

ABM Energy & Power Solutions

Power your business through any grid disruption

Power reliability has become a business imperative. Utility disruptions, aging infrastructure, rising energy costs, capacity constraints, and increasing electrification can put operations and growth at risk. ABM | RavenVolt designs, builds, and supports intelligent hybrid microgrids that give organizations greater control over how power is generated, stored, managed, and used.

By integrating utility power with on-site generation, battery energy storage, renewable resources, and advanced controls, we create a coordinated energy ecosystem designed to keep critical operations running, optimize energy performance, and adapt to your organization's changing needs.

Power with purpose

1

PROTECT OPERATIONS

Maintain reliable power through utility outages, grid disturbances, and other disruptions that threaten business continuity.

2

CONTROL ENERGY COSTS

Intelligently manage when and how energy is produced and consumed to reduce peak demand, optimize utility usage, and improve cost predictability.

3

PREPARE FOR WHAT'S NEXT

Create flexible, scalable energy infrastructure capable of supporting electrification, renewable integration, facility expansion, and future energy requirements.

More than backup power: An intelligent energy ecosystem

Traditional backup power waits for an outage. A hybrid microgrid actively manages energy every day. Advanced controls continuously evaluate facility demand, utility conditions, available generation, stored energy, and other operating conditions to determine how available energy resources should work together.

Your hybrid microgrid can integrate:

- **Solar and Renewable Generation:** Generate energy on-site and maximize the value of renewable resources.
- **Battery Energy Storage Systems:** Store energy for use when it provides the greatest operational or economic value.
- **On-Site Generation:** Integrate diesel, natural gas, fuel cells, and other distributed generation resources for added capacity and resilience.
- **Utility Power:** Maintain connection to the electric grid while gaining greater flexibility over how and when utility energy is used.
- **Custom Switchgear:** Safely manage power distribution, protection, isolation, and transitions between energy resources.
- **Intelligent Controls:** Coordinate the entire energy ecosystem through real-time monitoring, automated controls, analytics, and optimization.

Turnkey microgrids with one accountable partner

Complex energy infrastructure can require engineers, utilities, equipment manufacturers, contractors, commissioning teams, software providers, and service organizations. Managing those relationships independently creates more handoffs and more opportunities for delays, miscommunication, cost escalation, and performance gaps.

ABM | RavenVolt brings the entire process together through turnkey Engineering, Procurement & Construction (EPC) delivery.

1 ASSESS AND PLAN

Feasibility studies, energy assessments, site evaluation, load and power analysis, and solution development establish technical and economic project foundations.

2 ENGINEER AND DESIGN

Our in-house engineering team ensures generation, storage, switchgear, controls, utility infrastructure, and facility systems are designed to perform as one integrated solution.

3 COORDINATE AND PROCURE

We manage utility coordination and interconnection while leveraging hardware-agnostic procurement and established supplier relationships to identify best-fit technologies.

4 BUILD AND INTEGRATE

We manage construction, installation, electrical infrastructure, custom switchgear, controls, and integration across the project.

5 COMMISSION AND VALIDATE

A disciplined commissioning process validates that individual components and the complete microgrid operate together before operations begin.

6 MONITOR AND MAINTAIN

24/7 remote monitoring and ongoing operations and maintenance help protect system reliability and optimize long-term asset performance.

Built around the way your organization uses energy

No two facilities have the same load profile, infrastructure, utility environment, operational priorities, or risk tolerance. That's why ABM | RavenVolt doesn't start with predetermined technology. Our teams evaluate your facility, operational requirements, energy usage, available infrastructure, utility conditions, and business objectives to engineer a hybrid microgrid around the outcomes you need to achieve.

What can a hybrid microgrid help you solve?

- **Solar and Renewable Generation:** Generate energy on-site and maximize the value of renewables.
- **Business Continuity:** Maintain critical operations when utility power becomes unavailable or unstable by coordinating available on-site energy resources.
- **Peak Demand Management:** Use available generation and stored energy strategically to reduce demand spikes and help manage associated utility costs.
- **Energy Cost Optimization:** Shift energy usage and generation based on facility demand, utility rates, available resources, and operating priorities.
- **Capacity and Electrification:** Support growing electrical loads, EV charging, facility expansion, and other electrification initiatives without relying solely on existing utility capacity.
- **Renewable Energy Integration:** Coordinate intermittent renewable generation with storage and other energy resources to improve usability, reliability, and overall system performance.
- **Grid Independence and Flexibility:** Reduce dependence on a single source of power and create greater flexibility in how your facility responds to changing grid conditions.
- **Energy Intelligence:** Gain visibility into energy production, consumption, equipment status, and system performance to support faster, better-informed decisions.
- **Future Adaptability:** Create a scalable energy platform capable of incorporating new technologies and changing energy requirements over time.

The result is greater energy resilience without requiring operators to manually manage multiple independent systems.

Technology flexibility without vendor lock-in

Your energy strategy shouldn't be dictated by a single equipment manufacturer. ABM | RavenVolt takes a hardware-agnostic approach, evaluating technologies based on the specific needs of your facility and project. Long-standing supplier relationships and strategic purchasing capabilities provide greater flexibility while helping manage availability, lead times, cost, and equipment compatibility.

Combined with custom switchgear capabilities, this approach enables us to integrate the right technologies into a cohesive system rather than forcing your facility into a predetermined solution.

See more, know more, act faster

- **Real-Time Visibility:** Monitor microgrid performance, operating conditions, and energy flows as they change.
- **Custom Alerts:** Identify changes in performance and potential operating issues so teams can respond before they become larger problems.
- **Predictive Maintenance:** Use system and equipment data to help identify potential failures and support proactive maintenance.
- **Analytics and Optimization:** Analyze operating data to understand performance trends and identify opportunities for improved energy management.
- **Virtual Power Plant Capabilities:** Predictive algorithms can help optimize deployment of customer- and utility-owned generation assets where applicable.
- **System Integration:** Integrate new energy technologies with existing systems, renewable resources, and legacy equipment to create a coordinated operating environment.

Connect with an ABM *Energy & Power Solutions* expert at [ABM.com/energypower](https://abm.com/energypower) or call **886.624.1520**.

Professional engineering and licensed contracting services are offered and performed by the applicable RavenVolt licensed entity where required by law.

One energy partner

Hybrid microgrids can support a wide range of commercial, industrial, institutional, municipal, and utility applications, from facilities where an outage can disrupt critical operations to organizations preparing for significant load growth.

Take greater control of your energy future

The grid is changing. Your energy infrastructure should be ready to change with it. Whether your priority is strengthening resilience, managing energy costs, supporting new electrical loads, integrating renewable resources, or creating greater energy independence, ABM | RavenVolt can turn those objectives into an integrated energy strategy, and then deliver it. Let's build an energy strategy around what your business needs next.

