EE 500E Energy & Environment Seminar

Title: *Holistic Integration of Energy Storage and Solar PV at Austin Energy*

Speaker: *Tess Williams, Doosan GridTech*

Location: *MOR 220, UW campus*

Map: [http://www.washington.edu/maps/?l=MOR](http://www.washington.edu/maps/?l=MOR)

Time and Date: **4:00 PM, Thursday, November 30, 2017**

**Abstract:** The Austin SHINES solution is a distributed energy resource (DER) management platform that optimizes value in a system with a high penetration of distributed PV generation while maintaining the power quality and reliability associated with grid service. Austin SHINES recognizes that emerging DER assets such as solar and energy storage are part of an integrated, interconnected grid system and the benefits of these resources are maximized only when they are holistically coordinated with other grid assets. By operating these assets as a coordinated system, the Austin SHINES solution creates DER deployment and control strategies that enable the grid ecosystem to serve load at a technical cost of less than $0.14/kWh while enabling a high penetration of distributed solar.

The Austin SHINES project aims to drive technology innovation and development as well as enable standards in the industry. Over the course of this 39-month project, AE will install over 3MW of distributed storage, smart inverters, a DER control platform, and other technologies to achieve the Austin SHINES solution under the U.S. Department of Energy Sustainable and Holistic Integration of Energy Storage and Solar PV (SHINES) funding opportunity.

This seminar will discuss the diverse array of technologies, communication pathways, and applications of SHINES DERs, and the economic model created to guide the project.

*Tess Williams* manages the Power Systems Analytics team for Doosan GridTech™, a global software and solutions provider that helps electric utilities and other megawatt scale power producers to evaluate, procure, integrate and optimize energy storage and other distributed energy resources. She joined Doosan in 2016 and is responsible for modeling and design engineering services.

Dr. Williams was previously at Pacific Northwest National Laboratory, where her research focused on the design and operation of electric distribution systems and microgrids with a focus on efficiency, renewable integration, and controls. She has evaluated field demonstrations of emerging technologies and has authored patents related to distribution system operations and control.

She holds a PhD in physics from Harvard University, and BS in physics and BA in Feminist Studies from Stanford University.