

2011 Annual Report



Center for Energy
Efficiency and
Renewable
Technologies



Front cover: Wind turbine on the eastern slope of the San Geronimo Pass
in Riverside County, Southern California

Photograph by CEERT/JAS

From the Executive Director

In 2011, for the first time, renewable energy attracted more global investment than fossil-fueled generation did. Here in California, the road to clean energy was sometimes rough during the year, amid signs of steady and sustained progress.

The solar world was rocked by bankruptcies, falling stock prices, slowing demand, and a global capacity surplus. However, the California market led the world in installed megawatts of solar as a result of lower costs and strong utility procurement. Several "world's largest" solar photovoltaic (PV) projects began construction, and a surge of new, long-term investment boosted confidence in the market.

The expiration of the wind production credit at the end of 2012 cast a shadow over California's booming wind project pipeline, which currently has several hundred megawatts of new capacity installed, under construction, or in final stages of permitting. Rising concerns about possible impacts of some new wind projects on golden eagles and the resurrected California condor population intensified the dialogue between wildlife agencies, wind developers, and the conservation community.

The geothermal industry pushed back after being shut out of recent utility bids, and demonstrated the value of geothermal's stabilizing contribution in replacing baseload coal-fired power and helping balance variable wind and solar energy on the grid.

And the deployment of fuel cells and other advanced technologies for capturing and converting methane into distributed renewable energy promises to create new opportunities for economic development while reducing air pollution and global warming.

Despite the economic downturn, California's strong renewable energy policies have made the state the fastest-growing market in North America. And CEERT is helping fuel this expansion by meeting land-use and integration challenges, advocating for price structures that reflect renewables' full environmental and economic value, and supporting the global technological leadership embodied in the Mojave solar projects, Tehachapi wind farms, Imperial geothermal plants, Central Valley biogas fuel-cell projects, and distributed solar PV installations that are coming on-line.

We will keep working to connect the dots and bridge the gaps in understanding between industry, environmentalists, government, and affected communities. The challenges are great and will test our collective imaginations, and our patience, but the opportunity for success on a large scale is extraordinary and historic. CEERT will help California cross the clean energy divide, and make renewables and efficiency the heart of the state's new energy economy, and an example for our nation and the world.

V. John White
Executive Director

CEERT and Our Programs

The Center for Energy Efficiency and Renewable Technologies (CEERT) is a partnership of major environmental groups and clean energy companies that has been working for 21 years to build the renewable energy economy in California and the West. We carry out this work through a comprehensive set of advocacy programs. Read about CEERT's 2011 work in the following pages:

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Keep up-to-date on our work by visiting www.ceert.org





The Year's Major Accomplishments

In 2011, CEERT:

- Played a critical role in expediting approvals of major new wind and solar projects, focusing on permitting and interconnection challenges.
- Continued our strong advocacy in the Desert Renewable Energy Conservation Plan (DRECP), which will determine how much Southern California land will be available for solar and wind projects. CEERT co-authored a new solar development plan that calls for the DRECP to include 260,000 acres of mostly public land for solar thermal projects in the West Mojave, which has the highest insolation in the U.S.
- Worked to mitigate wind projects' potential impacts on golden eagles and California condors in the Tehachapi region, where six large wind projects totaling 1,700 MW are currently under construction and 20 additional projects representing more than 2,500 MW are in the permitting process.
- Helped lead negotiations for unprecedented joint environmentalist and solar industry comments to the Secretary of the Interior on the Bureau of Land Management's Solar Programmatic Environmental Impact Statement and the lands it will be designating for solar energy development.
- Urged the California Public Utilities Commission (CPUC) to adopt a fixed price feed in tariff that reflects the full value of renewable distributed generation, including the environmental costs of fossil fired energy that renewables avoid. We organized a coalition that supports our position on a fixed price FIT.
- Was the sole non utility intervenor to advocate in Track II of the CPUC's Long Term Procurement Plan proceeding for the long overdue addition of renewable resources to pre approved bundled procurement plans, which are currently limited to fossil resources.
- Began a new program to support technologies that capture methane from dairies, feed lots, landfills, food processors, wastewater treatment plants, and oil and gas production operations, and use it to generate clean power through fuel cells, microturbines, and reciprocating engines.
- Played a key role in the California Independent System Operator's (CAISO's) temporary change of direction on cost allocation policy, and continued to advocate for more just and reasonable treatment of variable output renewables like wind and solar.
- Served as technical lead for state and national nongovernmental organizations on criteria emissions standards for the California Air Resource Board's (CARB's) revised LEV III regulations, which set performance standards for typical passenger vehicles sold in the state.
- Filed comments opposing Los Angeles County's Town and Country Plan map because of its restrictions on solar projects in the County, particularly the Antelope Valley.



Katie McCormack of the Energy Foundation and CEERT Executive Director John White at the construction site of BrightSource Energy's Ivanpah solar thermal project



The DRECP planning area, renewable energy project sites, BLM PEIS zones, and CEERT's proposed expansion of renewable energy study areas

Big Solar Power

In 2011 CEERT helped new large-scale solar thermal and photovoltaic projects to clear obstacles, obtain licensing, and begin construction; and we advocated in major planning processes for the necessary land and favorable policy framework that will make an expanded solar build-out possible in the critical years ahead.

In 2011, CEERT:

- Played a lead role in expediting approvals of individual renewable projects, and to that end met regularly with state and federal agencies and advisors to the California Governor. Much of our advocacy for specific projects focused on two key areas: permitting and transmission interconnection.
- Coordinated support for CPUC approval of the Abengoa Solar Project's power purchase agreement. This solar thermal plant will be built on disturbed private land, with minimal impact on wildlife habitat. CEERT organized meetings with CPUC staff and Commissioner Advisors, and helped refute the notion that the project was too expensive for ratepayers. The CPUC voted 4 to 1 to approve the Abengoa PPA, and the plant is now under construction, creating hundreds of jobs and 250 MW of high-value solar energy capacity.
- Continued to engage as an advocate and participant in the Desert Renewable Energy Conservation Plan (DRECP), which will guide long-term energy and conservation planning for 25 million acres of California desert, and determine how much land will ultimately be available for solar and wind projects. We act as a mediating force between preservationists, solar developers, and government agencies, and advocate an evenhanded approach that allows for both the orderly build-out of renewable energy projects on suitable sites and the protection of fragile desert lands and endangered species.
- Presented a new solar development plan we wrote with the Large-Scale Solar Association that calls for the DRECP to include an additional 260,000 acres of mostly public land for solar thermal projects in the West Mojave, which has the highest insolation in the U.S.
- Played a critical role in negotiating unprecedented joint environmental and solar industry comments to Secretary of the Interior Ken Salazar on the Bureau of Land Management's Solar Programmatic Environmental Impact Statement and the lands it will be designating for solar energy development. We helped bridge divisions between the conservationists and the industry, and authored key sections of compromise language.
- Advocated in both the PEIS and the DRECP for solar thermal projects, which we strongly believe are necessary for system stability and optimal integration of other renewable resources. Solar thermal plants' ability to store energy in the form of heat at reasonable cost gives them added value that needs to be factored into cost-comparisons with other technologies that have lower short-term prices.



U.S. Secretary of the Interior Ken Salazar



Wind turbine outer gear in the enXco operations and maintenance facility in Riverside County

Wind Power

In 2011, more than 3,300 MW of new wind power came online nationwide, with another 8,482 MW under construction. The wind industry has now built nearly 4,000 MW of installed capacity in California, and more than 43,000 MW in the U.S. Wind power is an increasingly affordable option for utilities, selling for as little as 3.5 cents per kilowatt hour in some markets. But continued progress will require overcoming environmental challenges, transmission constraints, and misunderstandings about how wind's variable output can be integrated onto the electric grid.

In 2011, CEERT:

- Helped to resolve specific wind project siting and permitting controversies, particularly in the crucial Tehachapi region and in Imperial and San Diego counties. Six large wind farms totaling 1,700 MW are underway in the Tehachapi area, with 20 additional projects representing more than 2,500 MW currently in the permitting process. These projects need to start construction in 2012 because the production tax credit—a key incentive for wind facilities—is due to expire at the end of the year.
- Worked to mitigate wind projects' potential impacts on golden eagles and California condors. CEERT has sponsored ongoing talks between the industry, wildlife protection groups, the Governor's office, and local jurisdictions to help resolve contentious issues and forestall litigation. We helped bring about frank discussions on monitoring bird flight patterns near projects and possible mitigation measures such as the use of radar and limited curtailment of wind turbine operations to prevent avian mortality.
- Encouraged Kern County planning officials to increase their participation in the Desert Renewable Energy Conservation Plan, and to become more active in enabling wildlife impact mitigation measures and in reconciling the wind industry's and local officials' concerns about renewable energy development.
- Advocated through our Low Carbon Grid Program for regional and market based approaches to grid balancing, including virtual consolidation of Balancing Authority Areas and demand side management, to improve integration of variable resources like wind.





Hudson Ranch – the first new geothermal plant in the Salton Sea area in more than 20 years

Geothermal Power

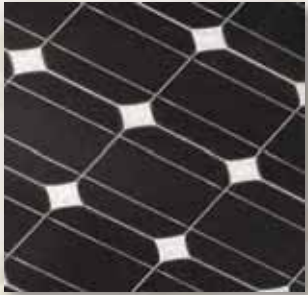
A recently published Southern Methodist University study shows that technically recoverable geothermal resources in the U.S. are 10 times greater than our coal capacity. The Salton Sea geothermal resource area in Southern California's Imperial County has a potential of 1,400 – 2,000 MW, and some experts consider it the most potent geothermal area in the country. Accelerating the pace of development will require consistent policy standards and reduced permitting timelines.

In 2011, CEERT:

- Advocated in the CPUC proceeding on Resource Adequacy for utilities to receive credit for geothermal procurement because of the reliability and grid stability this baseload resource provides. CEERT argued that RPS procurement should include consideration of system value, rather than simply initial cost, so that geothermal and other high value but relatively high cost technologies are not barred from utilities' portfolios.
- Worked to streamline permitting and wildlife habitat mitigation for geothermal projects, and to include them in planning efforts such as the Desert Renewable Energy Conservation Plan.
- Held discussions with the Governor's office, the California Independent System Operator (CAISO), the Imperial Irrigation District, and project developers to reduce the complexity and cost of geothermal plants being able to secure transmission interconnections and upgrades.
- Advocated for easing the economic penalties that geothermal developers and other renewable generators in Imperial County face because they do not interconnect directly with the CAISO.
- Continued discussions with the California Air Resources Board on the use of geothermal heat pumps for residential and commercial heating and cooling as an important strategy for reducing greenhouse gas emissions.
- Co sponsored and spoke at the Imperial Valley Renewable Energy Summit and Expo as part of our local outreach.



Jonathan Weisgall, MidAmerican Energy Holdings Company Vice President and CEERT Board Chairman, delivers opening remarks at the Imperial Valley Renewable Energy Summit and Expo



California Governor Jerry Brown



Distributed Generation

Renewable distributed generation (DG) is a major current focus of renewables policy in California, with Governor Brown calling for 12,000 MW of DG capacity, prices of solar photovoltaic (PV) panels continuing to decline rapidly, and stationary fuel cells coming into ever-wider use. The Central Valley alone could contain up to 1,000 MW of potential new generating capacity from fuel cells powered by agricultural-waste biogas, and an additional 1,000 MW from biogas at landfills and wastewater treatment plants.

In 2011, CEERT:

- Urged the CPUC to adopt a fixed-price feed-in tariff (FIT) that, in accordance with SB 32 and recent FERC decisions, would reflect the full value of distributed renewables, including the environmental costs of fossil-fired energy that renewable generation avoids. We took the lead in organizing a coalition of groups that support our position.
- Formed a Distributed Generation Caucus that includes leading environmental and DG-advocate groups and a broad range of companies. The caucus serves as a forum for negotiating a DG policy agenda that maximizes cost-effectiveness, emissions reductions, and grid reliability.
- Initiated discussions between California Energy Commission (CEC) staff and representatives from the fuel cell, microturbine, distributed wind, and solar heating and cooling industries about the state's 12,000 MW goal for DG, emphasizing the need to encourage technological and geographic diversity.
- Helped the Governor's office and UCLA develop the program for the Governor's Localized Renewable Energy Conference, which took place in July.
- Supported a Phase II of the CPUC's Rule 21 proceeding that would provide the transparency needed to foster more streamlined interconnections for distributed-generation projects like photovoltaic systems and stationary fuel cells.
- Participated in the CPUC proceeding to modify and extend funding for the Self-Generation Incentive Program (SGIP), and successfully advocated for the removal of loopholes that allowed one company to exploit the program. The SGIP is now critical to developing the market for fuel cells and small wind facilities in California.
- Discussed utility opposition to net energy metering with solar and environmental advocates such as SEIA, CalSEIA, Vote Solar, UCS, CCSE, and NRDC, and brought our concerns about the utilities' arguments to the Governor's office.
- Assessed the economic impacts of DG projects. CEERT's survey showed ten 3-MW rooftop PV systems had construction-related earnings of almost \$21 million. The ten projects employed an average of 500 workers per month during construction, plus 30 design and engineering professionals before construction began.





CARB Chairman Mary Nichols inspecting an advanced new automobile at the LA Auto Show

Regulatory Advocacy

CEERT's Regulatory Counsel Sara Steck Myers and Policy Director Danielle Osborn Mills appear before the California Public Utilities Commission (CPUC), the California Energy Commission (CEC), the California Air Resources Board (CARB), and other regulatory agencies to ensure fair pricing for clean power, improve renewable energy procurement planning, and strengthen implementation of the state's Renewable Portfolio Standard (RPS). We are helping lead the fight for policies that reflect the true value, costs, and benefits of renewable energy.

In 2011, CEERT:

- Actively sought changes in a CPUC Proposed Decision on implementation of the new 33% RPS statute. We advocated for an outcome that fairly implemented the law, preserved consistency between the roles of the CPUC and CEC in determining RPS product eligibility, and promoted clarity in product requirements and equality in negotiations for buyers and sellers of all permitted products. Many of these changes were included in the final decision that the CPUC issued on December 15.
- Advocated that the CEC and CPUC work together closely to ensure uniform regulations between investor owned and publicly owned utilities on RPS compliance issues.
- Coordinated with like minded parties to advocate for an effective renewable feed in tariff, which will provide renewable projects up to 3 MWs with standard contracts and simplified pricing that includes locational benefits, and that will create a market for this power.
- Was the sole non utility intervenor to advocate in Track II of the CPUC's Long Term Procurement Plan (LTPP) proceeding for the long overdue addition of renewable resources to pre approved bundled procurement plans, which are currently limited to fossil resources.
- Joined a Settlement Agreement on Track I of the LTPP proceeding because it indicated no fossil capacity is required to be added to the electrical system through 2020 especially to integrate renewables.
- Urged a revision of the CPUC's Resource Adequacy rules to account for renewable resources and reliability, generation, and transmission assumptions, and to change from a retrospective to a prospective basis in order to align the program with the radically different resource portfolio that the 33% RPS will entail in the coming years.
- Filed comments on a CPUC Proposed Decision on Smart Grid issues, seeking to enable customers to gain greater control of their own energy usage data and the option of engaging third party providers to improve responsiveness to price signals. A July 28 final decision included many revisions consistent with our recommendations.



Assembly Bill No. 32
CHAPTER 488

An act to add Division 25.5 (commencing with Section 38900) to the Health and Safety Code relating to air pollution.

This bill would require the state board to adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this program, as specified. The bill would require the state board to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990 to be achieved by 2020, as specified. The bill would require the state board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective emissions reductions, as specified. The bill would authorize the state board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective emissions reductions, as specified. The bill would authorize the state board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective emissions reductions, as specified.



Climate Action

California's internationally recognized Global Warming Solutions Act (AB 32) requires the state to reduce greenhouse gas (GHG) emissions to 1990 levels by 2020. CEERT continues our work to ensure strong implementation of AB 32, a robust carbon market, and maximally effective state and regional policies that will cut GHG emissions.

In 2011, CEERT:

- Worked actively on the California Air Resource Board's (CARB's) proposed cap and trade program to reduce GHG emissions, and focused on developing a symbiotic relationship between the program and renewable energy markets. We advocated for the appropriate treatment of renewable energy and Tradable Renewable Energy Credits, and successfully pushed for inclusion of a set aside for voluntary purchases of renewable energy.
- Organized discussions among our affiliates on goals and potential alternatives to a cap and trade program, and continued to engage with CARB staff on implementation of key components of the cap and trade program, such as the treatment of imported electricity.
- Worked with the Western Climate Advocates Network on an expanded list of key complementary policies to the Western Climate Initiative's (WCI's) proposed regional cap and trade program. Those policies included emissions performance standards, transmission development in renewables rich areas, and procurement loading orders that emphasize low and zero GHG energy resources. More recently, as the WCI appeared to lose momentum, CEERT engaged with other regional advocates to discuss alternative venues to coordinate complementary policies between states.
- Began a new program to advance commercially ready technologies that will capture methane from dairies, feedlots, landfills, food processors, wastewater treatment plants, and oil and gas production operations, and use it to generate clean power through fuel cells, microturbines, and reciprocating engines with advanced emission controls.
- Engaged in helpful discussions with CEC Commissioners and staff, The Utility Reform Network, Union of Concerned Scientists, and other clean energy and environmental advocates on potential solutions to thorny out of state biomethane issues, in which we suggested ranking such resources based on the environmental benefits they provide to the state.





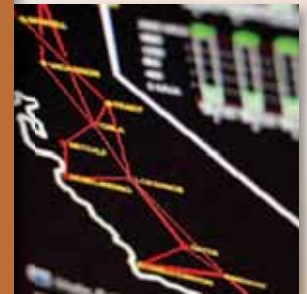
CEERT Board members Dave Olsen and Carl Zichella and CEERT Low-Carbon Grid Program Coordinator David Miller discuss transmission and integration issues

Low-Carbon Smart Grid: Renewables Integration

CEERT's Low Carbon Smart Grid Program tracks and intervenes in crucial proceedings at the California Independent System Operator (CAISO) and other agencies that affect the integration of large amounts of renewable energy on the grid. The issues are often highly technical, but have enormous impact on the price of renewable energy projects and their access to the transmission and distribution system.

In 2011, CEERT:

- Played a key role in the CAISO's temporary change of direction on cost allocation policy. We are continuing to advocate at the CAISO and CPUC for more just and reasonable treatment of variable output renewables like wind and solar.
- Advocated for scheduling closer to flow, improved forecasting, regional Balancing Authority coordination, and other measures that will mitigate renewables integration costs.
- Filed comments urging the CAISO to consider alternatives to commercial interest in establishing base case transmission scenarios, including the scenarios that the CEERT led Renewable Energy Transmission Initiative (RETI) stakeholder process produced. We are advocating for transmission network upgrades for renewable energy zones that have high quality resources, proximity to load, and favorable environmental attributes.
- Advocated in the CAISO's Renewable Integration Market and Product Review for just treatment of variable energy resources, both in how the system manages variability and in the development of a rational accounting system for integration charges that can be applied to all resources, conventional and renewable.
- Submitted comments pointing out systemic issues within the CAISO's 20% model and 33% study that will tend to overestimate the amount of resources required for system balance and reliability.
- Filed comments on the CAISO's effort to create a flexible ramping product. We are continuing to argue for a revised cost allocation mechanism that will distribute flexible ramping market costs across the system's load.





Hydrogen fuel cells

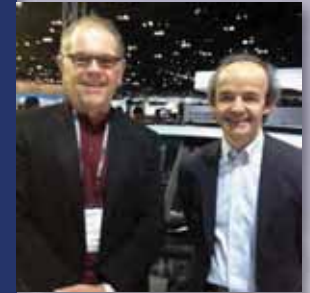


Clean Transportation

Because vehicles account for almost 40% of greenhouse gas emissions in California, we need to place a high priority on cleaning up our transportation sector in order to meet our climate goals. CEERT's Clean Transportation Program advocates for policies that speed up the transition to low carbon fuels and support viable markets for zero emission electric and fuel cell vehicles.

In 2011, CEERT:

- Worked with the Plug in Electric Vehicle Collaborative's (PEVC's) staff and members to articulate a new mission and define PEVC's role in implementing a strategic plan for electric vehicle (EV) deployment in California. We helped staff conduct a survey of EV implementation efforts to identify where the PEVC can play a useful role.
- Participated in an all party meeting on the CPUC's Alternative Fueled Vehicle Proceeding, and argued that a clear demarcation line between the utility and electric charging sectors would be beneficial to the EV industry. We also advocated that a complete definition of ratepayer interests should include reductions in air pollution and greenhouse gas (GHG) emissions, and increased use of alternative fuels.
- Served as technical lead for state and national nongovernmental organizations (NGOs) on criteria emissions standards that the California Air Resources Board (CARB) developed for its revised LEV III regulations, which set performance standards for typical passenger vehicles sold in the state.
- Collaborated with CARB and state and national NGOs on the new federal 2017-2025 passenger vehicle fuel efficiency and GHG standards, and advocated for a 60 mpg (143 grams/mile) target by 2025. On July 29 the White House announced an agreement had been reached on the new federal standards.
- Participated in discussions with CARB and key auto manufacturers on how an alternative compliance provision in its new zero emission vehicle (ZEV) regulations could be designed to maintain the stringency and effectiveness of the ZEV program.
- Worked with CARB ZEV staff and stakeholders to encourage the deployment of hydrogen fueling infrastructure needed to establish a commercially viable fuel cell vehicle market. CEERT also helped establish a formal collaborative on hydrogen fueling infrastructure involving CARB, the CEC, the California Fuel Cell Partnership, and industry stakeholders.
- Actively engaged with CARB staff as they developed revisions to the Low Carbon Fuel Standard program, especially on how high carbon intensity crudes — such as those produced from Canadian tar sands — would be accounted for under the program.
- Influenced the CEC's 2011-2012 Investment Plan for the AB 118 Alternative and Renewable Fuel and Vehicle Technology Program, whose \$100 million in funding included \$8 million for EV deployment and \$8.5 million for hydrogen fueling infrastructure.



CEERT Executive Director John White and Dr. Ulrich Kranz of BMW's sustainable mobility Project i at the LA Auto Show



Recently completed solar photovoltaic canopies atop a Pasadena light rail station – a project that CEERT worked on for six years

Southern California Activities

CEERT continues to educate policymakers and the general public about key utility planning and investment issues that will shape Southern California's ability to bring large amounts of renewable energy online and begin to reduce the region's reliance on fossil fired power. This work includes illuminating the complex factors behind recent electric rate hikes, and explaining the economic benefits of clean energy. Our aim is to increase public understanding that efficiency and renewables can mitigate the impact of future rate increases.

In 2011, CEERT:

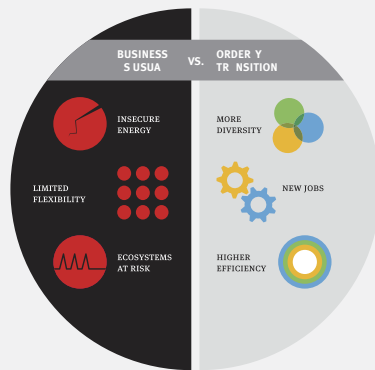
- Continued to work closely with allied groups to increase support for the Los Angeles Department of Water and Power (LADWP) and other Southern California utilities to retire their coal contracts early.
- Worked actively with opinion leaders to debunk the myth that renewables are the cause of LADWP's current budget woes. The utility has suspended procurement of any new renewables, suspended applications for solar rebates, and dramatically cut back demand side management and efficiency programs until a rate increase is passed, which is not expected until late 2013 or early 2014.
- Started a County Program to investigate and report on issues looming in key renewable counties in Southern California. We are compiling lists of projects that are in the permitting process in those counties, and are gathering information on pivotal issues for developers, county staff, and local residents.
- Worked closely with the Large Scale Solar Association, Independent Energy Producers, and other groups to develop a Riverside County solar fee that would be acceptable to both the County and the solar industry. CEERT and our allies managed to get the original proposed fee considerably reduced.
- Held meetings with Los Angeles County staff and stakeholders, and filed comments opposing the Town and Country Plan map because of its restrictions on solar projects in the County – particularly the Antelope Valley.
- Worked with Los Angeles policymakers and labor and environmental stakeholders on a proposal to bring 10–30 electric buses to the Metropolitan Transit Agency for a pilot program that will run through 2012.
- Succeeded in getting Pasadena's first building integrated solar photovoltaic system installed at the Lake Avenue light rail station. We worked for six years on this project with the project architect, the Pasadena Water and Power municipal utility, and the construction Joint Power Authority. The system integrates 208 solar modules into rider sheltering canopies, and will offset 25% of the station's power use.





\$200 billion?

AMOUNT WESTERN STATES WILL INVEST IN THE NEXT 20 YEARS TO MAINTAIN AND EXPAND OUR ELECTRICITY INFRASTRUCTURE? WHAT WILL THAT GET US



Indecision?
is a decision?



Infographic on WGG's Western Grid 2050 report

Western Grid Group

Western Grid Group (WGG) works to expand the use of clean resources in Western states. Formed in 2003, WGG now operates as a fiscally sponsored project of CEERT. WGG principals include CEERT Board member Dave Olsen and former state energy officers and public utility commissioners from Arizona, Colorado, Montana, New Mexico, Nevada, Oregon, and Utah.

In 2011, WGG:

- Published *Western Grid 2050: Contrasting Futures, Contrasting Fortunes*. This technical study contrasts a Business As Usual future for electric service in the West to a clean energy development trajectory focused on reducing risks and costs while also reducing carbon emissions 80% below 1990 levels by 2050. Former Colorado Governor Bill Ritter led the media launch of the report, which continues to be consulted by utility company CEOs, public utility commissioners, and other decision makers. The report and supporting materials are available at: <http://www.cleanenergyvision.org>.
- Continued development of a detailed transition plan for reducing reliance on fossil fuels and increasing use of clean resources. This plan, to be released in 2012, outlines practical steps states can take to improve reliability and reduce risks and costs. It follows *Western Grid 2050* as the second component of WGG's Clean Energy Vision project.
- Promoted development of an Energy Imbalance Market (EIM) in the West with utility companies, PUCs, and Balancing Areas. An EIM would allow the most efficient generators in the region to run more, and avoid use of the least efficient ones. It would use existing transmission more efficiently and allow operating reserves to be shared, improving reliability and reducing costs. And it would provide operational flexibility to reduce the cost of integrating wind and solar power.
- Led participation by wind, solar, and geothermal generators, energy efficiency interests, and environmental groups in regional transmission planning at the Western Electricity Coordinating Council (WECC), including close coordination with state and provincial representatives. This DOE funded effort will produce the first ever infrastructure plan for the entire western region, and will identify transmission necessary in low carbon futures. WGG supports the work of the Environmental Data Task Force to develop ways to incorporate environmental concerns early in planning.
- Advanced the modeling of coal retirement in WECC studies of the Western grid. This detailed analysis is exploring reliability issues associated with closing coal plants, and the potential for renewables to use transmission freed up by retired coal units.
- Expanded the Western Clean Energy Advocates (WCEA) coalition, to coordinate clean power and environmental advocacy across the eleven states of the western interconnection. WCEA members represent environmental NGOs, clean energy businesses, energy officials, and consumer and clean energy advocates.



Former Colorado Governor Bill Ritter

Clean Power Champions

At our eighth annual Clean Power Champion Awards Ceremony on June 21, 2011, CEERT honored Joe Simitian, Steve Black, Janea Scott, Michael Picker, Manal Yamout, and John Fielder for their hard work and pivotal contributions to our clean energy future.



California State Senator Joe Simitian

Senator Simitian, one of the Legislature's foremost protectors of the environment, distinguished himself with his leadership in expanding California's renewable portfolio standard into the nation's toughest and most far-reaching RPS, requiring 33% renewable power by 2020.

The outcome hinged on Senator Simitian's ability to overcome sharp differences and knit together a workable, practical bill. In the end, his determination, good humor, and command of small details paid off. Governor Jerry Brown signed SB x2 into law in March of 2011, signaling California's return to global leadership on renewable energy.



Group Achievements: Steve Black, Janea Scott, Michael Picker, and Manal Yamout

In early 2009, cash grants and loan guarantees in the economic recovery bill were a financial life-line for renewable energy projects. But a way had to be found to expedite state and federal permits for the first new solar plants to be built in a generation.

At the Department of the Interior, setting to work on this formidable task were Steve Black and Janea Scott. Their California counterparts were Michael Picker and Manal Yamout.

Over the next two years, Steve, Janea, Michael, and Manal became an exceptionally effective team that achieved extraordinary results, culminating in the approval of several thousand megawatts of new, large-scale solar and wind projects in California.



John Fielder

John Fielder led Southern California Edison from 2005 to 2011. He was a tough negotiator and relentlessly pragmatic, but was well-liked, even admired, by those with whom he disagreed.

John made the critical decision to break the stalemate that was preventing development of the Tehachapi wind resource area. Working with the Tehachapi Collaborative Study Group and others, John convinced regulators and consumers that it was in the best interest of Edison's customers to pay upfront for a new trunk line and related interconnections, and then be reimbursed by wind and solar developers as they built new plants.

John Fielder's leadership and tenacity in finding a way that worked resulted in the nation's first renewable trunk line, and made possible thousands of megawatts of new renewable power.



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CEERT board, affiliates, and staff at the 2011 Board Retreat

Affiliates

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 American Wind Energy Association
 Bonneville Power Administration
 BrightSource Energy, Inc.
 California Center for Sustainable Energy
 California Solar Energy Industries Association
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In memory of Kimo Campbell (1947 – 2012), who made an extremely generous lead gift to launch CEERT's 2011 individual donor campaign.

CEERT Financial Statements

CEERT Balance Sheet December 31, 2011

Assets		
Current Assets	\$ 1,000,741	
Fixed Assets	\$ 372,725	
Total Assets	\$1,038,016	100.00%

Liabilities & Equity		
Current Liabilities	\$ 188,917	
Restricted Net Assets	\$ 775,696	
Fund Balance	\$ 73,403	
Total Liabilities & Equity	\$1,038,016	100.00%

CEERT Expenses by Program

Direct Programs		
Renewable Energy Advocacy	\$ 435,400	19.53%
CPUC RPS Implementation	\$ 101,160	4.54%
Big Solar/CSP Planning	\$ 443,022	19.87%
Low Carbon Grid Integration	\$ 77,657	3.48%
Climate/AB32 Advocacy	\$ 54,567	2.45%
Clean Transportation & Fuels	\$ 259,215	11.63%
Total CEERT Program Expenses	\$ 1,371,021	61.50%

Sponsored Projects

Western Grid Group	\$ 811,151	36.39%
Latino Environmental Advancement	\$ 47,149	2.11%
Total Sponsored Expenses	\$ 858,300	38.50%

Total Program Expenses	\$2,229,321	100%
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CEERT Program & Administrative Expenses

Program Expenses	\$ 2,229,321	71.09%
Administrative & Fundraising	\$ 906,719	28.91%
Total Organizational Expenses	\$3,136,040	100%





**Center for Energy Efficiency and
Renewable Technologies**

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