



THE WSU-PNNL ADVANCED GRID INSTITUTE

## GRIDAPPS-D™: DISTRIBUTION MANAGEMENT PLATFORM FOR ADVANCED DISTRIBUTION SYSTEMS OPERATIONS

~ by ~

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~ and ~

JIM OGLE, Chief Electrical Engineer  
Pacific Northwest National Laboratory (PNNL)

Tuesday, April 26, 2022 • 11:00 AM – Noon (PT) • **TEAMS ONLY**

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### ABSTRACT

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GridAPPS-D™ is an open-source platform that accelerates the development and deployment of portable applications for advanced distribution management and operations. The GridAPPS-D™ project is sponsored by the U.S. DOE's Office of Electricity, Advanced Grid Research. Its purpose is to reduce the time and cost to integrate advanced functionality into distribution operations to create a more reliable and resilient grid. WSU has been actively collaborating with PNNL since the inception of the project. In this talk, PNNL researchers will present an overview of the GridAPPS-D platform, application development process, and an overview of the example applications currently deployed. Next, we will discuss the ongoing efforts related to distributed approaches for distribution system management and the development of new applications within the GridAPPS-D platform. We will conclude with some new distributed applications efforts underway.

### AGENDA

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Alexander Anderson	Introduction to GridAPPS-D platform and services
Andy Reiman	Overview of Distributed GridAPPS-D apps and platform
Jim Ogle	Summarize recent efforts related to GridAPPS-D, distributed apps, and other synergistic activities with Washington State University

## BIOS

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**Dr. Alexander Anderson** is a power systems research engineer in the Distributed Systems Group at PNNL. His research focuses on power systems operations, advanced power applications, next-generation energy management systems, defense against cyber-physical threats, microgrid optimization, and human factors in control room environments. Alexander has coordinated software integration, testing, and training for multiple power system simulators and applications. He is currently 2022 IEEE Region 6 Humanitarian Activities Chair and IEEE PES HAC Partnerships chair. Prior to that, he served for three years as chair of partner engagement for IEEE Smart Village which distributed nearly \$2M of grant funding annually for creation of new electric utilities in Africa and SE Asia. Alexander holds a PhD in systems engineering from Colorado State University, professional science master's degree in power systems engineering from Washington State University, and a BS degree in Mechanical Engineering from Saint Martin's University.



**Dr. Andy Reiman** is a Power Systems Engineer and senior researcher at PNNL. His Algorithms for Grid-Edge Systems portfolio includes research and development on distributed architectures, state estimation, model identification, grid-edge observability, distributed energy resource (DER) agent modeling, and device aggregation and disaggregation for distributed systems. He has over 10 years of power systems experience in industry and research. Andy received his BS degree in electrical engineering from the University of Michigan and his MS and PhD degrees in electrical engineering from the University of Pittsburgh.

**Jim Ogle** is a Chief Electrical Engineer at PNNL in the Electricity and Environment Directorate. He joined the laboratory in 2019 and has over 30 years industry experience in both T&D operations at electric utilities and commercial product development. At the lab, Jim is leading research in advanced distribution systems operations and management, grid architecture, sensor technology and analytics, and communications analysis and planning.

