STS - PEDG2020 Special Technical Session (TYPHOON HIL)

Title: Overcoming the Challenges of Integrating Distributed Energy and Energy Storage Using Hardware-in-the-Loop

Distributed energy storage systems in combination with advanced power electronics will have a huge impact on future electrical supply systems and lead to many financial benefits. At present, when Energy storage systems (ESSs) are integrated into conventional electric grids, special designed topologies and/or control for each case are required. This means costly design and debugging time for individual components / control systems every time the utility decides to add an energy storage system. Hardware-in-the-Loop technology provides solutions for overcoming these design challenges..



Matt Baker Director for Microgrids and Critical Power Typhoon HIL Inc. USA

Biography: Colonel Matt Baker, USMC (ret) is the director for microgrids and critical power at Typhoon HIL Inc. With a Master's degree in Aerospace Engineering, 28-years in the Marine Corps and microgrid project management experience, he brings an operational and energy oriented experience set to the Typhoon team. Matt's focus at Typhoon is providing power electronic and control Model Based Systems Engineering (MBSE) solutions using Controller Hardware In the Loop (CHIL) technology.