

The California
Green Collar Jobs Council

Annual
Report
to the Legislature

2010—2011



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Executive Summary

The California Workforce Investment Board's (State Board) Green Collar Jobs Council (Council) Annual Report to the Legislature outlines the Council's achievements and activities from April 1, 2010 through March 31, 2011. During its second year, the Council along with its partners engaged in many activities aimed at developing a sustainable, green workforce in California. The Council primarily focused on the implementation of the California Green Workforce Initiative (CGWI).

One of the Council's roles was to provide support to regional collaborations that were: developing and implementing training programs, engaging green businesses, and forming broad collaborations with a diverse mix of multi-sector partners. In addition, the Council monitored the progress of the CGWI which is now in the process of training and placing individuals in green jobs. In September and December of 2010 and March of 2011, Regional Team Action Clinics were held to provide technical assistance to the ten Regional Industry Clusters of Opportunity Grantees (Regional Teams). These Regional Teams have been very successful in leveraging additional funding and have become the Council's and the State Board's model for workforce and economic development.

The Council also concluded that there was a need to package California's business services and economic development resources that may help encourage investment in its growing industry sectors. To this end, the Council oversaw the development of the *State Business Services Resources Catalog* to help inform businesses of resources available, be used as a tool by businesses, business service and economic development practitioners in their engagement of industry, and to inform policy makers of the various programs available, which will help to guide future economic development considerations.

In the fall of 2010 the Council sought to develop a guiding document for the coming year. What resulted was the Green Workforce Master Plan which sets forth recommendations for Governor Jerry Brown's administration on how the Council should move forward. These recommendations have been influenced by; the deliberations that have occurred at Council meetings over the preceding two years, analysis of data associated with the green economy, lessons learned through the Clean Energy Workforce Training Program projects, the Regional Industry Clusters of Opportunity projects, the State Energy Sector Partnership grant, and the continuous analysis of California's climate policies and their economic and workforce



implications.

The report concludes that the Council will leverage and build upon regional planning efforts through future incentives and technical assistance. In the coming year the Council will continue to serve as a neutral broker, and will partner with the public and private sectors to develop meaningful, high-impact workforce initiatives in line with the state's environmental policies, responsive to the demands of the private sector and delivered through the well organized regional partnerships that comprise the state's workforce development system.

Introduction

The over arching goal of the Green Collar Jobs Council (Council) is to adopt a sector strategies approach to the development of a green/clean energy workforce that is capable of meeting the needs of green businesses and workers. Through this strategy the Council will continue to:

- Develop data driven, finely tuned expertise of the interdependence between business competitiveness and the workforce needs of green industries.
- Build regionally based partnerships of employers, training providers, community organizations, organized labor, and other key stakeholders around specific industries.
- Address the workforce needs of employers and the training and employment needs to move workers into high-road¹ career paths.
- Bolster regional economic competitiveness by aligning education, economic, and workforce development planning and leveraging of resources.
- Promote systematic change that supports innovation and achieves ongoing benefits for industries, workers, and communities.

With the downturn in the United States economy and a slow recovery projected by many, the need for green workforce training programs that are relevant to business and that lead workers into high paying jobs, has become even greater. Through the California's Green Workforce Initiative (CGWI) and its three component programs, the Council's membership agencies, are in the midst of training thousands of workers for careers in Energy and Water Efficiency, Renewable Energy Generation, Alternative Fuel Vehicles, and more.

Unlike some recent innovation-led economic surges, the green economy is distributed relatively evenly throughout the state. While all areas of the state have some green activity and investment, the technologies and types of investment are as varied as the topography found within our borders. It is not about a handful of new industries struggling in under-developed markets. Instead, it is about the potential of new technologies combined with innovative public policy and strategic investment to stimulate the growth of new markets for environmentally sound products and services while also reinvigorating slowing markets through the widening application of new technologies across the entire economy. In response, the Council has continued to work closely with the diverse regions throughout California.



¹ *High-road economic development consists of a market environment that favors business strategies built on quality work and innovation, resulting from investments in a workforce that is both highly skilled and rewarded for those skills. Such workforce investments, in turn, encourage the development of a stable and professionalized workforce with the capacity to adapt to new technologies and practices. “California Workforce Education & Training Needs Assessment” Donald Vial Center for Employment in the Green Economy Institute for Research on Labor and Employment University of California, Berkeley, 2011*



2010-2011 Activities

In its second year, the Council focused on the implementation of the CGWI. The Council's role was to provide support to the Regional Industry Clusters of Opportunity Grantees (Regional Teams) that were: developing and implementing training programs, engaging green businesses, and forming broad collaborations with a diverse mix of multi-sector partners. For instance, in September and December of 2010 and March of 2011, Regional Team Action Clinics (Action Clinics) were held to provide technical assistance to the ten Regional Teams. At these Action Clinics teams worked to further refine their industry cluster priorities and funding strategies in a guided team setting. These Regional Teams have been very successful in leveraging additional funding and have become the Council's and the California Workforce Investment Board's (State Board) model for workforce and economic development.

In addition, having focused on the training side of workforce development in the previous year, the Council sought to now focus on supporting businesses in California. The primary focus was the development of California Business Services Resources Catalog which would help inform businesses of resources available, be used as a tool by business service and economic development practitioners in their engagement of industry, and inform policy makers of the various programs available, which will help to guide future economic development considerations. This coincided with the request for support from Regional Teams in identifying resources available to assist the industry cluster businesses they were engaging.

In the fall of 2010 the Council sought to develop a guiding document for the coming year. What resulted was the *Green Workforce Master Plan* which sets forth recommendations for Governor Jerry Brown's administration on how the Council should move forward. These recommendations have been influenced by; the deliberations that have occurred at Council meetings over the preceding two years, analysis of data associated with the green economy, lessons learned through the Clean Energy Workforce Training Program (CEWTP), the Regional Industry Clusters of Opportunity Grant (RICO) projects, the State Energy Sector Partnership and Training Grant (SESP), and the continuous analysis of California's climate policies and their economic and workforce implications.

California's *Green Workforce Master Plan* is not intended to serve as a comprehensive account of the many issues facing the green economy, rather it is meant to capture the major factors



influencing the green economy and the strategy that has been used by the State Board and the Council to address the needs of this growing sector. In conjunction with the Council's *One Page Business Plan*, the *Green Workforce Master Plan* will inform the investments made in California's green industries and workers. We acknowledge that California's green economy is in a constant state of change, and we know that the driving forces of this change are California's environmental and energy policies, technological innovation, and the public demand for a sustainable future.

The individual members of the Council comprised of workforce, education and energy agencies, as well as private businesses and labor, have been the most critical and influential resource in the successful development and implementation of California's Green Workforce Strategy. The Green Workforce Strategy is encapsulated in the Green Workforce Master Plan and serves as the basis for the Council's recommendations. As experts in their respective fields the diverse members of the Council have each provided unique insight and recommendations as the needs of the segments of the green economy were examined.



California's Green Workforce Initiative Update

The California Green Workforce Initiative (CGWI) combines funding from the public and private sectors to create what is believed to be the nation's largest green job workforce development program. Federal funding came in the form of the American Recovery & Reinvestment Act, State Energy Program (ARRA SEP) funds while state funding was provided by the California Energy Commission's (Energy Commission) Alternative and Renewable Fuel and Vehicle Technology Program which was established by AB 118 (*AB 118, Núñez, Chapter 750, Statutes of 2007*) (AB 118) and by the Governor's 15% Workforce Investment Act (WIA) Discretionary funding. The CGWI is a multi-faceted project that implements a sector strategy approach, creates and fosters regional partnerships, leverages the resources of government agencies through collaboration, supports the development of regionally relevant training programs, supports regional capacity development, and seeks to ensure sustainability of effective regional sector initiatives. The following activities are the primary pillars that support the CGWI: the CEWTP, the SESP, and the RICOG.

Regional Industry Clusters of Opportunity Grants

In response to the adoption of sector strategies, the State Board placed additional emphasis on data driven analysis as the foundation for effective workforce initiatives. To support this effort, the State Board collaborated with the California Labor and Workforce Development Agency (Labor Agency), the Energy Commission, and the Economic Strategy Panel. Continuing to promote collaborative funding, this grant opportunity leveraged state and federal funding from ARRA, WIA, and AB 118, netting a total of \$2.5 million to develop Regional Industry Cluster of Opportunity Grant (RICOG) strategies. The State Board announced the availability of RICOG in October 2009.

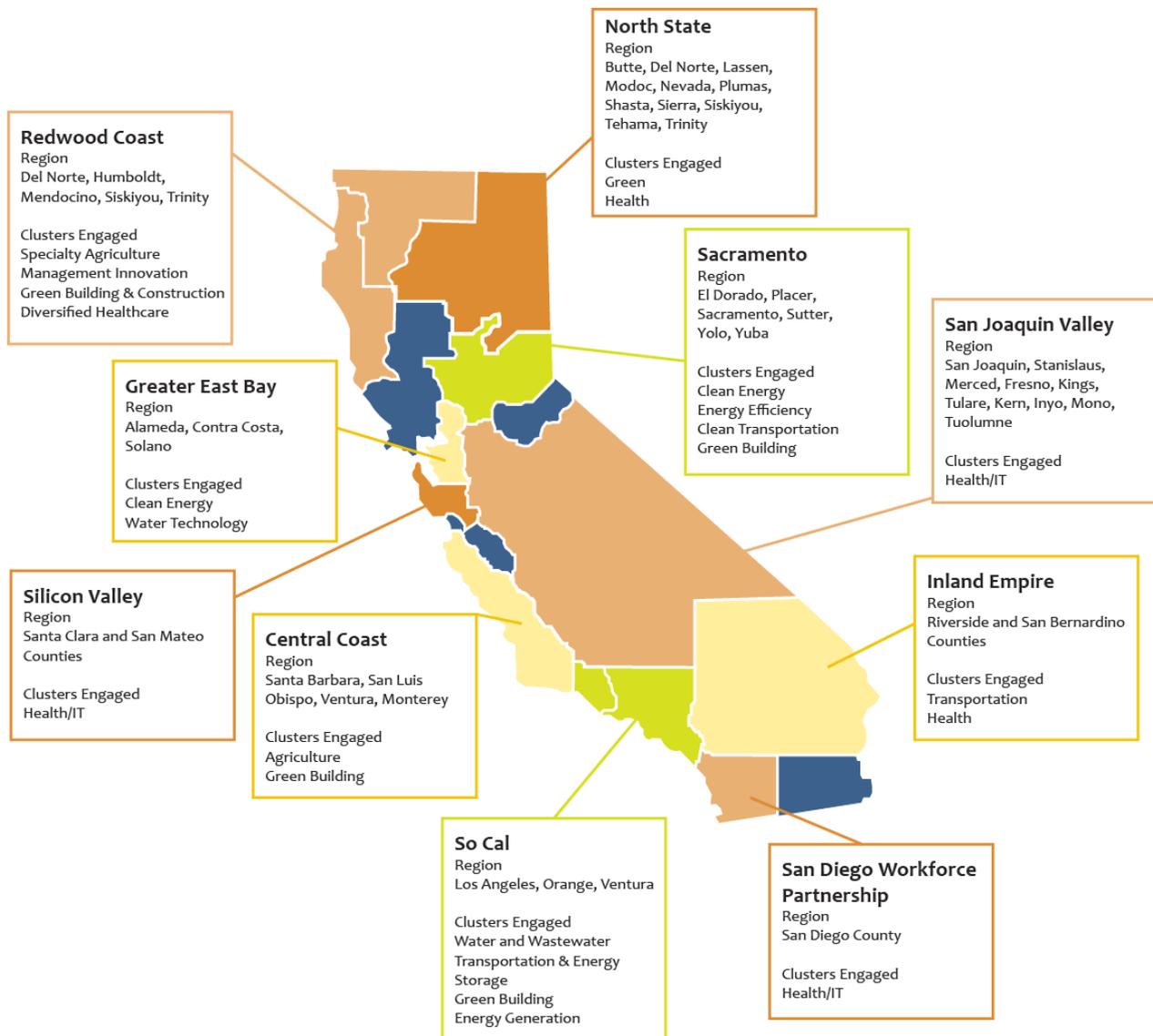
Ultimately, the goal of this funding opportunity is to enhance the economic competitiveness of regions throughout the state by bolstering regional capacity to identify growing industries, supporting collaborative strategic planning and encouraging the alignment of public/private resources available in a region—all for the purpose of enhancing each area's economic competitiveness.

Training and assistance has been provided through the Action Clinics. The Regional Teams



have a clearer understanding of the dynamics of the region’s economy, established shared responsibility for meeting the needs of this economy across critical institutions, and have begun considering broader organizational policy changes that would sustain and expand regional cluster of opportunity strategies and provide a lasting mechanism to support ongoing collaboration among partners.

In total, the ten Regional Teams have projects that cover 48 counties and 32 Local Workforce Investment Boards (Local Boards) with 23 cluster plans that engage over 450 employers across the state. The Regional Teams have met as a group for two Action Clinics, have held employer engagement sessions, and have worked through at least three of the four phases of their projects. Some have taken their projects even further by leveraging RICOG funding for additional regional projects.



The Action Clinics have provided an opportunity to educate regions on the fundamentals of sector strategies, to share information as it becomes available on the green/clean job projections by region, to deliver issue specific technical assistance, to allow for trouble-shooting while projects are underway, and to serve as the platform for a community of learning to advance the knowledge and implementation of the state's energy sector strategy. The Action Clinics are hands-on sessions that result in action rather than strictly informational meetings.

On October 21 and 22, 2010, the second RICOG Action Clinic was held. Technical assistance was provided on each Regional Team's third phase, "Cluster Investment Strategies." Cluster Investment Strategies identify and connect specific investments and other commitments among local, state, and federal government partners, as well as private firms and industry associations, and non-profit and private foundation partners, and others to advance the competitive position of regionally targeted clusters of opportunity (selected through the process described above) through workforce and economic development partnerships. The activity produced an overall strategy with specific organizational commitments and champions organized around shared cluster priorities. Each team produced a Cluster Action Plan which are posted on the State Board's website.

On March 3, 2011, the third Action Clinic was held in Sacramento. This Action Clinic covered the fourth and final "Sustainable Implementation" stage of the RICOG process. This stage will support the long-term sustainability and growth of regional clusters of opportunity. This activity should produce a set of broader organizational and policy changes to sustain and expand regional cluster of opportunity strategies, as well as a lasting mechanism to support ongoing collaboration among all the partners.

The fourth and final Action Clinic is scheduled for June of this year. The Regional Teams will be showcasing their projects for state partners and other stakeholders. The teams will demonstrate their successful partnerships, innovative sector action plans, and sustainability planning. These outcomes will be used to develop a "best practices" collection that will inform the close-out exercise for this grant, as well as give guidance to future grants of this nature.

Clean Energy Workforce Training Program (CEWTP)

The Clean Energy Workforce Training Program (CEWTP) aligns strategies and resources of the Energy Commission, Employment Development Department (EDD), and State Board creating the largest state-sponsored "green" workforce development program in the nation. Approximately \$25 million was awarded in October 2009 and 28 grantees began to develop their projects. As of December 31, 2010, 55% of the funds awarded have been expended and 54% of



the total planned participants have been enrolled in the program. A total of 77% were enrolled in training, 13% have exited the program and 5% were placed in unsubsidized employment. The projects have cultivated effective partnerships with education and industry and have issued approximately 2,320 certificates that can be used for various green occupations.

The Energy Commission, EDD, and the State Board entered into discussions regarding implementing a CEWTP in the spring of 2009. This collaborative effort combined ARRA SEP funding and WIA 15% funds. Coupled with a dollar-for-dollar match leveraged from public-private partnerships, the goal of the initiative is to promote the use of industry sector strategies as the framework for addressing the need for skilled workers in the industries related to energy efficiency, water efficiency, renewable energy (distributed generation and utility-scale) and alternative and renewable transportation technologies. The CEWTP supports the intent of the ARRA SEP by developing a pipeline of skilled workers in “green” industries and linking state and local level partners receiving other ARRA dollars.

The Energy Commission utilized the expertise and delivery mechanisms already available through the EDD rather than re-create a stand-alone workforce initiative. Interagency agreements were negotiated for the funding as follows:

Energy Commission American Recovery & Reinvestment Act State Energy Program funds	\$15 Million
Governor’s 15% Workforce Investment Act Discretionary funding	\$10 Million

The EDD was responsible for administering a competitive Solicitation for Proposal (SFP) and on October 2, 2009, grants were awarded to 28 organizations. Funding decisions were made jointly between the Labor Agency, the State Board and the Energy Commission. Using the existing workforce development system, EDD has administered the grants, provided technical assistance to grantees and provided progress reports to the Energy Commission. The Energy Commission and EDD hosted monthly webinars or face to face meetings where grantees share information and best practices. This practice has been very effective in keeping the momentum of the projects going and focused on the primary goals of the program.

State Energy Sector Partnership and Training Grant

In January of 2010 the State Board was awarded the maximum amount of \$6 million in funding from the U.S. Department of Labor’s Employment and Training Administration under the three



year State Energy Partnership and Training Grant (SESP). The State Board and the Council have since utilized this funding to support six regional teams in the development of training programs in emerging energy efficiency and renewable energy industries. In addition, the SESP grant was designed to compliment the existing work of the Clean Energy Workforce Training Program and the Regional Industry Clusters of Opportunity grants by supporting action clinics, information exchange, worker training, curriculum publication, and the further refinement of regional sector initiatives designed to meet the talent needs emerging in clean technology and green industries. The program will be overseen by the Council, acting as the State Energy Sector Partnership.

The following are summaries of some of the work being done by the six regional teams under the SESP grant.

Alameda County Workforce Investment Board (Alameda WIB)

The Alameda program is focused on providing skills and background knowledge in green building retrofit, as well as math remediation that will be necessary to equip participants to succeed. The Alameda WIB provides training for program participants that lead toward a solid foundation in green building practices. The program includes classroom and hands-on training that provides green building principles, building science fundamentals and state energy code licensure laws for either the residential or commercial construction sector.

The training is being provided by five organizations: 1) Build it Green; 2) California Building Performance Contractors Association; 3) Green Plumbers USA; 4) Chabot Community College 5) Carpenter's Training Committee Northern California

To date there have been 25 enrollees in this program.

Los Angeles City Workforce Investment Board

The training component of this program will be led by Los Angeles Harbor College and will offer career focused programs that will integrate industry awareness and skill attainment, academic remediation and basic skills remediation, and supportive wrap around services. Trainings will consist of classroom, hands-on training in a lab/shop environment, and intensive experiential learning in the field leading to industry recognized certificates after completion of training. Training modules include:

Process Plant Technology- This course introduces students to the workings and community impact of a process plant.



Introduction to Wastewater Treatment Plant- This course introduces basic principles and processes on how a water and wastewater treatment plant is operated.

Supply Water Technology- This course covers the fundamentals of water production, quality control and distribution.

To date enrollment in this program has not begun.

Northern Rural Training and Employment Consortium (NoRTEC)

NoRTEC has chosen to expand on existing partnerships and focus on the areas of renewable energy, including Solar PV, Solar Thermal, Concentrated PV, Energy Efficiency and Power Delivery Systems (transmission, distribution, smart meter and smart grid). Given the decline in traditional agriculture and timber-based sectors in the Northern California, the region identified the renewable energy sector as the next opportunity for economic transformation.

The region began working on a renewable energy strategy in 2008-09, conducting studies and research on the potential for generation and opportunities for new business formation and job creation. Current renewable energy generation is 5.7 million Mega Watt hours (MWhs) however, in terms of future potential, energy efficiency and solar resources will yield the most significant capacity, energy increases (2,700 MWhs), and economic impact - \$511.9 million in spending, \$285.8 million in income and 4,008 jobs.

The NoRTEC SESP project is built upon a regional career pathway model that includes articulated technical preparation classes at the secondary level that provide course and program sequences to the community college certification courses in this project.

To date roughly 50 participants have been enrolled under the NoRTEC SESP program.

Sacramento Employment and Training Agency

This initiative has targeted the energy efficiency sector. The Los Rios Community College Centers of Excellence in collaboration with research and industry partners studied the energy efficiency sector in the Greater Sacramento Region and across the state. The study found that industry demand for training in clean energy technologies is being driven by the relocation of new companies to the region. Clean energy companies are projected to create over 10,000 new jobs and \$5 billion per year in direct economic activity for the region in the next ten years, given the current level of state and regional investment in the sector (Sacramento Area Regional Technology Alliance, 2007).



Cosumnes River College will train one cohort of 25 students in Home Energy Auditing and Weatherization and one cohort of 25 students for Home Energy Rating System and Building Performance Institute certification through this training initiative. These courses will prepare students for employment as Weatherization Technicians and Home Energy Auditors in the residential Green Building industry.

American River College will train one cohort of 25 students in Solar Technology (installer), Solar System Design, Estimation, and Sales. This course will prepare students for employment as Solar Installers, Solar Technicians and Solar Sales.

The Training Source will lead the process of developing a new solar technology manufacturing training program curriculum in close collaboration with Solar Power, Inc.

Sacramento Area Electrical Training Center (NECA-IBEW Local 340) Pre-Apprenticeship Construction Training (PACT) is a quick, intensive pre-apprenticeship program and will be offered in the evenings providing the opportunity for those currently employed to start exploring careers in construction along with the qualifications and skills needed for the construction trades. The PACT program will focus on emerging work in clean energy such as Photovoltaic, Solar Energy, Geo-Thermal Energy, Wind Power and Sustainability. A total of 30 students will be trained through this program.

To date 80 participants have been enrolled in these programs.

San Diego Workforce Partnership

The San Diego Green Building Apprenticeship Readiness Partnership (Green Building Partnership) will prepare individuals for jobs in the green building and energy efficiency industry sector. The "Introduction to the Green Building & Retrofits" curriculum will be a five-week program that includes a total of 120 classroom hours and 40 hours of hands-on work experience. The class and work experience will be scheduled for approximately 20 hours per week, to allow participants to pursue internships or additional paid work experience as their time and skill levels allow, as well as to be employed outside of the field in order to cover their living expenses during the program.

Courses will begin in the summer of 2011.

Stanislaus Valley Alliance

Under the State Energy Sector Partnership grant the Stanislaus Valley Alliance will continue to develop a green sector plan that addresses the needs of the greater San Joaquin Valley.



As the primary provider of technical assistance, Collaborative Economics, Inc. developed an Industry Sector Diagnostic that provides a detailed description of the growing industries and occupations in the San Joaquin Valley. This is the first of four phases that the Stanislaus Valley Alliance will undergo in its Regional Industry Clusters of Opportunity planning process. The four phases consist of;

- Clusters of Opportunity Diagnosis
- Collaborative Priority-Setting
- Cluster of Opportunity Investment Strategy
- Sustainable Implementation

Once complete the Stanislaus Valley Alliance will then develop and implement a training program that addresses the needs of employers in the greater San Joaquin Valley. Training courses are estimated to begin in the summer of 2011.



Understanding California's Green Economy

In order to fully capitalize on the opportunities of the diverse and growing green economy, the transformation that is occurring within California's greater economy must first be understood. Green economic growth is currently being driven by three factors; state and federal policy, technological advancements, and market demand. California's expanding green economy is attracting business investment, creating jobs and producing a more sustainable and energy-independent future for the Golden State. Driving this new wave of innovation are the most ambitious environmental policies in the nation, business decisions that recognize sustainability as a way to improve the bottom line and generate return on investment, and the strong desire voiced by Californians that their state lead the way reducing greenhouse gas emissions.

The Council would like to acknowledge the work done by its partners in developing studies and reports that have shaped the thinking of its members and have informed the policy decisions made.

University of California Berkley, Center For Labor Research and Education Institute of Industrial Relations; California Workforce Education and Training Needs Assessment in Energy Efficiency, Distributed Generation, and Demand Response

The *California Workforce Education and Training Needs Assessment in Energy Efficiency, Distributed Generation, and Demand Response* is a study funded under the auspices of the California Public Utilities Commission which;

- Examines workforce development infrastructure,
 - Community college, union, private industry and other workforce training and education programs
 - Fundamental and preparatory programs for K-12
 - Employment information systems
- Focuses on energy efficiency, demand-side management (including smart meters), and distributed generation,
- Develops statewide workforce strategies.
- The State Board and the Council will use this report for long-term planning with a 2020 time horizon.



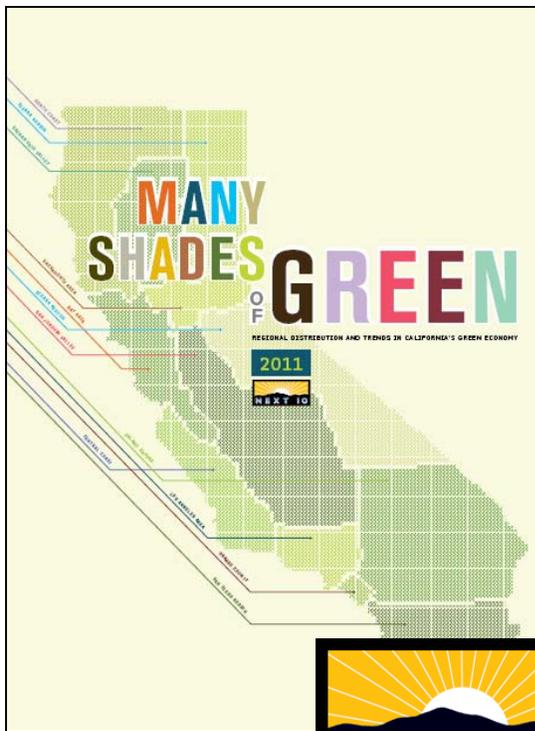
To review the key findings of this study please visit:
<http://www.irle.berkeley.edu/vial/events/index.html>

NEXT 10 - Many Shades of Green: Diversity and Distribution of California's Green Jobs

In January 2011, Next 10 launched the second edition of *Many Shades of Green: Diversity and Distribution of California's Green Jobs*. (Many Shades of Green). This new report provides the most comprehensive green jobs accounting to date. From January 2008 to 2009, the most recent observable year, jobs in the green sector grew more than three times faster than total employment in California. The Core Green Economy now accounts for 174,000 jobs in California.

The Core Green Economy consists of businesses that provide the products and services that do the following: 1) Provide alternatives to carbon based energy sources, 2) Conserve the use of energy and all natural resources, and 3) Reduce pollution and repurpose waste.

While the Manufacturing Sector in general has seen a steady decrease over the past years, it currently represents 26% of all green employment, increasing 52% over the long term (1995-2009) and ten percent over the most recent observed period of January 2008 to 2009.



Many Shades of Green highlights the great opportunities for workers in California's green economy. The industries studied in the report are energy efficiency, green transportation, energy generation, water and wastewater, and air and environment. From January 2008 to 2009, energy generation, energy storage, and clean transportation displayed above-average employment growth, expanding 8% over one year.

The job opportunities continue to emerge across the entire economy in California. The Sacramento area experienced 103% job growth in the green sector from 1995 through January 2009. Other areas of high growth include 109% green job growth in the Bay Area, and 67% green job growth in Orange County. From January 2008



to 2009, green job growth on the North Coast jumped from 12% to 46%. Nearly every region in the state saw some green job growth in that period.

To review the key findings of this study please visit:

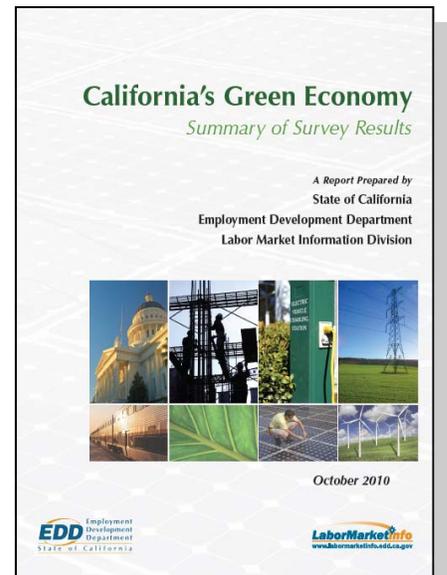
http://next10.org/next10/publications/green_jobs/2011.html

Employment Development Department – California’s Green Economy Survey

In 2008, following enactment of the federal Green Jobs Act of 2007 (H.R. 2847), the EDD’s Labor Market Information Division (LMID) surveyed private and public employers covering all segments of California’s economy to develop baseline measures for the number of workers in jobs with green activities, the percentage of businesses that have adopted green practices, and the type of green occupations.

The results of the *California’s Green Economy Survey*, release October 2010, indicated that 7.9% of California businesses employ workers to produce green products or supply green services. Employment in the production of green goods and services accounted for an estimated 3.4% of California’s total wage and salary employment for the survey time period, with close to 433,000 individuals performing green work at least part time. Among the workers with green responsibilities, more than 263,000 spend 50% or more of their working hours in green activities.

This *Green Economy Survey* also asked businesses to respond to several questions about the extent of their adoption of green business practices. The findings show that an estimated 63% of firms in California are involved in green business practices, regardless of whether or not they directly produce a green good or service. Also, those that checked at least one practice, 86% selected recycling, 54% of respondents reported they use recycled products on site, and 42% reported that they use energy efficiency/conservation practices.



To view the complete report on *California’s Green Economy Survey* please visit;
http://www.labormarketinfo.edd.ca.gov/contentpub/GrSurveyRpt_1115.pdf





Business Services Resource Catalog

The Council's One Page Business Plan states that it will *"Catalog the resources available to business to create and compete in the Green Economy"*. In response, the State Board staff in collaboration with the Labor Agency, Air Resources Board (ARB), Energy Commission, and the Governor's Office of Economic Development began the task of collecting and cataloging state level business services and economic development resources to help send the message to businesses that California is a great place to invest and do business. The Council's goal is to package resources that are available to businesses in order to support them as they transition into an economy that is sustainable and supported by regional collaborations engaged in workforce and economic development planning. What resulted from this collaborative effort was California's *Business Services Resource Catalog (Catalog)*.

This Catalog is a list of resources that can be utilized by businesses, workforce development professionals, economic development partners, stakeholders, practitioners, and policy makers as they engage businesses. The Catalog documents tax breaks, incentives, rebates, and financing that can assist California's businesses to remain competitive in today's global market. The Catalog will also serve as a tool for Regional Teams that were established under California's Green Workforce Initiative as engage businesses at the local level, and for policy makers as they identify resource gaps for businesses throughout the state.

This comprehensive catalog is updated in phases; currently in its fourth phase, the catalog holds over 100 entries from over 20 state departments. To view the *Business Services Resource Catalog Issue 4*, please visit;

<http://www.cwib.ca.gov/page/library/BSC%20021711for%20WEB.pdf>



The fourth issue was presented and released in April 2011 at the California Workforce Association's Spring Conference. While the project will initially focus on identifying and cataloging

state resources, eventually the Catalog will expand to include federal and local resources.

The State Board, in collaboration with ARB, will begin developing a relational database/web-based platform for the catalog. This web-based tool will optimize its use for all end-users by providing an easy way to search, sort, or browse for specific resources. The users will be able to query the Catalog for targeted results. Contributing agencies must update their entries on a biannual basis to maintain the quality, accuracy, and timeliness of the information. In addition, the ARB will utilize their large list serve to inform businesses of the Catalog.



Future Strategies of the Green Collar Jobs Council

Green economic growth is currently being driven by three factors; state and federal policy, technological advancements, and market demand. California's expanding green economy is attracting business investment, creating jobs and producing a more sustainable and energy-independent future for the Golden State. Driving this new wave of innovation are the most ambitious environmental policies in the nation, business decisions that recognize sustainability as a way to improve the bottom line and generate return on investment, and the strong desire voiced by Californians that their state lead the way reducing greenhouse gas emissions.

As a global leader in these three areas, California is uniquely poised to capitalize on green innovation. It has a portfolio of cutting edge policies (e.g., regulations and incentives), a long tradition of innovation in the private sector, and growing market demand from its citizens and businesses for products and services that are designed to reduce greenhouse gas emissions and provide energy independence.

Governor Jerry Brown has established energy and environmental policy as a priority under his administration. With his leadership, it is the Council's charge to ensure that California's workforce is prepared to meet the needs of this growing green economy. In the coming year the Council will build upon its initial promising successes and provide leadership to ensure that California optimizes its economic and workforce development resources. The Council will continue to use sector strategies as the framework for a statewide workforce development plan, targeting specific industry clusters, building diverse regionally based partnerships, addressing the needs of employers and workers, aligning resources, and promoting systemic change.

The Council will sustain linkages to regional collaborations (e.g., Regional Industry Clusters of Opportunity and State Energy Sector Partnership regional teams) that are focusing on the Core Green Economy. These linkages can serve as a network of multi-sector representatives that can be utilized to inform and support policy development, investment strategies, environmental policy implementation, and outreach strategies. Moreover, these networks may be utilized to gather regional information on the changes in the green economy and implement state level strategies.

The Regional Industry Cluster of Opportunity model presents the opportunity to shift the State's approach to an economic development strategy that reflects California's diverse re-



gional economies. The Council will leverage and build upon these regional planning efforts through future incentives and technical assistance. In the coming year the Council will continue to serve as a neutral broker, and will partner with the public and private sectors to develop meaningful, high-impact workforce initiatives in line with the state’s environmental policies, responsive to the demands of the private sector and delivered through the well organized regional partnerships that comprise the state’s workforce development system.



Appendices



Appendix I

Members of the Green Collar Jobs Council

Barry Sedlik - Chair

President - California Business Ventures

James Goldstene

Director - Air Resources Board

Art Pulaski

Executive Secretary/Treasurer - California Labor Federation, AFL-CIO

The Honorable John A. Pérez

Speaker - California State Assembly

Randal Hernandez Sr.

External Affairs Executive - Union Bank

Jack Scott

Chancellor - California Community Colleges

Diana S. Dooley

Secretary - California Health and Human Services Agency

Marty Keller

Director - Office of the Small Business Advocate Governor's Office of Planning & Research

Timothy A. Simon

Commissioner - California Public Utilities Commission

Vacant

Secretary - Business, Transportation and Housing Agency

Stewart Knox

Representative - California Workforce Association

The Honorable

Sandré Swanson

Member - California State Assembly

Jamil Dada - Vice Chair

Vice President of Investment Services - Provident Bank

Brian McMahon

Director - California Employment and Training Panel

Audrey Taylor

President/CEO - Chabin Concepts, Inc.

Karen Douglas

Commissioner - California Energy Commission

The Honorable Tom Torlakson

State Superintendent of Public Instruction - California Department of Education

Willie Washington

Consultant - California Manufacturers & Technology Association

Appendix II

Alternative and Renewable Fuel and Vehicle Technology Program Projects

Alternative and Renewable Fuel and Vehicle Technology Program (AB 118) Funded Workforce Training Projects

Clean Energy Workforce Training Program:

The following projects were funded under the Clean Energy Workforce Training Program with AB 118 and WIA 15% Funds. Each grantee received \$400,000 in AB 118 funds and an additional \$100,000 in WIA funding for a total of \$2.5 million.

Imperial County Workforce Development Board

Type of organization: Workforce Investment Board working in partnership with local area biofuels companies.

Type of training: Classes to give unemployed, underemployed or disadvantaged workers the skills needed for the algal biofuels industry.

Area served: Imperial County, southeastern California.

Location of training: Imperial Valley Regional Occupational Program (IVROP) classrooms in El Centro, and at the facilities of the primary partners. The program also features on-the-job training.

Estimated trainees: 75

Instruction details: Classes cover these areas of interest:

- Biodiesel Processing;
- Biodiesel Safety Procedures

Pacific Gateway Workforce Investment Board, City of Long Beach

Type of organization: Workforce Investment Board.

Type of training: Instruction in the green transportation industry, including heavy-duty trucks and transit vehicles.

Area served: Greater Long Beach area.

Location of training: Long Beach City College and Cypress Community College.

Estimated trainees: 210

Instruction details: Classes cover these areas for interest:

- Heavy-Duty Hybrid
- Alternative Fuels – Liquid Natural Gas (LNG)/Compressed Natural Gas (CNG)
- Heavy-Duty Hybrid
- Electrical Systems Diagnosis

The tight mandates of the South Coast Air Quality Management District's (SCAQMD) efforts to address greenhouse gas emissions and the Clean Air Action Plan adopted by the Ports of Long Beach and Los Angeles are driving major changes in the use of heavy-duty trucks and transit vehicles that travel through this region. A well-trained workforce must understand the differences and safety issues of the new LNG/CNG and gasoline-hybrid engine technology.

Result of classes: Graduates will be well equipped with the requisite skills to apply for positions within the clean transportation industry.

More about the organization: The Pacific Gateway Workforce Investment Network and Long Beach Community College District are partnering in delivering this program because the clean transportation economy operates on a regional scale rather than by local jurisdiction, which requires a complimentary approach utilizing the combined resources of the partnership to increase the likelihood of success for the partner organizations and the communities they serve. Key employer partners include Long Beach and Orange County Transits and the Port of Long Beach.

Find more information here:

www.longbeach.gov/cd/workforce/greenjobs

Program Manager Contact:

Bryan S. Rogers
(562) 570-3701

Los Angeles County Workforce Investment Board

Type of organization: Workforce Investment Board.

Type of training: A series of short-term training events and services focused on the alternative fuel and advanced transportation careers for incumbent, unemployed and underemployed workers.

Area served: Greater Los Angeles area.

Location of training: Los Angeles Community College District – Los Angeles Trade and Technology College.

Estimated trainees: 75

Instruction details: Participants will be offered short-term training in alternative fuels and advance vehicle that may include topics such as:

- Alternative Fuel & Renewable Power-source Distribution;
- High-Performance/Low-Emission Vehicle Technologies (Cars/Trucks);
- Transit Vehicle Conversion;
- Service and Maintenance;
- Battery Technology and Power-Source Storage Methods;
- Transportation Technologies/Computer Literacy.

Result of classes: Upon successful completion participants will be prepared for careers such as, Compressed Natural Gas Mechanical Technician and Alternative Fuels Service Technician.

More about the organization: Primary partners in this training effort include the Los Angeles Community College District (LACCD) and its nine-campus infrastructure; the Los Angeles County Workforce Investment Board as well as the City of Los Angeles Workforce Investment Board; and local and regional employers such as General Motors, Miles Electric Vehicles, the Metropolitan Transit Authority, Long Beach Transit, Culver City Transit, and the California Conservation Corp.

Find more information here:

www.college.lattc.edu/green/education-training-programs/automotive-and-diesel-technology

Program Manager Contact:

Josie Marquez
(213) 738-3175

Richmond City ATLAS Advanced Transportation Initiative (ATI)

Type of organization: Richmond Workforce Investment Board.

Type of training: Instruction in hybrid automotive technology for dislocated workers, the unemployed and recently detached veterans.

Area served: The greater East San Francisco Bay Area, Interstate 80 and 880 corridors.

Location of training: Peralta College District – Contra Costa College or College of Alameda.

Estimated trainees: 125

Instruction details: Short-term intensive training in hybrid technologies leading to entry level positions in dealerships, independent repair facilities, or large transportation providers with in house service capacity for their own fleets. The training integrates vocational English as a second language, basic skills instruction, and case management to provide full support for trainees.

Result of classes: Upon successful completion participants will be prepared for careers in a variety of fields, such as, Compressed Natural Gas (CNG) Mechanical Technician, Alternative Fuels Service Technician, or Automotive Service Technician.

More about the organization: The ATI is led by the Richmond Workforce Investment Board (WIB) and includes the Alameda County WIB, the Oakland Private Industry Council, the College of Alameda, Contra Costa College, Swords to Plowshares, the Workforce Collaborative as primary service delivery partners, the Teamsters Union, the Machinists Union, the Joint Automotive Apprenticeship Council and nearly 30 transportation and repair companies based in the San Francisco East Bay.

The Green Employer Council will facilitate job placement after training and obtain input from

employers on the design of new training elements. Classes will focus on both short term training and placement and continuing education after placement to help individuals achieve full certification as a Hybrid Automotive Technician (Toyota T-Tech Certification).

Find more information here:

www.atlas-training.org

Program Manager Contact:

Sal Vaca

(510) 307-8006

Sacramento Employment and Training Agency (SETA)

Type of organization: Workforce Investment Board.

Type of training: Courses in biodiesel, advanced electrical, hybrid technology, alternative fuels and vehicles, and advanced drive train for unemployed and underemployed workers, with active recruitment of women.

Area served: Sacramento, Yolo, El Dorado, and Placer counties.

Location of training: American River College – Mather Campus, Sacramento.

Estimated trainees: 84

Instruction details: Training will prepare technicians to service and maintain alternative fuel vehicles, diagnostic tools, and diagnostic software.

Result of classes: Technicians trained in alternative vehicles and fuel will be prepared for careers in the service and maintenance sector for hybrid and electric vehicles, alternative fuels and alternative fueled vehicles and systems.

Training partners report the following hiring needs:

- PG&E – 48 technicians to service and maintain electric hybrid vehicles (EVs) to manufacturers' specifications. PG&E is transitioning their automotive fleet in 2010 to electric vehicles (EVs);
- Regional Transit – 12 technicians to maintain/repair Compressed Natural Gas (CNG) systems on transit buses;

- SMUD – 24 technicians to service and maintain EVs, hybrids, and alternative fuel vehicles; and retrofit trucks to achieve particulate and green house gas reduction.

More about the organization: The Green Capital Alliance (GCA), with the active participation of business, government, economic development organizations, colleges, universities, and utility companies, will serve as the Green Employer Council.

The Sacramento Employment and Training Agency (SETA) and Sacramento Works, Inc., the workforce arm of the regional Workforce Investment Board provides recruitment, assessment, case management, and placement services and American River College (ARC) provides training.

Find more information here:

www.seta.net/jobseeker/training-resources/clean-energy

www.seta.net/wp-content/uploads/2010/06/Alternative-Vehicles-and-Fuels.pdf

Program Manager Contact:

Robin Purdy

(916) 263-3860

Other Alternative and Renewable Fuel and Vehicle Technology Program (AB 118) Grantees

The following programs were funded under other grant programs utilizing AB 118 funds.

Type of organization: Workforce Investment Board, partnered with regional employers and community colleges.

Type of training: Classroom, lab, and on-the-job training.

Area served: Orange County.

Location of training: Cypress Community College, Society of Automotive Engineers International and participating employer's worksites.

Estimated trainees: 106

Instruction details: Classes cover these areas of interest:

- Electric-drive vehicles;
- Hybrid electric vehicles;

- Plug-in hybrid electric vehicles;
- Hydrogen fuel cell vehicles;
- CNG/LNG Heavy-duty vehicles.

Result of classes: Technicians trained in alternative vehicles and fuel will be prepared for careers in the service and maintenance sector for hybrid and electric vehicles, alternative fuels and alternative fueled vehicles and systems.

More about the organization: The project has been developed to bridge the workforce and/or skills gap existing in Orange County's alternative fuel and vehicle industries today. Training partners have developed training curriculum, in response to industry identified needs, which will be delivered to 75 current employees and 30 unemployed or underemployed individuals. The Sacramento Employment and Training Agency (SETA) and Sacramento Works, Inc., the workforce arm of the regional Workforce Investment Board provides recruitment, assessment, case management, and placement services and American River College (ARC) provides training.

Program Manager Contact:

Andrew Munoz
(714) 567-7370

Northern Rural Training & Employment Consortium

Type of organization: Regional Workforce Consortium representing 11 Counties - In partnership with regional employers, seven community colleges and Chico State University.

Type of training: Classroom, lab, and on-the-job training.

Area served: Nevada, Sierra, Plumas, Butte, Tehama, Trinity, Shasta, Siskiyou, Lassen, Modoc, and Del Norte Counties.

Location of training: Community Colleges and industry partners.

Estimated trainees: 160

Instruction details:Classes cover these areas of interest:

Result of classes: Technicians trained in alternative vehicles and fuel will be prepared for careers in the service and maintenance sector for hybrid and electric vehicles, alternative fuels and alternative fueled vehicles and systems.

- Training partners report the following hiring needs:
- Propane as a transportation fuel;
- Propane vehicle conversions;
- Propane vehicle maintenance and service technician;
- Hybrid-electric vehicles.

More about the organization: The project has been developed to respond to the workforce training needs of partner alternative fuel and vehicle industries and employers. In response to the skills gaps identified by industry partners, training partners have developed the training and competencies to be delivered to a targeted 116 currently employed, unemployed, and underemployed individuals.

Program Manager Contact:

Stewart Knox
(530) 892-9600

Solano Community College

Type of organization: California Community College working in partnership with alternative and renewable fuel and vehicle employers and the Solano Workforce Investment Board.

Type of training: Classroom, lab, and on-the-job training.

Area served: To include: Solano County, bay area, Napa, Sonoma, Petaluma, Dixon, Davis West Sacramento, Sacramento, Benicia, Martinez, Concord and Walnut Creek.

Location of training: Cypress Community College, Society of Automotive Engineers International and participating employers worksites.

Estimated trainees: 300

Instruction details: Classes cover these areas of interest:

- Hybrid and Electric Vehicles.

More about the organization: The project has been developed to bridge the workforce and/or skills gap existing in Solano County's alternative fuel and vehicle industry. Training partners have developed training curriculum, which will be delivered to over 200 current auto service and maintenance technicians and unemployed or underemployed auto service and maintenance technicians.

Program Manager Contact:

Lucia Robles

707) 863-7866

Appendix III

Clean Energy Workforce Training Program Performance Outcomes

Clean Energy Workforce Training Program Performance Tables

There are three levels of WIA services provided through the CEWTP projects to participants, as well as supportive services when needed. A brief description of these services is provided below.

- Core services - includes outreach, job search and placement assistance, and labor market information available to all job seekers;
- Intensive services - Includes more comprehensive assessments, development of individual employment plans and counseling and career planning; and
- Training services - Participants are enrolled in training which may include basic skills or occupational training with qualified training providers. This training is linked to job opportunities in their communities.
- "Supportive" services such as transportation, childcare, dependent care; housing and needs-related payments are provided under certain circumstances to allow an individual to participate in the program.

Chart A

Services	Category 1	Category 2	Totals
Core	865	1006	1871
Intensive	1242	1091	2333
Training	1119	1198	2317
Supportive	36	73	109

Chart B provides the demographics of the participants enrolled in each category.

Chart B

Demographics	Category 1	Category 2	Totals
Female	380	230	610
Male	929	1209	2138
Age 14-18	16	53	69
Age 19-21	66	173	239
Age 22-29	206	329	535
Age 30-39	295	303	598
Age 40-44	167	161	328
Age 45-54	367	275	642
Age 55-64	166	117	283
Age 65 & Over	10	11	21
American Indian/Alaskan Native	38	64	102
Asian	132	100	232
Black/African American	158	395	553
Hawaiian Native/Other Pacific Islander	12	25	37
White	705	532	1237
Hispanic/Latino	349	423	772
Veteran	131	126	257
Temporary Assistance to Needy Families (TANF)	27	51	78
Disabled	53	67	120
Low Income	676	990	1666

Participant Outcomes and Data

The CEWTP projects have exited 12% of enrolled participants and of those 41% have been placed in unsubsidized employment. As of December 31, 2010, 2,338 certificates have been attained by participants of the project. Chart C provides the outcome data and Chart D and Chart E list the certificates issued to participants in both categories.

Chart C

Participant Outcomes	Total En-rolled	Total Completed Exited Program	Of those Exited, Entered Unsubsidized Employment
Category 1	1315	80	27
Category 2	1433	325	138
Totals	2748	405	165

Chart D - Category 1

BPI Building Analyst and Envelope Shell	112
BPI Building Analyst Professional	44
BPI Envelope Professional	46
Build it Green Certified Green Building Professional	68
Building Information Modeling Analyst	2
Building Performance Analyst	14
Certified Green Building Professional	20
First Aid and CPR	137
Green Plumbers USA Water Energy Auditor	108
HAZWOPER 40 Hour	62
Home Energy Rater	47
Hydrotex Lubrication	52
LEED Green Associate Accreditation	19
NABCEP	29
OSHA 10-Hour Certificate	205
OSHA 510	21
OSHA Construction Safety	30
Solar PV	23
Title 24	24
TOTAL	1063

Chart E – Category 2

Basics of PV Systems for Grid Tied Applications	28
Blueprint for Workplace Success	5
Building Performance Institute Building Analyst Professional	59
Building Performance Institute Building Envelope Professional	2
BV 100 Intensive for Solar	7
California Community Colleges Chancellor’s Office Energy Efficiency Technology Certificate of Achievement (24 college units)	29
Certified Green Building Professional	23
Certified Irrigation Auditor	9
CPR/First Aid	22
Energy Efficiency	16
Energy Efficient and Retrofits	51
Energy Fundamentals	51
First Aid/CPR Card	15
General Construction	29
Green Advantage Certified Practitioner Exam for Residential	21
Green Technology Pre-Apprenticeship (ARC)	68
Home Energy Auditor (CRC Construction Dept certificate)	33
Home Energy Rater I	7
Home Energy Rater II	14
Infrastructure Pre-Apprenticeship (American River College)	69
Intro to Building Codes, Title 24 and BPI Standards	19
Introduction to Green Building	51
OHSA 10 Certification	15
Operating Engineers	0
OSHA 10 Hour (CA State certificate)	87
OSHA 30-Hour Certificate	29
Other	13
Pre-Apprenticeship Construction Training	19
RichmondBUILD Interns	18
Solar	4
Solar 10-Hour Construction	51
Solar Electric Installation & Design Principles	43
Solar Intern (Temp)	8
Solar PV Certified	55
Solar Thermal	51
Solar Water Heating Systems Applications	26
State Certified-Electricians	1
State Certified-Laborers Local 324	9
Sustainable Development Technician	16

Chart E – Category 2, cont.

Sustainable Landscape Design & Principles	5
Water Efficient and Retrofits	51
Water/Energy Efficient Building & Retrofits	33
Weatherization (Basic)	46
Weatherization and Energy Efficiency Retrofit Fundamentals	11
Weatherization Technician Certificate (Cosumnes River College)	37
Wind Turbine Technician	4
TOTAL	1260

Appendix IV

State Energy Sector Partnership Regional Advisors

Doug Avery

Project Manager
Southern California Edison

Woodrow Clark

Managing Director
Clark Strategic Partners

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Hank Ryan

Executive Director
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Van Ton-Quinlivan

Director Strategic HR Programs
Pacific Gas and Electric Company

Appendix V

Regional Industry Clusters of Opportunity Grantee's Industries of Focus

Ten Regional Industry Cluster teams: Industry Clusters identified as of August 2010		
Local Workforce Investment Board	Counties	Targeted Clusters of Opportunity Clusters
San Joaquin Valley	Amador, Calaveras, Fresno, Kern, Kings, Inyo, Madera, Mariposa, Merced, Mono, San Joaquin, Stanislaus, Tuolumne	Healthcare
Redwood Coast	Del Norte, Humboldt, Mendocino, Siskiyou, Trinity	Specialty Agriculture, Food and Beverages; Building and Construction; Management Innovation Services
Northern Rural Training and Employment Consortium (NoRTEC)	Butte, Del Oro, Lassen, Modoc, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity	Renewable Energy/ Alternative Fuels; Allied Health
North Valley Job Training Consortium (NOVA)	Santa Clara, San Mateo	Health and IT (Convergence)
San Diego Workforce Partnership	San Diego	Health and IT (Convergence)
Greater LA Region	Los Angeles, Orange, Ventura	Energy Efficiency/Green Building; Alternative Transportation/Fuels/Energy Storage; Water-Waste Water
Sacramento Employment Training Agency	El Dorado, Sacramento, Sutter, Yolo, Yuba	Energy Generation; Energy Infrastructure (SMARTGrid); Energy Efficiency; Energy Storage; Green Building; Transportation; Research and Advocacy
Inland Empire	Riverside, San Bernardino	Green logistics (including alternative transportation and fuels); Health Services
Central Coast	San Luis Obispo, Santa Barbara, Ventura	Agriculture-related energy efficiency and conservation; Energy Generation/Energy Storage; Green Building/Energy Efficiency; Transportation (Alternative Fuels)
East Bay	Alameda, Contra Costa, Solano	Energy Efficiency (particularly products); Energy Generation/Energy Storage; Water/Wastewater

