COMPARISON SHEET

Sage vs Battery Packs.

One cabinet replaces hundreds of integral battery packs. Up to 95% maintenance-cost reduction. On a real 350,000-sf building, the difference was $200,000+ saved across a decade.

294 → 7	Up to 95%	$200K+
TEST LOCATIONS	COST REDUCTION	10-YEAR SAVED

THE SETUP

A battery in every fixture is a maintenance calendar that runs for decades.

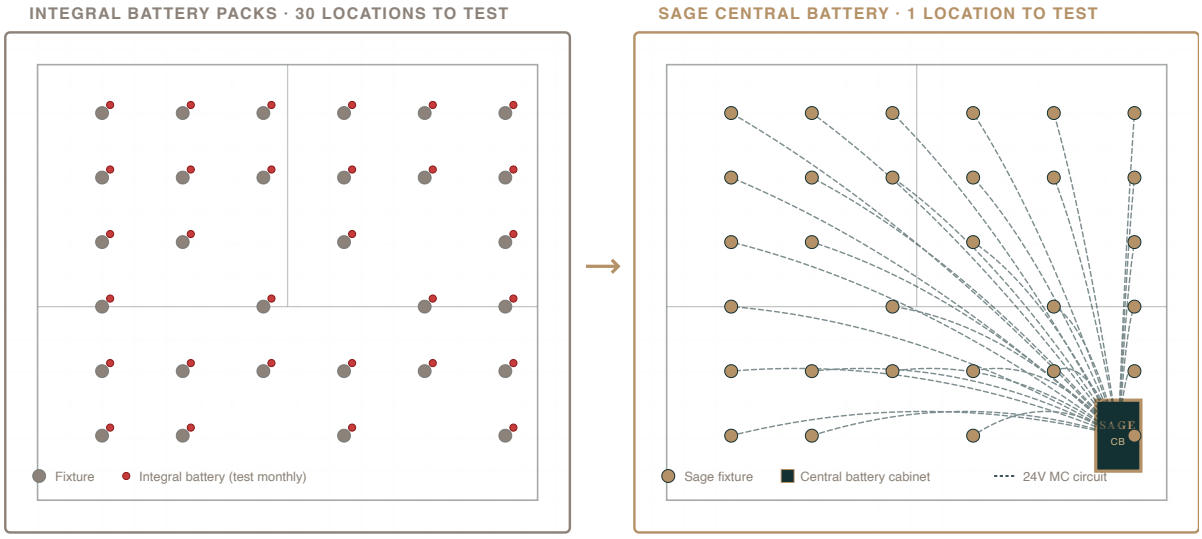
A 350,000-sf commercial building can carry **300 or more emergency fixtures**— each with its own integral battery pack, its own monthly test, its own maintenance cycle, its own 4-to-7-year replacement event. Multiply by the maintenance team's hourly rate and the calendar runs for decades.

Sage Central Battery replaces that distributed burden with one cabinet, one test schedule, one replacement event — wall-mounted, low-voltage, non-proprietary, monitored end-to-end through Sage Live.

SAME BUILDING, TWO TOPOLOGIES

Distributed batteries. Central cabinet.

Same building. Same egress coverage. Same code compliance. The difference is what your maintenance team walks every month.



LEFT — EVERY FIXTURE CARRIES ITS OWN BATTERY. RIGHT — SAGE CABINET FEEDS EVERY FIXTURE IN MC DAISY CHAIN.

THE MATH

294 batteries → 7 cabinets $200,000 saved over 10 years.

A real 350,000-sf mixed-use building, redesigned from integral battery packs to Sage Central Battery. The numbers came from the actual maintenance burden.

BATTERY LOCATIONS TO TEST

INTEGRAL	→	SAGE
294		7

10-YEAR TESTS REQUIRED

INTEGRAL	→	SAGE
35,280		840

10-YEAR TOTAL OPERATING COST

INTEGRAL	→	SAGE
$225,864		$16,920

Operating cost assumes $35/hr loaded labor (national average for facilities maintenance), $0.12/kWh average commercial energy cost (BLS 2024), and battery replacement at 5-year intervals. Variables are project-specific; the order-of-magnitude advantage isn't.

WHAT THE LIFE SAFETY CODE REQUIRES

30-second test every month. 90-minute test every year. Every fixture.

NFPA 101 requires written documentation of the test results, available on demand by local inspectors. Non-compliance can result in injury to occupants, building damage, fines, and facility closures.

On a building with 294 fixtures, that's 294 walks every month and 294 walks every year — plus a paper binder updated fixture by fixture, ready for the AHJ.

HOW SAGE AUTOMATES IT

Four monitored tests · every 28 days.

BATTERY	Capacity and charge level on every cabinet
CHARGER	Charging system health and output

LOAD	Connected circuit load against rated capacity
TRANSFER RELAY	Switchover from utility to battery on every cabinet

Failures trigger an email to the facility manager with the **exact fault location** — service teams visit the affected fixture, not the whole building.

SIDE BY SIDE

Eleven rows of evidence. One spec decision.

	Integral battery packs	Sage Central Battery
Battery locations to test	One per emergency fixture — hundreds in a typical building	One cabinet covers the building's entire emergency lighting layer
Monthly 30-second tests (NFPA Life Safety Code)	Required on every fixture · every month · walked manually	Centralized self-test, scheduled and logged automatically
Annual 90-minute full-burn tests	Required on every fixture · every year · walked manually	One scheduled cycle · one log entry · documented for the AHJ
Monitored fault categories	None on most fixtures — failures discovered only on walk-through	Four tests every 28 days: BATTERY · CHARGER · LOAD · TRANSFER RELAY · email on fault with exact location
Battery replacement schedule	Rolling — different fixtures degrade at different rates	One scheduled event per cabinet at lead-calcium end-of-life
Battery chemistry	Often proprietary · brand-locked replacement at premium pricing	Standard lead-calcium · sourced locally from any commercial battery supplier

	Integral battery packs	Sage Central Battery
Service skill required	Licensed electrician for most fixture-level work	Low-voltage swap — building's own maintenance team
Service access	Per-fixture at ceiling height · ladder for every visit	Wall-mounted at shoulder height · no ladder
Footprint	One battery inside every fixture body — invisible until it fails	24″ × 30″ wall-mounted cabinet · fixtures unloaded
Architectural fixture options	Limited — most integral-battery fixtures are industrial-grade	Sage CB Fixtures: recessed · surface · pendant · all CB-native, designed for spaces clients see
Compliance audit trail	Hand-logged · fixture by fixture · binder retrieval at audit time	Automatic — every test, every fault, every replacement logged for the AHJ

THE EASY BUTTON

Easy to install. Easy to use. Easy to maintain.

The three places integral battery packs cost building owners real money are the three places Sage was designed to be effortless.

BUILT FOR

Easy to install

Flexible MC cable in a Class-2 daisy chain — no conduit, no high-voltage runs. Up to 8

BUILT FOR

Easy to use

Automatic monthly and annual tests run unattended and log themselves. Compliance

emergency circuits per cabinet, 100+ fixtures and exits per panel.

audit trail builds itself — no binder, no walk-throughs, no late-Friday paperwork.

BUILT FOR

Easy to maintain

Wall-mount cabinet at shoulder height. Standard lead-calcium batteries from any commercial supplier. Faults pinpoint the exact fixture — service teams visit one location, not 294.

THE INSTALL ECONOMICS

Same install motion. None of the UL 1008 hardware.

The often-missed line: a battery-pack install and a Sage Relay install are the same labor for the contractor — pull the belly pan, land wires, button up. The difference shows up upstream (architecture) and downstream (the hardware bill).

WIRES IN THE BELLY PAN

Same access, fewer connections.

Battery packs live in the same driver enclosure a Sage Relay lives in. Battery packs have more wires and a battery hanging off — Sage Relays land seven wires from a centralized DC feed. The contractor opens one fixture either way; only the cleanup is different.

UL 924 / 1008 ALCR HARDWARE

Not on the Sage spec.

Battery-pack architectures need a UL 1008-listed ALCR on every dimmable emergency fixture to keep emergency output constant when the dimmer cuts power. **~$200 per fixture, plus a point of failure each.** Sage's DC emergency path bypasses the dimmer entirely — no ALCR required.

WHO COLLECTS ON THE FIXTURE

Sage doesn't double-charge.

Manufacturers who factory-install battery packs collect for the fixture *and* the battery pack — same labor billed twice. Sage Relays come from Sage; the host fixture stays on the host fixture's P.O. The contractor absorbs the same labor either way, and collects on the fixture either way.

On a project with 200 dimmable emergency fixtures, the ALCR difference alone is $40,000 of hardware Sage avoids — and 200 fewer points of failure on the emergency circuit. *More on the Sage Relay ↗*

WHAT CHANGES WHEN YOU GO CENTRAL

Three teams breathe.

ARCHITECTS BREATHE

Front-of-house, not bug-eye.

Integral-battery fixtures are typically industrial-grade — the bug-eye heads, the green-LED-stickered emergency exits, the boxy hardware nobody specifies for a $40M lobby. Sage CB Fixtures are designed for spaces clients actually care about: low-profile, recessed, surface, pendant, all CB-native.

One Sage purchase order covers both ends of the building.

MAINTENANCE TEAMS BREATHE

Calendar settles.

Per-fixture replacement at 4-to-7-year intervals means a rolling calendar that never settles. Sage's single-cabinet model collapses it to one scheduled event — lead-calcium chemistry, locally sourced, low-voltage service handled by the building's own team.

No licensed electrician for routine work. No proprietary parts. No factory-authorized service window.

BUILDING OWNERS BREATHE

Audit opens a dashboard.

Integral-battery compliance is paper-and-pen — every fixture, every month, every annual full-burn, logged by hand. Sage Live keeps the audit trail itself: every self-test logged, every fault logged, every replacement logged.

The owner opens a dashboard for the AHJ instead of digging through binders.