



MINISTRY OF
DIGITAL TECHNOLOGIES OF
THE REPUBLIC OF UZBEKISTAN

Measuring data centers

Geneva, September 2026



Data centre electricity doubles by 2030

950 TWh

global data centre electricity by 2030, against 485 TWh in 2025

3%

of world electricity demand by 2030

+17%

growth in 2025 alone, while all electricity grew 3%

×3

rise in power used by AI-focused data centres to 2030

~80%

of the growth to 2030 lands in the United States and China

540 → 1,200 under 2

kWh per person a year in the United States, 2024 to 2030

kWh per person a year in Africa by 2030

\$400bn+

spent by five large technology firms in 2025, a further 75% expected in 2026

What to expect: capacity contracted before it is built, demand concentrated in two countries, and every other region, including ours, starting from almost nothing.



Where it has already landed, it is going wrong

>2,500 GW 5–15 yrs

of renewable, large-load and storage projects stalled in grid connection queues worldwide

to build grid, against 1–3 years to build a data centre

7–10 yrs

average wait for a grid connection in Europe's main data centre hubs; 2 to 10 years across the EU

>40%

of new data centre demand to 2030 is met by gas and coal. Renewables cover under half, and only with storage and grid behind them

320 Mt

of CO₂ a year from data centre electricity by 2030, the IEA's projected peak

×3

AI-focused power by 2030. Higher rack densities mean more cooling, more water, more heat

HOW COUNTRIES ANSWERED

1 European Union

Delegated Regulation 2024/1364: mandatory reporting for every site of 500 kW and above; PUE, WUE, ERF and REF into one database.

2 Japan

Watt-Bit Collaboration: power and telecom infrastructure planned together, sites chosen by clean-power availability.

3 Singapore

DC-CFA2, 2025: new capacity only at PUE 1.25 or better, Green Mark Platinum, at least 50% green-energy pathways.

4 Ireland, Netherlands

Dublin and Amsterdam have had to pause new projects, citing the lack of grid availability.

Four serious answers, and none of them measures the same thing. And the IEA now reports communities pushing back against new projects over affordability and environmental impact.



Eight jurisdictions, eight ways of measuring

JURISDICTION	APPROACH	WHAT THEY MEASURE
European Union	Regulatory reporting and database	PUE, WUE, ERF, REF, IT power, floor area, energy, water, redundancy, connectivity
United States	Market intelligence and benchmarks	MW inventory, vacancy, absorption, pipeline, preleasing, rents, power availability, PUE
Singapore	Managed capacity allocation	PUE ≤ 1.25, Green Mark Platinum, green-energy pathways, IT efficiency
Japan	Power and telecom co-planning	Power availability, clean-power siting, telecom infrastructure, lead times
Korea	Efficiency and high density	PUE and thermal metrics (ITU-T L.1322), rack density, grid
Saudi Arabia	National capacity strategy	National MW (target 1,300 MW by 2030), investment, power, connectivity, cloud regions
India	Enabling-environment policy	Reliable and clean power, renewables access, energy efficiency, backhaul
UAE	Sustainable digital infrastructure	Green data centres and cloud, energy efficiency, clean-energy policy

WHAT NONE OF THEM AGREES ON

- Definitions of capacity
- Measurement boundaries
- Market statistics
- Power readiness and Time-to-Power
- AI readiness
- Water in local context
- Resilience
- Connectivity
- Data governance
- Composite ranking

There is no single set of indicators that measures a data centre the same way everywhere. Until there is, every national KPI is a local number.



What Uzbekistan is doing

THE BUILD

800 MW

data centre capacity announced, to 2032

\$3bn

committed by Vision Invest

500+ MW

in the Vision Invest project alone

9,300 MW

of wind capacity planned

\$1bn

foreign investment in AI infrastructure targeted by 2030

THE TERMS IN KARAKALPAKSTAN

0%

corporate, social, property and land tax to 2040

7.5%

personal income tax

5%

tax on dividends

5¢

per kWh, reported investor rate

0

VAT or customs duty on imported GPUs

2030

customs exemption on components and cooling until

\$100m

minimum investment, decree PF-189

Provided by the state: power, water, gas and network connections to the site; fast-track construction and land; salaries and dividends payable in foreign currency.

Karakalpakstan - 37% of national territory.

THE NATIONAL SYSTEM

A certification body for data centres

UNICON.UZ under Cabinet Resolution 107 of 2023. Assesses against TIA-942, EN 50600, Uptime Tier, ISO/IEC 27001, ISO 22301 and ISO 50001. One national register, mandatory and voluntary tracks.

Cloud rules written alongside

A national procedure on cloud services in preparation: security and data protection, minimum obligations on providers, interoperability between systems, local capacity.



Three questions for this group

- 1 Should the first step be a common indicator dictionary and measurement boundary, before any country ranking?
- 2 What is realistic in the next 12 to 24 months: a Member State survey, an expert work programme, or a pilot across contrasting markets?
- 3 Which existing national approaches can be harmonized as they stand, and which indicators are genuinely new for AI-driven facilities?

OPTIONS ON THE TABLE

Survey

Member States and operators on what they measure today and under which definitions.

Work programme

Definitions, core KPI method, market readiness, AI, data governance, benchmarking pilot, standards roadmap. Q4 2026 to Q4 2027.

Pilot

One regulated market, one market-driven, one city-state, one co-planning model, one rapidly scaling, one emerging.

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