

High-Performance Green Building Projects

CY2021 Annual Project Report

High Performance Green Buildings

State Building Projects Designed to Higher Standard

Background

Designing buildings to be resource-efficient can save energy, water, reduce waste and pollution, thereby reducing operating costs, improving the indoor quality for occupants, and benefit the environment.

Recognizing the opportunity to reduce costs, save resources, and make the indoor and outdoor environment better, the State of South Dakota began its green building initiative in 2008.

Green Building in State Law

Senate Bill 188 was introduced at the request of the Office of the Governor during the 2008 Legislative Session. As amended, the bill was passed by the Legislature and signed into law.

The new laws, codified as SDCL §§ 5-14-32 through 36, established requirements that any new construction or renovation of a state building with HVAC (heating, ventilation, and air conditioning systems) that has a cost of \$500,000 or more or includes 5,000 square feet or more of space shall meet or exceed a high-performance green building standard.

The law also recognizes that meeting a high-performance green building standard may not always be feasible and allows the requirement to be waived by the Office of the State Engineer. The circumstances which allow a waiver are described in the Building Project Waivers section of this report.

The law provides the option to select from three rating systems to meet the high-performance green building requirement:

- 1) A silver standard rating under the USGBC's Leadership in Energy and Environmental Design (LEED) rating system; or
- 2) A two globe rating under the Green Building Initiative's Green Globes rating system; or
- 3) A comparable numeric rating under a certification program recognized by the American National Standards Institute.

Administrative rules detailing the steps necessary to certify a project as a high-performance building are found in ARSD Chapter 10:09:02.

Annual Report

SDCL § 5-14-37 requires this annual report to the Legislature, including a list of state building projects granted a waiver or that failed to achieve a high-performance green building standard.

High Performance Green Building Projects

Certification Earned in CY2021

SDSU Animal Disease Research Diagnostic Lab LEED Silver
DSU Residence Village Green Globes Two Globe Certification

Projects Registered, not yet Certified

Northern State University Residence Hall #2

Submitted to USGBC
Still being reviewed by USGBC

Northern State University Wolves Memorial Suites

Submitted to USGBC
Still being reviewed by USGBC
Claiming delay is due to being short staffed, Intern at USGBC is currently reviewing

SDSU Performing Arts Center

Submitted to USGBC
Currently being reviewed by USGBC

SD University Neighborhood Redevelopment

Submitted to USGBC
Currently being reviewed by USGBC

SDSU Precision Ag

Construction on going

South Dakota National Guard Rapid City Readiness Center

Currently being reviewed by USGBC

SDSMT Mineral Industries Building

Design on going

USD Wellness Center Expansion

Design on going

USD Health Sciences Building

Construction on going

Building Project Waivers

Waiver Summary

SDCL § 5-14-34 allows waivers from the high-performance green building standard to be granted by the Office of the State Engineer for state building projects if:

- 1) The building will have minimal human occupancy;
- 2) The increased costs of achieving a high-performance green building standard cannot be recouped from decreased operational costs within fifteen years;

- 3) The Bureau of Administration determines that extenuating circumstances exist to make impractical high-performance green building standard certification.

The conditions and procedures for granting waivers are detailed in ARSD Chapter 10:09:03.

A waiver does not mean that principles of sustainable design are ignored. State building projects are designed and constructed to be as energy and water efficient as feasible even if the project is not a LEED registered project.

Waivers Granted by the State Engineer in CY2021

Campus	Building	Waiver Reason
GFP	Sylvan Lake Store Custer State Park	The building will have minimal human occupancy
GFP	Rapid City Firearm Range	The building will have minimal human occupancy
GFP	Bison Center Custer State Park	The building will have minimal human occupancy
USD	Richardson Hall Interior Renovation	A 15-yr payback cannot be met
State Fair	DEX Center	The building will have minimal human occupancy

Projects Not Achieving LEED

No projects met this criterion for CY2021.

Changes Made to the Green Building State and Administrative Rules

During the 2010 Legislative Session, the Bureau of Administration introduced House Bill 1011 which updated the version of LEED referenced in SDCL 5-14-32 to the current version.

During the 2015 legislative session, HB1029 was passed into law which does the following:

- 1) Required the implementation of the newest USGBC standard, v4.
- 2) Increased the threshold from \$500,000 / 5,000 square feet to \$1 million and 10,000 square feet for buildings that must meet the standard. This was done because 29% of all waivers were for building projects within the range differences and not projects within the range differences achieved LEED Silver certification.

In addition to this, the administrative rules ARSD 10:09 were amended to ensure state government building projects using LEED focus on energy efficiency. These:

- 1) Require a minimum energy performance that exceeds the LEED v4 prerequisite by a 5%;
- 2) Require enhanced commissioning that includes building envelope commissioning;
- 3) Require architects/engineers verify project design prior to completion of construction documents;

- 4)** Prohibit the use of green power and carbon offset credits, green parking credits, and limits use of bicycle facilities credits so design focus remains on better building construction to increase energy efficiency;
- 5)** Requires the Owner's Project Requirements (OPR) to state energy efficiency as a goal for the building;
- 6)** Requires the Basis of Design (BOD) document to reflect the Owner's energy goals and requirements for the building as stated in the OPR prior to design development; and
- 7)** Deletes obsolete sections of administrative rules.

During the 2021 Legislative session, Senate Bill 134 was introduced that made the following amendments:

- 1)** Reduced the Silver rating requirement through LEED to Certified rating.
- 2)** Removed renovations with 10,000sf or the cost of one million dollars or more from the definition of new construction
- 3)** Reduced the reporting requirements to only report on the buildings not able to meet the high-performance requirements outlined in SDCL 5-14-33

More Information

Information about the State's high-performance green building projects is available from:

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