

# Energy and Power Group

---

Weekly Seminar Series

Friday, October 18<sup>th</sup>, 2019, 9:10 a.m. – 10:10 a.m., ETB 1020

## Power System Substation Design and Safety Considerations



**Glen Patton**

Project Manager, Black & Veatch

**Abstract:** There are many facets to power system substation design – site civil, civil structural, high voltage electrical, protection systems, grounding – that have to be properly considered to construct a functioning, useful, and efficient substation. While examining design options, an engineer must also consider that their primary responsibility is to the health, safety, and welfare of people. This presentation will cover the breadth of engineering principles needed to design a power system substation while being mindful to the importance of safety in design.

**Glen Patton** is a Project Manager within the Global Transmission business line of Black & Veatch's Power business. In his current role, he is accountable for all engineering design related aspects of a project, including schedule and budget performance, quality of deliverables, and coordination of design, procurement and construction. He also acts as a subject matter expert in the area of protective relay settings for the Black & Veatch Power Organization. Prior to joining Black & Veatch in 2008, Glen worked at CenterPoint Energy in the system protection group, and at Bryan Texas Utilities as a staff engineer.