

Arrowhead Receives LEED® Gold Certification

The U.S. Green Building Council's LEED® (Leadership in Energy and Environmental Design) program awarded Arrowhead Electric Cooperative, Inc. Gold Certification on May 17, 2010. It is the first LEED® certified building in Cook County.

To achieve a LEED Gold rating, key areas of design and construction that reduce or eliminate the negative impact of buildings on the environment and occupants were addressed. These key areas include:

- Sustainable site planning that decreased storm water runoff by more than 25%
- Safeguarding water and water efficiency by reducing potable water use by 53% through the use of dual-flush water closets, ultra low-flow urinals, and ultra low-flow lavatories.
- Energy efficiency and renewable energy includes a ground source heat pump, solar hot water heating system, and day lighting of almost 80% of the occupied spaces to reduce the need for fluorescent lighting. All occupied spaces have sensors which turn off the lights when not in use.
- Conservation of materials and resources include the reuse of the existing building concrete shell, poured concrete walls with the use of fly ash instead of Portland cement, reclaimed tongue-and-groove paneling from the old building, installation of recycled glass countertops, reclaimed Douglas Fir for trim and the ceiling in the main lobby, cork flooring, recycled plastic carpeting, and recycled rubber flooring.
- Indoor Air Quality that is increased by more than 30% from pre-construction and the use of low emitting materials in adhesives, paints and sealants used during construction.
- Innovation in Design includes a green housekeeping program and a member outreach program.

It is not an easy undertaking to achieve a LEED® Gold rating. The USGBC (U.S. Green Building Council) must confirm that the building's design and construction reduce or eliminate the negative impact of buildings on the environment and occupants.

Visitors can easily see some of the touches that make the building an energy and environmental design leader—solar panels, large windows that let in lots of natural light, retention of the tongue-and-groove paneling from the old office space and flooring of attractive recycled materials. There is also an interesting mechanical room, often hidden away, but available for view for members considering the use of geothermal heat pumps and/or solar energy. The USGBC must also make sure that the building is using those systems and that green building techniques, such as fly ash as a cement substitute and use of reclaimed Douglas fir, had been employed.

And the final piece of LEED Certification is education, which takes place on a day-to-day basis. Asked what it's like to be working in a LEED® Gold certified building, Manager Don Stead replied,

“Interestingly enough, it's very similar to being in any other building. The difference is that the Gold Certification provides the assurance that the building is performing in a certain manner—that we are giving our employees a better, safer, cleaner working environment.”

Arrowhead Electric
Cooperative, Inc.



The addition and remodeling of the Arrowhead headquarters facility consisted of the renovation of the original building to better serve its intended function as warehouse space, along with an addition to serve the office and support functions of our operations. Over 75% of the original building structure remained intact. The goal for the entire project focused on utilizing LEED standards as tools for all parties involved and to provide an outreach program to Arrowhead's members. The entire addition and remodel was designed around a member showcase area and an open layout where the public is welcomed to experience firsthand the variety of systems and resources utilized. This includes materials reuse, recycled materials, energy efficient heating/cooling systems and light fixtures, and the use of natural lighting and ventilation.

Facilitating the design of the headquarters was Architect Melissa Graftaas, AIA, ARA, LEED® AP of Architecture Advantage, LLP, in Duluth, Minnesota. This was the firm's first LEED® project and is the first to be certified (another is currently in the review process). The general contractor for the project was Johnson Wilson Constructors of Duluth, Minnesota, with main subcontractors, Stout Mechanical of Duluth, Minnesota, and Belknap Electric of Superior, Wisconsin.

Working with Graftaas on the LEED® Certification was Assistant Manager Jeanne Muntean. "Jeanne worked really hard on this", said Stead. "We are all really happy and proud to receive Gold Certification."

"Our Mission Statement is Through the power of human connections, we will provide quality utility services in a reliable, cost-effective and environmentally safe manner," said Muntean. "The LEED Gold certification helps us to fulfill part of that mission."

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