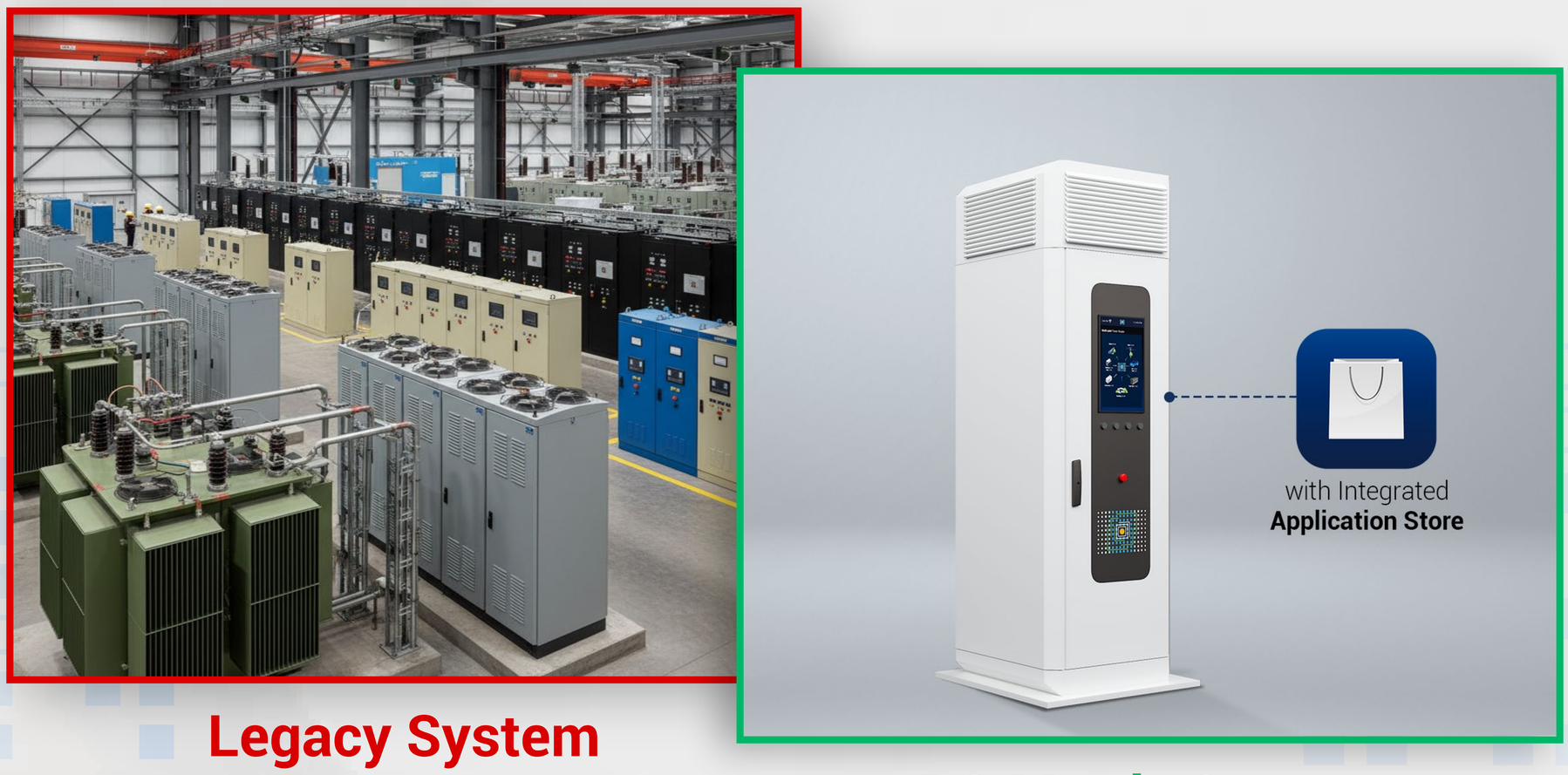
DG MATRIX
Clean Secure Reliable Power

# The Power Operating System — From One-Off Projects to a Programmable Platform

Power projects are often built as rigid, one-off stacks of transformers, rectifiers, switchgear, uninterruptible power supply (UPS) systems, and controls—unable to keep pace with AI-era demand. A better model is a power operating system: standardized hardware with software-defined adaptability that deploys quickly, evolves over time, and transforms distributed energy resources (DERs) into a controllable, revenue-generating fleet. DG Matrix drives this shift—"not just a product, a platform"—anchored in a multi-port solid-state transformer (SST).




Legacy System

DG Matrix System

## Definition of a Power Operating System

A "Power Operating System" combines three layers:

- **A Scalable System Architecture:** One platform spans multiple use cases—electric vehicle (EV) hubs, buildings, microgrids, and especially AI-data centers—so teams can standardize designs, processes, and spares globally.
- **A Software Layer:** Features like dynamic-power sharing, demand-charge mitigation, time-of-use (TOU) optimization, and grid services are activated and evolved in software—the "App Store" model for energy. Value grows after installation as new functions roll out.
- **A Universal Power Engine:** The DG Matrix Energy/Power Router is an SST that natively aggregates multiple alternating current (AC) and direct current (DC) sources and loads in a single device, with bi-directional, grid-forming and grid-following capabilities, with galvanic isolation and programmable ports. This consolidation collapses many discrete boxes into one controllable platform.

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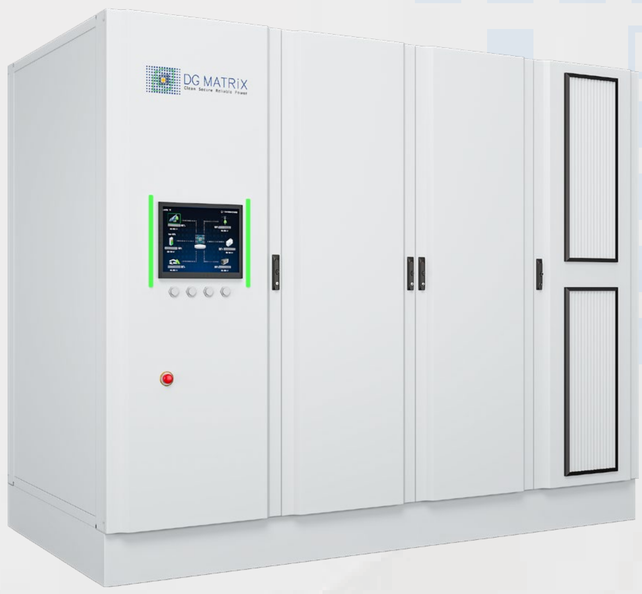
## From Projects to Standardized Solutions

The bottleneck is no longer graphics processing units (GPUs) but rather grid upgrades that take years. DG Matrix solves this by delivering modular, behind-the-meter capacity—integrating on-site sources, storage, and load—to avoid upstream upgrades and cut timelines from years to months. DG Matrix packages this as a data center-ready stack:

### Energy/Power Router

### Power Bridge




- **Energy/Power Router:** the site's "power computer," orchestrating grid, solar, fuel cells, gensets, and mission-critical loads.
- **Power Bridge:** brings medium-voltage to the rack to cut conversion steps and free white space.

## Conclusion

The future of electrification—and AI-data-center power in particular—won't be won by stacking more boxes. It will be won by standardized, software-defined power platforms that deploy quickly, evolve continuously, and turn edge assets into a coordinated, monetizable fleet. That's what DG Matrix means by a power operating system—and why moving from one-off projects to a programmable platform is the decisive advantage in the AI decade.