COMPARISON SHEET

Sage vs Generators.

Generators back the building. Sage backs egress. On a real high-school project, the difference was $96,300 saved line by line.

10 sec	90 min	$96,300
NEC ACTIVATION	NFPA RUNTIME	HIGH-SCHOOL SAVINGS

THE SETUP

Generators back the building. Sage backs egress.

A generator is sized to carry the building's electrical load through utility outages — HVAC, refrigeration, computing, life-safety, the works. Emergency lighting is one fragment of that load schedule.

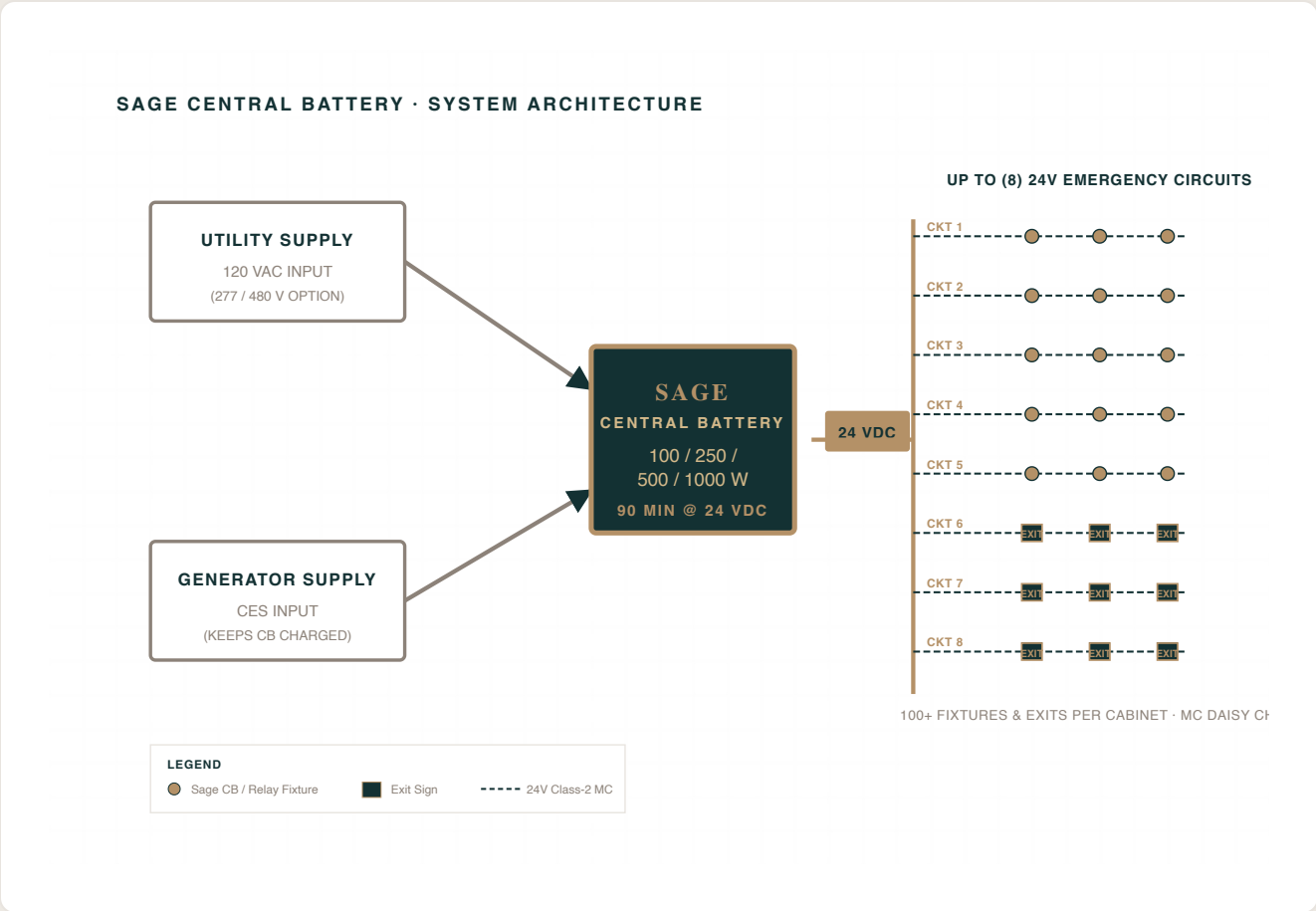
Code doesn't see it that way. NEC requires emergency lighting active within 10 seconds of utility failure. NFPA 101 requires 90 minutes of fail-safe operation. A generator's startup gap and single-point-of-failure exposure put both at risk unless a dedicated emergency-lighting layer is purpose-built into the system. That layer is what Sage is.

SYSTEM ARCHITECTURE

One power source. Two charging inputs.

Sage Central Battery accepts charging input from either the building's utility supply or a generator. Whether the generator is running or not, Sage keeps the batteries fully charged. The 24 VDC output feeds up to **8 emergency circuits** in Class-2 MC daisy chain — fixtures, relay-converted luminaires, and exit signs all from the same source.

When utility power drops, Sage activates the EM layer instantly. The generator handles building load behind it.



SAGE CENTRAL BATTERY · DUAL-INPUT · 24 VDC × 8 CIRCUITS

A REAL HIGH-SCHOOL PROJECT

$96,300 saved. Line by line.

A high-school facility, generator-only emergency lighting vs the same building re-designed with Sage Central Battery riding the generator. The numbers came from the actual bill of materials.

Bill-of-materials line item	Generator only	Sage CB + Generator	Δ
Automatic Transfer Switch for EM circuits	$5,000	$0	**+$5,000**
Downsize generator by 20kW EM load @ $300/KW	$6,000	$0	**+$6,000**
Underground feeder generator → EM ATS	$5,000	$0	**+$5,000**
Separate room for EPSS equipment	$8,000	$0	**+$8,000**
(6) Feeders generator → EM panels, 1,200 ft @ $35/ft	$42,000	$0	**+$42,000**
(6) EM panels @ $1,800 ea	$10,800	$0	**+$10,800**
(11) Sage CB panels	$0	$15,000	−$15,000
AC circuits → fixtures, 4,000 ft conduit @ $9/ft	$36,000	$0	**+$36,000**
(6) Class-2 circuits Sage → fixtures, 4,000 ft MC @ $3/ft	$0	$12,000	−$12,000
(500) Fixture Load Control Relays @ $100 ea	$50,000	$0	**+$50,000**
Sage emergency LED fixtures	$0	$49,500	−$49,500
Selective coordination study (overload protection)	$10,000	$0	**+$10,000**
Total project savings			+$96,300

From a real generator-only-vs-Sage CB redesign on a high-school building. The dollar values are project-specific; the order-of-magnitude advantage on the EM-layer line items repeats across every commercial-scale project.

SIDE BY SIDE

Three configurations. One code-bulletproof choice.

	Generator alone	Sage + Generator	Sage alone
NEC 10-second egress activation (NFPA 7.9.1.3)	⚠ Up to 10 sec in darkness after utility loss	✓ Sage activates instantly; generator picks up building load behind it	✓ Sage activates instantly
Fail-safe behavior	⚠ If generator fails during outage, EM fails	✓ Generator maintains Sage battery charge in normal operation. If genset fails, Sage runs 90 min independently.	✓ Sage runs 90 min independently — no moving parts
NFPA 7.9.2.3 single-branch failure	⚠ Generator senses utility power, won't start on a downstream branch failure	✓ Sage LCM (Olympus) activates EM immediately on single AC branch-circuit failure	✓ Same — LCM-based
Repair / maintenance coverage (NEC 700.3(F))	⚠ Code requires portable/temporary alternate source during repair	✓ No downtime during generator service — Sage runs independently	✓ No downtime — battery test cycle handles maintenance
Required ancillary equipment	⚠ ALCR · BCET · Life-Safety ATS · Selective coordination · Dual-branch isolation · UL 924 devices	✓ Sage layer removes the need for ALCR / BCET / UL 924 devices on EM circuits	✓ None of those required

	Generator alone	Sage + Generator	Sage alone
Wiring method	⚠ Conduit + wire from generator to EM panels (~$9/ft material + install)	✓ Sage uses Class-2 MC cable in a daisy chain (~$3/ft) — roughly 1/3 the conduit cost	✓ Same — MC cable from cabinet to fixtures
Monthly + annual testing (NFPA 101)	⚠ No feasible way to test the EM circuit on a generator — manual fixture-by-fixture testing required	✓ Sage runs 30-sec monthly + 90-min annual tests automatically, logs results, emails faults	✓ Same — automatic test cycle, compliance audit trail
Capital cost (mid-sized commercial)	$$$$ Six-figure capital + fuel storage + ATS + emissions permit + separate EPSS room	$ Sage adds a wall-mounted cabinet to an existing generator project	$ Orders of magnitude lower than a generator alone

WHAT SAGE SKIPS

Every acronym in the generator-only column above — ALCR, BCET, Life-Safety ATS, selective coordination, dual-branch isolation, UL 924 devices on EM circuits, a separate EPSS room, and a generator upsized for EM load — Sage removes them all.

The emergency-lighting branch collapses to a low-voltage Class 2 MC daisy chain, fed from one wall-mounted cabinet.

WHERE SAGE FITS

Two configurations. Two distinct conversations.

PROJECT HAS A GENERATOR

Sage works alongside.

A generator carries the building. Sage carries the egress layer cleanly inside the same code framework. The generator keeps Sage's batteries fully charged in normal operation, and if the generator fails to start, Sage runs the emergency layer independently for 90 minutes.

This is the configuration most large commercial and institutional projects end up wanting once a code authority walks the spec.

NO GENERATOR IN THE BASIS-OF-DESIGN

Sage replaces the conversation.

Most schools, mid-rise commercial, multifamily, and many institutional facilities never had a generator in the basis-of-design. They were going to specify an emergency-lighting product regardless.

The choice isn't Sage or generator — it's Sage or integral battery packs. That comparison lives here →