

CASE STUDY

Grid Compliance Study & Testing for AES Energy Storage

This project involved the development and integration of a 35 MW Battery Energy Storage System (BESS) into the Vietnam utility grid. Electric Power Engineers played a pivotal role in preparing steady state and dynamic models for the BESS, utilizing PSS/E version 33.

CHALLENGE

The project encountered challenges in ensuring seamless integration into the Vietnam utility grid. Key challenges included fine-tuning the dynamic model to meet the specific criteria of the Vietnam interconnection, addressing observed network response issues, and achieving compliance with rigorous testing standards.



SOLUTION

EPE navigated the challenges of integrating a 35 MW BESS into the Vietnam utility grid with a targeted solution. Beginning with the development of steady state and dynamic models in PSS/E version 33, EPE subjected the models to rigorous testing, including fault and voltage ride-through tests. Subsequent fine-tuning of the dynamic model ensured alignment with specific criteria for seamless integration into the Vietnam interconnection.

Collaborative efforts with the Institute of Energy in Vietnam addressed observed network response issues.

In the final phase, EPE delivered thoroughly tested and tuned models to the client and the Institute of Energy, signaling the BESS's readiness for efficient and reliable integration into the Vietnam utility grid.

RESULTS

The culmination of EPE's efforts resulted in successfully developed, tested, and tuned models ready for integration. The project overcame challenges by meeting the specific criteria of the Vietnam interconnection, ensuring compliance with testing standards, and addressing network response issues. The delivery of final models marked a significant milestone, indicating the BESS's preparedness for efficient and reliable integration into the Vietnam utility grid.