## ACHIEVING ENERGY INTEGRATION

100% electric ZOCO Emission

**2010 ANNUAL REPORT** 





## TABLE OF CONTENTS

Directors' Letter	3
Renewable Energy	4
Energy Efficiency	12
Technical Consulting	14
Transportation Programs	
Education	
Policy & Public Affairs	
Outreach	22
Fiscal Year in Review	
2010 Board of Directors	

## The California Center for Sustainable Energy

is a nonprofit organization based in San Diego that helps California residents, businesses and public agencies save energy and generate clean, renewable energy through a variety of rebates, technical assistance and education programs. We focus on energy efficiency, renewable energy, alternative transportation, green building and climate change.

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## **Achieving Energy Integration**

Fred Baranowski and Irene M. Stillings



We know that change is inevitable, but these days the rapid pace of change in our world is breathtaking, challenging and, at times, even daunting. At the California Center for Sustainable Energy<sup>®</sup> (CCSE), we deal with change every day, in small and big ways, as we build a clearer path toward a clean energy future.

This past year, CCSE has extended its geographic scope and expanded our focus in ways that will truly help to achieve wider integration of wise energy use into every aspect of our daily lives. We're out to change the way people think about energy by offering the knowledge and expertise required to help everyone make complex energy decisions easier.

We have added to our already strong foundation in renewable energy and energy efficiency a suite of new endeavors in home and building upgrades, urban forestry, green construction, water conservation, transportation infrastructure, fuel cells and climate change. We've grown our staff to more than 65 employees – proof that a green economy does create jobs. And, we've increased our revenues, even in a down economy.

### 2010 Milestones

The state incentive programs that we manage are running strong. Our efforts with the California Solar Initiative (CSI) have exceeded all expectations, bringing nearly 60 megawatts of residential and commercial solar photovoltaic power to our region – making San Diego California's #2 solar county and #1 solar city. In 2010, the Multifamily Affordable Solar Housing Program awarded its first incentives in San Diego, bringing clean energy to low-income families. Based on the success of the solar water heating pilot program CCSE offered in 2007-2009, CSI launched a statewide solar thermal program, allowing us to begin awarding incentives in 2010 for both residential and commercial applications.

CCSE's Transportation Programs are at the cutting edge of clean vehicle deployment. We're helping manufacturers introduce new electric vehicles (EVs) through our administration of the California Vehicle Rebate Project and working with many stakeholders on the infrastructure to support EVs in San Diego. We also have added research studies looking at the second life of EV batteries, a rebate program for the San Diego International Airport and more.

Our Energy Advisory Service is continuing to provide comprehensive and objective approaches to energy management that optimize energy reduction and production. During 2010, the service assisted a variety of municipalities and agencies and developed a comprehensive resource planning guide for school districts in collaboration with the San Diego County Office of Education.

A major expansion for CCSE is our new Building Retrofit team that manages a wide variety of home energy upgrade programs in partnership with San Diego County, the City of Chula Vista, Los Angeles County, San Diego Gas & Electric and others. Working under the statewide brand Energy Upgrade California<sup>™</sup>, CCSE initially is providing contractor training and qualification, targeted neighborhood energy programs and household energy retrofits. At the end of 2010, we also established an urban forestry resource center with a grant from the California Department of Forestry and Fire Protection that will help promote the many benefits of trees and landscaping as means for reducing greenhouse gas emissions and conserving water and energy resources in the region.

#### **Moving Forward**

These programs and others presented in this annual report serve a vital role in creating changes in the ways people think about and use energy, not just here in San Diego, but throughout California. These changes are needed, regardless of huge budget problems, a down economy and the naysayers. They will provide not only energy savings and environmental benefits, but also bring health and safety benefits to homeowners, economic benefits to businesses and municipalities and stimulate green job development in many areas.

At CCSE, our core mission is to provide objective, balanced, expert information and assistance to help everyone find the right energy path among the many options. Our role will not change – and that is a promise.

Fred Baranowski, Chairman, Board of Directors

Irene M. Stillings, Executive Director

# RENEWABLE ENERGY

Supporting the proliferation of renewable energy through rebates, customer education and industry development

"It took many months of planning and analysis to complete this project, and CCSE played a major role in helping guide us every step of the way. As our first full year of production closes, each and every day we continue to see the environmental and economic benefits of solar energy."

- Bo Mazzetti, Chairman, Rincon Band of Luiseno Indians

With some 4,000 ground-mounted panels, Harrah's Rincon Casino & Resort in Valley Center is the first casino in Southern California to adopt solar power. The system provides power for approximately one-quarter of their total annual electricity needs. The Rincon Band of Luiseno Indians will receive a performance-based rebate from the California Solar Initiative totaling some \$3 million.





**CCSE is proud** to work with members of the clean energy industry, businesses, government agencies, homeowners and others in San Diego to implement renewable energy options in our community and beyond. Renewable energy technologies offer much lower environmental impacts, local jobs and decreased dependence on foreign oil supplies as well as a sustainable path for future generations.

We oversee several state rebate programs funded through the California Public Utilities Commission (CPUC) in the San Diego Gas & Electric (SDG&E) service territory that are part of the California Solar Initiative (CSI). Primarily, these programs support the development and installation of solar power technologies, but we also incentivize fuel cells, advanced energy storage and wind technologies.

Program	Incentive Totals	# Projects	Generation Capacity
CSI Residential Program	\$11.8 million	2,428	11.1 megawatts
CSI Nonresidential Program	\$16.5 million	60	12.6 megawatts
Multifamily Affordable Solar Housing	\$524,182	б	152 kilowatts
Self-Generation Incentive Program	\$3.6 million	2	800 kilowatts
CSI-Thermal Program <sup>1</sup>	\$26,884	25	54,295 kWh; 593 therms²

### CCSE 2010 Renewable Energy Statistics

<sup>1</sup> Began May 2010 | <sup>2</sup> Energy displaced

**Total greenhouse gas** emissions reduction for 2010 is equivalent to approximately 19,965 tons of carbon dioxide, which is equal to removing about 3,640 vehicles from the road for a year or planting 733,581 trees.



## CALIFORNIA SOLAR INITIATIVE

"We decided to pursue solar energy to create a healthy and sustainable environment for the children and families we serve and to help greatly offset power costs....We are excited to now be producing clean solar energy to help us provide care to even more families."

- Charles Day, CEO, Ronald McDonald House Charities of San Diego

**Providing a home away from home** for families and their children with serious, often life-threatening illnesses, the Ronald McDonald House Charities of San Diego is a welcoming place to cope when lives are turned upside down. It is the first Ronald McDonald House in California to install a solar photovoltaic system, which qualified for a \$167,000 performance-based rebate from the California Solar Initiative.

**Charles Day** CEO, Ronald McDonald House Charities of San Diego **The success of CCSE's** California Solar Initiative (CSI) general market program for residential and nonresidential applications is evidenced by the speed at which San Diegans are adopting solar photovoltaic systems. During the past five years, local incentives have been awarded at a faster rate than anticipated, putting the 10-year program about three years ahead of schedule. This increased solar capacity has reduced the load on the utility grid and lessened impacts during peak load times.

In addition to managing the program, CCSE's CSI team conducted workshops for consumers and educational training for solar contractors, including programs to help create a sustainable solar marketplace with the Better Business Bureau, the Contractor State License Board and the California Solar Energy Industry Association.

"A homeowner just getting interested in solar should take the solar classes offered by CCSE to become more knowledgeable and also talk to homeowners who have PV systems to learn more information and recommendations. We ended up working with an outstanding contractor."

- Tim Regello, Resident, San Marcos

Twenty-year residents of San Marcos Tim and Michelle Regello remodeled their home in 2004, adding several rooms and a new garage, which was great for their family but it also meant higher utility bills. When their average electric bill reached \$300 per month, they decided it was time to consider solar. During a trip to a local big-box store, they signed up for a solar energy assessment and went on to discover the advantages of going solar, including an electric bill that now runs about \$5 a month. **Tim Regello** Resident San Marcos

## **MULTIFAMILY** AFFORDABLE SOLAR HOUSING

"We wanted to move toward building a sustainable environment for our low-income residents, and it just happened that the MASH program became available.... The addition of solar panels on our property has created a positive impact on our residents, through electrical cost savings."

- Randall Simmrin, Asset Manager, San Diego Community Housing Corporation

**The CSI Multifamily Affordable Solar Housing** (MASH) program, established in 2008, is designed to increase solar use in the low-income housing sector while alleviating some of the financial burden of utility costs. In 2010, the CCSE MASH program made six awards and has four more projects in the pipeline. Its first installation on a low-income complex near downtown San Diego was the 10,000<sup>th</sup> solar installation in the SDG&E territory and the utility's first virtual net metering project, which allows the multiple-family residents to share the benefits from a single solar system.

As the first Multifamily Affordable Solar Housing project in San Diego, the Hacienda Townhomes, owned and managed by the San Diego Community Housing Corporation, is an example of what the city wants to encourage in the urban core area, Mayor Jerry Sanders stated at a press conference. The solar system on the 52-unit apartment building brings the benefits of solar to customers who otherwise wouldn't be able to use it.

Randall Simmrin Asset Manager San Diego Community Housing Corporation

## **SOLAR** THERMAL PROGRAM

"The new solar water heating rebate program was a big part of our decision to replace the older system that was on our home. We get all the hot water we need for the three of us, and the natural gas portion of our utility bill is minimal. The gas water heater only switches on a couple of days a year."

#### - Dale Sweetnam, Resident, San Diego

**The CPUC initiated** a program of incentives for solar water heating in 2010 with the goal of an additional 200,000 solar thermal systems in the state by 2018. The new program draws heavily from the previous experiences of the CSI Solar Water Heating Pilot Program directed by CCSE, which was limited to customers in the SDG&E territory.

CCSE's CSI-Thermal Program launched its single-family residential program in May and the multifamily/commercial program in October. The team conducted a series of homeowner workshops about solar water heating and provided training for installers, qualifying 186 local contractors for the program.

The CCSE CSI-Thermal team also administers a solar water heating program for the City of Palo Alto Utilities that incentivized nine projects for a total of \$28,141 during 2010.



**Among the first San Diegans** to take advantage of the CSI-Thermal rebate program, Dale Sweetnam is not a newcomer to solar water heating. His previous home in Lodi, Calif., had solar water heating, and when he moved to San Diego in 2004, the house he bought had a 30-year-old system getting near replacement. When the rebate program got under way, he saw an opportunity to get a new system and increase the value of his home.

Dale Sweetnam Resident San Diego



## **SELF-GENERATION** INCENTIVE PROGRAM

**CCSE manages** the local Self-Generation Incentive Program (SGIP), a CPUC initiative that supports small-scale power generation in the range from 30 kilowatts to three megawatts with rebates for fuel cells, wind generating systems and advanced energy storage.

SGIP projects typically take several years to develop and gain funding; and during 2010, CCSE had more than a dozen projects in development, most for fuels cells. Late in the year, Cox Communications completed construction of two fuel cells for their corporate headquarters.

The SGIP team coordinated two workshops to introduce to the San Diego marketplace a refrigerator-sized five-kilowatt fuel cell scaled down to fit homes and small businesses. The presentations filled the CCSE learning center, and a demonstration model of the fuel cell was put on display in the Energy Resource Center.

"The two fuel cell projects that we installed in San Diego, along with two additional units at our Orange County facility, are helping Cox Communications achieve its nationwide goal to reduce the company's carbon footprint by 20 percent by 2017. We encourage other companies to implement eco-friendly energy initiatives."

- Jennifer Shaffer, Program Manager, Cox Communications



**Cox Communications'** San Diego headquarters is now generating most of its electrical power on site with two 400-kilowatt fuel cells. One provides 100 percent of the electrical load for Cox's West Coast data center, and the other nearly 60 percent of the power for its main building. They are part of a nationwide Cox Conserves program that is designed to reduce the company's energy consumption. The installations qualified for a \$3.6 million Self-Generation Incentive Program award from CCSE.

Jennifer Shaffer Program Manager Cox Communications

# **ENERGY** EFFICIENCY

Developing programs and the skilled workforce for greater energy savings through retrofitting and whole home performance

**During 2010, CCSE established** a Building Retrofit team to help move energy efficiency to the next level with a primary focus on improving the performance of existing homes and buildings. We are working with other stakeholders to roll out federally funded and state-mandated programs to reduce energy consumption, create jobs and improve the quality of the housing stock.

As part of the newly established Energy Upgrade California<sup>™</sup>, CCSE began contractor training and qualification for the program through a partnership with SDG&E. We also offered free professional training leading to Building Performance Institute certification to help ramp up the workforce. As the program develops, we will include business and sales training as well as marketing support.

The Building Retrofit team is also working with agencies in four California metropolitan areas that were selected by the Department of Energy's Better Buildings Program to implement a neighborhood approach to home energy efficiency. Locally, we are partnering with the San Diego Association of Governments, the city and county of San Diego and Chula Vista to develop programs involving rebates, in-store promotions and community-based social marketing.

CCSE also is the lead agency for local implementation of the Comprehensive Residential Retrofit Program, which is funded by the California Energy Commission as part of their State Energy Program. Partners in this program include the County of San Diego, Heschong Mahone Group, the California Building Performance Contractors Association and a consortium of local governments, workforce development organizations, community colleges and SDG&E's whole house retrofit incentives program.

Retrofit Program Manager Matthew Messina teaches CCSE staff how to operate and log data on a combustion gas analyzer to detect leaks in residential furnaces, water heaters and appliances.

Pressure pan

# **TECHNICAL** CONSULTING

Offering advice on sustainable energy projects and opportunities with an integrated, balanced approach

**CCSE's Energy Advisory Service** (EAS) provides objective, unbiased expertise that allows clients to make the most efficient energy decisions and avoid overpowering their systems. Our engineers specialize in identifying ways to reduce energy use, optimize performance and achieve significant savings with transparency and financial viability.

"CCSE's unbiased, objective and professional energy advisory services ensure that my clients understand how solar will impact their utility costs and, most important, that my client's solar projects are appropriately scoped and sized to generate optimal energy cost savings."

- Sophie Akins, Partner, Best Best & Krieger Law Firm

## **ENERGY ADVISORY** SERVICE

**During 2010, EAS assisted** a variety of municipalities and agencies with developing energy efficiency and solar generation projects and identifying incentives and grant opportunities. Overall, a total of 135,000,000 kilowatt-hours of energy savings and \$4,400,000 in energy costs savings were identified for a dozen clients.

The EAS team also developed a comprehensive resource planning guide for school districts in collaboration with the San Diego County Office of Education and a solar incentive program for Pacific Power in their Northern California service territory.

"This project is not only the right thing to do for this school and the district, both economically and environmentally, it is also the right thing to do as a great model for our young people to follow as an example of what it means to be committed to supporting sustainable resources."

- Ken Noah, Superintendent, San Dieguito Union High School District



Ken Noah Superintendent San Dieguito Union High School District



# **TRANSPORTATION** PROGRAMS

Promoting alternative fuel vehicles and the infrastructure to support their development and widespread adoption

"When I talk to customers about electric motorcycles, I tell them the future is here now. I've ridden bikes since I was a kid. I've owned two-strokes, four-strokes and now I have a no-stroke with no smoke! The acceleration is great; it's 100 percent eco-friendly and 100 percent fun."

- Dave Ketcham, Owner, Escondido Cycle Center

**CCSE's Transportation Programs** are helping pave the way for sustainable transportation in California through the use of consumer incentives, cutting-edge research and regional stakeholder engagement. As administrators of the California Clean Vehicle Rebate Project for zero emissions vehicles, CCSE gave out 134 rebates for a total of \$623,050 during the first year of the program. The California Air Resources Board has extended CCSE's contract for 2011, providing \$4.7 million more for rebates; and the California Energy Commission added an additional \$2 million for certain passenger cars.

**As the owner of a motorcycle center,** Dave Ketcham has his pick of bikes for his daily 20-mile commute. His choice is the all-electric Zero Motorcycle largely because it's green, but more important, he just likes the ride. Under the California Vehicle Rebate Project, the Zero and certain other electric bikes qualify for rebates up to \$1,500.



As part of Toyota's two-year, nationwide demonstration program, CCSE staff members, including Katrina Morton, are driving premarket Plug-In Prius cars and reporting back on driving behaviors and performance.

The Transportation team is taking part in two studies of the second-life applications of electric vehicle lithium-ion batteries to evaluate their use beyond powering transportation, which could help reduce future vehicle costs. They are also key participants in the national EV Project that is installing charging stations throughout San Diego and a local program with the San Diego County Regional Airport Authority that will bring 200 alternative fuel vehicles to the airport.

ChargePain

In 2010, the Transportation team became coordinators of the San Diego Regional Clean Fuels Coalition. The coalition includes representatives from a variety of local governments, public agencies, universities, nonprofit organizations and businesses. As coordinator, CCSE is the primary education and outreach provider, promoting the use of alternative fuels and alternative fuel vehicles in the region.



**Green Learning Adventure** – Andrea Cook, CCSE climate change program manager, presented a session at Innovations Academy in San Diego. During 2010, the program reached some 5,750 students with lessons on becoming better stewards of the environment.

# **EDUCATION**

Advancing sustainability and energy efficiency through exhibits, workshops, classroom presentations, workforce development and library resources

## "I hear teachers and students still talking about what they learned from your Green Learning Adventure presentation."

- Jessica Toth, San Diego Parent

**CCSE offers** a wide range of educational services that empower San Diegans with the knowledge to make wise decisions about energy use and sustainable living. Workshops, community events and technical assistance are supported by hands-on technology displays at the San Diego Energy Resource Center (ERC), a joint program of CCSE and San Diego Gas & Electric.

During 2010, the Education team was instrumental in securing funds for developing green careers and workforce training to the San Diego region. In collaboration with Cuyamaca College, CCSE helped secure \$1 million for the Clean Energy Workforce Training Program that targets unemployed and underemployed workers with a focus on workers with construction experience.

CCSE is also a key participant in a statewide Solar Market Transformation Program with nearly \$3.5 million in Department of Energy funding. Part of CCSE's role is to develop curriculum, coordinate train-the-trainer workshops and participate in the National Consortium for Solar Installer Instructor Training.

## $\bigcirc$

**Energy Resource Library** – Sarah Volpe, CCSE librarian, arranged donations of books and DVDs on energy efficiency and sustainability to more than a dozen community libraries to further community education.

### San Diego Energy Resource Center 2010 Activities

Visitors	18,500
Workshops held on site	329
Workshop attendees	2,592
Books and tools lent	3,170
Technical assistance responses	201

**Human-Energy Bike** – Students try to keep the pedal power going for lights as additional and less efficient lamps are added to the load in a demonstration of how much electricity it takes to run fans, hair dryers and other household items.





**Green Careers** – Russell Clapton of the Solar Training Institute speaks with one of the more than 400 participants at the Green Industries Career Fair held in December 2010. The event, cosponsored by CCSE's Green Career Network and San Diego's Able-Disabled Advocacy, connected job seekers with employers and provided information about green jobs and training with local companies.



July 2010 – Governor Jerry Brown, while California Attorney General, held a press conference at CCSE to announce a law suit against mortgage giants Fannie Mae and Freddy Mac for blocking property assessed clean energy (PACE) programs. In the photograph at left are Marti Emerald, San Diego City Council member, and at right, Pam Slater-Price, San Diego County Supervisor.

# POLICY & PUBLIC AFFAIRS

Developing relationships and engaging stakeholders in discussions and strategies for clean energy

**CCSE works closely** with public officials, agency administrators, legislators and regulators on a local, statewide and national level to help accomplish its mission of building a sustainable energy future.

We participate in relevant legislative proposals, foster key government and industry relationships, develop policy and planning initiatives and sponsor community and stakeholder outreach activities. In addition, we interact extensively with the California Public Utilities Commission (CPUC) and the California Energy Commission and provide support to the San Diego Association of Governments, local municipalities and many other agencies.

During 2010, CCSE's Policy and Public Affairs team actively participated in CPUC proceedings affecting the continuation of the California Solar Initiative (CSI), the development of the CSI-Thermal incentive program for solar water heating and the expansion of the Self-Generation Incentive Program. The team also provided monthly updates on all energy-related California legislation through CCSE's website and *Energy Connection* e-newsletter.





**April 2010** – Environmental advocate Jerome Ringo spoke with CCSE board member Wayne Hart prior to a talk at CCSE about people of all social and economic levels being included in building a more sustainable future.

**March 2010** – San Diego Mayor Jerry Sanders and CCSE Executive Director Irene Stillings participated in a press conference CCSE hosted for Kyocera Solar, announcing their plans to begin manufacturing in San Diego.



# **OUTREACH**

Creating relationships and promoting community action

**CCSE reaches out** to help people understand why it is important to make more sustainable energy choices by conducting public events and participating in numerous activities in the community. Our objective is to help residents and businesses recognize that only by adopting a wide array of energy-saving options and demanding high performance from our homes, buildings and vehicles will it be possible for San Diego and California to meet our goals for energy independence and reduced greenhouse gas emissions.

During 2010, CCSE developed 38 new community partnerships by reaching out to various trade and professional associations and by conducting joint marketing to promote cooperative programs and shared interests and goals. CCSE increased its online subscribers by some 20 percent in 2010.

Online Subscribers: 15,365 Annual Website Visits: 305,416

**Family Energy Day** – State Senator Christine Kehoe was among the special guests who joined some 800 San Diegans who checked out the displays, entertainment, mini-workshops, test rides and more.

**Kensington Clean Energy Festival** – Tom and Teri Evons announced CCSE's Kensington Clean Energy Festival in the community's Centennial Memorial Day parade. Held in June, the festival highlighted a walking tour of homes that have been upgraded to reduce energy use and conserve water.

**Clean Energy Conference** – Robert Weisenmiller of the California Energy Commission spoke at CCSE's Clean Energy Conference in September, which drew some 400 participants for presentations by energy experts and sustainable industry leaders.

"I have attended and spoken at many conferences across the country during the last 12 years and this conference ranks among the top ten percent. I did not expect a mayor and county supervisor of a major metro area in Southern California to speak about green with such conviction. The representatives from the CPUC and CEC were inspiring."

- A. George Beeler, Principal Architect

**Street Smart San Diego** – Celebrity guest Leilani Münter, the pro race car driver known as Carbon Free Girl, spoke about her environmental efforts and made some young friends.





### 2010 Energy All-Star Awards

**On the evening of March 31, 2011,** CCSE presented Energy All-Star Awards to businesses, organizations and individuals who made noteworthy energy savings in 2010. Not only were we honoring energy leaders – we were also celebrating the widespread actions being taken throughout the state to increase energy efficiency, implement renewable energy measures and reduce greenhouse gas emissions.

### The 2010 Energy All-Star Award winners are:

**Community Leadership** Urban Corps of San Diego County

**Outstanding Organization** City of San Diego Public Utilities Department

**Outstanding Nonprofit or Government Building Project** San Diego County Operations Center

**Outstanding Commercial Building Project** Autumn Terrace Apartments, San Marcos

**Outstanding Homeowner** Richard and Allison Williams, Encinitas

Sustainable Transportation Terramoto Transportation

### PICTURED, FROM TOP

Panama Bartholomy of the California Energy Commission gave the keynote address during the awards ceremony.

Peter Livingston and April Heinze of the County of San Diego accepted the award for the Outstanding Government Building Project of the year.

Chasen Bullock, Stephen Heverly and Andrea Cook enjoy the reception on the University of San Diego patio overlooking the Pacific.



# **FISCAL YEAR IN REVIEW**

**As a nonprofit organization,** CCSE's goal is to invest its total resources in achieving its mission and serving the community and to do so in a cost-effective manner. Overall, 94% of its total resources in 2010 were invested in the community, either directly (rebates and incentives) or as program services and education. In order to support all the initiatives that take place at CCSE, the center efficiently spends its funds by investing 5% of its total expenses in general administration and only 1% in marketing and outreach.

### Investment by Cost Category 2011



### **Programs Investment 2010**



California Solar Initiative 78%
Self-Generation Incentive Program 12%
Energy Resource Center 3%
Energy Advisory Service 3%
Transportation Programs 2%
Other Programs 1%

## **Thanks to Our Sponsors and Community Partners**

With the money CCSE receives from state and government sources restricted for specific programs and incentives, we rely on the generous support of donations and sponsorships to serve the community. Learn how you can help us create pathways to a more sustainable world today and for future generations by visiting **www.energycenter.org/donate.** (Tax ID#33-0936366)

### 2010 Sponsors

Aerotek Energy Service Adroit Energy & Design ATP California Commercial Asphalt Cox Conserves Diego Villamizar Everyday Energy GroSolar Innergy Power Kyocera Solar, Inc. Nissan Planet Solar Pure Water Technology Oualcomm **REC Solar** Reno Contracting San Diego Gas & Electric Sanyo Sempra Energy Foundation Sharp Health Care Solar Plus Stone Brewing Company Sudberry Properties Sullivan Solar Power Think Union Bank Vaillant Solar Systems Walmart

#### 2010 Community Partners

350.org Affordable Comfort, Inc. Alliant University American Lung Association Better Business Bureau Build It Green Building Industry Association Building Owners and Managers Association Building Performance Institute California Community Colleges Economic and Workforce Development Program

California Energy Efficiency Industry Council California Solar Energy Industries Association Center for Energy Efficiency and Renewable Technologies

City of San Diego City of Chula Vista Clean Tech Open CleanTECH San Diego County of San Diego Contractors State License Board Grossmont- Cuyamaca Community College District

Efficiency First Environmental Health Coalition Equinox Center Global Energy Network Institute I Love a Clean San Diego International Brotherhood of Electrical Workers

MAAC Project MOVE San Diego Pew Center on Global Climate Change San Diego Association of Governments San Diego City College San Diego Coastkeeper San Diego County Water Authority San Diego Gas & Electric San Diego Green Workforce Coalition San Diego Loves Green San Diego Regional Chamber of Commerce San Diego Renewable Energy Society San Diego Science Alliance San Diego Science Festival San Diego State University College of Extended Studies San Diego Workforce Partnership San Joaquin Valley Clean Energy Office Solana Center Solar Electric Power Association Solar Day 2010 Sustainability Alliance of Southern California University of California San Diego Extension University of San Diego

U.S. Green Building Council U.S. Green Chamber

World Trade Center San Diego



CCSE's 2010 Executive Leadership



PICTURED, FROM LEFT: Irene M. Stillings, Executive Director; Andrew McAllister, Director of Policy and Strategy; Siobhan Foley, Director of Education and Outreach; Abigail Reyes, Director of Human Resources; Peter Hamilton, Director of Energy Services; Dan Brockman, Controller

## CCSE's 2010 Board of Directors

PICTURED, FROM LEFT:

**Robert Wilder, Member** CEO/Founder, Wildershares, LLC

Lisa Shaffer, Member Lecturer, Rady School of Managment UC San Diego

Susan Christopher, Member Wealth Advisor

**Daniel Torpey, Member** Senior Director of Implementation, Qualcomm Real Estate and Facilities, Qualcomm Inc.

**Cecilia Aguillon, Member** Director of Business Development & Government Relations Kyocera Solar, Inc.

John Moot, Member Attorney, Schwartz Semerdjian Ballard & Cauley LLP

Fred Baranowski, Vice Chairman Regional President, Sunrise Bank

Irene Stillings Executive Director, California Center for Sustainable Energy

**Richard H. Hertzberg, Member** Trustee, UCSD Board of Trustees

Michael Akavan, Member Principal, MA Engineers

Karen Van Winkle, Member Design Manager, TDIC

Wayne Hart, Member Senior Faculty, Center for Creative Leadership

**Robert Noble, Chairman** CEO, Envision Solar

Alan Ball, Secretary/Treasurer Partner, Sustainable Intelligence Group

Nick Leibham, Member (not pictured) Of Counsel, K&L Gates, L.L.P.

# ENERGY RESOURCE LIBRARY

1