



Daniel Kirschen

The Donald W. and Ruth Mary Close Professor

Department of ECE

University of Washington

Seattle, WA

**Date:** Friday, April 1, 2022

**Time:** 1 - 1:50 pm

**Zoom Meeting ID:** 970 7656 5407

**Password:** 477211

## Risks in Power Systems

**Abstract:** Each stakeholder in a power system not only carries some risk, but also creates risks for others and has the ability to mitigate these risks. For some, these risks are purely financial. For others the major concern is the socio-economic risk of an outage, which is not easily translated in monetary terms. In this presentation, we will analyze how the interactions of these participants across a complex physical system affect their risk exposure as well as the benefits they derive from this system. We will also argue that, to the largest extent possible, the cost of outage mitigation measures should be charged back to the parties that create this risk because doing so will ultimately reduce it. Finally, we will propose directions for research on how to make power system operation more risk aware.

**Biography:** Daniel Kirschen is the Donald W. and Ruth Mary Close Professor of Electrical and Computer Engineering at the University of Washington. His research focuses on the integration of renewable energy sources in the grid, power system economics and power system resilience. Prior to joining the University of Washington, he taught for 16 years at The University of Manchester (UK). Before becoming an academic, he worked for Control Data and Siemens on the development of application software for utility control centers. He holds a PhD from the University of Wisconsin-Madison and an Electro-Mechanical Engineering degree from the Free University of Brussels (Belgium). He is the author of two books and over 200 scientific papers. He is a Fellow of the IEEE.