



“Reinventing & Transforming the Energy System”
Alder Commons Hall Auditorium
at the University of Washington
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Speaker: Patrick Balducci, Chief Economist, Pacific Northwest National Laboratory (PNNL)



Title: Clean Energy Fund

Abstract: The focus of this presentation is the group of initial Grid Modernization Energy Storage Demonstration Projects, co-funded by Washington State under the Washington Clean Energy Fund (CEF), that are now installed and operational at three utilities in Washington State (Avista, Puget Sound Energy, and Snohomish Public Utility District). The Washington CEF provided \$15 million toward the deployment and demonstration of energy storage in an effort to explore the role storage could play in Washington State and the value it could deliver to Washington State’s utilities and the customers they serve.

The Washington CEF projects are comprised of four battery systems, with combined power and energy capacities of 7 MW / 15 MWh. To maximize the value of the CEF, Washington State has worked with Pacific Northwest National Laboratory (PNNL) to design an assessment framework for the demonstration projects. PNNL has evaluated the economic benefits of a broad set of use cases at each utility that includes bulk energy, ancillary services, transmission, distribution and customer energy management benefits. Key findings related to the technical performance and economic potential of energy storage, as deployed through the CEF, will be presented in this session. This talk will be beneficial to those working in Distribution Planning, Integrated Resource Planning, System Operations and Protection.

Bio: Patrick Balducci has 20 years of professional experience as an economist and project manager. He is a Chief Economist at the Pacific Northwest National Laboratory (PNNL) where he has been employed since 2001. He is currently leading the industrial acceptance areas of the PNNL Energy Storage Program. He has authored over 100 publications, including journal articles, conference proceedings and technical reports. He is also currently leading research efforts evaluating the benefits of microgrids and energy storage systems in California, Massachusetts (Northampton), Oregon and Washington. He is also leading efforts to enhance energy storage economic assessment tools for the U.S. Department of Energy (DOE). He serves as an Adjunct Professor of Business at Marylhurst University and as the President of the Pacific Northwest Regional Economics Conference’s Board of Directors. He holds a B.S. 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.