

# 235kVA Hybrid Case Study

## Replacement of 235kVA by QAS 235 + ZBC 250-575

Energy Storage Systems used alongside generators have proven their sustainability with rapid Return on Investment (ROI), and low Total Cost of Ownership (TCO), typically paying back initial costs within two years. Using an Energy Storage System with a generator in hybrid mode extends the generators lifespan, optimizes performance levels avoiding low loads on the generators, reduces fuel consumption, and enhances on-site sustainability and resiliency. Additional benefits include reduced emissions, fewer service intervals, and lower logistics costs for service, maintenance, and refueling.

### APPLICATIONS



TELECOM



EVENTS



CONSTRUCTION



CRANES



### END USER BENEFITS

10X Longer Life

-91% Noise & Runtime

-61% Fuel & CO<sub>2</sub>

**Load Conditions:**  
Voltage 480V 3ph  
Average Load 9%  
Max Power 187kW

8 HOURS	Unit	Genset	Hybrid	Savings
	🕒 Hours	8	0.67	7
	🛢 Gallon	26	10	16
	💰 Dollar*	182	70	112
	☁ lbs CO <sub>2</sub>	583	224	359

1 DAY	Unit	Genset	Hybrid	Savings
	🕒 Hours	24	2	22
	🛢 Gallon	78	29	49
	💰 Dollar*	546	203	343
	☁ lbs CO <sub>2</sub>	1,750	641	1,109

28 DAYS	Unit	Genset	Hybrid	Savings
	🕒 Hours	672	61	611
	🛢 Gallon	2,185	800	1,385
	💰 Dollar*	15,295	5,600	9,695
	☁ lbs CO <sub>2</sub>	49,022	17,947	31,075

1 YEAR (365 DAYS)	Unit	Genset	Hybrid	Savings
	🕒 Hours	8,760	792	7,968
	🛢 Gallon	28,478	10,426	18,052
	💰 Dollar*	199,346	72,982	126,364
	☁ lbs CO <sub>2</sub>	639,041	233,956	405,085

\*7\$/Gallon delivered to site. Price subject to change.  
DEF and generator maintenance savings will bring additional operational cost savings.