

University Research Facility Provides Inspiring Lesson on Sustainability

Situated on the edge of the Pacific Ocean, UC Santa Barbara (UCSB) provides a learning environment that draws inspiration from this extraordinary natural resource. And the university taps into that inspiration to maximize the sustainability of its campus projects, in the process saving energy and lessening its carbon footprint.

“UCSB recognizes the importance of reducing greenhouse gas emissions,” said Energy Manager Jordan Sager. “In November 2013, University of California President Janet Napolitano announced an initiative to achieve carbon neutrality in UC operations by 2025. UCSB already has made tremendous strides toward reducing emissions. In 2017, the campus’ greenhouse gas emissions from its two major sources of energy, natural gas and electricity, were 19 percent lower than they were in 1990.”

UCSB is continuing this progress with its Center for BioEngineering (CBE), a four-story, 85,000-square-foot facility, completed in 2017, that serves as a state-of-the-art hub to consolidate research and instruction in both life sciences and engineering.

Participation in the statewide Savings By Design (SBD) program enabled UCSB to significantly lower energy use for the CBE, reducing building and operational costs as well as the facility’s environmental impact. The program encourages energy-efficient building design and construction practices, promoting the efficient use of energy by offering up-front design assistance supported by financial incentives based on project performance.

Estimated Annual Bill Reduction of About \$26,500

Energy-efficiency measures incorporated into the CBE include the following, which increased the performance of the building by 19.7 percent over the minimum standards in California’s Title 24 Building Standards Code:

- Active chilled beams
- High-performance glazing
- High-performance lighting and controls
- High-efficiency boiler (94.5 percent efficient)
- Increased insulation levels

In addition, end-use monitoring via an Energy Management System allows UCSB to continue monitoring and maximizing the building’s performance.

As part of its SBD participation, UCSB received a program incentive of more than \$116,100, and the design team received an additional incentive of more than \$27,300. The highly efficient facility is providing significant benefits: estimated annual savings of approximately 176,300 kWh and \$26,500, and a payback period reduction of more than four years.

“The BioEngineering building is one of the most energy-intensive buildings on campus,” Sager said. “In terms of energy-efficiency measures, SBD was absolutely critical in integrating a number of ideal measures into the design. It also was vital in getting past a longer payback period.”

For other universities and businesses looking to SCE to help them incorporate energy-efficiency solutions into new buildings, or to optimize the efficiency of building systems, Sager explained, “The effectiveness of SBD projects increases by getting involved early. Put these projects on the design team’s radar from the very first meeting. They should know there’s an incentive in it for them.”

Moving forward, Sager added that UCSB will continue to use programs, such as SBD, for new facilities to maximize energy efficiency – part of the university’s commitment to inspire innovation and create a sustainable energy future.

(Project Design Team: Moore Ruble Yudell Architects & Planners)

To learn more about SCE energy management solutions, ways to reduce your energy usage, and manage your energy costs, visit sce.com/buildings or call your SCE Account Manager. Find out more about Savings By Design at savingsbydesign.com.

This case study is provided for your general information and is not intended to be a recommendation or endorsement of any particular product or company, or a representation of any actual or potential future energy or monetary savings for any customers. These programs are funded by California Utility ratepayers and administered by SCE under the auspices of the California Public Utilities Commission (CPUC). Programs are offered on a first-come, first-served basis and are effective until funding is expended or the program is discontinued. Programs may be modified or terminated without prior notice. The information contained herein does not replace pricing information contained in any CPUC-approved tariff. Please refer to the tariffs for the programs described for a complete listing of terms and conditions of service, which can be viewed online at sce.com/regulatory.

UC Santa Barbara Center for BioEngineering

SCE Programs Utilized: Savings By Design

Results:

- Estimated energy savings of approximately 176,300 kWh annually and 31 kW of demand
- Estimated annual bill savings of approximately \$26,500
- A customer incentive of over \$116,100 and a design team incentive of more than \$27,300
- A reduction in the project payback period by over four years



UC Santa Barbara Energy Manager Jordan Sager said about the construction of a new research and teaching facility: "The BioEngineering building is one of the most energy-intensive buildings on campus. In terms of energy-efficiency measures, [the Savings By Design program] was absolutely critical in integrating a number of ideal measures into the design. It also was vital in getting past a longer payback period."

For Central Valley Water and Wastewater Agencies:

Don't Miss the Free Water Conference in Tulare on Nov. 7

If your water or wastewater agency is located in California's Central Valley, make sure to join us for the SCE-Pacific Gas and Electric 10th Annual Water Conference, as we address key issues in the agricultural, industrial, and domestic end-use sectors. This free event will take place on Thursday, Nov. 7, 2019, from 8 a.m. to 2 p.m. at SCE's Energy Education Center-Tulare.

With valuable content for general managers, energy managers/analysts, farm managers, personnel from irrigation districts and organizations, and many more, the conference will provide excellent opportunities to learn, interact, and move forward in the fields of drought management, water efficiency, and energy management practices. It will feature a general session, panel discussions and breakout sessions, an exhibitor showcase, and a hosted lunch.



From Wildfire Mitigation to Pump Efficiency: Session and Panel Topics

The conference general session will provide a frank and relevant discussion of California's current water situation and an update on efforts to advance energy, water, and state policy initiatives.

Breakout Sessions:

- Motors/VFDs/Controls
- Technology Showcase
- Domestic Water Conservation
- Pump Efficiency
- Benefits of Automation

Panel Discussions:

- Wildfire Mitigation
- Sustainable Groundwater Management Act (SGMA)

The scheduled keynote speaker is Connie Conway, (California) state executive director, USDA Farm Service Agency.

Reserve your spot at the Water Conference today to tap into the latest information available to help you manage water and energy resources. To register, visit scewaterconference.com/tulare.

Hispanic Heritage Month: Celebrating Business and Community Partnerships

SCE recently marked National Hispanic Heritage Month by recognizing organizations and companies that advance the efforts and contributions of the Hispanic and Latino communities to make a difference where we work and live.

The events, which took place in Tulare in the Central Valley and in Montclair in Southern California, also showcased how diversity is an integral part of who we are and how we operate. We're proud to play an active role within the diverse communities around us, and were very pleased to honor the highly deserving 2019 SCE Hispanic Heritage Month award recipients:

Clean Energy Champion Award:

Porto's Bakery & Cafe: Porto's origins date to the 1960s, when its founder, Rosa Porto, and her family made the difficult decision to emigrate from Cuba to the U.S. Out of a job, Rosa relied on her baking skills and began selling cakes out of her home to her neighbors and friends to support her family. In 1976, she opened her first official storefront, Porto's Bakery in Echo Park, Calif. The company now operates five locations in the greater Los Angeles area, with a sixth on the way. Over the last two years Porto's has reduced energy use at its locations by installing the most energy-efficient commercial cooking equipment available. These projects have saved more than 200,000 kWh annually and reduced 32 kW of electrical demand on the grid.



(Left to right) SCE Senior Specialist, Account Management James Trejo Jr.; SCE Director of Strategic Government, Institutions, Agriculture, and Water Jeanne Boyce; Porto's Property Manager Jorge Villa; Porto's Vice President of Community and Guest Relations Beatriz Porto; Porto's Corporate Marketing Manager Jennifer Wells; Edison International President and CEO Pedro Pizarro; and SCE Business Customer Division Vice President Mike Marelli.

Clean Energy Champion Award:

Vallarta Supermarkets: Founded in 1985, Vallarta Supermarkets now has 50 stores throughout California, with approximately 8,000 employees, and plans to open new stores at a rate of three locations per year. As business has grown, Vallarta’s constant goal has remained providing excellent customer service and the highest-quality products at great prices. Vallarta also maintains a strong commitment to energy savings, as shown by the completion of energy-efficiency measures in its 19 stores in SCE’s service territory. These measures include upgrades to high-efficiency cooking steamers; and installation of high-efficiency LED lighting, high-efficiency exhaust hoods, doors on all refrigerated cases, and Anti-Sweat Heater (ASH) controls.



(Left to right) SCE Account Manager Richard Rocha; SCE Business Customer Division Vice President Mike Marelli; Vallarta District Manager Jaime Romero; Vallarta Energy Management Director Steve Goh; and SCE Vice President of Safety, Security, and Business Resiliency Andrew Martinez.



(Left to right) SCE Vice President of Local Public Affairs Chris Thompson; SCE Principal Manager of Communications Lisa Woon; Ontario-Montclair Promise Scholars Vice President Danny De La Mora; Ontario-Montclair Promise Scholars Executive Director Leslie Sorensen; Edison International President and CEO Pedro Pizarro; and SCE Government Relations Advisor, Local Public Affairs Jennifer Shaw.

Community Partnership Award:

Visalia Emergency Aid Council (VEAC): VEAC believes that “no child should go to bed hungry,” and thus helps low-income households stabilize the family environment by relieving the stress of food insecurity. Founded nearly 90 years ago, the organization partners with like-minded social service agencies and manages a food pantry to carry out its mission of improving the lives of hard-working families by providing food, clothing, and household goods to families, seniors, and individuals. VEAC also assists qualifying low-income veterans by providing supplemental food, clothing, and household goods, as well as utility and rental assistance, in an effort to prevent homelessness among this vulnerable population.



(Left to right) SCE Business Customer Division Vice President Mike Marelli; VEAC Board Members Armondo Apodaca, Pam Rutter, Mary Jennings, and Robert Lee; and SCE Vice President of Safety, Security, and Business Resiliency Andrew Martinez.

Community Partnership Award:

Ontario-Montclair Promise Scholars: Promise Scholars was founded by the Ontario-Montclair School District; Chaffey Joint Union High School District; City of Ontario, Calif.; Chaffey College; and Cal State University San Bernardino to guarantee all students in the community a place in college, and to help them take steps to succeed. Programming started in 2012-13, and today more than 20,000 mostly first-generation K-16 students are served annually. Promise Scholars focuses on college degrees as well as career certificates, and partners with over 14 colleges. When they help children and teens become successful and contributing adults, the entire region benefits from a brighter, more productive workforce.



(Left to right) SCE Supplier Diversity Program Management Advisor Gloria Burton; SCE Vice President of Operational Services James Niemiec; SCE Executive Vice President of Operations Steven Powell; Green Energy Solutions COO Donald Graham; Green Energy Solutions CEO Patricia Pearl Gonzalez; and Edison International President and CEO Pedro Pizarro.

Diverse Business Enterprise Award:

Central Valley Asphalt (CVA): CVA, based in the City of Lindsay, Calif. (in Tulare County), specializes in all aspects of the general engineering industry. The company, a minority woman-owned business, has been a leader in its field for more than 20 years. It performs over-excavation and earthwork, site grading, asphalt paving, patchwork, seal coating, striping, concrete installation, and tennis court resurfacing for residential, commercial, and public works projects throughout the state. CVA provides an excellent quality of work with exceptional customer service, and has worked with SCE on several construction projects.

Diverse Business Enterprise Award:

Green Energy Solutions: Peace Officers for a Green Environment, DBA Green Energy Solutions (GES), is a woman and minority (WMBE) privately owned corporation. The company has almost a decade of experience in providing quality specialized services dedicated to energy efficiency, installation, and customer service. GES' goal is to assist income-qualified households with energy-saving appliances at no cost to them. As a progressive-thinking company, their mission is to deliver excellent customer service while providing quality appliance replacement and installation to their customers to assist in energy conservation and education.



(Left to right, back row) SCE Business Customer Division Vice President Mike Marelli; CVA Vice President Nick Strange; and SCE Vice President of Safety, Security, and Business Resiliency Andrew Martinez. (Left to right, front row) SCE Supplier Diversity Program Management Advisor Gloria Burton; CVA employees Brenda Wolf and April Enns; and SCE Supply Chain Principal Manager Tarrance Frierson.

If you are interested in future customer signature events – such as Black History Month in February and Asian American Pacific Islander Heritage Month in May – including potential opportunities for recognition, contact your SCE Account Manager for details.

Also, follow us on Twitter @SCE_Business and @SCE_Communities, and join our Business and Community Partnerships **Facebook** page, to learn more about our business programs and community initiatives. HHM hashtags: #HispanicHeritageMonth and #SCEHHM. For more details on SCE's diversity commitment, cultural awareness, and outreach, see our online **diversity and inclusion information**.