

# AKA Energy Storage System (ESS)

## The Next Step

### Power where you need it.

Aspin Kemp & Associates' (AKA) energy storage system (ESS) provides supplemental power and redundancy. It provides increased system efficiencies through better energy management, minimizing diesel generator and grid supply dependencies. The drop-in-place design enables a simplified and efficient integration into existing power plants. It is built upon AKA's advanced active front end (AFE) power conversion design and integrated with customizable energy storage technologies to suit specific applications.

AKA's ESS has plug and play unit operation. Each container unit is autonomous, increasing system reliability. The energy storage housing includes integrated environmental controls and system cooling in self contained modules. The housings can be tailored for specific site applications and with the parallel unit configuration it allows for scalable energy storage solutions.

AKA's ESS strengthens an installation's power grid through power regulation and can allow for deferral of investment in power distribution and transmission. The energy storage system provides cost savings opportunities through reduced utility bills by lowering demand charges and providing the ability to participate in demand response programs.

The energy storage system monitoring and controls are integrated within the control station interface. The system monitoring provides remote connectivity enabling external system monitoring.

**AKA has shifted the paradigm for efficiency, scaling and reliability in small to large storage systems.**



Customizable energy storage solution to meet customer needs

- **Energy Time Shift:** Capable of charging during off-peak hours and then injecting or displacing load during peak load hours.
- **Provides System Frequency Regulation and Load Balancing:** With the increase in variable generation (VG) and larger forecast uncertainty the requirement to control power system frequency and maintain the balance between load and generation increases.
- **Capable of Activation and Delivery within a Short Period of Time:** AKA's ESS can provide the additional resources and be activated and begin energy delivery promptly.
- **Load Following and Ramping:** AKA's ESS can help offset peak ramp periods with a primarily carbon-free alternative.
- **Additional Operating Reserve Capabilities:** AKA's ESS can offer additional operating reserve to help manage variable generation and demand forecast anomalies.
- **Transmission Connected Voltage Control:** When properly located AKA's ESS can help maintain acceptable voltage levels in transmission zones.
- **Congestion Relief:** AKA's ESS alleviates transmission constraints by time shifting energy, helping to defer marginal transmission upgrade needs in load centers.



ENGINEERING INNOVATIVE SOLUTIONS

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## Aspin Kemp & Associates (AKA)

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AKA is a leader in power and propulsion technology.

AKA offers a full spectrum of integrated products and services including; systems integration, new product development, engineering, manufacturing, testing, installation, commissioning, life cycle support, field services, integrated documentation and training.

Our solutions incorporate several patented and innovative technologies including Advanced Generator Protection (AGP), the XeroPoint Hybrid Power and Propulsion System and Hybrid Drill Floor for ultra-deepwater drillships.

AKA systems are developed with the backbone of our Integrated Documentation System (IDS™). This methodology is a foundation for information transfer to our clients. Once a project is complete, our clients receive best in class documentation and asset management records.

Our manufacturing facility in Prince Edward Island includes a state-of-the-art mechanical fabrication shop, an electrical assembly area and a medium voltage test bay.

AKA's global clients and partners include MAN Diesel & Turbo, Transocean, GE Energy, Siemens Oil & Gas, Foss Maritime, Kotug International, Bhagwan Marine and more.

0000-AKA-E-2064 V3\_00



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