

UI-ASSIST WEBINAR: Joint Webinar – PNNL/LBNL: Energy Storage System Models & Applications



U.S. INDIA COLLABORATIVE FOR SMART
DISTRIBUTION SYSTEM WITH STORAGE



Thursday, May 26, 9:00 am PT (9:30 pm IST)

LBNL This presentation explores potential value streams for energy storage in microgrids or behind-the-meter energy systems. It also outlines how each value stream can be captured and estimated in high-level planning tools, like Berkeley Lab's DER-CAM software. DER-CAM allows users to explore the stacked value of DER assets across multiple streams. Considerations for how to model storage in various scenarios is provided.

PNNL This presentation talks about the energy storage system degradation models. PNNL has collected operational data from a variety of Battery Energy Storage Systems deployed on the grid, including Vanadium Redox Flow, and Lithium Ion systems such as NMC, LMO, and LFP. A predictive model of performance is generated. The modeling is further expanded to include effects of degradation and validated with operational data.

**Presenters: Alasdair Crawford (Pacific Northwest National Laboratory, US) and
Nicholas DeForest (Lawrence Berkeley National Laboratory, US)**

Please join our monthly UI-ASSIST webinar on May 26, 9am – 10 am PT.

Join on your computer or mobile app [Click here to join the meeting](#)

Or call in (audio only) [+1 509-498-6399](tel:+15094986399), [654248949#](tel:+15094986399) United States, Spokane Phone Conference ID: 654 248 949#

[Find a local number](#) | [Reset PIN](#)



Mr. Crawford has been at PNNL since joining as a Post-Bachelor Research Associate in 2011. As a Computational Scientist, he has focused his efforts on building physical and economic models of redox flow batteries, allowing for economic optimization of their design. Mr. Crawford has produced similar models for batteries for the Batt500 consortium, empirical models for existing batteries systems on the grid, evaluating new battery technologies for economic viability, and analyzing battery reliability from experimental data.



Nicholas DeForest is a Senior Scientific Engineering Associate in the Grid Integration Group at Berkeley Lab. He works as a core developer on the microgrid planning tool DER-CAM. His research explores the planning and analysis of microgrids and DER technologies, including energy storage, along with Energy Efficiency and Electric Vehicles. He also works on microgrid controls and deployment projects.