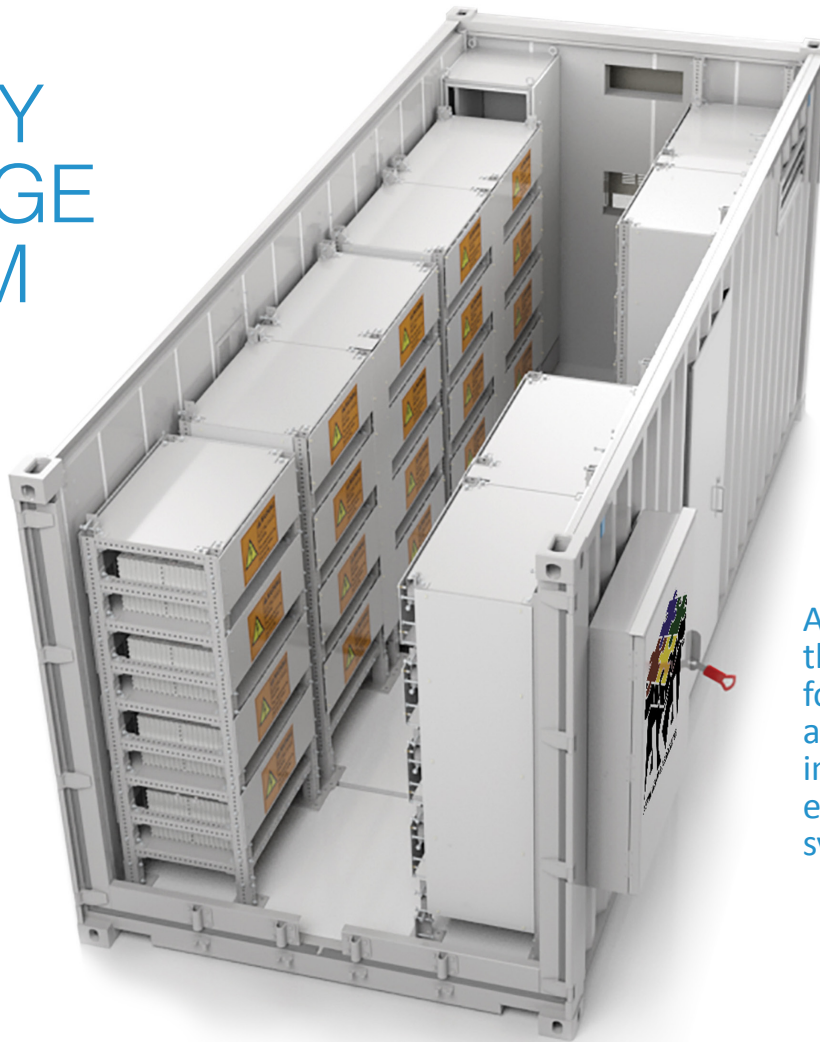


AKA ENERGY STORAGE SYSTEM (ESS)



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

GREENER, MORE RELIABLE POWER Where you need it - When you need it.

Aspin Kemp & Associates (AKA)'s energy storage system (ESS) provides supplemental power and redundancy. It provides increased system efficiencies through smarter 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 is integrated with customizable energy storage monitoring & control technologies to suit specific applications.

AKA has extensive experience in successfully delivering and putting innovative power solutions into operations for our clients. AKA's solutions range from marine applications that include hybrid propulsion and solid state generators to green energy land based solutions that include distributed energy storage systems and microgrids. All of AKA's solutions are designed to reliably operate in the harshest environments both in low voltage and medium voltage applications.

AKA's medium voltage solutions have a proven reliability track record of over 300 years of mean time before failure. AKA's wide range of products and services have given AKA the opportunity to work with many different clients from various industries to deliver increased reliability and significant reduction of their operational costs.



ENGINEERING INNOVATIVE SOLUTIONS

www.aka-group.com • sales@aka-group.com



Energy Storage Systems Delivered



Total Energy Storage System Power Converters: **Over 76,240 kW**

Total Energy Storage by AKA: **Over 9,932 kWh**

PRODUCT	YEAR	ENERGY STORAGE TECHNOLOGY	POWER PLANT CAPACITY	kW	kWh
Advanced Generator Protection System (AGP)	2006	Lead Acid	6 x 4,550 kVA	6 x 400	6 x 100
Advanced Generator Protection System (AGP)	2008	Lead Acid	6 x 4,550 kVA	6 x 400	6 x 100
Hybrid Propulsion 27+200018	2008/09	Lead Acid Retrofit in 2012 to Lithium Ion	2 x 1,342 kW	500	208
Hybrid Propulsion	2010	Lead Acid	3 x 1,765 kW	500	78
Hybrid Propulsion	2011	Lithium Ion	2 x 1,894 kW	500	65
Waste Water Treatment Plant Microgrid	2013	Lead Acid	30 kW	30	50
Hybrid Propulsion	2014	Lithium Ion	3 x 1,765 kW	500	78
Hybrid Propulsion	2014	Lithium Ion	3 x 1,765 kW	500	78
Diesel Electric	2014	Lithium Ion	2 x 400 kW	500	130
AGP & Hybrid Drillfloor (Crane Application)	2015	Ultra-Capacitors	6 x 6,750 kW	13,600	33
AGP & Hybrid Drillfloor (Crane Application)	2016	Ultra-Capacitors	6 x 6,750 kW	13,600	33
AGP & Hybrid Drillfloor (Crane Application)	2017	Ultra-Capacitors	6 x 6,750 kW	13,600	33
Waste Water Treatment Plant Microgrid	2017	Lead Acid	30 kW	30	50
AGP & Hybrid Drillfloor (Crane Application)	2017	Ultra-Capacitors	6 x 9,000 kVA	500	27
Hybrid Propulsion	In Progress	Lithium Ion	3 x 688 kVA	500	130
Hybrid Propulsion	In Progress	Lithium Ion	3 x 688 kVA	500	130
Commercial/Industrial Microgrid	In Progress	Ultra-Capacitors & Lithium Ion	1 x 313 kVA	200	65
AGP & Hybrid Drillfloor (Crane Application)	2017	Ultra-Capacitors	6 x 6,750 kW	800	33
AGP & Hybrid Drillfloor (Crane Application)	In Progress	Ultra-Capacitors	6 x 9,000 kVA	800	27
Industrial Microgrid	In Progress	Lithium Ion	8 x 6,235 kVA	16,000	2,000
Industrial Microgrid	In Progress	Lithium Ion	2 x 3.14 MVA	6,280	4,484
7 Industrial Microgrids	Active Opportunities"	Ultra-Capacitors & Lithium Ion	8 x 6,235 kVA	7 x 16,000	7 x 2,000
UPS Systems	2000 - 2017	Lead Acid Typically	Various	2,000*	1,000*

* Estimated total based on average size of unit

0000-AKA-E-1011 V4.00



HEADQUARTERS
PO Box 577
23 Brook Street
Montague, PE
Canada C0A 1R0

LOCATIONS
North America - Canada
EU - Germany
Asia - Singapore, China

SALES INFO
+1.902.620.4882
sales@aka-group.com
www.aka-group.com

