H.727 – Data Centers

Testimony to the Senate Committee on Natural Resources & Energy

Ben Edgerly Walsh, VPIRG
April 23, 2026

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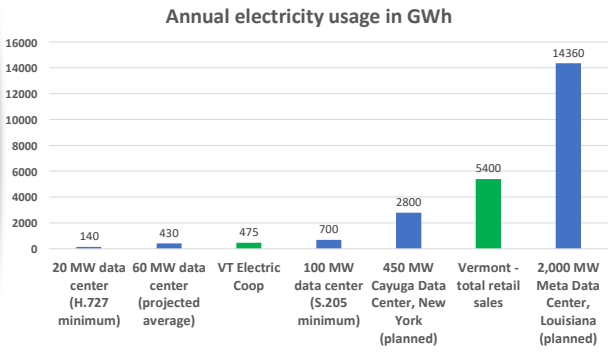
How big are we talking here?



Sources: Average size, 2028 – Boston Consulting Group
Load factor – Grid Strategies citing Dominion Virginia and Duke Energy

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A *Rapidly* Evolving Situation

"Ten years ago, a 30-megawatt (MW) center was considered large." – McKinsey

"The average size of a US data center will increase from 40 MW today to 60 MW by 2028, with about a third of campuses above 200 MW." – Boston Consulting Group

Sources: McKinsey, Oct 2024 - https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/ai-power-expanding-data-center-capacity-to-meet-growing-demand
Boston Consulting Group, Jan 2025 - https://www.bcg.com/publications/2025/breaking-barriers-data-center-growth

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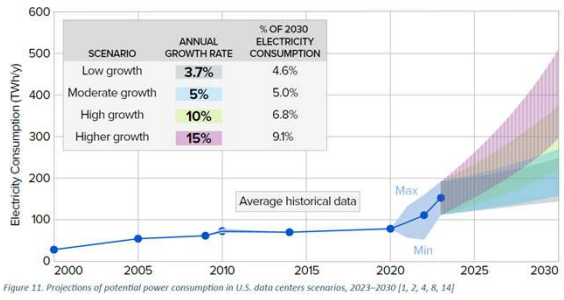

SCENARIO	ANNUAL GROWTH RATE	% OF 2030 ELECTRICITY CONSUMPTION
Low growth	3.7%	4.6%
Moderate growth	5%	5.0%
High growth	10%	6.8%
Higher growth	15%	9.1%

Figure 11. Projections of potential power consumption in U.S. data centers scenarios, 2023–2030 [1, 2, 4, 8, 14]

Source: "Powering Intelligence" report, Electric Power Research Institute (EPRI), 2024

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Our Overall Approach

Precautionary principle – better safe than sorry.

Redundant safeguards are appropriate when we're potentially dealing with companies with valuations starting with a "*T*".

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Three Principles

- Protect Vermont's ratepayers and grid
- Keep new climate pollution as close to zero as possible
- Ensure strong oversight and transparency

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Issues - What are we solving for?

The incredible disappearing load – now you see it, now it's gone!

Sudden data center load losses prompt NERC alert, recommendations

UTILITY DIVE

The reliability watchdog is concerned about a series of "widespread and unexpected" customer-initiated load reductions in 2024 and 2025 during which 1,000 MW or more dropped off the bulk power system.

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"In 2018, a mining operation in Washington State left more than $700,000 in utility bills unpaid after it declared bankruptcy." - Earthjustice

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Issues - What are we solving for?

"Backup" Generation

xAI's "Colossus 2" data center in Memphis

Source: Southern Environmental Law Center, April 2026 - https://www.selc.org/news/xai-built-an-illegal-power-plant-to-power-its-data-center/

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Issues - What are we solving for?

Grid "head room"

CONTINUED GROWTH
FORECAST SCENARIO

	2033	2043
SUMMER	1,085 MW	1,226 MW
WINTER	1,184 MW	1374 MW

VT ROADMAP
FORECAST SCENARIO

	2033	2043
SUMMER	1,195 MW	1,330 MW
WINTER	1,389 MW	1,569 MW

ALL-TIME PEAK

SUMMER	1,118 MW (2006)
WINTER	1,086 MW (2004/05)

HISTORICAL 5-YEAR AVERAGE

SUMMER	935 MW
WINTER	950 MW

Source: 2024 Vermont Long-Range Transmission Plan, VELCO

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Issues - What are we solving for?

Data center growth is undoing work to reduce carbon pollution.

- "Compared to 2022, when the country was retiring power plants at a pace that would lead to a coal-free grid by 2040, the current pace of plant retirements would keep some of our dirtiest ones online until 2065. Power generation from coal-fired power plants increased by 13% in 2025 as U.S. electricity generation hit an all-time record." - *Frontier Group / Environment America / U.S. PIRG, "Energy Transition at Risk," April 2026*

Source: https://environmentamerica.org/media-center/release-data-center-growth-threatens-air-quality-and-progress-toward-cleaner-energy-grid/

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Issues - What are we solving for?

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Thoughts, & Examples from H.727

- "mitigate the risk of other ratepayer classes paying unwarranted costs" 284(a)(2) on p2
- Relies on current Renewable Energy Standard – to prevent carbon pollution, we'd need to go further
- Language protecting grid capacity could be stronger

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