

A large, light gray, stylized oak leaf graphic is centered in the background of the page. It has a prominent central vein and several smaller veins branching out to the edges of the leaf.

LEED v4.1 BUILDING DESIGN AND CONSTRUCTION

Getting started guide for beta participants

July 2023

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Welcome to LEED v4.1 Beta

Welcome to the next evolution of LEED for design and construction! Whether you are a seasoned LEED practitioner, or new to LEED, we encourage you to test out this bigger, stronger, bolder rating system for your buildings and to be a leader in shaping the future of building performance.

There are four key goals that have guided our technical development process for the LEED v4.1 BD+C rating system:

- ▶ ensure leadership
- ▶ increase achievability
- ▶ measure performance
- ▶ expand the market

This version of LEED is the result of countless hours of effort from our volunteers and staff and we are confident that the rating system meets those goals.

LEED is the world's rating system for the design, construction and operation of high-performance green buildings. For the last 18 years, various versions of LEED have pushed the global green building market forward progressively, with more than 93,000 registered and certified projects and more than 19 billion square feet of space worldwide.

Regions and markets move at different paces, and we want to be sure we can meet the needs of everyone in the green building community. LEED v4.1 represents a series of upgrades that will improve our standards, encourage leadership, and make our platform more user friendly, more accessible—and most importantly—more collaborative than ever before.

LEED v4.1 will be our most inclusive and transparent platform to date. That's because our most important requirement for adoption will come from our most valuable resource of all—YOU!

LEED v4.1 BD+C Scorecard

		New Construction	Core and Shell	Schools	Retail	Data Centers	Warehouses and Distribution Centers	Hospitality	Healthcare
INTEGRATIVE PROCESS		1	1	1	1	1	1	1	1
Prerequisite	Integrative Project Planning and Design								P
Credit	Integrative Process	1	1	1	1	1	1	1	1
LOCATION AND TRANSPORTATION		16	20	15	16	16	16	16	9
Credit	LEED for Neighborhood Development Location	16	20	15	16	16	16	16	9
Credit	Sensitive Land Protection	1	2	1	1	1	1	1	1
Credit	High-Priority Site and Equitable Development	2	3	2	2	2	2	2	2
Credit	Surrounding Density and Diverse Uses	5	6	5	5	5	5	5	1
Credit	Access to Quality Transit	5	6	4	5	5	5	5	2
Credit	Bicycle Facilities	1	1	1	1	1	1	1	1
Credit	Reduced Parking Footprint	1	1	1	1	1	1	1	1
Credit	Electric Vehicles	1	1	1	1	1	1	1	1
SUSTAINABLE SITES		10	11	12	10	10	10	10	9
Prerequisite	Construction Activity Pollution Prevention	P	P	P	P	P	P	P	P
Prerequisite	Environmental Site Assessment			P					P
Credit	Site Assessment	1	1	1	1	1	1	1	1
Credit	Protect or Restore Habitat	2	2	2	2	2	2	2	1
Credit	Open Space	1	1	1	1	1	1	1	1
Credit	Rainwater Management	3	3	3	3	3	3	3	2
Credit	Heat Island Reduction	2	2	2	2	2	2	2	1
Credit	Light Pollution Reduction	1	1	1	1	1	1	1	1
Credit	Site Master Plan			1					
Credit	Tenant Design and Construction Guidelines		1						
Credit	Places of Respite								1
Credit	Direct Exterior Access								1
Credit	Joint Use of Facilities			1					
WATER EFFICIENCY		11	11	12	12	11	11	11	11
Prerequisite	Outdoor Water Use Reduction	P	P	P	P	P	P	P	P
Prerequisite	Indoor Water Use Reduction	P	P	P	P	P	P	P	P
Prerequisite	Building-Level Water Metering	P	P	P	P	P	P	P	P
Credit	Outdoor Water Use Reduction	2	3	2	2	2	2	2	1
Credit	Indoor Water Use Reduction	6	4	7	7	6	6	6	7
Credit	Optimize Process Water Use	2	3	2	2	2	2	2	2
Credit	Water Metering	1	1	1	1	1	1	1	1
ENERGY AND ATMOSPHERE		33	33	31	33	33	33	33	35
Prerequisite	Fundamental Commissioning and Verification	P	P	P	P	P	P	P	P
Prerequisite	Minimum Energy Performance	P	P	P	P	P	P	P	P

Prerequisite	Building-Level Energy Metering	P	P	P	P	P	P	P	P
Prerequisite	Fundamental Refrigerant Management	P	P	P	P	P	P	P	P
Credit	Enhanced Commissioning	6	6	6	6	6	6	6	6
Credit	Optimize Energy Performance	18	18	16	18	18	18	18	20
Credit	Advanced Energy Metering	1	1	1	1	1	1	1	1
Credit	Grid Harmonization	2	2	2	2	2	2	2	2
Credit	Renewable Energy	5	5	5	5	5	5	5	5
Credit	Enhanced Refrigerant Management	1	1	1	1	1	1	1	1
MATERIALS AND RESOURCES		13	14	13	13	13	13	13	19
Prerequisite	Storage and Collection of Recyclables	P	P	P	P	P	P	P	P
Prerequisite	PBT Source Reduction - Mercury Building Life-Cycle Impact Reduction								P
Credit	Environmental Product Declarations	5	5	5	5	5	5	5	5
Credit	Sourcing of Raw Materials	2	2	2	2	2	2	2	2
Credit	Material Ingredients	2	2	2	2	2	2	2	2
Credit	PBT Source Reduction - Mercury								1
Credit	PBT Source Reduction - Lead, Cadmium, and Copper								2
Credit	Furniture and Medical Furnishings								2
Credit	Design for Flexibility Construction and Demolition Waste Management								1
Credit		2	2	2	2	2	2	2	2
INDOOR ENVIRONMENTAL QUALITY		16	5	16	15	16	16	16	16
Prerequisite	Minimum Indoor Air Quality Performance	P	P	P	P	P	P	P	P
Prerequisite	Environmental Tobacco Smoke Control	P	P	P	P	P	P	P	P
Prerequisite	Minimum Acoustic Performance			P					
Credit	Enhanced Indoor Air Quality Strategies	2	2	2	2	2	2	2	2
Credit	Low-Emitting Materials	3	3	3	3	3	3	3	3
Credit	Construction Indoor Air Quality Management Plan	1	1	1	1	1	1	1	1
Credit	Indoor Air Quality Assessment	2		2	2	2	2	2	2
Credit	Thermal Comfort	1		1	1	1	1	1	1
Credit	Interior Lighting	2		2	2	2	2	2	1
Credit	Daylight	3	3	3	3	3	3	3	2
Credit	Quality Views	1	1	1	1	1	1	1	2
Credit	Acoustic Performance	1		1		1	1	1	2
INNOVATION		6	6	6	6	6	6	6	6
Credit	Innovation	5	5	5	5	5	5	5	5
Credit	LEED Accredited Professional	1	1	1	1	1	1	1	1
REGIONAL PRIORITY		4	4	4	4	4	4	4	4
Credit	Regional Priority	4	4	4	4	4	4	4	4
TOTAL		110 POSSIBLE POINTS							

WHAT YOU NEED TO KNOW

As a first step in launching LEED v4.1, USGBC released beta versions of each LEED rating system, allowing the market to work with the draft rating systems and provide feedback based on real-world application.

USGBC will present LEED v4.1 for public comment, followed by a member ballot. This beta rating system is not final; feedback from the beta will inform the public comment draft(s). We will update this document as needed and as more program features become available.

This document is a comprehensive guide to the LEED v4.1 BD+C beta program. The v4.1 BD+C Beta Guide contains guidance sections that are new or modified from LEED v4, as they are complimentary to the LEED v4 Reference Guide for Building Design and Construction. For the omitted sections, refer to the main reference guides.

LEED v4.1 BD+C certification

The certification process for LEED v4.1 BD+C remains unchanged – projects should first confirm that they meet the three current LEED Minimum Program Requirements and will use LEED Online for registration.

- ▶ Registration
 - Your first step is to confirm eligibility and select the appropriate rating system.
 - Next, register your project under the selected LEED v4.1 BD+C beta rating system in LEED Online at lo.usgbc.org.
 - For registration fees, view our detailed fees table at usgbc.org.
- ▶ Certification
 - To complete your application for certification you will need to upload required documentation and/or provide requested information (*for each prerequisite / credit being pursued*).
 - GBCI, the certification body for the LEED rating system, will perform the beta certification reviews, in accordance with the Guide to Certification for Commercial projects.

110 total points are available. A minimum of 40 points are required for certification. LEED has four levels of certification, depending on the point thresholds achieved:

- ▶ Certified: 40-49 points
- ▶ Silver: 50-59
- ▶ Gold: 60-79
- ▶ Platinum: 80+

Credit Substitution

Projects pursuing LEED v4 BD+C can replace v4 credits with LEED v4.1 credit language before their final review. Credits must be substituted in full; note special implementation guidance is available for select credits.

v4 Credit	v4.1 Credit	Implementation Guidance
Outdoor Water Use Reduction	Outdoor Water Use Reduction	If pursuing three points in either Outdoor Water Use Reduction or Optimize Process Water Use, Core and Shell project teams must mark Indoor Water Use Reduction as
Indoor Water Use Reduction	Indoor Water Use Reduction	
Cooling Tower Water Use	Optimize Process Water Use	

		attempted in LEED Online to properly distribute points.
Optimize Energy Performance	Optimize Energy Performance	Project teams must also achieve the LEED v4.1 Minimum Energy Performance prerequisite.
Renewable Energy Production	Renewable Energy	Project teams must substitute Renewable Energy for both relevant v4 credits, Renewable Energy Production and Green Power and Carbon Offsets, up to a maximum of five points.
Green Power and Carbon Offsets		

Process for attempting credit substitutions:

1. In LEED Online, within each credit in your v4 project, you will see a gray arrow icon on the right side of each attempted credit on the credits tab.
2. Click this icon for each credit that you would like to substitute.
3. You will see a popup box that reads: "I am pursuing a LEED v4.1 credit substitution on this credit. Click confirm for each credit you plan to attempt."
4. Complete a copy of the LEED v4.1 form for each such credit substitution, as explained in [our step-by-step guide](#). In the form, clearly indicate which version of the LEED v4.1 Addenda you are using. Once complete, upload it to the Special Circumstances section of the credit in your LEED v4 project in LEED Online.
5. Follow the credit specific instructions from the table above, uploading any additional documentation, narratives or calculations as outlined in the LEED v4.1 documentation requirements.
6. Submit credits for review following the standard process.

Space Type Considerations for Tenant Spaces and Incomplete Spaces

Core and Shell

As part of LEED v4 development, a change was made to the way Core and Shell projects are evaluated. Prior to LEED v4, the fit-out of tenant spaces was included in the Core and Shell scope by default and project teams were required to provide tenant fit-out guidelines to show that tenant spaces would meet the LEED credit requirements.

Based on project team feedback, in LEED v4 (and continuing in v4.1), LEED BD+C: Core and Shell only certifies the core and the shell of the building, not the tenant fit out, by default. It is assumed that the project team does not have control over the fit-out of tenant spaces, which allows project teams to address more credits without knowing how tenant spaces will be developed, and without needing to include future tenants in those decisions. LEED Core and Shell only certifies the portion of the building that is included within the scope of work or is governed by a signed Tenant Lease and Sales Agreement (TLSA).

In order to better acknowledge the limited scope of a Core and Shell project, certain credit thresholds have been modified in LEED v4.1, including an increase in the value of Outdoor Water Use Reduction and a decrease in the value of Indoor Water Use Reduction for Core and Shell projects.

If you wish to pursue credit beyond the construction scope of the LEED Core and Shell project, you may do so by providing a signed Tenant Lease and Sales Agreement (TLSA) for tenant spaces that are being included.

BD+C (Excluding Core and Shell)

10% Incomplete Space Exemption

You are allowed to exclude up to 10% of the project total gross floor area (or 20,000 gross floor area, whichever is less) from the binding owner commitment and tenant guidelines requirements within an individual prerequisite or credit as allowed in LEED v4, “if it is not possible to gather the necessary tenant data for these credits, or the applicant does not have control over the required element.” The specific spaces excluded as part of the 10% can vary by credit. In your prerequisite or credit documentation, clearly note which spaces have been excluded.

BD+C

More Stringent Code Requirements for Unfinished Spaces

Local code requirements that are more stringent than ASHRAE 90.1-2016 Appendix G may be modeled for credit in the Proposed Design, subject to the following requirements:

- ▶ Provide a copy of the local code requirements that are more stringent than ASHRAE 90.1-2016. Indicate in writing (highlight or provide section references) how the code will require a project like the one being proposed to follow the code.
- ▶ Provide a binding owner commitment letter paired with sample lease, ensuring that the specific local code requirements modeled will be installed in the building. The sample lease agreement must include language that is specific enough to address the credit claimed (e.g. The project must meet the Seattle Energy Code 2015 Lighting Power requirements using the Building Area Method; OR the project must have 15 SEER air conditioners for systems less than 6 tons, and 11.5 EER air conditioners for systems larger than 5 tons.)
- ▶ Note that credit may not be claimed for measures that would only be implemented in certain tenant configurations, where the binding tenant requirements do not ensure incorporation into the project. For example, credit may not be claimed for daylighting controls that are only required in open-space configurations, without specifying the area that must be fitted out with daylight controls. Similarly, credit may not be claimed for simply stating that the project must meet the local code lighting power requirements, when there are multiple methods for demonstrating lighting compliance.

Recertification

Refer to the new guidance section, *Connection to Ongoing Performance*, to understand how each BD+C credit sets you up for success in performance tracking and recertification.

All certified projects are strongly encouraged to pursue recertification using the recertification guidance available on www.usgbc.org.