



BATTERY ENERGY STORAGE SYSTEMS (BESS)

With the growth of renewable energy, the proliferation of distributed resources, and the evolving T&D grid, the need for resiliency, reliability and effective management and operation is more important than ever.

Battery Energy Storage Systems help address these concerns by enabling energy producers to store and release energy, providing a continuous flow of clean energy during periods of high demand, or when wind and solar energy is temporarily unavailable. These systems can also be placed anywhere in a facility with no immediate environmental or air quality impacts, making them valuable tools for meeting sustainability goals.

As a full-service project execution firm that offers a wide range of services and expertise, Ulteig is uniquely qualified to deliver comprehensive battery storage solutions. We have consulted with some of the largest and most reputable owners in the industry, providing end-to-end capabilities for the seamless integration of battery energy storage solutions.



BESS Expertise

Studies & Consulting Services

- Modeling & Studies
- Business Case Development
- Application Engineer
- RFP & Specification Development

Engineering Services

- Owner's Engineer
- Full BESS Design & Engineering
- Substation Engineering
- Integration (SCADA, BESS, Plant Controls, Balance of Plant)
- EPC Support

Project Services

- Project/Construction Management
- Equipment FAT Support
- Site Inspection QA/QC
- Testing & Commissioning
- Asset Management
- Interconnection & Permitting
- Analytics, O&M



RENEWABLES + STORAGE

The energy professionals at Ulteig can help you model an optimum standalone battery storage system or help design a new renewables plus storage project to help you minimize costs and maximize revenue. We leverage expertise across Lifeline Sectors and Service Disciplines to provide a comprehensive project approach.

LEE DEKALB BATTERY ENERGY STORAGE

■ Lifeline Sector: Power | Location: Dekalb, IL

A 22.5 MW Battery Energy Storage System was implemented to help balance power grid frequency in November 2014. Ulteig provided engineering services to accommodate the new BESS, which was located at a large wind energy center, including an additional 34.5kV position added to an existing 34.5/138 kV collector substation. The added position was made via a 1200A, 34.5kV breaker with metering class CTs and corresponding bus and line switches. The BESS branches were connected with medium voltage underground cable. Ulteig also provided project services supporting integration of controls and protections schemes, as well as an ION meter included for frequency monitoring.

ENERGY STORAGE PROJECTS FOR MAJOR INVESTOR OWNED UTILITY (IOU)

■ Lifeline Sector: Power | Location: Indiana

Ulteig was contracted by a major battery energy storage system (BESS) integrator to provide technical and project support for two (2) 10MW/10MWh energy storage projects located in Indiana for a major investor owned utility (IOU) to provide grid support, including microgrid/reliability, power quality, and renewable integration.

Ulteig's scope included technical/engineering support, factory acceptance testing support, construction management site inspection QA/QC, commissioning, and functional testing of the BESS.

ENERGY STORAGE STUDY FOR MAJOR INVESTOR OWNED UTILITY (IOU)

■ Lifeline Sector: Power

Ulteig personnel participated in an energy storage analysis for a major investor owned utility (IOU) to determine sizing, location and applications for a fleet-wide energy storage road map strategy. The analysis considered multiple applications including bulk generation (ancillary services, peaking resource, arbitrage) and grid services (deferral, power quality, renewable integration) at various locations throughout the utility's service territory. The outcome of the analysis was a cost-benefit analysis that combined the technical capabilities of energy storage solutions with cost savings and/or revenue streams for the utility

