ESG Reporting for U.S. Data Centers

ESG is set to evolve from a largely corporate and social responsibility issue into a core compliance challenge for data center operators in the United States.

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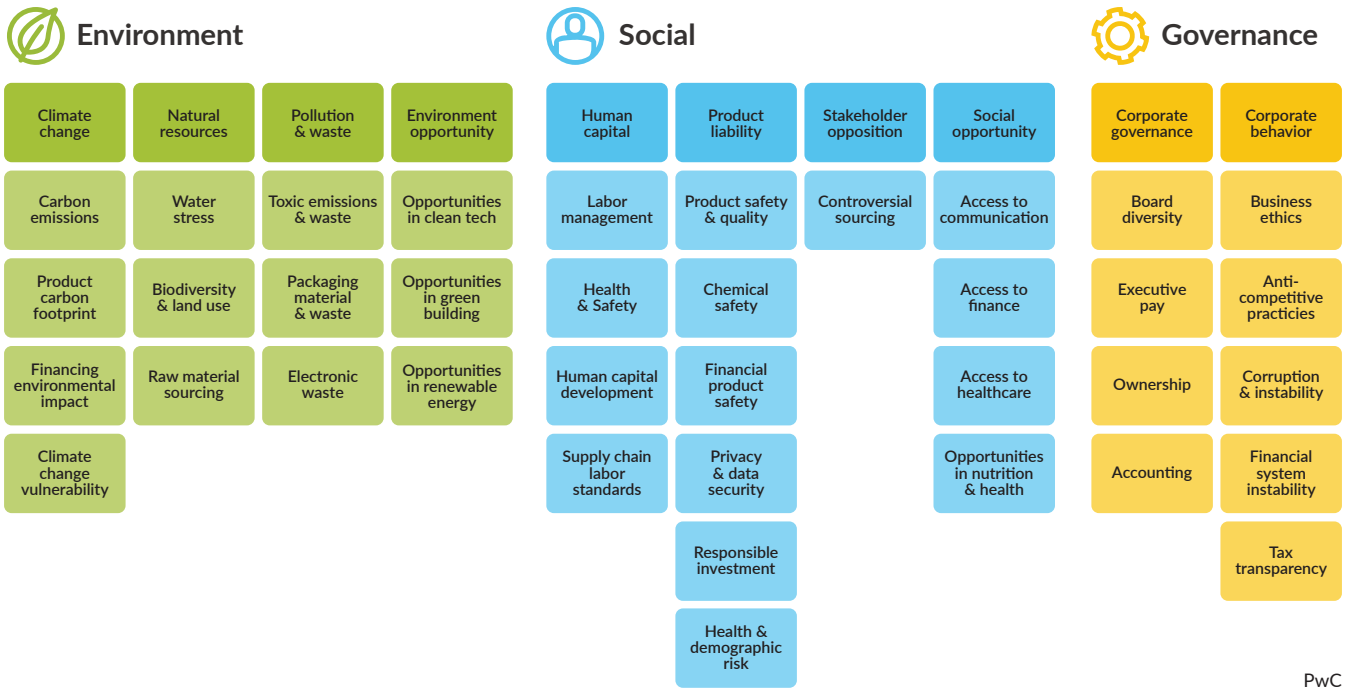
ESG is Evolving

Businesses are increasingly operating in an ESG-focused world, with organizations facing intense pressure to reduce energy and carbon consumption as part of their broader sustainability commitments. However, substantial regulatory changes are on the horizon, both in the U.S. as well as globally, within the next six months. These changes will transform ESG from being primarily a responsibility tied to social and corporate matters into a crucial aspect of compliance.

What's driving these changes, and how will they impact data center operations teams that are already facing resource challenges?

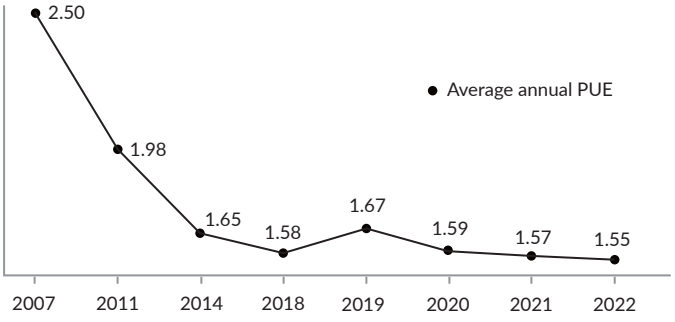


PwC

Establishing New Standards for Data Center Sustainability Reporting

Originally established in 2007, the Power Usage Effectiveness (PUE) metric has long been considered a standard for monitoring power efficiency in data centers. Over the first half of PUE's lifecycle, measurements continued to fall as data centers became more efficient in powering IT equipment. Over the last five years, however, the rate of improvement has slowed, perhaps suggesting that PUE is just one of many ways of tracking a data center's performance.

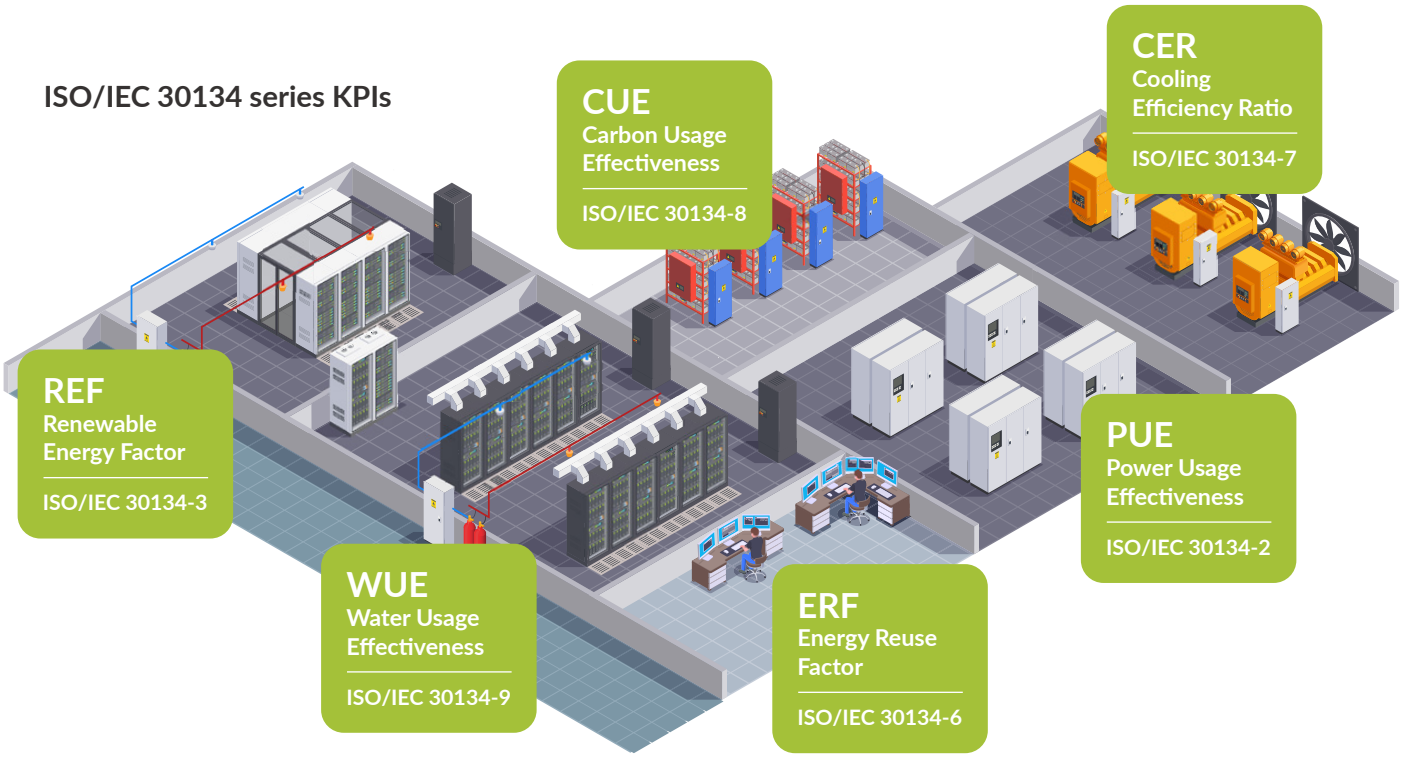
PUE progress has stalled
What is the average annual PUE for your largest data center?



Uptime Institute

While PUE continues to hold its significance, it's just one piece of a series of metrics that are needed to present a more rounded view of a data center's sustainable performance. PUE is one of a series of globally standardized Key Performance Indicators (KPIs) defined and published by the International Standards Organization (ISO). This ISO/IEC 30134 series of standardized data center resource efficiency KPIs serves as a catalyst for improving data center operations. In addition to PUE, the ISO/IEC 30134 series includes a Cooling Efficiency Ratio (CER), a Carbon Usage Effectiveness measure (CUE) and a Water Usage Effectiveness metric (WUE). Other relevant elements include an Energy Reuse Factor (ERF) and a Renewable Energy Factor (REF). Together, these ISO/IEC 30134 measurements provide a valuable foundation for organizations seeking to measure their ESG Scope 2 performance.

ISO/IEC 30134 series KPIs



The Corporate Sustainability Reporting Directive (CSRD)

The European Corporate Sustainability Reporting Directive (CSRD) is set to bring significant changes to how businesses report their environmental and social impacts. While it may be European in origin, the CSRD has far-reaching implications for many U.S.-based companies.

The CSRD is recent legislation aimed at improving transparency and accountability in corporate sustainability reporting by compelling large companies and listed SMEs to regularly report their environmental and social impacts, enabling investors and stakeholders to gauge a company's societal and environmental effects.

The CSRD's wide-ranging impact touches various business categories relevant to U.S. companies:

- **Large Undertakings:** This encompasses European companies on EU-regulated markets and subsidiaries of U.S. parent companies. They meet specific criteria related to balance sheet total, net turnover or employee count.
- **Small and Medium-Sized Enterprises (SMEs)**: These are U.S.-based subsidiaries with securities listed on EU-regulated markets. Criteria differ for small and medium-sized entities based on factors like balance sheet total, net turnover and workforce size.
- **U.S.-Based Companies**: For U.S. companies, CSRD applies if they've generated substantial EU turnover and have sizable EU-based subsidiaries or listings. Understanding which category your U.S. business falls into is essential for CSRD compliance.

The CSRD brings a unique requirement for companies to disclose their ESG impacts within their value chains, impacting customer and supplier relationships. For instance, a U.S. supplier to a CSRD-covered company may need to provide emissions data for Scope 3 GHG disclosures, emphasizing supply chain sustainability. The legislation unfolds in four stages, starting in 2024 with large U.S. firms on EU-regulated markets. By 2025, it encompasses all large U.S. companies in these markets, potentially expanding to U.S. companies with significant EU subsidiaries.

Reporting standards under the CSRD follow European Sustainability Reporting Standards (ESRS), demanding comparative quantitative data and narrative disclosures, with a first-year exemption for ease of implementation. It represents a vital shift in corporate sustainability reporting. U.S. companies in the EU or with EU subsidiaries should prepare for its impact. It aligns with the global trend toward transparency and accountability, making it vital for U.S. businesses to adapt to this evolving landscape.

And it's not just national and international governments that are increasing their focus on sustainability reporting. For example, according to Amazon's 2022 Sustainability Report, the company is updating its supply chain standards to require its suppliers to report their carbon emissions data and set clear emissions reductions goals. Amazon reports that Scope 3 emissions (that occur in Amazon's value chain but that are not under its direct control) now account for over 75% of its overall emissions. As part of this initiative, Amazon also said that in selecting partners for business opportunities it would make a point of seeking suppliers that can help achieve its carbon reduction goals.

The CSRD takes effect for large businesses and listed SMEs January 1, 2025, and data collection begins January 1, 2024. Additionally, under the European Commission's Energy Efficiency Directive (EED), data centers operating in the EU that use more than 2,780 MWh of energy each year will be required to report publicly on their data center's energy performance.

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Is the Data Center Industry Prepared?

Some U.S. data center operators are gearing up for the upcoming regulatory changes, but many remain unprepared. Compliance with EED is set for May 2024, requiring that data centers have been monitoring their energy use since May 2023 – a requirement that numerous data center operators are not on track to meet. Meanwhile, for CSRD compliance, data collection must commence in January 2024, which is just around the corner.

That's a big deal for energy-intensive business functions such as data center operations, and it is certain that this process is going to be complex, time-intensive, and will require significant levels of financial and resource support.

The imminent implementation of new regulatory requirements necessitates comprehensive energy reporting starting next year, a particularly pressing concern for numerous organizations grappling with meeting their operational resource demands.

According to EkkoSense Research, a mere 5% of Mechanical and Electrical (M&E) teams currently engage in real-time monitoring and reporting of power and equipment temperatures at a granular, rack-by-rack level. Consequently, the ongoing aggregation of such data poses a formidable challenge.

Many companies managing their data center operations rely on conventional spreadsheets, a practice notorious for its time-consuming nature and potential inaccuracies. This presents a problem given that ESG reporting will require an auditable standards-based approach. Any deviation from the correct data collection and reporting methods will likely be uncovered during an audit. Because of this, a far greater degree of accuracy is required compared to previous practices.

Not surprisingly, this level of ESG reporting places a substantial strain on operational resources and time, imposing a significant resource burden. This challenge is compounded by the fact that many legacy DCIM and BMS tools don't readily provide standard reporting capabilities. This becomes more complex depending on the scale of operations, including the number of rooms and sites within an estate, making it difficult to access evidence-based, real-world data that regulatory frameworks like the CSRD and the revised EED will demand. Without access to granular level sustainability reporting data, it will be challenging to answer questions about rack density, power usage, PUE measurements, and inevitable changes.

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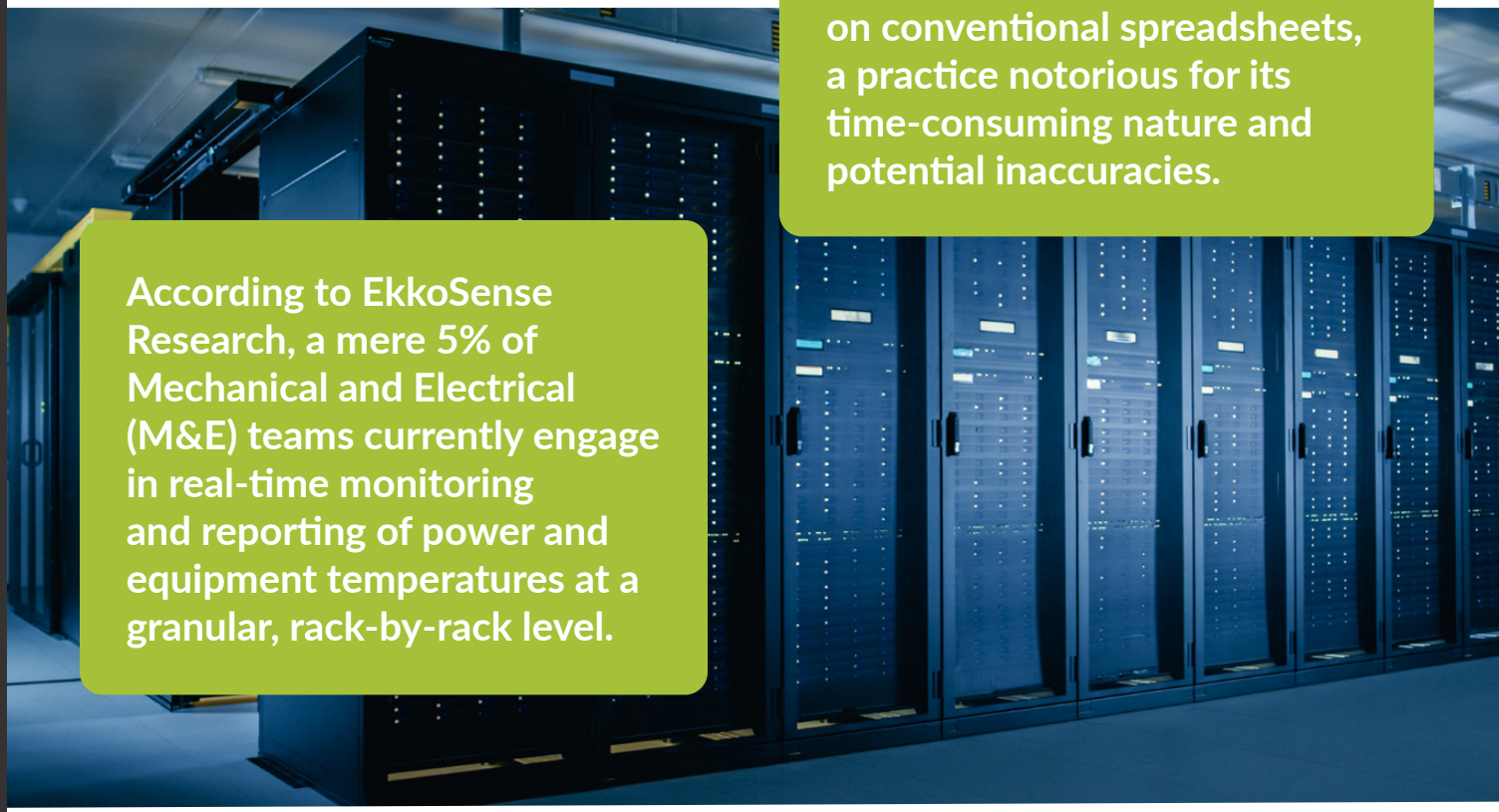

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EkkoSense is Transforming Data Center Management and ESG Reporting

EkkoSense remains a pioneer in the data center industry, with our commitment to innovation leading the way.

Our cutting-edge AI-driven optimization software has left a profound impact, supporting industry leaders such as Virgin Media, Telehouse, and Three, reducing cooling energy waste and delivering quantifiable carbon savings. As a testament to our excellence, we were honored with the ESG Technology of the Year title at the 2023 National Technology Awards.

EkkoSoft® Critical 8

EkkoSoft Critical, our Software as a Service (SaaS) offering, continues to captivate data center operators worldwide. With EkkoSoft Critical 8.0, we are proud to introduce game-changing features that revolutionize data center management and ESG reporting.

Key Features of EkkoSoft Critical 8.0:

- **Consolidated Estate / Enterprise Dashboard Views:** EkkoSoft Critical 8.0 introduces consolidated estate and enterprise dashboard views, optimizing thermal, power, and capacity management across extended data center estates. This feature simplifies data center management, providing a comprehensive view of performance that ensures resources are used efficiently.

- **Embedded Reporting Capabilities:** One of the standout features of EkkoSoft Critical 8.0 is its embedded reporting capabilities. These capabilities empower data center operations teams to automate the production of ESG and sustainability reports and metrics. The best part? It accomplishes this task at a fraction of the time and cost compared to legacy DCIM and BMS approaches, ensuring readiness for upcoming EU deadlines.

EkkoSoft Critical 8.0 is designed to make a significant impact on data center operators, helping them meet reporting deadlines with greater efficiency. The platform seamlessly integrates live data into the system, providing the granularity needed for precise decision-making. All reporting can be conveniently done from a single platform, eliminating the need for costly consultants. It's like having an additional member of your data center team.

PLATFORM GLOBAL ENERGY INNOVATOR OF THE YEAR 2023

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DATA CENTRE WORLD AWARDS 2023 WINNER Special Contribution to Improving Energy Efficiency

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While regulations only mandate reporting once a year, EkkoSoft Critical 8.0 conducts daily aggregation, providing live data that allows the operations team to proactively meet their sustainability targets, transforming them from burdens into exciting challenges.

In a world where sustainability reporting is becoming increasingly vital, EkkoSense and EkkoSoft Critical 8.0 are poised to simplify your journey. With a highly visual, exceptionally intuitive solution that optimizes your data center's thermal performance and efficient, real-time reporting seamlessly integrated into our platform, EkkoSoft Critical 8.0 is your partner in excelling in the ever-evolving world of data center operations and sustainability reporting.

EkkoSense

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