



Applying LEED to data center projects

June 2026

What are the advantages of using LEED for data centers?

USGBC has adapted both the LEED for Building Design and Construction (BD+C) and LEED for Operations and Maintenance (O+M) rating systems to address the needs of the technology sector and bring more solutions for data centers. LEED is the world's first green building rating system to address data centers. By bringing these projects into the suite of LEED rating systems, USGBC is addressing barriers so these facilities and their owners can successfully demonstrate their sustainability goals. LEED-certified data centers exemplify the triple bottom line—benefiting people, planet, and profit. By earning LEED certification, these projects can consume less energy and water, use fewer natural resources, and reduce the overall impact of development on the local, regional, and global environment.

How can data centers earn LEED certification?

The following guidance addresses data halls, where the project's primary function is to support storage and reliable operation of high-density computing equipment.

Choose the LEED rating system that best matches the data center project scope.

- **LEED BD+C: Data Centers (v4 or 4.1) or BD+C: New Construction (v5).** Appropriate for new, whole-building data centers, where more than 60% of the project's gross floor area (GFA) is [complete](#) for its intended use by the time of certification (i.e., IT-ready with MEP systems and capacity serving those spaces installed). Server racks/IT equipment are not required to be installed for areas to be considered complete.

LEED v4 or LEED v4.1 data center projects with more than 60% of project's GFA complete must select the BD+C: Data Center rating system adaptation instead of New Construction.

- **LEED BD+C: Core and Shell (CS)** Appropriate for new whole-building data centers when more than 40% of GFA is incomplete at the time of certification. This is common for phased deliveries, where the MEP capacity for a significant portion of the data hall is intentionally deferred to align with future IT deployment and/or the leasing of colocation space.
- **LEED O+M :Operations and Maintenance.** Appropriate for existing data centers that have been fully operational and occupied for at least one year. The project may be undergoing improvement work or little to no construction and must also include the entire building's GFA in the project.
- **LEED ID+C: Commercial Interiors.** Appropriate for interior fit-outs/renovations of new or existing data center spaces within a larger building (e.g., a tenant colocation build-out), when the project meets ID+C eligibility criteria.

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How many data centers are registered and certified under LEED?

As of June 2026, there are over 1,948 LEED-certified and registered data centers representing 588 million square feet (over 54 million square meters) across the globe.

What issues are unique to data center projects?

Projections as of 2024 indicate that power demand from data centers could grow by 160% by 2030. They also suggest that data centers' share of worldwide power consumption may increase from the current 1–2% to 3–4% by the end of the decade. ([Reference link](#))

Data centers have very few occupants but extremely high energy use. A typical building is designed to meet heating and cooling needs for occupant comfort, whereas a data center must provide significant cooling for its servers. Water use is also a key target area if the facility uses water for cooling. LEED addresses the unique needs of these energy- and water-intensive buildings to improve efficiency.

How does LEED address the unique challenges of data centers?

LEED v5 is the current version of the rating system and is available for commercial projects pursuing certification under New Construction, Core and Shell, Commercial Interiors, and Existing Buildings. Many strategies developed for data centers under previous versions of LEED have been adapted for LEED v5 or incorporated into the new Project Priorities and Innovation credit category. Credits in this category offer greater flexibility to address unique project contexts and priorities, including typology, culture, location, areas of innovation, and individual performance objectives. Sector-specific Project Priority credits are being developed and will be released in the [Project Priority Library](#).

For LEED v5 BD+C: New Construction, the prescriptive compliance options in *EAp2: Minimum Energy Efficiency* and *EAc: Enhanced Energy Efficiency* are specifically tailored to data center project scopes, including colocation facilities. Under this approach, data centers can earn up to 6 of the 10 available points by complying prescriptively with ASHRAE 90.1-2022 and demonstrating high-efficiency mechanical and electrical systems that exceed the requirements of ANSI/ASHRAE Standard 90.4, Energy Standard for Data Centers.

Additional prerequisites and credits in LEED BD+C where data center-specific guidance is provided include:

- Surrounding Density and Diverse Uses
- Fundamental and Enhanced Commissioning and Verification
- Minimum and Optimize Energy Performance
- Building-Level Energy Metering and Advanced Energy Metering
- Minimum IAQ Performance

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- Enhanced IAQ Strategies
- Thermal Comfort

In LEED O+M, specific guidance is provided for data centers under EA Prerequisite: Energy Efficiency Best Management Practices, wherein projects can use the U.S. Department of Energy's DC Pro Profiling Tool to perform a preliminary assessment of energy consumption in data center spaces for critical systems. Existing data center projects that are having trouble meeting LEED prerequisites due to high energy and/or water loads, or ventilation requirements for staffed data center floors, are encouraged to contact USGBC for technical support.

How does the Arc platform relate to data centers?

LEED v4.1 O+M offers a performance-based pathway to certify existing data centers using [Arc](#), a technology platform to collect, manage, and benchmark projects across five performance categories: energy, water, waste, transportation, and human experience. Facility managers and owners can continuously monitor data and make informed decisions to optimize building performance based on real-time analytics. This performance pathway can be used to certify and recertify the project every three years. [Learn more](#).

LEED v5 BD+C, ID+C, and O+M rating systems allow all space types to certify using the new Arc experience, which offers fluidity and flexibility for users. Performance, certification, and reporting will be delivered in one place.

How can colocation data centers apply LEED?

A colocation data center is a type of data center where equipment, space, and bandwidth are leased to customers. LEED does not differentiate between colocation and non-colocation data centers for rating system selection; the appropriate rating system is based on the project's scope and what will be delivered and [complete](#) at the time of certification.

Colocation data centers using LEED v4 BD+C: Data Centers may use the less stringent thresholds from LEED v4 BD+C: Core and Shell. These lower Core and Shell thresholds apply to all data center projects under LEED BD+C: Data Centers or LEED v4 (2024 Energy Update) or LEED v4.1.

What technical resources are available for data centers pursuing LEED?

There are many resources available for data centers pursuing LEED certification. Here are a few examples:

- [LEED v5 BD+C, ID+C and O+M Rating Systems](#) and [LEED v5 guides](#)
- [LEED v4.1 BD+C Adaptation for Data Centers](#)
- [LEED v4 and LEED v4.1 O+M Data Center Profiling \(DC Pro\) Tool](#)
- [LEED v4 Minimum Energy Performance Data Center Calculator](#)

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- [LEED Interpretation #10497](#) – allows the use of the Electrical Loss Component (ELC) calculated in accordance with ANSI/ASHRAE Standard 90.4-2016, Section 8 in lieu of the Electrical System Efficiency calculated in the LEED Data Center Calculator
- [LEED Interpretation #10494](#) – allows colocation data centers to use EA point thresholds from the CS adaptation in LEED v4

Where can I find owner profiles and case studies on data centers?

- [LEED BD+C certified data centers](#)
- [LEED O+M certified data centers](#)

Does USGBC offer any education for project teams wanting to learn more about data centers pursuing green building measures?

Yes, refer to the following sessions in the USGBC online course catalog:

- [How the LEED Rating Program Accommodates Data Centers](#)
- [Development Trend and Application of LEED for Data Centers](#)
- [LEED v4.1 O+M for Data Centers](#)
- [Achieving Sustainability in Warehouses, Distribution Centers & Data Centers](#)

Who can I contact for more information?

For more information about LEED and data centers, [contact us](#).