



## Fort Collins Utilities awarded 2018 Green Building of the year

Colorado's first facility to achieve a LEED v.4 Platinum rating, the Fort Collins Utilities Administrative Building is the first phase of an efficient new civic campus planned for Downtown Fort Collins. (Photo by City of Fort Collins)

**T**he United States Green Building Council recently recognized WAPA customer Fort Collins Utilities' Administration Building with the Mountain West Region 2018 Colorado Green Building of the Year award.

Fort Collins Utilities was honored along with other award recipients May 3 at the Rocky Mountain Green Conference in Denver.

Sustainable architecture firm Stantec designed the Administrative Building to embody the community values demonstrated by Fort Collins energy and climate policies, and to document these high performance goals with Leadership in Energy and

Environmental Design Version 4. Construction was completed in 2016, and accolades followed quickly. The building also earned an ENERGY STAR® score of 100 for operations in 2017.

The facility was the first in Colorado and fourth in the world to receive the Platinum designation under the latest version of the LEED standard. In addition to being one of the most

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energy-efficient buildings in the state, more than 95 percent of the construction waste was diverted from landfills. It features a 104-kilowatt solar system, and the city is currently reviewing designs to add a storage battery later this year.

### Shoot for gold, hit platinum

The request for proposals called for the building to achieve a minimum of a LEED Gold rating under the new LEED v.4 standard, which has a more performance-based approach than previous versions. "The architecture went through a lot of iterations—in square footage, budget and so forth—but the specificity of the goals we set for the project in the RFP kept the design and construction team on track," said John Phelan, Fort Collins Energy Services manager.

The city required the design and construction team to achieve all of the energy and atmosphere points to ensure ongoing performance, and challenged the team in other areas to

achieve the certification. The choice to apply LEED v.4 presented the city with some challenges. For example, Phelan recalled that the materials category has new methodology and standards so the updated material data sheets were not always available. "That made it hard for the contracting team to get the necessary documentation," he explained.

The integrated approach produced some clear triumphs as well. The design team focused on a well-insulated, tight envelope with extensive daylighting, resulting in a building with extraordinary light quality and views. "If you are not in a bathroom or closet, you can see the sky," Phelan proudly stated.

### Sustainability quest continues

The Utilities Administration Building is the first phase of an efficient new civic campus planned for Downtown Fort Collins. The master plan calls for the buildings clustered in a two-block area to be heated and cooled by a shared geothermal well field. Designers

prepared the new building for that eventuality. It was designed to be able to connect the district heating system, promising an even better energy performance in the future.

Energy isn't the only kind of performance the city is planning to measure. In an effort to understand the value of indoor environmental quality of this building, occupants have taken pre- and post-construction surveys on their comfort, satisfaction and how they feel about their work environment. Ultimately, annual utility bills are very small compared to the utility's investment in its employees, explained Phelan. "You can't lose sight of the fact that you are building for the people who work inside, doing the work that the community wants," he said.

WAPA congratulates Fort Collins Utilities for another achievement in sustainability. The forward-thinking municipal utility has made great strides in lowering its carbon intensity, and never rests in pursuing more innovative solutions. ■

## LEED Version 4.1

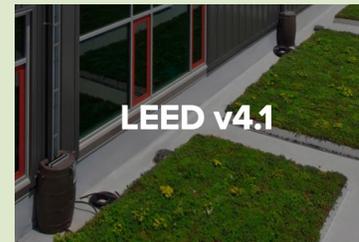
**L**eadership in Energy Efficient Design is the US Green Building Council's rating system for the design, construction and operation of high-performance green buildings. For the last 18 years, the various versions of LEED have pushed the global green building market forward progressively, with more than 93,000 registered and certified projects and a total of 19.3 billion square feet of space used worldwide.

One of the hallmarks of LEED is continuous improvement to keep pace with the constantly evolving world of energy and construction. With each new version, LEED raises the bar to increase the impact on our built environment. USGBC has also been working to ensure that LEED not only meets different markets where they are, but also that the rating system accelerates the speed with which the market moves.

After the widespread success of LEED 2009, USGBC is raising the bar on the market.

The job of green builders is not just to be efficient with construction and design, but to give the environment more than we receive. Today, LEED v4 is the most rigorous green building rating system in the world. From improving energy performance to emphasizing human health and integrative building design, LEED is encouraging project teams to operate beyond the status quo.

LEED v4.1 is not a full version change, but rather an incremental update to the LEED rating systems. LEED v4.1 is USGBC's most inclusive and transparent platform to date.



# Administrator's outreach builds bridges between customers, WAPA

Editor's note: This story will also appear in the spring issue of WAPA's Customer Circuit

Like any private business, WAPA exists to serve its customers. Administrator and CEO Mark A. Gabriel has made a special point of meeting customers since he joined WAPA in 2013. In fact, he says it is one of favorite parts of the job. "Powerful partnerships drive our customer service efforts," Gabriel explained. "When we listen to customers' needs and concerns, we learn how we can better serve them. As our industry is evolving so quickly, this is one of the most important things we can do."

## Relationships matter

As it turns out, the customers like it, too. "Mark is the exception to the rule of the private sector pulling the best and the brightest away," said

Brad Lawrence, utilities director for the city of Madison, South Dakota. Lawrence first met Gabriel at the winter customer meeting for Heartland Consumer Power District. "He clearly

understood the rank and file, and he wanted to hear from ground troops," added Lawrence, who has a military background. "It's fairly rare that people at the bottom get a chance to explain things to people at the top."

Making that effort to get to know customers face to face is an important piece of relationship building that often gets overlooked in today's business environment. "It shows respect and our customers respond to that," explained Tracy Thorne, a public utilities specialist in WAPA's Upper Great Plains Huron office. Thorne has helped to coordinate Gabriel's attendance at several events in the region and frequently accompanies him.

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Administrator Mark Gabriel addresses customers at the annual meeting of Missouri River Energy Services. (Photo by Missouri River Energy Services)

### **Answering questions, honoring innovation**

Many different kinds of events give Gabriel the opportunity to visit "the field." It may be a member meeting being held by one of our generation and transmission customers like the one at Heartland, or the gathering of an industry group.

Last summer, Gabriel was a guest at the annual picnic of the Northwest Iowa Municipal Electric Cooperative Association where five WAPA customers were in attendance. Members were concerned about impending regulations before the Federal Energy Regulatory Commission and Gabriel wanted to discuss the issues. More importantly, he listened. "He was sympathetic to our concerns," said Eric Stoll, general manager of Milford Municipal Utilities in Iowa. "Gabriel didn't dismiss us because we are a small customer. That really means a lot to us. We didn't feel overlooked at all."

Stoll recalled buzzing around town in a GEM electric vehicle with Gabriel. "At one point, we pulled up to a curb and someone thought we were the meter maid," he laughed.

One trip to Nebraska in 2017 was specifically to honor South Sioux City for delivering impressive innovation along with affordable, reliable power. Gabriel presented the municipal utility with WAPA's Administrator's Award. "The vision our customers show never fails to impress me and that is especially true of smaller utilities like South Sioux City," Gabriel said. "It is a pleasure to meet the people who are doing this work and to bring attention to their accomplishments."

### **No occasion too big, small for visit**

The spring has been an active time for meeting with customers. At the end of April, Gabriel traveled to Nebraska to speak at the Big 10 and Friends Utility Conference. You are leaving WAPA.gov. in Omaha. The meeting brings together facility and energy managers from Big 10 and other schools and utility professionals to discuss the business of campus utility production, distribution, metering and efficiency. Gabriel gave the keynote address titled "Radical thoughts: Providing value amid a changing energy landscape" to an audience of about 260 individuals.

Thorne noted that the presentation was very well received. "Afterward, I overheard attendees comment about how much they enjoyed Mark's presentation—and they didn't know I was from WAPA!" he added. "People had a lot of good questions for Mark and he had the answers. I think if it had been a smaller crowd, the discussion could have gone on for hours."

While in Nebraska, Gabriel also attended meetings with several municipal utilities in Randolph and Fremont, and met with Nebraska Public Power District in Columbus. Jody Sundsted, senior vice president and UGP regional manager, joined Gabriel for those meetings. Utility staff and consumers in small towns are engaged with the same issues as their counterparts in more urban areas, Sundsted noted. "People had a lot of questions about the Southwest Power Pool, behind-the-meter generation, battery storage," he said. "They really appreciate getting answers from the administrator himself."

WAPA's experience with the Southwest Power Pool was also a topic of interest at Missouri River Energy Services' You are leaving WAPA.gov. annual meeting in Sioux Falls, South Dakota, May 10. Gabriel's presentation highlighted some of the challenges that WAPA and all utilities will be facing in the future, including societal changes, economic challenges and security challenges. He assured the group of continuing value and business excellence through WAPA's focus on direction, people and performance.

"The members of MRES look forward to the update that WAPA provides each year at the MRES Annual Meeting," said Joni Livingston, MRES director of member services and communications. "With 59 of the 61 MRES members having WAPA allocations, they are always anxious to hear about WAPA's rates for the Pick-Sloan region, particularly since those rates have decreased in 2017 and 2018."

Sundsted observed that Gabriel meeting with customers benefits WAPA, too. "Customers know our brand, but it helps them to put a face with the logo, to see that WAPA is people in the utility business just like them," he said. ■

# California building code requires rooftop solar for new homes

Starting in 2020, all new residential homes in California must be built solar ready. On May 7, the California Energy Commission approved the 2019 Building Energy Code, which includes that provision.

This historic revision of building energy codes is expected to drive a large investment in residential rooftop solar and energy efficiency as California pursues its goal of getting 50 percent of its energy from renewables by 2030.

In addition to mandating rooftop solar, the code contains incentives for energy storage and requires new home construction to include advanced energy-efficiency measures. Using 2017 data, ClearView Energy Partners estimate that the mandate could require between 68 and 241 megawatts of annual distributed solar buildout.

## Good for consumers, solar, storage industries

The commission stated that the new code is meant to save Californians a net \$1.7 billion on energy bills all told, while advancing the state's efforts to build-out renewable energy.

Following the commission's decision, solar developers such as Sunrun, Vivint Solar and First Solar experienced a surge in stock prices, Bloomberg reported.

The updated codes also allow builders to install smaller solar systems if they integrate storage in a new home, adding another incentive to include energy storage. California has been a leader in incentivizing energy storage. In January, the California Public Utility Commission moved to allow multiple revenue streams for energy storage, such as spinning reserve services and frequency regulation.

## Utilities question policy

The solar industry received a prior boost in January 2016, when the CPUC approved its net metering 2.0 rate design. The state's investor-owned utilities asserted at the time that net

metering distributed generation from electricity consumers shifted the costs for the system's maintenance and infrastructure onto consumers who do not own distributed generation.

ClearView analysts pointed to the distributed solar mandate as a possible opening for utilities to argue that California regulators should reconsider the net metering reform proposal. According to the report ClearView published ahead of the CEC's decision, utilities that opposed the new rate-design could claim that mandating distributed solar alters the policy landscape enough to warrant further review of the compensation levels paid to excess generation. ■



The California Energy Commission approved the 2019 Building Energy Code, which includes the provision that all new homes must be built solar ready, starting in 2020. (Photo by DOE Office of Energy Efficiency and Renewable Energy)

# IREC provides online solar training for local code officials

**A** new rooftop photovoltaic solar array is being installed every minute in the United States, with 4 million expected to be generating power by 2020. Knowledgeable building code professionals are needed to make sure these systems are installed correctly and safely. To help ensure quality inspections, the Interstate Renewable Energy Council has launched a new online interactive video solar training series for local code officials.

Taking the approach of the popular DIY series, *This Old House*, developers have created videos that are as entertaining as they are informative. Online viewers join IREC Training Specialist Joe Sarubbi to follow seasoned building and electrical inspectors through the finer points of five different solar inspections. Each video highlights a different type of system and technology, including:

- Microinverter systems
- DC-DC converter systems

- Tesla Powerwall energy storage systems
- Ground mounted AC-coupled systems with energy storage
- Commercial carport systems

Presented in an engaging, easy-to-watch video format, the training can be completed in just a handful of lunch-hour sessions and is aimed at new and experienced residential inspectors, as well as residential PV installers.

The videos incorporate the 2017

National Electrical Code and the most current international building, residential and fire codes. "The new PV Inspector Online Training course for code officials brings together a remarkable group of experienced PV system inspectors from across the country to present a wide variety of PV system types and technologies," said Rebekah Hren, a member of the NEC's Code Making Panel 4.

Check out this short video for a look at how the solar training for code officials looks and feels. The training is available online free of charge for a limited time.

IREC developed the training in conjunction with the International Association of Electrical Inspectors and International Code Council with funding from the U.S. Department of Energy. Continuing Education Units are available from the IAEI, ICC and the North American Board of Certified Energy Practitioners. ■



## Upcoming Events

Habitat X –  
June 27-29 Big Sky, Montana

Grid Evolution Summit –  
July 9-12 Washington, DC

Summer Institute for Educators –  
July 22-27 Sebastopol, California

Energy Exchange and  
Better Building Summit –  
Aug. 21-23 Cleveland, Ohio

Solar Power International and  
Energy Storage International –  
Sept. 24-27 Anaheim, California



## 2018 Tribal Energy Webinar Series

<https://www.energy.gov/indianenergy/resources/education-and-training/webinars#series>

The 2018 webinar series provides diverse Native American communities with the information and knowledge needed to evaluate and prioritize energy options and take advantage of proven tribal energy development best practices. All webinars are free, but registration is required.

- June 27 Evaluating Tribal Utility Authority Opportunities
- July 25 Request For Proposal (RFP) Strategies for Tribal Community Energy Projects
- August 29 Utility-Scale Energy Development



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