

News source for Wyoming co-op owners since 1954

WREN

WYOMING RURAL ELECTRIC NEWS

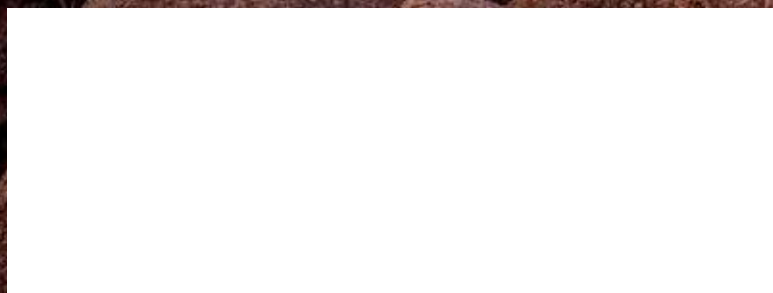
APRIL | 2015

2015 SERIES: THE INNOVATORS

Architecture &
Construction

LEEDing the Way
in Wyoming
18

26 Bullseye:
Wheatland REA's
Jason Wright



LEEDing THE WAY



The Haub School of Environment and Natural Resources at UW

Photo by Trice Megginson, UW Photo Service

BY MATT HOOBLER

Wyoming is big on energy, but not in the way you might think. We know that Wyoming's unique geology and rich fossil beds feed an energy-hungry nation with coal, natural gas, and crude oil, yet many businesses and schools in the Cowboy State, especially the University of Wyoming, are increasing their commitment to energy savings at the same time.

Improving energy and environmental efficiencies remains the easiest and single most cost-effective way to cut energy use, and the growth of this concern is seen throughout the state. Many Wyomingites are opting to follow the sustainability model described by LEED, or Leadership in Energy and Environmental Design.

LEED is a planning framework for building designers, owners, and operators that outlines practical and measurable design features for energy efficiency. For a building to achieve LEED certification, gains must be designed, constructed, and demonstrated in a combination of eight categories, including water efficiency, utilization of sustainable building materials, environmentally friendly locations and site development, and the indoor environmental quality. LEED-certified buildings conserve resources; save money in heating, cooling, and lighting; and have a beneficial impact on the occupant.

Buildings are LEED certified under the authorization of the U.S. Green Building Council (USGBC), an

organization formed in 1993. Rating systems exist for all building and project types, including new construction, remodeling, neighborhood development, and even single and multi-family homes. Currently in the U.S. there are over 76,000 buildings registered as LEED certified.

Prioritizing Efficiency

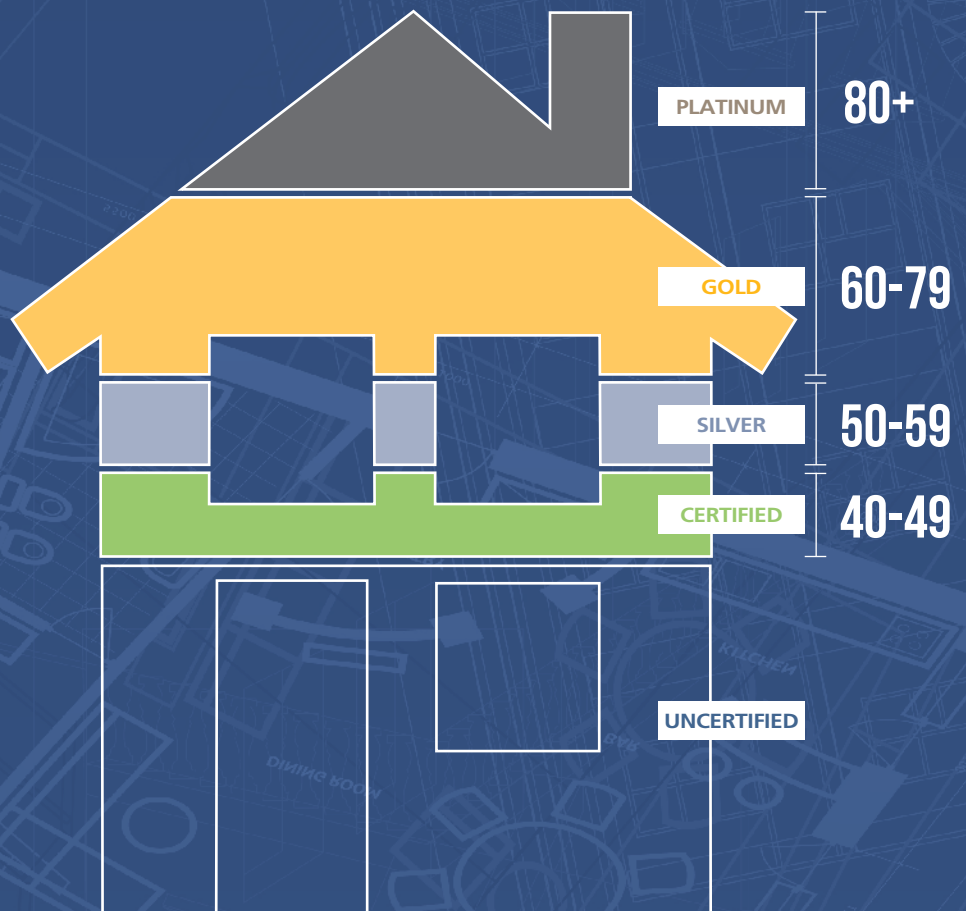
Buildings in the United States consume 70 percent of the country's overall electricity usage through lighting, heating and cooling, and the powering of appliances and electronics. For this reason, many state governments, city councils, and county commissions in the U.S. now require all new construction and major renovations

IN WYOMING

There are four levels of LEED certification—Certified, Silver, Gold, and Platinum—that relate to the number of points achieved in the eight credit categories of evaluation. A minimum score of 40 points is required for a Certified designation, which is the minimum that can be achieved, while any score over 80 points achieves a Platinum rating.

Planning for various credit categories during the construction or remodeling process outlines the potentially achievable scores, as not all green building designs apply to every project. Within these credit categories there are specific prerequisites at a minimum that each project must satisfy.

Many buildings are designed to “green standards” and can showcase a level of sustainability, yet won’t seek a LEED review due to the additional cost of certification. Although uncertified green buildings can potentially demonstrate environmental principles in their finished product, conducting the LEED certification validates the project through this third-party review and institutional guarantee.



Additional Information:

LEED projects in Wyoming: www.usgbcwyoming.org/wy-green-building-projects

LEED Buildings at UW: www.uwyo.edu/sustainability/green_building

U.S. Green Building Council: www.usgbc.org

LEED for Homes: www.usgbc.org/homes

of government facilities to meet a certifiable level of LEED. This green building policy within various levels of governments aims to set the local examples of energy efficiency for businesses and industries to follow, as well as attract new commerce based on a healthier, cleaner, and more efficient lifestyle.

In addition to the energy savings, many governments offer partial tax abatements for commercial and multi-residential buildings that meet LEED standards. A sample of the hundreds of governments and institutions in the United States with an established green building policy includes the State of Nevada, the City of Dallas, the New Jersey Schools Development Authority, and our very own University of Wyoming. UW now requires that all new construction and major renovations strive to meet the LEED Silver standards.

UW's Commitment to Green Buildings

The University of Wyoming currently has four LEED-certified buildings and three buildings anticipating LEED certification in 2015. UW continually strives to become more economically and environmentally sustainable. Designing and constructing new buildings that meet the LEED standard contributes to that goal.

Dr. Nicole Korfanta is the Director of the Ruckelshaus Institute at the Haub School of Environment and Natural Resources at UW. She is co-chair of the UW Campus Sustainability Committee and a board member for the Wyoming chapter of the USGBC. She gets excited about sustainability through green design on campus, which began for her when the Haub

School was searching for a new building to call home.

"We needed a building that would walk the talk," said Korfanta. "We wanted a building to match our identity." Through a gift from Don Kendall, former board member of the Haub School, the "Bim Kendall House" was gutted, redesigned with green principles, and remodeled in a manner that was not only functional and beautiful, but efficient and sustainable. The Bim Kendall House showcases a passive ventilation system and an abundance of natural lighting, which contribute to a significant decrease in operation costs while providing a relaxing and calm working environment. One third of the building's electricity is generated on-site by a solar photovoltaic panel system.

The Bim Kendall House was UW's first LEED green building constructed on campus, while the popular and inspiring Marian H. Rochelle Gateway Center is anticipating approval of its LEED certification later this year. The Rochelle Gateway Center serves as UW's "front door," inviting guests, students, and alumni to enter the university and learn about its past, present, and future through fellowship, history and traditions, and university programs and studies.

Stephan Pappas at Pappas & Pappas Architects in Cheyenne designed the Rochelle Gateway Center with energy balance in mind. "Wyoming is an energy-producing state and wants to be a good steward of that resource," said Pappas. "As Wyoming develops its energy resources, we should also be developing conservation." In all of his designs statewide, Pappas strives for a harmony between energy needs

and energy savings. "Like UW, most clients want to hit a balance between an affordable building and reduced energy costs," added Pappas.

LEED in Wyoming

In Wyoming, there are 97 buildings with current or anticipated LEED certification, totaling 4.4 million square feet. Ranging from Kohl's in Casper to the Yellowstone Regional Airport in Cody and from the Greybull Elementary School to the new Curt Gowdy State Park Visitors Center, LEED facilities are popping up in all corners of the state. In 2013, the 86-year-old historic Haynes Photo Shop located next to Old Faithful in Yellowstone National Park became the first LEED-certified building of the National Park Service.

Nearly one out of five LEED-certified buildings in Wyoming is an educational institution, yet only 4 of the 97 LEED buildings are K-12 facilities. There are also only four buildings within state government holding LEED certification (excluding UW's seven buildings).

Initiating LEED principles and designs in Wyoming's K-12 schools and state government buildings would generate operational and maintenance savings and would go a long way to lessening negative environmental impacts. Developing building atmospheres that accomplish this as well as encourage learning, productivity, and healthy lifestyles could be an easy step toward continued progress in the Cowboy State. **W**

Matt Hoobler is a Cheyenne-based freelance writer.