

Data Center County Toolkit

**Helping Illinois Counties Navigate Data Center
Development**



June 22, 2026

This document will continue to be revised with additional content informative to county officials.

Introduction

Data centers represent one of the fastest-growing forms of economic development in the United States. While these projects can bring significant investment and expand local tax bases, they may also affect land use, roads, utilities, public safety, and other county responsibilities.

This toolkit is intended to help county officials better determine data center requirements and identify key issues that should be considered throughout the review process.

Questions County Officials Should Ask Developers

Project Overview

- How many acres will the project occupy?
- Will the facility be built in phases?
- What is the anticipated construction schedule?
- Are future expansions planned?
- What is the estimated capital investment?
- How many buildings are proposed?

Electrical Infrastructure

- What is the projected electrical demand?
- Will new substations be required?
- Will transmission line upgrades be necessary?
- Will backup generators be installed?
- Will battery energy storage systems be part of the project?
- Will the facility include on-site power generation?

Water Supply and Cooling

- How much water will the facility use?
- What type of cooling system will be utilized?
- Will water be recycled?
- What impact could the project have on local water supplies?
- Will wastewater treatment capacity need to be expanded?

Transportation and Roads

- How many truck trips are expected during construction?
- What roads will be used?
- Will road improvements be required?
- Who will pay for repairs resulting from construction traffic?

- Will a road use agreement be needed?

Public Safety

- What fire suppression systems will be used?
- Will hazardous materials be stored on-site?
- What emergency response planning will be necessary?
- Have local fire protection districts been consulted?
- Will specialized training or equipment be needed?

Economic Development

- How many construction jobs are expected?
- How many permanent employees will work at the facility?
- What types of positions will be created?
- Will the developer seek tax incentives?
- What are the projected property tax impacts?

Community Impacts

- Will backup generators create noise concerns?
- What landscaping or screening is proposed?
- How will lighting be managed?
- What setbacks are planned?
- How will the project affect nearby residences and agricultural uses?

Issues Counties Should Consider

Land Use and Zoning

Data centers are often unlike traditional industrial developments. Counties may wish to consider:

- Building height limitations.
- Setback requirements.
- Landscaping and screening.
- Noise standards.
- Exterior lighting.
- Compatibility with surrounding land uses.
- Future expansion potential.

Infrastructure Demands

Large facilities may require:

- New substations.
- Transmission lines.

- Road improvements.
- Water infrastructure.
- Wastewater capacity.
- Emergency response coordination.

Long-Term Employment

Although data centers typically involve hundreds of construction jobs, permanent employment levels are generally lower than many manufacturing facilities. Counties should evaluate economic development benefits based on both investment and employment.

Preserving Local Authority

As demand for digital infrastructure increases, proposals affecting data centers, transmission lines, and related facilities may generate discussions regarding state policy and local land-use authority. Counties should remain informed regarding legislative proposals and regulatory developments that could affect local decision-making.

Frequently Asked Questions

What is a data center?

A data center is a facility that houses computer servers and related equipment used to process, store, and transmit digital information.

Why are so many data centers being proposed?

Growing demand for cloud computing, artificial intelligence, streaming services, and digital storage is driving unprecedented investment in data infrastructure.

Are data centers major employers?

Construction activity can create hundreds of temporary jobs, but long-term employment is generally much lower than many manufacturing facilities.

Why do data centers require so much electricity?

Computer servers operate continuously and require substantial cooling systems. Artificial intelligence applications are increasing electricity demand even further.

Do data centers use water?

Some facilities use significant amounts of water for cooling, while others rely on air-cooled technologies. Water usage varies by design and location.

Are backup generators used?

Yes. Most facilities utilize backup generators to maintain operations during power interruptions.

Can data centers affect roads?

Construction traffic may place considerable stress on local roads, making road use agreements and infrastructure planning important considerations.

Can data centers lead to additional infrastructure projects?

Yes. New substations, transmission lines, battery storage facilities, and other supporting infrastructure may accompany major developments.

Are data centers noisy?

Most operations occur indoors, but cooling equipment and backup generators can create noise concerns that may warrant standards or mitigation measures.

What role do counties play?

Depending on local circumstances, counties may be involved in zoning, special use permits, road agreements, infrastructure coordination, emergency planning, and other regulatory functions.

Will AI increase demand for data centers?

Yes. Industry experts expect artificial intelligence to drive substantial growth in digital infrastructure for years to come.

These additional FAQs could become one of the most valuable parts of the guide because they address the questions county board members, zoning officials, state's attorneys, and county administrators are likely to ask. I would include something like the following:

How much land does a typical data center require?

Data center projects vary considerably in size. Smaller facilities may occupy fewer than 50 acres, while hyperscale campuses can encompass hundreds or even thousands of acres. Large campuses are often developed in phases over many years and may include multiple buildings and supporting infrastructure.

What is a megawatt?

A megawatt (MW) is a unit used to measure electrical demand. One megawatt equals one million watts. Data center projects are often discussed in terms of their anticipated electrical demand because power requirements are among the most significant factors affecting project design and infrastructure needs.

Why do news reports talk about 100-megawatt or 500-megawatt projects?

Electrical demand is one way to describe the scale of a data center. A 100-megawatt facility requires considerably more power than a 25-megawatt facility, while some proposed campuses may ultimately require several hundred megawatts or more. Larger projects may require new substations, transmission lines, or other infrastructure improvements.

What is the difference between a traditional data center and a hyperscale data center?

Traditional data centers are generally smaller and may serve a specific business or customer base. Hyperscale data centers are much larger facilities designed to support cloud computing and artificial intelligence applications. Hyperscale campuses may consist of multiple buildings and require substantial electrical and cooling infrastructure.

Why are artificial intelligence applications increasing demand for data centers?

Artificial intelligence systems require enormous computing power. Training and operating AI models requires thousands of computer processors operating simultaneously, which increases electricity demand and creates the need for additional data center capacity.

What are battery energy storage systems?

Battery energy storage systems, commonly referred to as BESS facilities, store electricity for later use. These systems are increasingly being proposed in conjunction with renewable energy projects and may also be used to support electrical reliability and energy management associated with large facilities.

What are substations and why are they important?

Substations are facilities that help distribute electricity from transmission lines to customers. Large data centers often require dedicated substations to provide the amount of power necessary for continuous operation.

Why are transmission lines sometimes associated with data centers?

Major facilities may require additional electrical capacity. New or upgraded transmission lines are sometimes necessary to deliver sufficient electricity to substations serving data centers and related infrastructure.

What are road use agreements?

Road use agreements are agreements between developers and local governments that address issues such as construction traffic, road maintenance responsibilities, repairs, and cost-sharing arrangements. These agreements can help protect local infrastructure during large construction projects.

What are special use permits?

Special use permits allow certain land uses that may be appropriate under specified conditions. Counties may impose requirements addressing issues such as setbacks, landscaping, lighting, noise, traffic management, and other factors intended to promote compatibility with surrounding properties.

Can counties impose conditions on a data center project?

Depending on applicable state law and local ordinances, counties may have authority to establish conditions through zoning approvals and special use permits. County officials should consult with their state's attorneys and planning professionals regarding the scope of local authority. Local authority can sometimes be preempted by the state.

Do data centers create large numbers of permanent jobs?

Construction activity may employ hundreds of workers, but long-term employment levels are often lower than those associated with manufacturing facilities or distribution centers. Counties should evaluate both the economic benefits and infrastructure demands associated with proposed projects.

How are data centers taxed in Illinois?

Property taxation depends on numerous factors, including the characteristics of the project and applicable state law. Developers may also seek state or local incentives. County officials should consult with assessors, state's attorneys, and other professionals regarding tax-related issues.

What is a PILOT agreement?

A Payment in Lieu of Taxes (PILOT) agreement is an arrangement under which a developer makes negotiated payments instead of traditional property taxes. Such agreements vary widely and are generally intended to provide certainty for both the developer and affected local governments.

Do all data centers use large amounts of water?

No. Water usage depends on the type of cooling technology employed. Some facilities rely heavily on water-based cooling systems, while others use air-cooled systems or hybrid approaches. Water demand can vary significantly from one project to another.

Are data centers noisy?

Most computing equipment operates inside buildings. However, cooling systems and backup generators may create noise that warrants consideration during the local review process. Counties may wish to evaluate noise mitigation measures and appropriate setbacks.

Are backup generators used at data centers?

Yes. Most facilities utilize backup generators to ensure uninterrupted operations during power outages. These systems are intended to provide reliability and maintain continuous service.

How do data centers compare with manufacturing facilities?

Although both represent industrial development, data centers generally require more electrical infrastructure and may create fewer long-term jobs. However, they often involve substantial capital investment and may generate significant property tax revenues.

What environmental issues should counties consider?

Potential considerations may include:

- Water usage.
- Stormwater management.
- Noise.
- Lighting.
- Air emissions from backup generators.
- Visual impacts.
- Landscaping and screening.
- Compatibility with surrounding land uses.

County officials should consult with appropriate experts and state and federal agencies regarding environmental issues.

Will data centers increase demand for other infrastructure?

Yes. Large projects may be accompanied by substations, transmission lines, battery energy storage facilities, fiber infrastructure, and road improvements. Counties may wish to consider these related projects when evaluating broader community impacts.

Are data centers expected to become more common?

Yes. Industry experts generally expect continued growth in cloud computing and artificial intelligence to drive increasing demand for digital infrastructure over the coming decade.

Does the state offer tax incentives for data centers?

No. On June 5, 2026, Governor JB Pritzker announced a pause on tax incentives for data centers as of July 1, 2026.