Executive Director, NECPUC
12:15 – 12:30	DOE ES NE Projects Dr. Imre Gyuk, Director, DOE Office of Electricity Energy Storage (OE ES) Program
12:30 – 1:00	Overview of State & Federal ES Policy and Deployments Across the U.S. Will McNamara, Sandia National Laboratories (SNL)
1:00 – 1:15	Q&A / Discussion
1:15 – 1:45	Intro to ES Technologies Howard Passell, Sandia National Laboratories (SNL)
1:45 – 2:15	Intro to ES Economics Patrick Balducci, Argonne National Laboratory (ANL)
2:15 – 2:30	Q&A / Discussion

## Speaker Biographies



Meredith Hatfield joined NECPUC as Executive Director in December 2019. Hatfield has two decades of experience working on regulatory issues in public, private, and non-profit settings, including serving as New Hampshire's Consumer Advocate and as the Director of the New Hampshire Office of Energy and Planning. She is an alumna of the University of New Hampshire, Wellesley College, and Vermont Law School.



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.



Will McNamara serves as Grid Energy Storage Policy Analyst for Sandia National Laboratories with a focus on energy storage policy development at the federal and state levels. Will has spent his entire 23-year career in the energy and utilities industry with a concentration on regulatory and legislative policy. He has served as a lobbyist in California and has represented major utilities across the U.S. in numerous jurisdictions in proceedings pertaining to integrated resource planning, procurement, cost recovery, rate design, and the development of policymaking best practices. Will's areas of subject matter expertise, in addition to energy storage policy, include distributed energy resources, AMI/smart grid, renewables, and competitive retail markets.



Howard Passell works in the Energy Storage Systems Department at Sandia National Laboratories (SNL) in Albuquerque, New Mexico. His work focuses on energy storage, grid modernization, energy security, and decarbonization. Over 23 years at Sandia he has worked on energy and water resource monitoring, modeling, management, capacity building, and policy-related projects at various scales in the US, Central Asia, the Middle East, and North Africa. This included helping to lead Sandia's efforts in DOE's Solar America Cities initiative and developing energy conservation software and methodology for large institutions. He has worked on emerging national security issues associated with energy, water, food, ecosystems, and population, with an emphasis on the relationships between resource scarcity and human security. He earned master's and doctorate degrees in conservation biology and hydrogeoecology at the University of New Mexico. His undergraduate studies were in classical literature and the liberal arts at St. John's College in Santa Fe, NM and the Ohio State University in Columbus, Ohio.



Patrick Balducci is the Manager of the Power Systems and Markets Research Group in the Center for Energy, Environmental, and Economic Systems Analysis at Argonne National Laboratory. Prior to joining Argonne, Patrick served as a Chief Economist at the Pacific Northwest National Laboratory (PNNL), where he served for nearly 20 years. At PNNL, he led the energy storage analytics team where his research focused on storage valuation, integration, performance characterization, and control systems. In this role, he led research efforts evaluating the benefits of 1.6 GW / 18 GWh in energy storage capacity at 16 sites across the U.S. He also led efforts to enhance economic assessment tools for the U.S. Department of Energy. Patrick serves on the Board of Directors of the Pacific Northwest

Regional Economics Conference. He holds a BS in Economics from Lewis and Clark College, where he graduated with honors, and an MSc in Applied Environmental Economics from the University of London, Imperial College of London.