

# 700kVA Hybrid Case Study

## Replacement of 700kVA by QAS 410 + 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

5X Longer Life

-81% Noise & Runtime

-52% Fuel & CO<sub>2</sub>



#### Load Conditions:

Voltage 480V 3ph  
Average Load 9%  
Max Power 560kW

8 HOURS	Unit	Genset	Hybrid	Savings
	🕒 Hours	8	2	6
	🛢 Gallon	66	32	34
	💰 Dollar*	462	224	238
	☁ lbs CO <sub>2</sub>	1,479	717	762

1 DAY	Unit	Genset	Hybrid	Savings
	🕒 Hours	24	5	19
	🛢 Gallon	198	96	102
	💰 Dollar*	1,386	672	714
	☁ lbs CO <sub>2</sub>	4,438	2,152	2,286

28 DAYS	Unit	Genset	Hybrid	Savings
	🕒 Hours	672	128	544
	🛢 Gallon	5,544	2,688	2,856
	💰 Dollar*	38,808	18,816	19,992
	☁ lbs CO <sub>2</sub>	124,258	60,246	64,012

1 YEAR (365 DAYS)	Unit	Genset	Hybrid	Savings
	🕒 Hours	8,760	1,664	7,095
	🛢 Gallon	72,270	35,040	37,230
	💰 Dollar*	505,890	245,280	260,610
	☁ lbs CO <sub>2</sub>	1,619,788	785,352	834,436

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