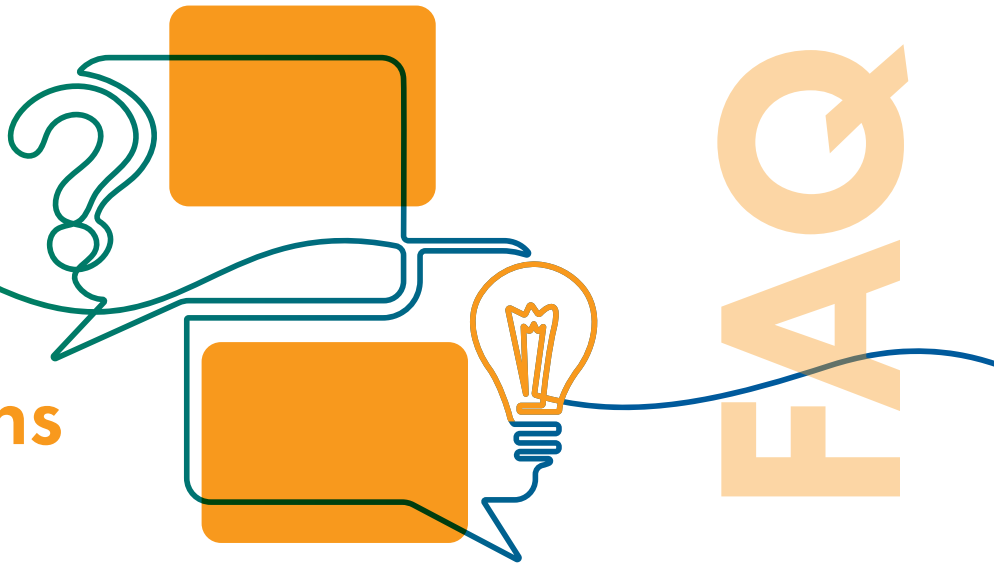


Data Centers Information &

Frequently Asked Questions



Overview of Data Centers

A data center is a facility that houses computing infrastructure, including servers, storage systems, networking equipment and other components necessary to store, process and distribute large amounts of data. These centers are critical to the functioning of modern digital services—from cloud computing and social media to banking and government operations.

Local Uses of Data Centers

Nearly every industry and household rely on data centers. Examples include:



Gas Stations

Fuel level tracking and demand forecasting



Grocery Stores

Inventory management, online ordering, analytics.



Childcare Centers

Digital communication and record-keeping



Hospitals

Imaging, patient management systems, records



Schools

E-learning platforms and student data systems



Everyday Consumers

Streaming, cloud storage, mobile apps

Data Centers Needs to Operate?

Key requirements include:



Reliable and redundant power supply



Robust cooling systems



High-speed fiber connectivity



Physical security and disaster resilience

Types and Sizes of Data Centers

Each data center is unique but generally categorized by size and workload type:

Sizes



Modular Data Center
(Average 1-10 acres)

Smaller scale operations that are 'containerized' for quicker deployment and responsiveness to changing needs.



Edge Data Center
(Average 10-30 acres)

Small to medium sized facilities that can either be modular or be housed in physical buildings.



Hyperscale
(50+ acres)

Larger facilities, often developed for prominent technology companies like Oracle, Microsoft, Meta or Amazon.

Types



AI / Cloud Computing

AI (artificial intelligence) refers to systems that simulate human intelligence to perform tasks; Cloud Computing is the delivery of computing services like storage and applications over the internet.



Traditional Server Hosting

Physical, on-premises servers dedicated to storing and managing an organization's data and applications.

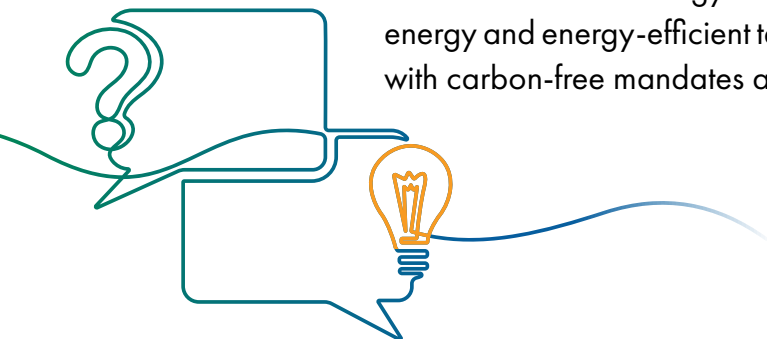


Cryptocurrency Mining

Process of using computational power to solve complex algorithms, validating transactions and earning digital currency as a reward.

How much energy do data centers use?

Data centers are energy-intensive, but many operators are investing in renewable energy and energy-efficient technologies to reduce their carbon footprint and to comply with carbon-free mandates applicable in states they plan to operate in.



Economic Impact of Data Centers

Data centers can have major impacts on local, regional, and statewide economies.

Below are some of the economic impacts data center development can provide:

Economic Impact

- High-skilled jobs (IT, engineering, operations, security, management)
- Significant construction employment
- Increased property and business tax revenue
- Growth of local service, supply-chain, and hospitality industries
- Attraction of additional technology investments

Tax Contributions

- Property taxes (annual, long-term)
- Indirect taxes (sales tax, VAT/GST on construction and operations)
- Income taxes (construction and operations workers)

Environmental Impact & Sustainability

Are data centers environmentally sustainable?

Many modern data centers use advanced cooling systems, energy-efficient hardware, and renewable energy sources. Sustainability is a growing priority in the industry. Data Centers, like other industries, must also adhere to carbon free mandates established in any given state they plan to operate in. For example, in Minnesota, there is a 2040 Carbon Free mandate in place.

Do data centers need to go through an environmental review process?

Any data center is subject to federal, state, and local regulations related to environmental health. This includes rules stemming from the National Environmental Policy Act, regulations overseen by state public utility commissions, or local zoning regulations aimed at protecting natural resources.

What is water usage like in data centers?

Some data centers use water for cooling, but newer designs often use air-cooled systems or closed-looped liquid cooling systems, so they don't need a constant source of water to operate. Data centers often use less water than other types of land uses, like farming or even golf courses.

Other FAQ

Are data centers noisy or disruptive?

Data Centers produce varying levels of noise. Sounds output from commercial and industrial facilities are typically regulated by local government ordinances that require facilities to minimize the volume of operational noise beyond the property lines.

Do data centers affect property values?

Typically, they do not negatively impact property values. In some cases, they may enhance local infrastructure and increase land value.

If a data center is located near me, should I expect a higher electric bill?

No, as is the case with any project requiring an upgrade to existing electric system, the upgrades will be paid for by the project.

Do data centers pay different electric rates than other businesses or residents?

No, data centers do not pay less for electricity than other businesses or residents.

Would a data center impact internet speeds or reliability?

No. Because of how important internet reliability is to data centers, oftentimes local fiber-optic infrastructure is upgraded to support a data center development.

FAQ