

Transforming the Northwest Energy System NWESS 2022



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Title: Emerging best practices for modeling energy storage in integrated resource plans

Abstract: Energy decarbonization goals adopted by multiple Northwest states and utilities are creating the need for a more flexible electric grid that can match variable generation resources to increasingly variable customer loads. Energy storage can be an effective source of flexibility, but the planning tool used by most Northwest electric utilities, the integrated resource plan (IRP), is not designed to value the unique spatial and temporal flexibility benefits of energy storage technologies. As a result, traditional IRP processes are ill-equipped to identify cost-effective energy storage resources. This presentation will discuss emerging practices developed by U.S. utilities, including some in the Pacific Northwest, to improve the ability of IRPs to accurately capture the benefits of energy storage technologies.

Bio: Jeremy Twitchell is a senior energy analyst at the Pacific Northwest National Laboratory, where he leads PNNL’s work on the Equitable Regulatory Environment thrust area of the Department of Energy – Office of Electricity’s Energy Storage Program. His research focuses on identifying the regulatory barriers that impede the deployment of energy storage technologies and best practices for reducing or eliminating those barriers, as well as providing technical assistance to states on energy storage-related topics. He also supports other efforts at the lab in areas related to grid planning, utility regulation, rate design, and energy system equity. Prior to joining PNNL, Jeremy spent five years at the Washington Utilities and Transportation Commission.

