CASE STUDY: ABB + CLE POWER

Ohio hospital eliminates downtime and improves patient care with ABB PowerValue UPS

In today's healthcare environment, even milliseconds of downtime can have serious consequences. For one hospital in Ohio, recurring power disruptions were more than just an inconvenience — they were a direct threat to patient care and operational efficiency. That's when CLE Power stepped in with a solution that delivered immediate, measurable results.

The problem: Power instability threatens patient outcomes

The Ohio hospital was experiencing frequent rolling brownouts caused by local utility fluctuations. These low voltage events, though brief, were enough to disrupt sensitive lab testing equipment. Each disruption meant failed tests, delayed diagnoses and the need to retest patients — resulting in lost time, increased costs and a negative impact on patient satisfaction.

Despite having a generator on-site, the hospital found that it couldn't mitigate the effects of these short-duration voltage drops. An earlier attempt to resolve the issue using an APC solution proved ineffective, because it lacked the robustness to handle the increasing frequency and severity of the brownouts.

The solution: ABB PowerValue UPS delivers instant stability

CLE Power, a leader in turnkey power quality solutions, recommended the ABB PowerValue UPS — a high-performance uninterruptible power supply designed to handle complex power challenges in critical environments.

The UPS was soft-wired directly into the hospital's lab test equipment. Unlike previous solutions, the ABB PowerValue UPS was able to detect and respond to multi-cycle low voltage events in real time, boosting voltage levels and ensuring uninterrupted operation of the lab systems.

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Key technical advantages of the ABB PowerValue 11RT G2 UL

- **Online double conversion technology:** Ensures clean, continuous power with zero transfer time.
- **Wide input voltage range:** : Handles fluctuations without switching to battery, ideal for brownout-prone areas.
- **High efficiency:** Up to 96% in ECO mode and 90% in double conversion mode, reducing energy costs.
- **Output power factor of 1.0:** Delivers full rated power to connected equipment without derating.
- **Low input current distortion (THDi ≤ 5%):** Minimizes impact on upstream power systems.
- **Scalable runtime:** Supports up to six external battery modules for extended backup.
- **Flexible installation:** Rack/tower convertible with a rotatable LCD display for easy integration.
- **Advanced communication options:** SNMP, Modbus and AS400 cards for remote monitoring and integration with hospital systems.

The results: Zero downtime, zero retests, immediate impact

The impact was immediate and profound:

- 100% uptime improvement
- 0 patient retests
- 0 repeat lab testing
- ~40% overall improvement in lab efficiency

Beyond the numbers, the hospital staff reported a noticeable improvement in workflow and morale. With no more interruptions, lab technicians could focus on delivering accurate results, and patients experienced faster, more reliable care.

“The hospital was in dire straits due to uncontrolled downtime events, even with a generator on-site that couldn’t mitigate rolling brownouts. The ABB UPS solved that problem immediately, leading to better performance for the hospital staff.”

Looking ahead: Scaling success across the hospital

Encouraged by the success in the lab, the hospital is now expanding its use of CLE Power’s solutions to other departments. Plans are already underway for additional upgrades to ensure power stability across all critical systems

Interested in learning more about how the ABB PowerValue UPS can benefit your business? Click to connect with an ABB critical power expert.

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PowerValue 11 RT G2 UL 1–3 kVA

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PowerValue RT G2 UL 5–10 kVA

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9AKK108471A6761 9.2025