Sustainability strategies face greater pressure in 2024

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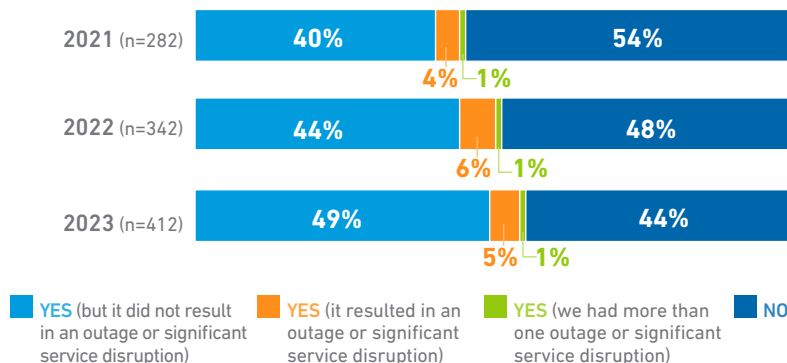
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SUMMARY

Sustainability remains a top priority for most data center organizations. However, results from the Uptime Institute Sustainability and Climate Change Survey 2023 suggest companies' efforts to reduce their environmental footprint and defend against climate risks may be slackening. Slightly fewer operators say their organization has set a goal for net-zero emissions; and many of those with a goal are extending their target dates. While most expect sustainability regulations to affect operations in the next two years, less than half currently compile and report key metrics — other than PUE and energy use.

Extreme weather events rise, but cause few disruptions

Have your organization's data centers in your region experienced an extreme weather event that threatened continuous operation within the past three years?
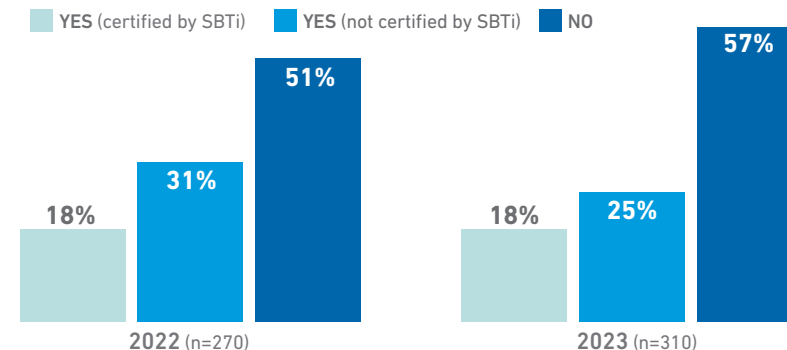

- 2021 (n=282): 40% | 4% | 1% | 54%
- 2022 (n=342): 44% | 6% | 1% | 48%
- 2023 (n=412): 49% | 5% | 1% | 44%

Legend:
- YES (but it did not result in an outage or significant service disruption)
- YES (it resulted in an outage or significant service disruption)
- YES (we had more than one outage or significant service disruption)
- NO

(All figures rounded.)

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Less than half have set net-zero emissions goals

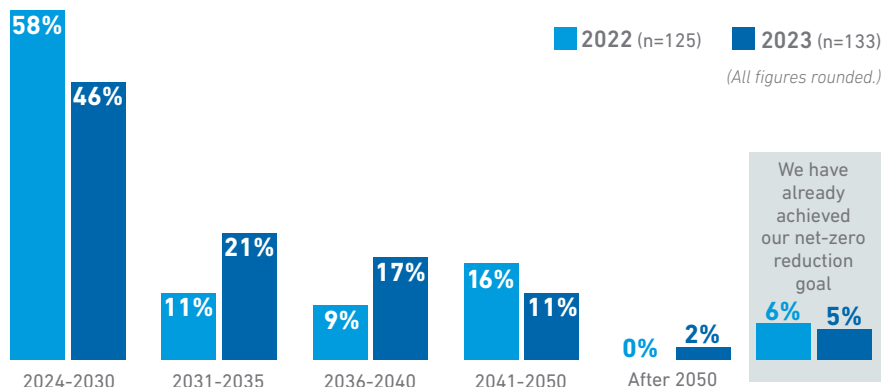Does your organization have a greenhouse gas net-zero emissions goal?

Legend:
- YES (certified by SBTi)
- YES (not certified by SBTi)
- NO

- 2022 (n=270): 18% | 31% | 51%
- 2023 (n=310): 18% | 25% | 57%

(SBTi, Science Based Targets initiative.)

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Net-zero target dates are being extended

When does your organization expect to achieve its greenhouse gas net-zero emissions goal?
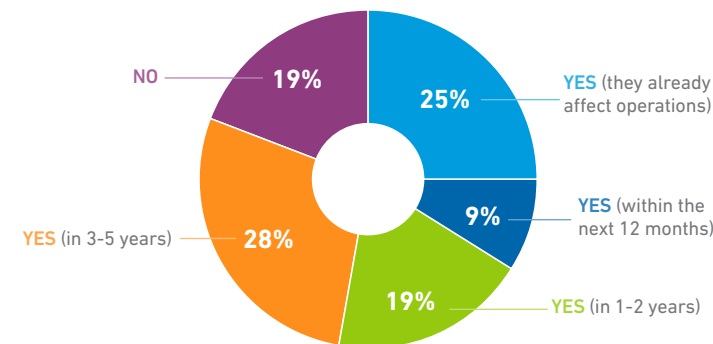
Legend: **2022** (n=125) | **2023** (n=133)

(All figures rounded.)

- 2024–2030: 58% | 46%
- 2031–2035: 11% | 21%
- 2036–2040: 9% | 17%
- 2041–2050: 16% | 11%
- After 2050: 0% | 2%
- We have already achieved our net-zero reduction goal: 6% | 5%

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Most expect sustainability regulations to affect operations

Does your organization believe its data centers will be subject to sustainability / energy-efficiency related regulations that affect operations? (n=349)
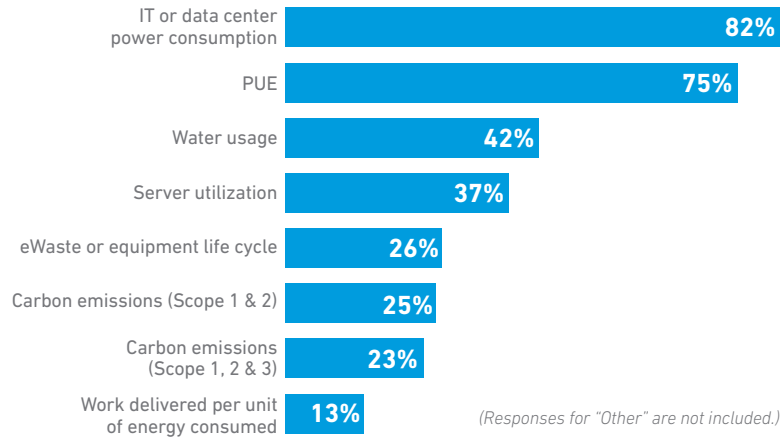

- NO: 19%
- YES (they already affect operations): 25%
- YES (within the next 12 months): 9%
- YES (in 1-2 years): 19%
- YES (in 3-5 years): 28%

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Sustainability strategies face greater pressure in 2024

Few organizations collect key sustainability data

Regarding your own organization, which IT or data center metrics does your organization compile and report for internal or external environmental sustainability purposes? Choose all that apply. (n=268)
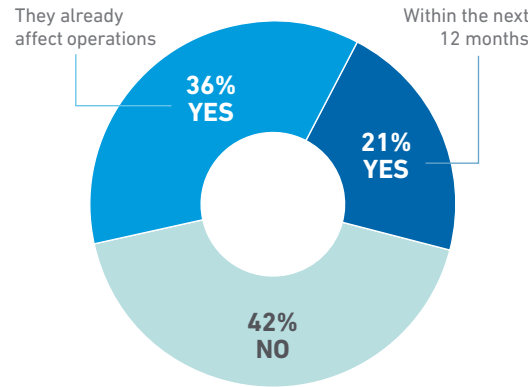
Metric	%
IT or data center power consumption	82%
PUE	75%
Water usage	42%
Server utilization	37%
eWaste or equipment life cycle	26%
Carbon emissions (Scope 1 & 2)	25%
Carbon emissions (Scope 1, 2 & 3)	23%
Work delivered per unit of energy consumed	13%

(Responses for "Other" are not included.)

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Over half set goals for renewable energy use

Has your organization set an enterprise-wide goal for data center renewable energy or carbon-free energy consumption? (n=380)
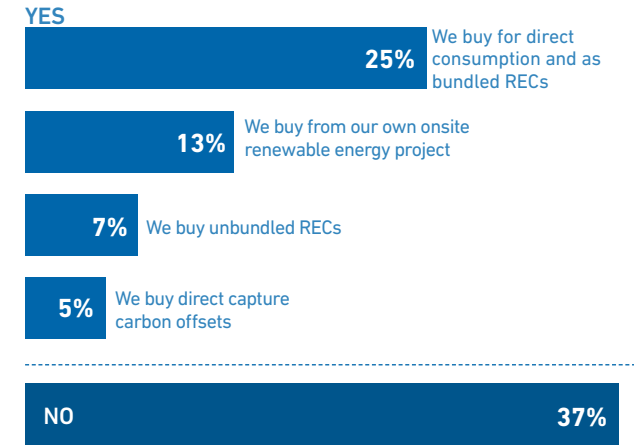
- They already affect operations — 36% YES
- Within the next 12 months — 21% YES
- 42% NO

(All figures rounded.)

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Most buy offsets to balance carbon emissions

Does your organization buy carbon offsets (including RECs) to balance out carbon emissions associated with your data centers? Choose all that apply. (n=393)
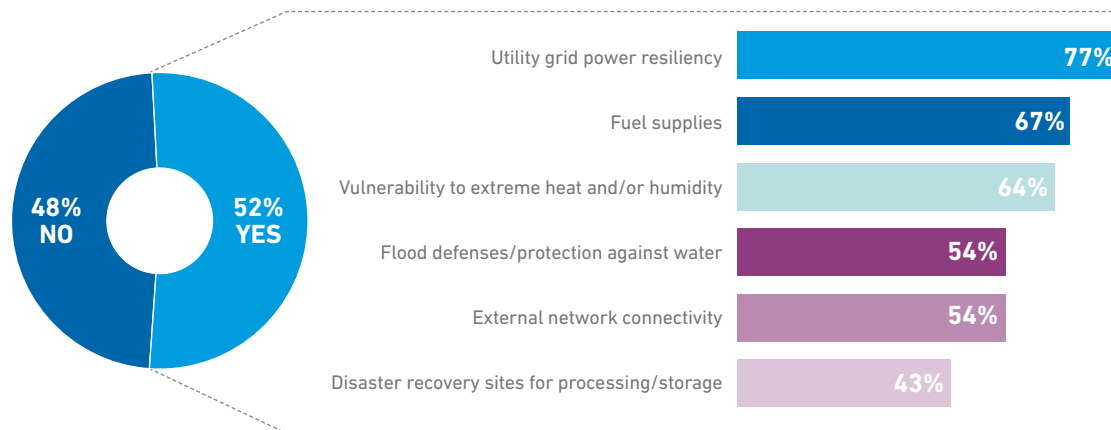
YES

	%
We buy for direct consumption and as bundled RECs	25%
We buy from our own onsite renewable energy project	13%
We buy unbundled RECs	7%
We buy direct capture carbon offsets	5%
NO	37%

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Strategies for assessing climate risks vary

Are you formally required to conduct climate change / weather-related resiliency assessments for your data center infrastructure? Which of the following areas do you typically review? Choose all that apply. (n=430)
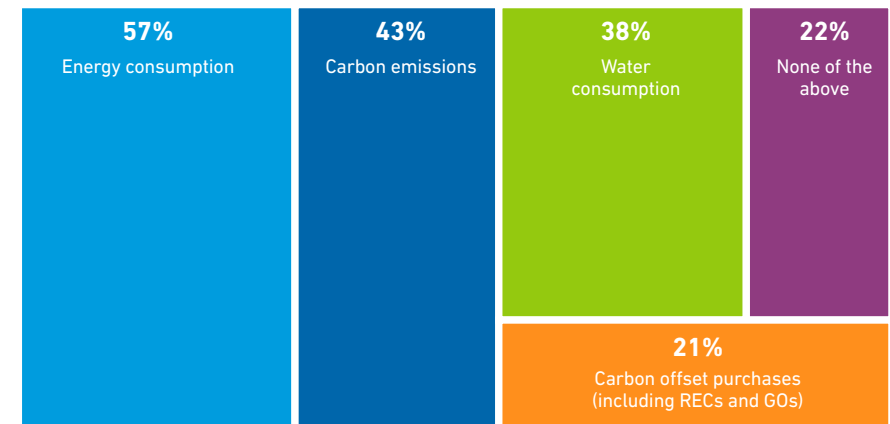
- 48% NO
- 52% YES

Area	%
Utility grid power resiliency	77%
Fuel supplies	67%
Vulnerability to extreme heat and/or humidity	64%
Flood defenses/protection against water	54%
External network connectivity	54%
Disaster recovery sites for processing/storage	43%

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Regulators target data center energy use and carbon emissions

Which of the following information is your organization required to provide to satisfy its 2023 regulatory requirements? Choose all that apply. (n=738)
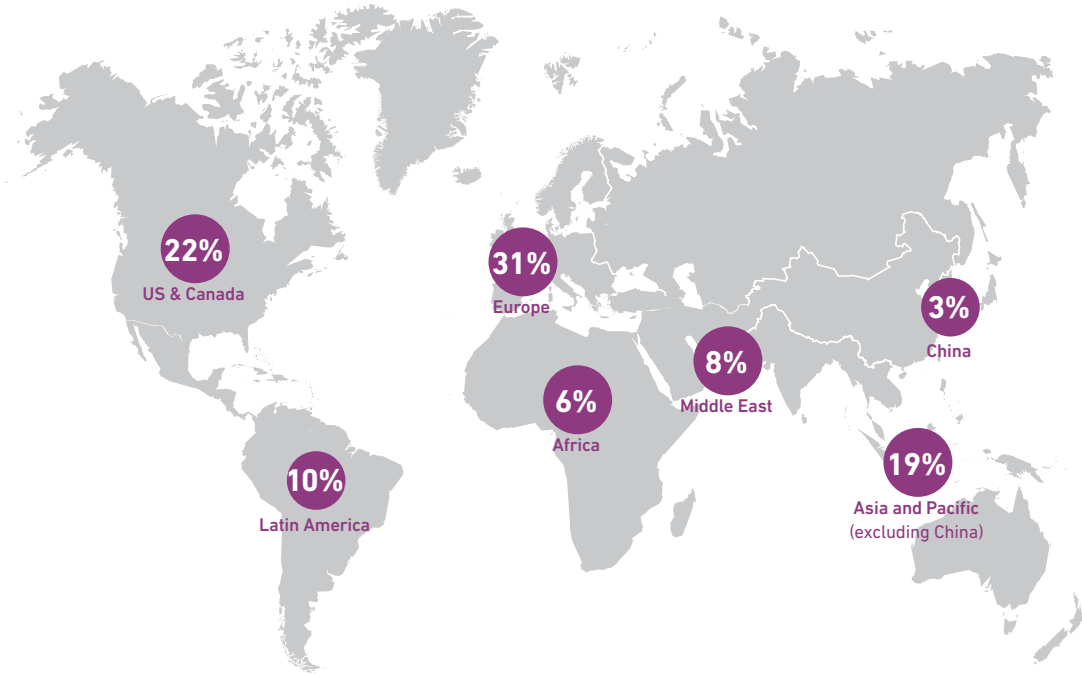
Category	%
Energy consumption	57%
Carbon emissions	43%
Water consumption	38%
None of the above	22%
Carbon offset purchases (including RECs and GOs)	21%

(Responses for "Other" are not included.)

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Company location (n=927)

- **22%** US & Canada
- **10%** Latin America
- **31%** Europe
- **6%** Africa
- **8%** Middle East
- **3%** China
- **19%** Asia and Pacific (excluding China)

Digital infrastructure environment (n=924)

- **25%** Enterprise data center owner / operator
- **16%** Vendor / product supplier
- **10%** Colocation provider
- **10%** Other
- **17%** Data center design or engineering firm
- **16%** Consultant / advisory firm
- **5%** Cloud / hosting provider

Verticals (n=690)

- Design and engineering — **23%**
- Colocation / multi-tenant data centers — **16%**
- Technology — **11%**
- Data center equipment supplier — **9%**
- Telecommunications — **9%**
- Financial — **7%**
- Manufacturing — **7%**
- Software and / or cloud services — **5%**
- Government — **3%**
- Utilities / energy — **3%**
- Education — **3%**
- Other — **4%**
  - 2% Retail / wholesale / distribution
  - 1% Media
  - 1% Transportation

Author

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About Uptime Institute

Uptime Institute is the Global Digital Infrastructure Authority. Its Tier Standard is the IT industry's most trusted and adopted global standard for the proper design, construction, and operation of data centers – the backbone of the digital economy. For over 25 years, the company has served as the standard for data center reliability, sustainability, and efficiency, providing customers assurance that their digital infrastructure can perform at a level that is consistent with their business needs across a wide array of operating conditions.

With its data center Tier Standard & Certifications, Management & Operations reviews, broad range of related risk and performance assessments, and accredited educational curriculum completed by over 10,000 data center professionals, Uptime Institute has helped thousands of companies, in over 100 countries to optimize critical IT assets while managing costs, resources, and efficiency.

Uptime Institute is headquartered in New York, NY, with offices in Seattle, London, Sao Paulo, Dubai, Singapore, and Taipei. For more information, please visit **www. uptimeinstitute.com**

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