
Community Data Center Standard

China Edition — Version 0.1

First China Release • June 2026

Eternal Harmony AI

Community Data Center Standard — China Edition

Version 0.1, Revised June 2026 — First China Release

Eternal Harmony AI | June 2026

Permalink: eternalharmony.ai/research/harmonize-data-centers/china

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. For ease of international cross-reference, the clause numbering in this edition is consistent with that of the Community Data Center Standard (v0.1) framework.

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 overseas markets (primarily the United States) as an example, between May 2024 and June 2025, data center projects with a total investment exceeding \$162 billion (primarily in the United States) were shelved or delayed due to NIMBYism. 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, economic growth, tax revenue, and industrial development.

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 Localization Pathway: The community benefit assurance requirements of this Standard can be realized through China's existing, mature institutional framework: (1) Social stability risk assessment — a statutory prerequisite for major project approval established by the National Development and Reform Commission; (2) Special public welfare funds — lawfully established under Articles 46–49 of the Charity Law of the PRC; (3) Local government investment promotion evaluation framework — integrating community benefit commitments and local employment targets into comprehensive assessment. For ease of international cross-reference, the numbering of community benefit mechanism clauses in this edition is consistent with the Community Data Center Standard framework.

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.	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	$WUE \leq 1.0$ 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., international mainstream drinking water standards, 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: Urban district heating in China operates under a system of unified government planning and franchised management. Waste heat grid integration and utilization should be incorporated into local government heating plans, and realized through lawful franchise agreements or partnerships with designated heating enterprises, ensuring seamless alignment with the existing heating management system. 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	Comprehensive annual public disclosure of all tax incentives, abatements, and subsidies received, together with taxes actually paid.	Published annual report.

China Implementation Note: It is recommended that a data center project's social benefit commitments and verified community benefit outcomes be integrated into the comprehensive evaluation framework for local investment promotion and policy support, making the Community Benefit Fund and local employment prerequisites for accessing incentives such as industrial support funds, land-use concessions, and expedited administrative approval. China's tax incentive policies are uniformly prescribed at the national level (Article 3, Law on the Administration of Tax Collection of the PRC) and implemented by local governments within their statutory authority; project developers can ensure that incentives are linked with community returns through nationally-aligned targeted support programs.

Community Quality of Life Enhancement Program	The data center shall fund and implement a Community Quality of Life Enhancement Program, including but not limited to verifiable deliverables such as public greening, noise barriers, road repairs, and community center construction. The annual investment shall be no less than 0.5% of the facility's total revenue, or shall be executed in accordance with the enhancement program budget approved by the community committee. A monitoring mechanism involving the sub-district office or residents' committee shall be established to ensure the program's ongoing implementation.	Enhancement program plan, annual implementation report, and independent assessment.
---	--	---

China Implementation Note: In accordance with the Constitution of the PRC and the Land Administration Law, China implements a system of public land ownership (state ownership and collective ownership), which provides a solid institutional foundation for local governments to coordinate data center land planning, optimize spatial layout, and deliver community-supporting infrastructure. This Standard focuses community benefit assurance on verifiable public facilities and quality-of-life enhancements, delivered through the "Community Quality of Life Enhancement Program." This mechanism operates in parallel with public land ownership and ensures substantive, measurable compensation obligations from the data center to the surrounding community.

Community Benefit Fund Governance: – Board: 5-7 members — majority community residents, at least one municipal government representative, and one data center representative – Decisions by majority vote – Annual public reporting on fund allocation – Eligible uses: education, infrastructure, environmental restoration, community services, emergency services, local business grants

Pillar 5: Transparency & Accountability

Goal: Ensure that the surrounding community has comprehensive, real-time visibility into the data center’s impacts and benefits, verified by independent third parties.

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 PRC law, real-time operational data shall be reported to authorized regulatory platforms, with aggregated historical data substituted for real-time full public disclosure. All non-CII facilities must maintain fully public real-time dashboards.	Dashboard uptime $\geq 99.5\%$; data update latency ≤ 1 hour (non-CII facilities); historical data latency for CII facilities subject to regulatory requirements.
Independent Audit	Engage an accounting firm lawfully established within China (in compliance with the Certified Public Accountants Law of the PRC and related regulations), conducting annual comprehensive audits in accordance with China Standards on Auditing (CSA). The audit scope shall cover all five pillars.	Published audit report.
Community Monitoring	The data center shall fund 1-2 full-time community monitoring positions; monitors shall have facility access to conduct environmental verification.	Employment records; site access logs.
Grievance Mechanism	Establish a formal process for community members to raise concerns, with a mandatory response within 30 days (concerns involving health, safety, or the environment shall trigger expedited processing in accordance with relevant regulations).	Grievance log with resolution tracking.

Requirement	Standard	Measurement Method
Expansion Public Consultation	Any expansion exceeding 20% of the originally designed capacity shall undergo a community public consultation process (public comment period of no less than 90 days; the specific timeline may be adjusted through consultation between the data center and the community based on project scope and urgency).	Archived consultation process records.

Part III: Compliance Tiers

Tier 1: Community Committed (Entry Level)

- Complete social stability risk assessment and file with authorities - Real-time public dashboard operational (CII facilities may substitute with authorized regulatory platform) - Community Benefit Fund established, with annual contributions of no less than 1% of total revenue - $PUE \leq 1.30$ (corresponding to GB 40879-2021 Grade 2 energy efficiency) - Water stress assessment completed - Waste heat recovery assessment completed, with a waste heat utilization roadmap - Local employment targets established - PFAS inventory compiled and publicly published - Pre-construction PFAS baseline testing of soil and groundwater

Tier 2: Community Beneficial (Operating Standard)

- All Tier 1 requirements, plus: - Community Benefit Fund annual contributions of no less than 2% of total revenue - $PUE \leq 1.25$ - Renewable energy ratio $\geq 60\%$ (from the same grid region, verified according to China’s GEC and green electricity trading rules) - $WUE \leq 1.5$ L/kWh - $\geq 30\%$ waste heat recovered and delivered to surrounding community - Local employment targets being steadily advanced and met - Annual independent audit conducted in accordance with China Standards on Auditing (CSA) - Ongoing quarterly PFAS emission monitoring - PFAS-free transition plan published (if PFAS are currently in use)

Tier 3: Community Exemplary (Gold Standard)

- Full implementation of all Tier 2 requirements, plus: - Community Benefit Fund provision ratio of no less than 3% of total revenue - $PUE \leq 1.20$ (corresponding to GB 40879-2021 Grade 1 energy efficiency) - Renewable energy ratio $\geq 80\%$, with additionality ratio of no less than 50% - $WUE \leq 1.0$ L/kWh - Waste heat recovered for surrounding community use $\geq 50\%$ (100% if climate conditions permit) - Community Quality of Life Enhancement Program fully implemented and subject to regular independent assessment - Utility rate protection mechanism formally in effect - Community

environmental monitoring positions established and fully funded – Expansion public consultation process established and standardized – PFAS-free operations achieved (all cooling fluids and fire suppression systems PFAS-free) – PFAS environmental remediation escrow fund established

Part IV: Implementation Mechanisms

Legal

1. Social Stability Risk Assessment — In accordance with the NDRC's 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 municipal/county governments link industrial support funds, land-use concessions, and expedited administrative approval to compliance with this Standard 3. Provincial Regulatory Framework — Provincial-level authorities integrate Community Benefit Fund commitments and local employment into the investment promotion evaluation framework, and promote local legislation on residential electricity rate protection and user rate classifications

China Implementation Note: The "Municipal Ordinance" enforcement mechanism in the base standard corresponds to China's municipal and county-level local regulations or local government rules (Article 82, Legislation Law of the PRC). The "State Regulatory Framework" in the base standard corresponds to China's provincial, autonomous region, and centrally-administered municipality regulatory frameworks (Article 30, Constitution of the PRC).

Technical

1. Public Dashboard Platform — Open-source monitoring and reporting platform (may be developed by third-party communities); CII facilities must simultaneously support data reporting to authorized regulatory platforms 2. Monitoring Infrastructure — Sensors, meters, and data acquisition systems integrated into facility design 3. Heat Distribution Infrastructure — Piping, heat exchangers, and connection networks incorporated into facility design from the outset of the project; where municipal district heating systems are involved, grid integration shall follow local heating plans and be realized through lawful franchise agreements or partnerships with designated heating enterprises

Financial

1. Community Benefit Fund — A special public welfare fund (Charity Law of the PRC) or charitable trust, lawfully established under PRC law with community governance rights
2. Third-Party Audit — Annual compliance verification conducted by an accounting firm lawfully established within China, in accordance with China Standards on Auditing (CSA)
3. Certification Fees — This Standard operates on certification revenue (including assessment, annual renewal, and dashboard hosting)

Part V: Metrics Index

Metric	Unit	Target
PUE (Power Usage Effectiveness)	Ratio	≤ 1.30 (GB 40879-2021 Grade 2); National Computing Hub Nodes ≤ 1.20 (GB 40879-2021 Grade 1)
CUE (Carbon Usage Effectiveness)	kgCO ₂ /kWh	As low as possible, disclosed
WUE (Water Usage Effectiveness)	L/kWh	≤ 1.0
ERE (Energy Reuse Effectiveness)	Ratio	≤ 0.8
REF (Renewable Energy Factor)	%	≥ 80% (verified according to GEC/Green Electricity Trading Rules)
CHI (Community Heat Index) — NEW	% of waste heat to community	≥ 30% (Tier 2) / ≥ 50% (Tier 3)
LWR (Local Water Restoration) — NEW	% restored to local watershed	100%
CBI (Community Benefit Index) — NEW	\$ benefit / \$ revenue	≥ 2% (direct fund injection)
LER (Local Employment Ratio) — NEW	% local employees	≥ 40% operations
ECI (Energy Cost Impact) — NEW	\$ rate change attributable to DC	\$0 (no increase to residential customers)
PFI (PFAS-Free Index) — NEW	% of operations using PFAS-free alternatives	100% (PFAS-free)

Part VI: Who This Framework Serves

Stakeholder	How They Use This Standard
Surrounding Communities	Participate in social stability risk assessment; monitor real-time public dashboard; vote on Community Benefit Fund allocation through community committee
Local Governments	Incorporate this Standard into the investment promotion evaluation framework; implement compliance requirements through land-use planning and administrative approval; provide model governance clause templates for Community Benefit Funds
Provincial Regulatory Agencies	Link industrial support funds to compliance with this Standard; promote model local legislation on user electricity rate classifications
Data Center Operators	Reduce social stability risk and project opposition risk; attract ESG-conscious clients; achieve brand differentiation
Data Center Investors	De-risk project investments; demonstrate ESG compliance to LPs
Cloud Service Clients	Select service providers meeting this Standard; disclose responsible cloud resource usage reports
Eternal Harmony AI	Publish the Standard, provide consulting, conduct certification; develop supporting technology platforms

Part VII: Enhancements Beyond Current Practice

This Standard builds upon existing industry compliance requirements with higher-standard enhancements:

Current Statutory Compliance Baseline	This Standard's Advocated Advanced Targets
Voluntary commitments	Social stability risk assessment + Special public welfare fund (with legal binding force)
Annual GEC / Green electricity trading	Same-grid GEC / Green electricity trading verification, with hourly matching prioritized
Cross-regional water compensation	Local watershed restoration (equivalent replenishment, independently technically verified)
PUE-only reporting	11-metric real-time public dashboard
Corporate CSR reports	Independent third-party audit in accordance with China Standards on Auditing (CSA)
Standard tax incentives and industrial support	Incentives linked to verified community benefit outcomes

Current Statutory Compliance Baseline	This Standard's Advocated Advanced Targets
Employment projections	Verified local employment (within 50 km radius), community-monitored
Waste heat vented to atmosphere	Waste heat recovered and distributed to surrounding community
Traditional site management	Community as collaborative governance stakeholder

Version History

Version	Date	Changes
0.1	April 2026	Initial draft framework — research compiled, five pillars defined, metrics system constructed (English original, Eternal Harmony)
0.1.1	April 2026	Added PFAS (forever chemicals) requirements to Pillar 2, Pillar 3, Metrics Index, and Compliance Tiers (English original)

Version	Date	Changes
0.1	June 2026	First China Release. Based on the English original v0.1 framework, the following localization was conducted: (1) Community benefit assurance mechanisms realized through China’s existing social stability risk assessment, special public welfare fund, and investment promotion evaluation frameworks; (2) Community benefit assurance focused on verifiable public facilities and quality-of-life enhancements; (3) Added citations of PRC laws and regulations (Data Security Law, GB 40879-2021, China Standards on Auditing (CSA), etc.); (4) Added data disclosure exemption mechanism for Critical Information Infrastructure (CII); (5) Refined procedural explanations for GEC/green electricity trading verification and district heating franchise management; (6) Distance units converted to metric (50 km). All original standard clause numbers preserved. For a clause-by-clause mapping between original standard provisions and China-localized provisions, please refer to the accompanying Appendix A: Original Standard Clauses & China Implementation Mechanism Cross-Reference.

>

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 editions are complete, self-contained documents within their respective scopes of application. The accompanying document [Appendix A: Original Standard Clauses & China Implementation Mechanism Cross-Reference] is provided for international researchers and cross-reference purposes, and may be obtained independently.

Bibliography

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

Citation Category Overview

Category	Entries	Representative Documents
PRC Laws	15	Energy Conservation Law, Environmental Protection Law, Renewable Energy Law, Data Security Law, Charity Law
Administrative Regulations	5	Regulations on Security Protection of CII, Action Plan for Carbon Dioxide Peaking Before 2030, 2024 - 2025 Energy Conservation and Carbon Reduction Action Plan
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 Assessment*
Ministerial Normative Documents	15	NDRC Industry [2021] No. 1464, NDRC High-Tech [2021] No. 1742, NDRC Environment & Resources [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
Key National 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 AI Research Foundation	9	Nine research articles published at eternalharmony.ai/research/harmonize-data-centers

Key Citation Notes

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

Data Point	Source Document	Provenance
National hub node PUE ≤ 1.25 ; new large-scale DCs PUE ≤ 1.30	*Opinions on Strictly Controlling Energy Efficiency to Promote Energy Conservation and Carbon Reduction in Key Sectors* (NDRC Industry [2021] No. 1464), *Implementation Plan for Promoting Green and High-Quality Development of Data Centers and 5G* (NDRC High-Tech [2021] No. 1742)	NDRC et al., 2021
National hub new DCs green electricity $\geq 80\%$ (by 2025)	*Special Action Plan for Green and Low-Carbon Development of Data Centers* (NDRC Environment & Resources [2024] No. 970)	NDRC, MIIT, NEA, NDA, July 2024
GB 40879-2021 Grades: 1 ≤ 1.20 / 2 ≤ 1.30 / 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 assessment grades	*Green Data Center Assessment* (GB/T 44989-2024)	SAMR, SAC, 2024
GECs as sole official proof of green electricity consumption	*Notice on Promoting Full Coverage of Green Electricity Certificates* (NDRC Energy [2023] No. 1044)	NDRC, MOF, NEA, 2023
PFOS/PFOA prohibited from production, processing, use	*Priority Controlled New Pollutants List (2023 Edition)* (MEE et al. Order No. 28)	MEE et al. (6 ministries), effective March 1, 2023
China DC electricity consumption > 400 TWh by 2030	CAICT/ODCC *Data Center White Paper* (2022); *Green Computing Power Index White Paper* (2024)	CAICT/ODCC, 2022, 2024
DCs designated as key energy conservation sector	*2024-2025 Energy Conservation and Carbon Reduction Action Plan* (SC [2024] No. 12)	State Council, May 2024
Major projects must complete social stability risk assessment before approval	*NDRC Interim Measures for Social Stability Risk Assessment of Major Fixed Asset Investment Projects* (NDRC Investment [2012] No. 2492)	NDRC, 2012
Kunming digital economy project subsidies up to RMB 10M	*Several Measures to Support the Development of the Digital Economy Industry in Kunming (Trial)* (KMZF [2023] No. 6)	Kunming Municipal People's Government, 2023

Data Point	Source Document	Provenance
EPA PFOA/PFOS drinking water MCLs 4 ng/L	PFAS National Primary Drinking Water Regulation, 89 FR 32532 (April 26, 2024)	US EPA

For the complete bibliography and detailed source information, document numbers, and issuing authorities for all policy documents, please refer to the standalone document: Bibliography — Community Data Center Standard — China Edition.