

PATHION ENERGY STORAGE AND MANAGEMENT



ALWAYS-ON ENERGY SOLUTIONS THAT POWER YOUR CRITICAL OPERATIONS

In your business, industrial site, government agency or residential community, you need to keep the lights, heating and cooling on 24/7 – no matter what's happening with the power grid. You're seeking to reduce both the risk and the cost of running your critical energy operations, by taking control of how you produce, store and manage your power.

PATHION DirectCore™ energy storage and management solutions ensure Always-On power and optimize energy capture and release across the broadest range of energy sources, inverters, panels, and battery types. We save you money by optimizing how and when you use your on-site stored energy in concert with grid power, and handle quick, seamless transitions from grid to on-site power during grid shut-offs.

THE PATHION ADVANTAGE:

PATHION's proprietary technology and unique approach offers many benefits over other state-of-the-art renewable energy and energy storage providers. PATHION's DirectCore™ platform is an integrated renewable energy and energy storage solution that utilizes power electronics equipment developed in house to streamline the energy storage product stack. PATHION's DirectCore™ Energy Management System (EMS) communicates with all connected equipment and the other DirectCore™ items to provide optimized real-time control at all times. This design grants many benefits, including:

- Industry-leading safety the DirectCore™ architecture removes the possibility for back- and cross- propagation of fault currents from the grid and other energy sources to the batteries and to other DC-coupled equipment.
- Unrivaled Efficiency DirectCore™ delivers 92% of the energy generated by the solar panels to the grid, including the trip through the battery! The best any other solution provider advertises is 89.5%, but that's only for the battery itself in a 4-hour system. This narrow comparison doesn't include the losses through the solar inverter; the true apples-to-apples efficiency metric is actually 85% or worse. We deliver 8% more energy to the grid than the best of our competitors.
- Predictive O&M The DirectCore™ EMS communicates comprehensively with each component allowing the
 system to know the precise health of each part. With this information, we can predict when components or
 systems may need attention before they fail.
- Reduced parasitic load DirectCore™ constantly monitors its operation and can turn off components when they are not needed, greatly reducing the parasitic load.

- Flexibility DirectCore[™] also offers advantages with interconnection and system operation. With a maximum DC:AC PV ratio over 2:1, we can fit far more solar power behind a smaller interconnection – streamlining interconnection processes and reducing fees. With this same advantage, we can more effectively deliver power to the load even during outages.
- Resiliency DirectCore[™] can continue to operate when the grid fails. With our AC-side management technology, DirectCore[™] detects the outage and switches to islanding mode in 250ms or ¼ of a second. This allows your equipment to keep running often without noticing the changeover.
- Long-term relationship PATHION isn't just a battery vendor; we know that energy storage is a complex field, and we stand by our customers throughout the life of the system. This lets us continue to support the needs of our customers as the environment changes O&M, utility rates, revenue opportunities, etc. we'll be there with you.

PUTTING IT ALL TOGETHER

PATHION establishes a partnership with each customer centered on learning our customers' goals and designing solutions that best achieve those goals. As we define and prepare the integration plan, we take into account the available programs, incentives, and other opportunities available for the customer, ensuring that the plan will comply with and take advantage of the relevant benefits. And we help customers finance their upgrades through a variety of methods including leases and PPAs (Power Purchase Agreements).

PATHION is heavily engaged in the energy and infrastructure industries

System dashboard user interfathrough participation with the balancing authorities, standards groups, and policy initiatives from federal, state, county, and municipal leaders. These ongoing efforts keep us well positioned to enact change for the benefit of our infrastructure, and for our customers' critical operations solutions.

ONLY PATHION SOLUTIONS CAN DO THIS:

- Integrate each piece of your critical infrastructure into a resilient, capable system serving your energy needs, while also delivering solutions for your critical water and transportation operations
- Seamlessly incorporate the broadest range of energy sources, inverters, panels, and battery types, as well as third party subsystems, into our open-architecture platform
- Support the integration with DirectCore[™], the highest efficiency energy storage solution on the market yielding 8% more energy than any competitor
- Inform you of potential optimizations within your own operations before installation, and for the life of your Critical Operations Platform integration

How can we help you?

PATHION works closely with our customers to define their critical problems and find the best solutions, including offering insight on operations and processes both before or as part of a critical water and/or energy system upgrade. We then continue to support our customers throughout the life of the facility. Visit https://pathion.com/contact/ to schedule an evaluation.



PATHION DirectCore™ EMS Control System dashboard user interface

