

DATA CENTERS IN 2025: 5 KEY TRENDS SHAPING THE INDUSTRY

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DATA CENTERS IN 2025

5 KEY TRENDS

SHAPING THE INDUSTRY

Data centers in 2025 are set to undergo rapid growth, as well as fundamental changes.

As the data center industry faces unprecedented demands and challenges, innovation isn't just a goal—it's a necessity. Leaders in the space must rethink how they operate, embracing bold ideas to drive sustainability, efficiency, and reliability. At EnerSys, staying ahead means questioning assumptions and adopting fresh perspectives.

Here's my view on the five trends shaping data centers in 2025—and how we're helping our partners prepare for what's next.

1 RETHINKING SUSTAINABILITY GOALS AS A GROWTH OPPORTUNITY

Data Center sustainability has evolved from a regulatory requirement to a business imperative. But it's more than that—it's a driver of growth and innovation. Operators that treat sustainability as an opportunity rather than a compliance checkbox will unlock significant competitive advantages.

Advanced energy storage systems, like those from EnerSys, enable operators to cut energy consumption and cooling requirements while aligning with environmental goals. Moreover, energy storage systems can increasingly support the grid through peak-shaving and exporting stored energy during times of peak demand.

This isn't just about meeting targets—it's about reimagining what's possible.

FURTHER READING: [THE ROLE OF DATA CENTERS IN MAINTAINING GRID STABILITY](#)

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INTEGRATING RENEWABLE ENERGY WITHOUT COMPROMISE

The world is transitioning to renewables to minimize its reliance on fossil fuels, and data centers must do the same. Yet, the variability of solar and wind power poses challenges to uptime and reliability.

The solution lies in robust energy storage systems that ensure seamless renewable integration. Some data centers may look to store clean energy generated onsite, such as through a rooftop solar array. However, data centers will continue investigating the potential of the storage of clean energy generated from nearby offsite renewable infrastructure, such as hydroelectric, solar, and wind farms.

At EnerSys, we're helping data centers prove that sustainability and reliability coexist—turning renewable energy into a strength, not a limitation.

FURTHER READING: [HOW-DATA-CENTERS-AND-THE-ENERGY-SECTOR-CAN-SATE-AIS-HUNGER-FOR-POWER](#)



EMBRACING SCALABLE SOLUTIONS FOR RAPID GROWTH

The rise of AI, IoT, and edge computing is driving significant growth in data demand. Static, traditional infrastructure can't keep up with this pace. Scalable, modular energy storage systems are a game-changer, allowing data centers to expand capacity quickly and efficiently.

EnerSys offers solutions that align with each operator's unique growth trajectory, ensuring their infrastructure is always ready for what's next.

The future of data centers lies in innovation and courage—the courage to challenge conventional approaches, adopt newer technologies, and embrace sustainability.





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PRIORITIZING RELIABILITY AS A STRATEGIC ASSET

What happens if a data centre goes down? Downtime isn't just a technical failure—it's a risk to reputation and revenue. Reliability has become a key differentiator in the data center space. Advanced energy storage systems ensure uninterrupted operations, even during power fluctuations or outages. EnerSys partners with data centers to deliver reliable, high-performance solutions that safeguard operations and build trust with end-users.

5

FOCUSING ON LONG-TERM VALUE, NOT JUST UPFRONT COSTS

Short-term savings often come at the expense of long-term success. Astute operators are shifting their focus to total cost of ownership (TCO), prioritizing solutions that offer extended lifespans, minimal maintenance, and high recyclability. Advanced Thin Plate Pure Lead (TPPL) batteries from EnerSys are designed with this in mind, providing exceptional longevity and sustainability benefits that deliver greater value over time.

FURTHER READING: [MAXIMIZING-BATTERY-CIRCULARITY](#)

LEARN MORE ABOUT INNOVATIONS FOR DATA CENTERS BY CONTACTING YOUR LOCAL ENERSYS SALES REPRESENTATIVE.



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A BOLD FUTURE FOR DATA CENTERS IN 2025 AND BEYOND

The future of data centers lies in innovation and courage—the courage to challenge conventional approaches, adopt newer technologies, and embrace sustainability as a catalyst for growth. EnerSys supports our customer partners in this journey, equipping them with the energy storage solutions they need to thrive in an ever-evolving industry.



Michael Sagar

Director of Marketing at EnerSys, a global leader in energy storage solutions.

About EnerSys

EnerSys is a global leader in stored energy solutions for industrial applications and designs, manufactures, and distributes energy systems solutions and motive power batteries, specialty batteries, battery chargers, power equipment, battery accessories and outdoor equipment enclosure solutions to customers worldwide. The company goes to market through four lines of business: Energy Systems, Motive Power, Specialty and New Ventures. Energy Systems, which combine power conversion, power distribution, energy storage, and enclosures, are used in the telecommunication, broadband and utility industries, uninterruptible power supplies, and numerous applications requiring stored energy solutions. Motive power batteries and chargers are utilized in electric forklift trucks and other industrial electric powered vehicles. Specialty batteries are used in aerospace and defense applications, portable power solutions for soldiers in the field, large over-the-road trucks, premium automotive, medical and security systems applications. New Ventures provides energy storage and management systems for various applications including demand charge reduction, utility back-up power, and dynamic fast charging for electric vehicles. EnerSys also provides aftermarket and customer support services to its customers in over 100 countries through its sales and manufacturing locations around the world. To learn more about EnerSys please visit www.enersys.com/en/.

Sustainability

Sustainability at EnerSys is about more than just the benefits and impacts of our products. Our commitment to sustainability encompasses many important environmental, social and governance issues. Sustainability is a fundamental part of how we manage our own operations. Minimizing our environmental footprint is a priority. Sustainability is our commitment to our employees, our customers, and the communities we serve. Our products facilitate positive environmental, social, and economic impacts around the world. To learn more visit: www.enersys.com/en/about-us/sustainability/.

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