PUBLIC EDUCATION

What Data Centers Do

The services we rely on, the workloads worth questioning, and the resources each site demands.

JEFF A PIERSON / NOVEMBER 2026



Server aisle at NERSC

Derrick Coetzee / CC0 / Cropped

The server behind the emergency call

Hospitals, banks and 911 systems depend on reliable computing. So do weather forecasters, national labs, defense and everyday cloud services.

Ask what service the proposed facility will deliver and why it needs this location.



911 dispatch center, Fort Lee, Virginia

Tammy Reed / DVIDS / Public domain / Cropped

Who will use the capacity?

01	Essential and strategic	Emergency dispatch, hospital systems, forecasting, defense and national research.
02	Direct consumer and business services	Banking, ordinary cloud storage, communications and hosting.
03	Workloads that deserve scrutiny	Targeted advertising, commercial tracking and surveillance, proof-of-work mining, and AI buildout without a committed customer.

Ask which uses share the campus, how much capacity each needs, and what is under contract.

A power forecast cannot identify the customer

Research documents mining demand and ad-driven surveillance. It does not establish how many facilities serve those uses or uncontracted AI.

An AI-capable chip does not tell you whether its work serves a hospital, an advertiser or an unsigned tenant.



Reference photo: Wikimedia Foundation network cabling
VGrigas (WMF) / CC BY-SA 3.0 / Cropped

A national forecast. A local decision.

11.8%

2030 reference case

9.5% to 15.3%

2030 scenario range

Projected share of U.S. electricity used by data centers. The draw at any one site depends on its equipment, size, cooling and actual operation.

MW measures power at a moment. MWh measures energy over time.

Less water can mean more power

Evaporative cooling consumes water. Dry cooling can cut on-site water use, but some designs need more fan or chiller power, especially on the hottest days.

High-temperature liquid loops can also improve efficiency. Compare both designs at the same computing load and outdoor temperature.



Data center rooftop cooling equipment

Rsparks3 / CC0 / Cropped

Capacity markets and rate cases

01	Energy	The electricity actually delivered. Your electric meter records kilowatt-hours.
02	Capacity	In markets such as PJM, the grid pays resources to be available when called. Big new loads can increase the need for that commitment.
03	Rate case	A regulated utility asks its commission to approve rates. The record can show which costs the utility proposes to recover and who would pay.

Idaho Power uses commission-approved special contracts for service requests greater than 20 MW, according to its 2025 plan.

The local record comes first

A useful service still has to earn approval for its site. Keep hyperscale campuses off public land and farmland. Hold a real hearing before anyone commits the community.

The company pays for the infrastructure it requires and funds restoration when it leaves.



Public comment at Seattle City Council

Seattle City Council / CC0 / Cropped

READING AND VERIFICATION

Sources for the public briefing

- National electricity scenarios
- Cryptocurrency mining measurement
- Grid integration and policy
- Cooling design and water use
- Weather forecasting infrastructure
- How capacity markets work
- Advertising and surveillance practices
- Idaho Power’s planning assumptions

Slide-specific references and links are also in the speaker notes.