
Community Data Center Standard

China Edition — Version 0.1

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Eternal Harmony AI

Community Data Center Standard — China Edition

Version 1.0 — First China Release

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This Standard is based on the Community Data Center Standard (v0.1) open-source framework published by Eternal Harmony AI, and has been locally adapted in accordance with the laws, regulations, and community governance practices of the People's Republic of China. This edition is the first China-specific version of the Community Data Center Standard, with an independent version number separate from the English original, reflecting its status as a standalone standard within the Chinese context. Original standard clause numbers are preserved for international cross-reference.

This Standard embeds green, low-carbon operations, social responsibility, and community benefit mechanisms into the foundational architecture of data centers.

Preamble

The data center industry, while experiencing rapid growth, currently faces a challenge in balancing community trust with sustainability. Using the international market as an example, between May 2024 and June 2025, data center projects with a total investment exceeding \$162 billion were shelved or delayed due to community opposition. Communities near data center facilities around the world have expressed concerns and resistance: some of these facilities exhibit high water consumption, high energy use, noise and heat pollution, and provide limited direct contribution to local employment and economic growth, with profits primarily flowing to off-site legal entities.

Although the technical conditions for building green, low-carbon data centers are already mature, the industry still lacks a credible, enforceable, and highly transparent standardized framework to ensure that data centers can genuinely give back to their surrounding communities — not merely through public relations campaigns and non-binding voluntary commitments, but through structural mechanisms embedded in facility design, project financing, and day-to-day operations.

This framework is designed precisely for that purpose.

Part I: Core Principles

1. Community First, Not Community Last

The community hosting a project is a stakeholder, not an obstacle to project advancement. Community benefits are not a negotiable concession but a core design requirement, with a priority equal to system uptime, energy efficiency, and profitability.

2. Structural, Not Voluntary

All community benefit mechanisms under this Standard are designed to ensure legal binding force, embedded in facility design (including waste heat recovery and renewable energy integration), and continuously monitored (via real-time public dashboards). Purely voluntary commitments do not meet the requirements of this Standard.

China Implementation Note: The original standard's "Community Benefits Agreement (CBA)" mechanism has been adapted, in accordance with existing laws of the People's Republic of China — including the Law on the Administration of Tax Collection and the Charity Law — into the following China-context localization mechanisms: (1) Social stability risk assessment (National Development and Reform Commission); (2) Special public welfare fund (Articles 46–49 of the Charity Law of the PRC); (3) Local government investment promotion evaluation framework. Original standard clause numbers (CBA-1 through CBA-N) are preserved for international cross-reference.

3. Local Impact, Local Benefit

Off-site water compensation cannot alleviate local watershed depletion. Purchasing Renewable Energy Certificates (RECs) from already-operating solar farms does not reduce carbon emissions in the local grid area. All compensation, mitigation measures, and benefit distributions must be measurable at the local level — strictly limited to the same local watershed, the same grid region, and the same surrounding community.

4. Default Transparency

All metrics involving community impact must be published in real time on a public dashboard, openly accessible to all community members. Annual audits must be mandatorily

conducted by an independent third party. Community impact data may not be withheld on grounds of trade secrets.

China Implementation Note: In accordance with Article 21 of the Data Security Law of the PRC and the Regulations on the Security Protection of Critical Information Infrastructure, data centers designated as Critical Information Infrastructure (CII) shall report real-time operational data to authorized regulatory platforms, in lieu of public disclosure on public dashboards. Aggregated, non-real-time historical data must still be publicly disclosed. All non-CII data centers must maintain fully public real-time dashboards.

5. Automatic and Continuous

Community benefits are not a one-time disbursement. They rely on structural mechanisms (revenue sharing, heat distribution, utility rate hedging) that operate continuously throughout the facility’s entire operational lifecycle. These mechanisms operate automatically, without requiring annual renegotiation or reliance on corporate goodwill.

Part II: The Five Pillars

Pillar 1: Energy Accountability

Goal: Ensure that the data center’s energy consumption does not increase energy costs for the local community, reduce energy availability, or increase carbon emissions.

Requirement	Target	Measurement Method
Grid Impact Neutrality	Data center operations must not materially increase residential transmission and distribution (T&D;) rates or energy expenditures within its service area. The facility shall offset its grid expansion costs by investing in local distributed renewable energy, co-locating energy storage, or paying capacity compensation / system regulation fees to the power grid.	Verified comparison of electricity rate structures and data center hedging investment evidence; if disputed, an independent third party shall conduct an economic attribution analysis.

Requirement	Target	Measurement Method
True Renewable Procurement	At least 80% of energy shall come from renewable sources within the same regional grid. Verification shall follow China's Green Electricity Certificate (GEC) trading system and the green electricity trading rules of the Beijing/Guangzhou Power Trading Centers. Where the grid infrastructure supports hourly verification, such verification shall be prioritized.	Energy tracing verified through grid operator data, GEC issuance records, or on-site monitoring.
Additionality	At least 50% of renewable energy shall come from generation facilities that were commissioned after the data center's planning and approval date (additionality).	Comparison of PPA signing date with the data center's planning timeline.
On-site or Nearby Generation	It is encouraged that at least 10% of energy come from on-site or same-distribution-network-node distributed renewable energy (assessed flexibly based on site conditions).	Metered on-site/distribution node generation / total electricity consumption.
Energy Efficiency	The data center's Power Usage Effectiveness (PUE) must comply with GB 40879-2021 *Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades for Data Centers* (Grade 1 $\leq$ 1.20, Grade 2 $\leq$ 1.30). According to NDRC Industry [2021] No. 1464, data centers in national hub nodes must achieve PUE $\leq$ 1.25 by the end of 2025. This Standard requires: within national computing hub nodes (the "East Data, West Computing" project), new large-scale or larger data centers shall achieve GB 40879-2021 Grade 1 energy efficiency (PUE $\leq$ 1.20); in other areas, they shall achieve Grade 2 energy efficiency (PUE $\leq$ 1.30, annual average).	Continuous monitoring, with an independent audit conducted quarterly.

Transition Explanation: The following is a suggested transition path; final compliance shall be in accordance with the requirements of the corresponding tier. Full compliance shall be achieved within three years from the start of initial operations. Suggested

interim targets: Year 1 — renewable energy ratio $\geq 50\%$; Year 2 — $\geq 65\%$; Year 3 — $\geq 80\%$. Green electricity trading and hourly verification will advance in tandem with the development of the electricity market infrastructure.

Pillar 2: Water Stewardship

Goal: The data center shall not deplete, pollute, or displace local water resources.

Requirement	Target	Measurement Method
Local Watershed Balance	Net water consumption shall be replenished to achieve a local watershed water balance through equivalent water rights purchases, water infrastructure repairs (e.g., pipe leakage repairs, agricultural drip irrigation retrofits), or wetland restoration. Replenishment actions must be independently technically verified, and their water-saving or replenishment benefits can be equivalently calculated.	Water utility extraction records, plus outcomes of local watershed replenishment/water-saving projects verified by a qualified third party.
WUE Threshold	$WUE \leq 1.0 \text{ L/kWh}$ (annual average; Tier 3 “Community Exemplary” target; per-tier thresholds are given in Part III).	Continuous monitoring.
Water Stress Assessment	If located in a water-stressed area (according to WRI Aqueduct or a local authoritative assessment), only air-cooled or closed-loop cooling shall be used (evaporative/once-through cooling is prohibited).	WRI assessment report and cooling system technical documentation.
No Water Competition	Data center water extraction shall not displace residential, agricultural, or ecological water use.	Independent third-party annual hydrological impact assessment report.
Minimum Recycling Requirement	At least 80% of process water shall be recycled on-site.	Water flow monitoring.

Requirement	Target	Measurement Method
PFAS Disclosure and Monitoring	Full public disclosure of all PFAS-containing substances used on-site (including coolants, fire-fighting agents, coatings, etc.). Quarterly testing of wastewater discharge, stormwater runoff, and downstream groundwater for PFAS.	Publicly published PFAS inventory; laboratory reports from qualified testing institutions.
PFAS Emission Control	PFAS concentrations in facility wastewater discharge shall comply with the most stringent local industrial wastewater discharge standards; if the intake PFAS concentration is anomalous, the "Net Zero Addition" principle shall apply (effluent concentration not higher than the intake water source concentration). The core pathway is source substitution. Emission control shall strictly comply with the Water Pollution Prevention and Control Law of the PRC, the Environmental Quality Standards for Surface Water (GB 3838-2002), and the Standards for Drinking Water Quality (GB 5749-2022). Where the State has not yet established unified PFAS emission limits, internationally recognized limits (e.g., US EPA drinking water MCLs, PFOA/PFOS 4 ng/L) and the Ministry of Ecology and Environment's requirements on persistent organic pollutants shall be referenced.	Quarterly third-party laboratory analysis at discharge points; comparative monitoring of PFAS in intake and discharge water.
PFAS-Free Transition	New facilities must use PFAS-free cooling and fire-suppression systems. Existing facilities must publish a PFAS phase-out plan within 3 years and set a clear completion date; the maximum phase-out transition period shall not exceed 6 years.	Trends in PFAS inventory; milestone progress on the transition plan; procurement evidence for PFAS-free products.

Pillar 3: Waste Heat Utilization

Goal: Data center waste heat shall be treated as a community resource, not an environmental burden.

Requirement	Target	Measurement Method
Heat Capture	At least 60% of waste heat shall be captured at a usable temperature ($\geq 40^{\circ}\text{C}$).	Temperature and flow monitoring at the capture point.
Community Heat Distribution	Captured waste heat shall be prioritized for community use (district heating, agriculture, industrial processes, absorption cooling, etc.). In temperate and cold regions with sustained heat demand, the annual average target is $\geq 50\%$; in tropical and subtropical regions, absorption cooling, agricultural drying, aquaculture, or other alternatives are permitted as substitutes for heating, and the distribution ratio may be adjusted downward through community consultation but shall not be zero.	Metered heat delivery to off-takers; climate zone assessment report.
Heat Priority Provision	The data center must offer waste heat to the community at a price below market rates before it may be vented to the atmosphere.	Published heat supply offer; community right of first refusal.

China Implementation Note: In regions with centralized district heating (monopolized by state-owned heating enterprises), grid connection for waste heat must obtain formal franchise or interconnection agreement approval from the local Urban Management Bureau and its designated state-owned heating enterprise. This procedural requirement does not alter the community obligation of priority heat provision.

Liquid Cooling Pathway	New facilities must adopt liquid cooling for $\geq 50\%$ of the IT load to enable high-temperature heat recovery. Coolants must be PFAS-free (using fluorine-free dielectric fluids, water-based systems, or synthetic hydrocarbons).	Cooling system design documentation; coolant Safety Data Sheets (SDS).
Public Heat Dashboard	Real-time display of heat capture, distribution, and utilization.	Public-facing monitoring dashboard.

Climate Adaptability Note: In climate zones where district heating demand has seasonal fluctuations or there is no year-round heating demand, the distribution target shall be assessed based on available heat, and priority shall be given to developing heat use scenarios that are actually needed by the community. Data centers are encouraged to be sited close to year-round heat users (e.g., greenhouse agriculture, aquaculture, light industry).

Pillar 4: Community Economic Benefit

Goal: Ensure that the host community receives sustained, measurable economic benefits that cover and exceed the costs and burdens imposed by the data center.

Requirement	Target	Measurement Method
Community Benefit Fund	Each year, no less than 2% of the facility’s total revenue shall be deposited into a Community Benefit Fund managed by a community-led committee. In China, it is recommended that the fund be established in the form of a special public welfare fund (Charity Law of the PRC) or a charitable trust.	Audited financial statements; proof of effective fund contributions.
Local Employment	At least 40% of long-term operations personnel and 60% of construction workers shall be recruited from the local community (within a 50 km radius).	Payroll records and permanent address verification.
Skills Training	Establish a data-center-funded technical training program open to all community residents. For every 100 MW of facility capacity, the program shall enroll at least 50 trainees per year.	Program enrollment and completion records.

Requirement	Target	Measurement Method
Utility Rate Protection	The data center shall invest in local grid infrastructure upgrades or deploy demand-side response systems to ensure that the facility does not cause an increase in residential T&D; rates. If a rate increase occurs for residents due to data-center-related dedicated grid investments, the increase shall be fully offset through capacity compensation or system regulation fees.	Comparison of regulatory documents and data center hedging investment evidence.
Tax Transparency	A comprehensive public disclosure of all tax incentives, exemptions, and subsidies received, as well as a detailed list of taxes actually paid, shall be published annually.	Publicly published annual report.

China Implementation Note: The original standard's "No Abatement Without CBA" clause (CBA-2) is implemented in China as follows: The data center must complete a social stability risk assessment and incorporate the Community Benefit Fund commitments and local employment targets into the local government's investment promotion evaluation framework. These serve as prerequisites for applying for incentive measures such as industrial support funds, land use preferences, and expedited administrative approvals. Private contracts may not alter tax matters (Article 3, Law on the Administration of Tax Collection of the PRC).

Community Quality of Life Enhancement Plan	The data center shall fund and implement a Community Quality of Life Enhancement Plan, including but not limited to public landscaping, sound barriers, road repairs, and community center construction — all verifiable deliverables. The annual investment shall be no less than 0.5% of the facility's total revenue, or as stipulated in the budget approved by the community committee. A supervision mechanism involving the sub-district office or neighborhood committee shall be established to ensure continuous implementation.	Improvement plan, annual implementation report, and independent assessment.
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China Implementation Note: The original standard's "Property Value Guarantee" provision has been localized into the above verifiable "Community Quality of Life Enhancement Plan" because land in China is owned by the State or collectives (Article 2, Land Administration Law of the PRC), and property prices are influenced by multiple factors such as macroeconomics and municipal planning, making causation difficult to prove. This adjustment does not reduce the data center's substantive compensation obligations to the surrounding community.

Community Benefit Fund Governance: - Committee composition: 5-7 members — majority must be community resident representatives, and at least one local government (municipal) representative and one data center representative. - Decision mechanism: majority voting. - Disclosure: annual public report on fund allocation. - Eligible uses: education, infrastructure, environmental remediation, community services, emergency services, and local enterprise grants.

Pillar 5: Transparency & Accountability

Goal: Ensure that the surrounding community has comprehensive, real-time access to the data center’s impacts and benefits, verified by an independent third party.

Requirement	Standard	Measurement Method
Public Dashboard	Establish a real-time, internet-accessible public dashboard displaying: energy mix, PUE, water consumption, waste heat utilization, Community Benefit Fund balance, employment statistics, and environmental metrics. For facilities designated as Critical Information Infrastructure (CII) under Chinese law, real-time operational data shall be reported to an authorized regulatory platform, and aggregated historical data shall replace full real-time public disclosure. All non-CII facilities shall maintain a fully open real-time dashboard.	Dashboard system availability $\geq$ 99.5%; data update latency $\leq$ 1 hour (non-CII facilities); historical data latency for CII facilities shall be as required by regulatory authorities.

Requirement	Standard	Measurement Method
Independent Audit	Engage an accounting firm legally established within China (complying with the Certified Public Accountants Law of the PRC and relevant regulations) to conduct an annual comprehensive audit in accordance with China Standards on Auditing (CSA). The audit scope shall cover all five pillars.	Publicly published audit report.
Community Monitoring	The data center shall fund 1-2 full-time community monitoring positions; monitoring personnel shall have the right to enter the facility premises to conduct environmental verification.	Employment records; site access logs.
Grievance Mechanism	Establish a formal process for community members to submit complaints; a mandatory response shall be provided within 30 days (concerns involving health, safety, or the environment shall be handled through expedited procedures in accordance with relevant regulations).	Grievance register with progress tracking.
Expansion Public Consultation	Any expansion exceeding 20% of the original design capacity shall undergo a community public consultation process (public comment period of no less than 90 days; the specific timeline may be negotiated between the data center and the community based on project scale and urgency).	Records of the consultation process filed for reference.

Part III: Compliance Tiers

Tier 1: Community Committed (Entry Level)

- Complete social stability risk assessment and filing - Real-time public dashboard operational (CII facilities: authorized regulatory platform alternative) - Community Benefit Fund established, annual contribution $\geq 1\%$ of gross revenue - PUE ≤ 1.30 (GB 40879-2021 Grade 2) - Complete water stress assessment - Complete waste heat recovery assessment and develop waste heat utilization roadmap - Establish local employment targets - Complete PFAS inventory and public disclosure - Complete PFAS baseline testing of soil and groundwater before construction

Tier 2: Community Beneficial (Operational Standard)

- Meet all Tier 1 requirements, plus: - Community Benefit Fund annual contribution $\geq 2\%$ of gross revenue - PUE ≤ 1.25 - Renewable energy $\geq 60\%$ (same grid region, verified per China GEC and green electricity trading rules) - WUE ≤ 1.5 L/kWh - $\geq 30\%$ waste heat recovered and used for surrounding community - Steadily advance and fulfill local employment targets - Annual independent audit per China Standards on Auditing (CSA) - Ongoing quarterly PFAS emission monitoring - Publish PFAS-free transition plan (if PFAS still in use)

Tier 3: Community Exemplary (Gold Standard)

- Fully implement all Tier 2 requirements, plus: - Community Benefit Fund contribution $\geq 3\%$ of gross revenue - PUE ≤ 1.20 (GB 40879-2021 Grade 1) - Renewable energy $\geq 80\%$, with $\geq 50\%$ additionality - WUE ≤ 1.0 L/kWh - Waste heat recovery for community $\geq 50\%$ (100% where climate permits) - Community Quality of Life Enhancement Plan fully implemented with regular independent evaluation - Utility rate protection mechanism formally effective - Establish and fully fund community environmental monitoring positions - Establish and standardize expansion public consultation process - Achieve PFAS-free operations (all coolants and fire suppression systems PFAS-free) - Establish PFAS environmental remediation escrow fund

Part IV: Implementation Mechanisms

Legal

1. Social Stability Risk Assessment — Per the NDRC Interim Measures for Social Stability Risk Assessment of Major Fixed Asset Investment Projects, as a prerequisite for data center project approval. 2. Local Government Incentive Framework — Provincial and city/county governments link industrial support funds, land use incentives, and administrative approval green channels to compliance with this Standard. 3. Provincial Regulatory Framework — Provincial authorities incorporate community benefit fund commitments and local employment into investment promotion evaluation systems; promote local regulations for residential electricity rate protection and user rate categories.

China Implementation Note: The original standard's "Municipal Ordinance" enforcement mechanism corresponds to China's city or county local regulations or local government rules (Article 82, Legislation Law of the PRC). The original standard's "State Regulatory Framework" corresponds to China's provincial, autonomous region, and municipality regulatory framework (Article 30, Constitution of the PRC).

Technical

1. Public Dashboard Platform — Open-source monitoring and reporting platform (may be developed by third-party community); CII facilities must also support authorized regulatory platform data reporting. 2. Monitoring Infrastructure — Integrate sensors, meters, and data acquisition systems into facility design. 3. Heat Distribution Infrastructure — From project inception, incorporate piping, heat exchangers, and connection networks into facility design; where municipal centralized heating systems are involved, obtain interconnection approval from the Urban Management Bureau and its designated state-owned heating enterprise.

Financial

1. Community Benefit Fund — With community governance rights, legally established under Chinese law as a special public welfare fund (Charity Law of the PRC) or charitable trust. 2. Third-Party Audit — By accounting firms legally established in China, following China Standards on Auditing (CSA), conducting annual compliance verification. 3. Certification Fees — This Standard sustains operations through certification revenue (assessment, annual renewal, and dashboard hosting).

Part V: Metrics Index

Metric	Unit	Target
PUE	ratio	≤ 1.30 (GB 40879-2021 Grade 2); national computing hub nodes ≤ 1.20 (GB 40879-2021 Grade 1)
CUE	kgCO ₂ /kWh	Minimize and disclose
WUE	L/kWh	≤ 1.0
ERE	ratio	≤ 0.8
REF	%	≥ 80% (verified per GEC/green electricity trading rules)
CHI — new	% waste heat used by community	≥ 30% (Tier 2) / ≥ 50% (Tier 3)
LWR — new	% restored to local watershed	100%
CBI — new	benefit amount / revenue amount	≥ 2% (direct fund injection)
LER — new	% local employees	operations ≥ 40%
ECI — new	attributable electricity rate change (USD)	\$0 (zero increase for residential users)
PFI — new	% operations using PFAS-free alternatives	100% (PFAS-free achieved)

Part VI: Who This Framework Serves

Stakeholder	How This Standard Is Applied
Surrounding Communities	Participate in social stability risk assessment; monitor real-time public dashboard; participate in Community Benefit Fund allocation voting through community committee.
Local Governments	Incorporate this Standard into investment promotion evaluation system; enforce compliance through land planning and administrative permits; provide standard governance template for Community Benefit Fund.
Provincial Regulatory Agencies	Link industrial support funds to compliance with this Standard; promote local regulations for demonstration residential electricity rate categories.
Data Center Operators	Reduce social stability risk and project obstruction risk; attract ESG-conscious clients; achieve brand differentiation.
Data Center Investors	Reduce project investment risk; demonstrate ESG compliance to LPs.
Cloud Service Customers	Select providers compliant with this Standard; disclose responsible cloud resource usage reports.
Eternal Harmony AI	Publish standards, provide consulting, conduct certification; develop supporting technology platforms.

Part VII: What's Different

Current Industry Practice	This Standard
Voluntary commitments	Social stability risk assessment + special public welfare fund (legally binding)
Annual RECs	GEC/green electricity trading verification within same grid region, prioritizing hourly matching
Global water compensation	Local watershed restoration (equivalent replenishment, independently technically verified)
PUE-only disclosure	11-metric real-time public dashboard
Corporate CSR reports	Independent third-party audit per China Standards on Auditing (CSA)

Current Industry Practice	This Standard
Tax incentives without accountability	Community benefit commitment as prerequisite for industrial support funds and land use incentives
Vague employment promises	Verified local employment (50 km radius), community oversight
Waste heat vented to atmosphere	Waste heat recovered and distributed to surrounding community
Viewing community as project obstacle	Viewing community as co-governance stakeholder

Version History

Version	Date	Changes
0.1	April 2026	Initial framework draft — research synthesis, five-pillar definition, and metrics system construction (English original, Eternal Harmony AI)
0.1.1	April 2026	Added PFAS requirements in Pillar 2, Pillar 3, Metrics Index, and Compliance Tiers (English original)

Version	Date	Changes
0.1	June 2026	First China Edition release. Based on English original v0.1 framework with the following localization: (1) CBA mechanism mapped to China’s social stability risk assessment, special public welfare fund, and investment promotion evaluation framework; (2) Property Value Guarantee clause localized to Community Quality of Life Enhancement Plan; (3) Added Chinese legal citations (Data Security Law, GB 40879–2021, CSA, etc.); (4) Added CII data disclosure exemption mechanism; (5) Refined procedural notes on GEC/green electricity trading verification, centralized heating franchise, etc.; (6) Distance units converted to metric (50 km). All original standard clause numbers preserved. For item-by-item mapping between original standard provisions and China-localized provisions, please refer to the companion document Appendix A: Original Standard Clause → China Implementation Mapping.

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Eternal Harmony AI | June 2026 This Standard is the China-localized version of the Community Data Center Standard framework. The English original framework (v0.1) is concurrently maintained and applicable to other jurisdictions. Both versions are complete, self-contained standalone documents within their respective scopes. The companion document [Appendix A: Original Standard Clause → China Implementation Mapping] is available for international researchers and comparative reference, and may be obtained independently.

References

All Chinese laws, regulations, national standards, policy documents, international standards, and research materials cited in this Standard are detailed in the companion document Bibliography — Community Data Center Standard — China Edition.

Citation Category Overview

Category	Count	Representative Documents
Laws of the PRC	15	Energy Conservation Law, Environmental Protection Law, Renewable Energy Law, Data Security Law, Charity Law
Administrative Regulations	5	Regulations on the Security Protection of Critical Information Infrastructure, Action Plan for Carbon Dioxide Peaking Before 2030, 2024 - 2025 Action Plan for Energy Conservation and Carbon Reduction
Mandatory National Standards (GB)	3	GB 40879-2021 *Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades for Data Centers*
Recommended National Standards (GB/T)	3	GB/T 44989-2024 *Green Data Center Evaluation*
Ministerial Normative Documents	15	NDRC Industry [2021] No. 1464, NDRC High-Tech [2021] No. 1742, NDRC Environment [2024] No. 970, NDRC Energy [2023] No. 1044, Priority Controlled New Pollutants List (2023 Edition)
Provincial/Municipal Policies (Yunnan/Kunming)	4	Yunnan Province Three-Year Action Plan for New Data Center Development
National Major Strategies	4	"East Data, West Computing" Project, "Dual Carbon" Goals, "New Quality Productive Forces"
International Standards & References	6	EPA PFAS MCLs, WRI Aqueduct, ISO 50001
Eternal Harmony Research Foundation	9	Nine research articles published at eternalharmony.ai/research/harmonize-data-centers

Key Citation Reference

Key data points in this Standard are based on the following publicly accessible authoritative sources:

Data Point	Source Document	Attribution
National hub node PUE ≤ 1.25 ; new large+ DC PUE ≤ 1.30	*Opinions on Strict Energy Efficiency Constraints to Promote Energy Conservation and Carbon Reduction in Key Sectors* (NDRC Industry [2021] No. 1464); *Implementation Plan for Achieving Carbon Peak and Carbon Neutrality Goals and Promoting Green and High-Quality Development of Data Centers, 5G, and Other New Infrastructure* (NDRC High-Tech [2021] No. 1742)	NDRC et al., 2021
National hub node new DCs: green electricity $\geq 80\%$ (2025); national DC green electricity usage significantly increased	*Special Action Plan for Green and Low-Carbon Development of Data Centers* (NDRC Environment [2024] No. 970)	NDRC, MIIT, NEA, NDA, July 2024
GB 40879-2021 energy efficiency grades: Grade 1 ≤ 1.20 / Grade 2 ≤ 1.30 / Grade 3 ≤ 1.50	*Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades for Data Centers* (GB 40879-2021)	SAMR, SAC, 2021
Green data center evaluation grade requirements	*Green Data Center Evaluation* (GB/T 44989-2024)	SAMR, SAC, 2024
GECs as sole official proof of green electricity consumption	*Notice on Full Coverage of Renewable Energy Green Electricity Certificates to Promote Renewable Energy Electricity Consumption* (NDRC Energy [2023] No. 1044)	NDRC, MOF, NEA, 2023
PFOS/PFOA: prohibited production, processing, use	*Priority Controlled New Pollutants List (2023 Edition)* (Order No. 28 of MEE et al.)	MEE and five other departments, effective March 1, 2023
China DC electricity consumption projected >400 TWh by 2030	CAICT and ODCC *Data Center White Paper* (2022) estimates	CAICT/ODCC, 2022; further confirmed by *Data Center Full Lifecycle Green Computing Index White Paper* (2024)
Data centers designated as key sector for energy conservation and carbon reduction	*2024-2025 Action Plan for Energy Conservation and Carbon Reduction* (State Council [2024] No. 12)	State Council, May 2024
Social stability risk assessment required before major project approval	*NDRC Interim Measures for Social Stability Risk Assessment of Major Fixed Asset Investment Projects* (NDRC Investment [2012] No. 2492)	NDRC, 2012

Data Point	Source Document	Attribution
Kunming digital economy major project subsidies up to RMB 10 million	*Several Measures of Kunming Municipality on Supporting the Development of the Digital Economy Industry (Trial)* (Kunming Government [2023] No. 6)	Kunming Municipal People's Government, 2023
EPA PFOA/PFOS drinking water MCLs: 4 ng/L	PFAS National Primary Drinking Water Regulation, 89 FR 32532 (April 26, 2024)	US Environmental Protection Agency (EPA)

For the complete reference list with detailed attributions, issuing authorities, and document numbers for each policy document, please refer to the standalone document [Bibliography — Community Data Center Standard — China Edition](#).