410kVA Hybrid Case Study

Replacement of 410kVA 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

REPLACE BY

Scalable Parallel Mode → LOAD

END USER BENEFITS

9X Longer Life

-89% Noise & Runtime

-56% Fuel & CO_2

Load Conditions:
Voltage 480V 3ph
Average Load 9%
Max Power 328kW

8 HOURS

Unit	Genset	Hybrid	Savings
Hours	8	0.88	7
Gallon	41	18	23
Dollar*	287	126	161
lbs CO_2	919	403	515

1 DAY

Unit	Genset	Hybrid	Savings
Hours	24	3	21
Gallon	123	54	69
Dollar*	861	378	483
lbs CO_2	2,757	1,210	1,546

28 DAYS

Unit	Genset	Hybrid	Savings
Hours	672	74	598
Gallon	3,444	1,512	1,932
Dollar*	24,108	10,584	13,524
lbs CO_2	77,190	33,888	43,301

1 YEAR (365 DAYS)

Unit	Genset	Hybrid	Savings
Hours	8,760	964	7,796
Gallon	44,895	19,710	25,185
Dollar*	31,4265	137,970	176,295
lbs CO_2	1,006,232	441,760	564,471

**7$/Gallon delivered to site*
DEF and generator maintenance savings will bring additional operational cost savings