TEXAS A&M UNIVERSITY
Department of Electrical
& Computer Engineering

**TRANSFORMING** ENGINEERING EDUCATION

# ENERGY & POWER GROUP SEMINAR

# Creating Scenarios for Electric Grid Planning

## Abstract


With the integration of large numbers of variable renewable resources into the electric grid, the normal planning processes and methods are being updated and revised. First and foremost, weather impacts on the electric grid need to be modeled and incorporated during the electric grid planning process. Second, many scenarios need to be created and used during the planning process that capture and incorporate the variability of renewable resources and the large amount of uncertainty surrounding the generator interconnection queues. This seminar summarizes current and ongoing work at Texas A&M in these two areas, first presenting work in automating the addition of Power Flow Weather (PFW) models into power system planning cases and creating renewable energy "drought" scenarios. This will be followed by a presentation on analysis and visualization of the generator interconnection queues from the 7 independent system operators (ISOs) in the United States.



**Jonathan Snodgrass**
Research Engineer
Dept. of Electrical and Computer Engineering
Texas A&M University


**Friday, November 7**
**11:30 am**
**241 ZACH**

## Biography

Jonathan Snodgrass is a Senior Research Engineer at the Texas Engineering Experiment Station (TEES), at Texas A&M University, working under Professor Tom Overbye in the area of large-scale electric power systems. He received his BS and MS degrees at Texas A&M University, and MS and PhD degrees at the University of Wisconsin-Madison, all in electrical engineering. His primary research area is in power system network planning and resilience, and other areas include electric vehicle integration, combined transmission and distribution system simulations, optimization, power system markets, and protective relaying. He also worked for two years at Zachry Engineering Corporation in Amarillo, Tx designing simple and combined cycle natural gas generating plants.


**FACULTY CONTACT:**
Xin Chen
xin_chen@tamu.edu