



Clean Cloud 2026

Tracking Renewable Energy Use
in China's Tech Industry

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GREENPEACE

Introduction



Data centers, especially artificial intelligence (AI) data centers, continue to expand rapidly. In 2025, China's computing centers consumed 170 billion kWh of electricity and are projected to consume about 800 billion kWh by 2030, which will be around 6% of the country's total electricity usage.¹

In April 2026, the National Development and Reform Commission (NDRC), the National Energy Administration (NEA), the Ministry of Industry and Information Technology (MIIT), and the National Data Administration jointly issued the “Action Plan for Promoting the Mutual Empowerment of Artificial Intelligence and Energy”. The Action Plan encourages data centres and computing facilities continuously increasing the proportion of green power, improving energy efficiency, strengthening energy conservation and carbon reduction management, and highlights policy support for direct green power connection.²

On the other hand, rapid increases in AI data center electricity demand now impacts whether tech companies can expand renewable energy consumption, establish long-term and stable renewable energy procurement strategies, and further extend their emission reduction efforts across their supply chains.

Since 2020, Greenpeace East Asia's *Clean Cloud* reports have tracked climate action of Chinese tech companies. *Clean Cloud 2024* observed that the number of tech companies that had established climate targets further expanded. Against this backdrop, *Clean Cloud 2026* turns its focus to whether the growth in tech companies' renewable energy consumption can keep pace amid increasing power demand, whether corporate climate commitments have translated to actual renewable energy consumption, and which companies are pioneering renewable energy procurement models in the AI era.

1. National Energy Administration. (2026, May 27). Last year, national total power consumption of computing centers was 170 billion kWh, representing 1.6% of total societal electricity consumption. Accessed on <https://mp.weixin.qq.com/s/HSubXBwfDE42f0ZiUn9l-w>

2. Notice of the National Development and Reform Commission, National Energy Administration, Ministry of Industry and Information Technology, and National Data Administration on Issuing the *Action Plan for Promoting Mutual Empowerment of Artificial Intelligence and Energy* (Guo Neng Fa Ke [2026] No. 34), 2026. <https://www.nea.gov.cn/20260508/4dae97ca01d348e4871bb8654be34b3a/c.html>

Scope

Clean Cloud 2026 analyzes a total of 25 leading cloud providers and data center operators for analysis, factoring in industry leadership, market competitiveness, and public influence. The selected cloud providers are highly representative of China's public cloud IaaS market, accounting for over 63% of the market share in 2024.³ Meanwhile, the selected data center operators occupy key positions across various industry reports.^{4,5} The market size of China's intelligent computing cloud services reached 48.67 billion RMB, or 7.25 billion USD, in 2025, with large increases driven by AI. The top seven major companies by GenAI IaaS market share have all been included in this report.^{6,7}

This report used publicly available information to track the companies in the categories of transparency, carbon reduction measures and targets, renewable energy procurement and targets, and government and industry influence. Details about the methodology can be found at the end of the document.

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3. iResearch. [2025.9]. *Data Report on China's Infrastructure Cloud Service Industry*. Accessed on https://report.iresearch.cn/report_pdf.aspx?id=4750
 4. KZ Consulting. [2025.6.26]. *Research Report on the Development of China's Third-Party Computing Power Center Service Providers in 2025*. Accessed on <https://www.kzconsulting.cn/report/1122821940755562496.html>
 5. CAICT. [2025.7.7]. *Computing Power Center Service Providers Analysis Report (2025)*. Accessed on https://www.caict.ac.cn/kxyj/qwfb/ztbg/202507/t20250707_684939.htm
 6. IDC. [2026.5.29]. IDC: Behind the 132.1% Growth: The Competitive Logic of AI IaaS Shifts from Resource Supply to Full-Stack Capabilities.
 7. These seven companies are: Alibaba, Volcengine, Baidu, China Telecom, China Mobile, Huawei, and Tencent.
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Key Findings



- **Renewable energy is now a baseline expectation for the tech sector. In general, the ratios and total volumes of renewable energy consumption among the ranked companies continued on a rising trajectory.**

All 25 companies on the list have publicly disclosed information or plans related to their renewable energy consumption, with leading companies continuing to break records in total renewable energy used. Among cloud providers, Tencent consumed over 4 billion kWh of green electricity in 2025,⁸ Alibaba consumed over 3 billion kWh of renewable energy in FY2026.^{9, 10} Among data center operators, GDS reached 3.8 billion kWh of renewable energy consumption in 2025,¹¹ and China Mobile and China Telecom used over 5 billion kWh and 4 billion kWh green electricity, respectively.^{12, 13}

As total energy demand from data centers continues to expand rapidly, the proportion of electricity sourced from renewable energy by tech companies has also shown marked growth.

Eight companies reported annual renewable energy ratios that exceeded 30%, compared to just one company in the 2024 edition of this report. In 2025, renewable energy accounted for 60% of total consumption at GDS, Tencent reached a green electricity consumption ratio of 48.5%, and Kuaishou disclosed that green electricity procurement accounted for 93% of consumption for its self-built data centers.¹⁴

- **Carbon neutrality (Scope 1&2) and 100% renewable energy targets have become more common among tech companies, but industry competition has shifted from setting a target to delivering on it.**

Among the 25 companies ranked in this report, a total of 14 have set carbon neutrality targets for scope 1&2 emissions, and 11 have established 100% renewable energy targets. Alibaba pledges to power 100% of its cloud computing operations with clean electricity by 2030.¹⁵

Among the companies disclosing carbon neutrality targets, three companies have not set explicit 2030 timelines for their carbon neutrality targets. Among the companies disclosing 100% renewable energy targets, two have not explicitly committed to achieve 100% renewable energy by 2030. While annual renewable energy

8. Tencent. (2026). Environmental, Social and Governance Report 2025.

9. Alibaba Environmental, Social and Governance Report 2026.

10. FY2026: 2025.04.01-2026.03.31

11. GDS. (2026). SUSTAINABILITY REPORT. CONNECTING A SMART INFRASTRUCTURE PLATFORM TO A SUSTAINABLE FUTURE.

12. China Mobile. (2026). 2025 Sustainability Report. Green electricity purchase volume 55.20 100 million kWh

13. China Telecom. (2026). 2025 Sustainability (ESG) Report. Green electricity consumption over 4 billion kWh

14. Kuaishou Technology. (2026). 2025 Environmental, Social, and Governance Report.

15. Alibaba Environmental, Social and Governance Report 2026.

consumption among leading tech companies has repeatedly surpassed the billion-kWh mark, some companies still consume less than 100 million kWh per year or have made no public disclosures.¹⁶

🌱 **Multi-year Power Purchase Agreements (PPAs) and localized consumption are emerging as new trends in how data centers source renewable energy.**

Five out of 25 companies have disclosed exploring multi-year power purchase agreements (PPAs) through different approaches, and 12 companies have disclosed plans or progress regarding their participation in source-grid-load-storage integration projects and green power direct connection.

🌱 **The general quality of environmental information disclosure has evolved, with good continuity, completeness, and comparability of information becoming the new competitive edge.**

Twenty out of 25 companies disclosed their annual electricity consumption, with 13 companies disclosing the overall Power Usage Effectiveness (PUE) of their data centers. Regarding greenhouse gas (GHG) emissions, 20 tech companies disclosed their operational emissions, 13 of which went a step further to disclose some information about their Scope 3 emissions¹⁷.

🌱 **Supply chain decarbonization is approaching a turning point: accounting and disclosure have improved, but target-setting and implementation call for greater efforts.**

Thirteen out of 25 companies disclosed some information about their scope 3 emissions, reflecting a growing focus on supply chain carbon footprints.

Ambition for supply chain decarbonization, however, still needs to accelerate. Only Tencent has committed to achieve carbon neutrality in both its own operations and supply chain by 2030.¹⁸ And Alibaba Cloud will “achieve carbon neutrality in Scope 3 by 2030”.¹⁹ The other 23 companies have yet to publicly announce explicit supply chain carbon neutrality targets for 2030.

Some companies also promoted green power consumption among suppliers by sharing experience and encouraging leased data centers to deploy distributed solar PV.

16. Note: The data statistical scope is based on corporate annual environmental performance disclosures.

17. Note: Companies that disclosed their relevant environmental data for 2024 or 2025 were included.

18. Tencent. (2026). Environmental, Social and Governance Report 2025.

19. Alibaba Environmental, Social and Governance Report 2026.

Recommendations

1. **Establish targets for 100% renewable energy consumption and operational carbon neutrality by 2030.** Companies should also disclose progress toward these targets through official channels, including annual reports, ESG reports, and sustainability reports.
2. **Expand the scale and proportion of renewable energy consumption.** Tech companies should actively collaborate with grid companies, power generation companies, and power retailers to develop innovative ways to obtain renewable energy.
3. **Achieve carbon neutrality through direct emissions reductions, including procuring renewable energy and improving energy efficiency, rather than relying on carbon offsets.** Only when other options are not available should companies pursue high-quality carbon offset projects based on additionality, sustainability, and traceability. Companies should openly report the source and volume of offset GHG emissions, the reasons why they are unable to reduce emissions directly, and information on offset programs used, etc.
4. **Establish carbon neutrality targets across the supply chain by 2030,** driving suppliers to reduce carbon emissions through energy efficiency improvements and renewable energy consumption.
5. **Continue to improve information transparency.** Companies should actively disclose key environmental information such as energy consumption and total GHG emissions across scope 1, 2, and 3, while involving third-party independent assurance and GHG verification to enhance the transparency and credibility of information disclosures.

Ranking



Cloud providers

Cloud Providers	Transparency (20%)	Carbon Reduction Measures and Targets (30%)	Renewable Energy Procurement and Targets (40%)	Government and industry influence (10%)	Total (100%)
Tencent	16.67	27.60	40.00	7.00	91.27
Alibaba Group	17.14	27.60	34.67	7.00	86.41
ByteDance	4.76	19.20	32.00	7.00	62.96
Kuaishou Technology	14.29	13.20	32.00	3.00	62.49
Baidu	16.67	16.80	16.00	6.00	55.47
Huawei	15.71	13.20	17.33	6.00	52.24
SenseTime	15.24	16.80	9.33	4.00	45.37
JD.com	12.86	16.80	8.00	1.00	38.66
Kingsoft Cloud	11.43	16.80	9.33	0.00	37.56
Inspur	8.81	13.20	6.67	1.00	29.68

Data center operators

Data Center Operators	Transparency (20%)	Carbon Reduction Measures and Targets (30%)	Renewable Energy Procurement and Targets (40%)	Government and industry influence (10%)	Total(100%)
GDS	17.14	26.40	33.33	8.00	84.87
VNET Group	17.14	16.80	34.67	8.00	76.61
Chindata Group	13.33	24.00	26.67	6.00	70.00
Beijing HOYINN Technologies	15.24	16.80	28.00	7.00	67.04
Bohao Internet Data Services	14.29	21.60	25.33	4.00	65.22
China Mobile	14.29	14.40	21.33	7.00	57.02
China Telecom	14.76	10.80	20.00	4.00	49.56
Shanghai AtHub	13.33	13.20	14.67	6.00	47.20
China Unicom	11.90	9.60	14.67	6.00	42.17
ZDATA Group	0.95	16.80	13.33	6.00	37.08
Shanghai Baosight Software	12.38	9.60	13.33	1.00	36.31
Beijing Sinnet Technology	10.95	9.60	10.67	2.00	33.22
Range Technology	1.90	6.00	13.33	3.00	24.23
Guangdong Aofei Data Technology	0.00	12.00	8.00	2.00	22.00
Kehua Data	0.95	9.60	7.33	1.00	18.88

Methodology



Data

The ranking in this report is based on data from public sources, including corporate publications (ESG reports, sustainability reports, annual reports), official websites, official social media accounts, news reports, government information platforms, and third-party voluntary information disclosure platforms.

Scoring reflects both short and long-term indicators. The baseline period for short-term indicators consists of data from January 2024 to July 2026. To reflect the actual operational status of corporate entities in a more objective and comprehensive manner, the data collection scope extends through August 2026 for key annual data, such as electricity consumption and GHG emissions. Long-term indicators are not time-bound and include climate goals, data center siting and location, corporate environmental governance, carbon offset principles, energy-saving goals, and supplier selection principles, etc.

In terms of the companies' Transparency scoring, this report primarily relies on the disclosure scope at the corporate group level, with adaptive adjustments made based on specific practical circumstances.

Corporate renewable energy ratios primarily rely on corporate environmental performance disclosures. If a company does not disclose its green power ratio, the metric is calculated using reported data for the relevant reporting year, such as renewable energy consumption, green power usage, renewable electricity, purchased electricity, or total electricity consumption.

Selected companies

This report selected and analyzed 25 Chinese tech companies based on whether they provide cloud services or operate data centers, evaluating metrics such as market capitalization, market share, and cabinet scale. SenseTime was added to the cloud providers ranking, while Range Technology and Beijing HOYINN Technologies were added to the data center operators ranking. UCloud, Shenzhen Esin Technology, and Hotwon Group from *Clean Cloud 2024* have been excluded from this year's ranking.

Scoring criteria

Building upon the evaluation criteria of previous *Clean Cloud* reports, the research team updated the scoring criteria for this report, with input from experts across data centers, renewable energy, and ESG fields. These adjustments aim to capture more comprehensively and objectively the practical experience of China's cloud providers and data center operators on their path toward carbon neutrality and 100% renewable energy. Compared to the *Clean Cloud 2024* report, the new scoring criteria have incorporated additional corporate information disclosure channels and adjusted quantitative indicators for companies' energy conservation and emissions reduction outcomes.

Weight	Category	Criteria
20%	Transparency	Assessment of whether a company has disclosed the following information in external communications, media, or on third party information disclosure platforms.
		Data center and company electricity consumption: a. Total annual electricity consumption. b. Annual electricity consumption of data centers by geographic location.
		Data center and company electricity mix: a. Total annual electricity mix. b. Annual electricity mix of data centers by geographic location.
		Data center power usage effectiveness (PUE): a. Total annual average PUE. b. PUE of data centers by geographic location.
		Data center and company greenhouse gas (GHG) emissions: a. Total GHG emissions. b. Data center GHG emissions by geographic location. c. Total supply chain (Scope 3) GHG emissions (mainly includes Category 1 and Category 2).
		Data disclosure platforms, standards, assurance, and verification.
		Corporate Governance: Incorporation of ESG matters into the scope of corporate governance; establishment of a specialized committee reporting to and supervised by the CEO and/or board on a regular basis, and establishment of a strategy and risk management mechanism related to climate change; Analysis of the opportunities and challenges posed by climate change, and assessment of strategies and target mechanisms to address these risks.
30%	Carbon reduction measures and targets	Assessment of whether a company has set carbon neutrality and emissions reduction goals and taken steps to reduce carbon emissions and improve energy efficiency.
		Commitment to carbon neutrality across a company's own operations by 2030; Clear timeline for a Scope 3 carbon neutrality commitment.
		Set up a statement of principle for carbon offsets to avoid the use of carbon offsets as much as possible.
		Carbon reduction goals: a. Absolute carbon reduction goals. b. Scope 3 absolute carbon reduction goals.
		Energy efficiency goals: annual average PUE goals.
		Energy efficiency performance: a. Implementation of energy efficiency measures in data centers, including in buildings, IT equipment, cooling systems, and power systems. b. Energy efficiency improvement based on measurable targets and methodologies, such as energy saved (tonne coal equivalent), electricity saved (MWh), CO2e emission reduced (tonne), and PUE.
40%	Renewable energy procurement and targets	Assessment of whether a company has set renewable energy targets and taken measures to actively procure or consume renewable energy.
		Commitment to 100% renewable energy use by 2030.
		Establishment of data center site selection policy that considers renewable energy supply (reflected in corporate publications).
		Public disclosure of renewable energy procured or consumed, including amount and type of renewables, and percentage of the total energy mix. (Procurement mechanisms include build/invest in renewable projects, green power trading, green electricity certificates, etc.)
		Efforts to encourage suppliers to use sustainable energy sources or select suppliers who generate electricity using renewable sources.
		Construction of data centers in areas with abundant renewable energy supply.
10%	Government and industry influence	Assessment of whether a company has publicly leveraged its influence to build industry awareness about energy efficiency and renewable energy, including but not limited to the following forms.
		Cooperation with local governments, grid companies, power generation companies, and power retailers to expand renewable energy procurement market mechanisms.
		Sharing of renewable energy procurement and energy efficiency best practices with industry peers, including through conferences, white papers, and journal publications.
		Participation in Green Data Center certification programs.

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For over 50 years, Greenpeace has been sailing the world's oceans protecting our planet and fighting for environmental justice.

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