



Green-Collar Jobs Campaign



Courtesy of: the Oakland Green Jobs Corps



MAKING GREEN WORK

Best Practices in Green-Collar Job Training

✦ About the Ella Baker Center, Oakland Apollo Alliance & Full Circle Fund



Green-Collar Jobs Campaign

This toolkit emerged from a partnership between the Ella Baker Center for Human Rights, the Oakland Apollo Alliance, and the Full Circle Fund.

Through organizing, leadership development and advocacy, the Ella Baker Center unlocks the power of low-income people, people of color, and their allies to transform California and inspire the world. The Ella Baker Center's Green-Collar Jobs Campaign is helping build California's movement for a green-collar economy that truly provides opportunity for all.

We advocate for the creation of "green-collar" jobs (quality, career-track, skilled, hands-on jobs in industries like renewable energy, water and energy efficiency, green building, habitat restoration, sustainable agriculture, and more), especially for low-income communities, communities of color and women. We do this through building S. Partnerships with cross-sector coalitions that include policy makers, organized labor, green businesses, environmental organizations, social justice groups, education and training institutions.



The Oakland Apollo Alliance is a coalition of labor unions, environmentalists, community-based organizations and green businesses, working together to create quality jobs in the new energy economy. The Oakland Apollo Alliance is convened by the Ella Baker Center for Human Rights and the International Brotherhood of Electrical Workers (IBEW Local 595). At its heart, the Oakland Apollo Alliance is a "movement building" project - a forum for groups with widely different backgrounds to come together to explore mutual interests, work through challenges, and advance a common agenda.

The Oakland Apollo Alliance believes that Oakland can become a shining national example of a

blue-collar town transformed into a green-collar powerhouse. Oakland can be a model sustainable city that creates high quality jobs for its residents while cleaning up the environment, improving public health and helping America achieve energy independence.

Full Circle Fund

Full Circle Fund is an engaged philanthropy organization cultivating the next generation of community leaders and driving lasting social change in the Bay Area and beyond. Full Circle Fund members leverage their time, money, skills and connections to the service of nonprofits, businesses and government agencies in partnerships that result in significant impact on the community.

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✦ Give Us Feedback!

What do you think? The field of "green-collar workforce development" is constantly evolving. Help us keep this guidebook up to date. The Ella Baker Center is constantly advocating for guidelines in federal, state and local Requests For Proposals (RFPs) that will fund green-collar job training programs, and we are heavily involved in policy advocacy in the State Legislature. The success and relevance of our work depends our relationships with communities and practitioners across the state. We look forward to hearing and learning from you.







MAKING GREEN WORK

Best Practices in
Green-Collar Job Training



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Courtesy of: Grid Alternatives

Introduction

Why We Created This Guidebook

Over the past three years, the Ella Baker Center and Oakland Apollo Alliance have played a pivotal role in instigating and launching the Oakland Green Jobs Corps, a nationally recognized program that is connecting people who face barriers to employment with opportunities in green construction, solar installation, home weatherization, and other green fields. We also played a key part in the “Pathways out of Poverty” section of the federal Green Jobs Act of 2007. Workforce development trainers and government officials from around the country have contacted us seeking technical assistance and guidance on how to design and launch their own green-collar job training programs. In response to this high volume of interest and need, we decided to share best practices and lessons learned, not only from the Oakland program, but from a range of green-collar training programs in California.

Audience & Scope

We have created this Guidebook with two primary audiences in mind: workforce development providers seeking to build equitable and effective green-collar job training programs; and government officials responsible for managing and providing resources for green workforce development (funding, connections, and policy frameworks). The Ella Baker Center’s work is focused on California, so we have focused this toolkit on best practices within this state. We trust that the lessons will benefit efforts across the country.

The programs featured in this toolkit are but a sampling of the best practices emerging throughout California. We focused on programs that have completed at least one year of successful operation. We focused primarily on programs related to clean energy - green construction, energy efficiency, and renewable energy. While we do not address do not address other green industries - such as recycling and materials reuse, sustainable agriculture, or green household and office cleaning, we expect many of the best practices identified here can be applicable in these other industries.

Defining “People Facing Barriers To Employment”

When we first began our work advocating for green-collar jobs, the Ella Baker Center’s motto was “Green Jobs, Not Jails.” We are most interested in advocating for those who are most in need. We are pushing solutions to our most pressing environmental AND social problems.

When we say “people facing barriers to employment,” we are thinking about people who are:

1. are no/low income and/or receive public assistance;
2. are people of color and women;
3. are previously homeless or in supportive or transitional housing;
4. have prior criminal convictions or juvenile adjudication;
5. suffer from chronic under/unemployment;
6. are single parents;



7. are limited English speakers or speak English as a second language;
8. are without a GED or high school diploma; and/or
9. are emancipated foster care youth.

✦ What Is In The Guidebook

1. Overview

This guidebook provides an overview of green-collar job training programs' current status and emphasizes elements of a successful program.

2. Case Studies

A large component of the guidebook highlights a number of green-collar job training programs around the State of California in the form of case studies. Representatives from the Ella Baker Center and the Full Circle Fund conducted interviews with programs around the state. Looking at these case studies and other training models, the guide identifies relevant criteria or key ingredients to a successful training program. The case studies illustrate best practices in creating and executing a green-collar job training program, as well as important challenges to learn from when establishing a new program.

3. Public Policy

The guide also identifies public policy measures that support the development of effective training programs, so that policy-makers can more effectively contribute to establishing pathways out of poverty for low income people, people of color, and women in California. We have found that while there are many successful green-collar job training programs, there are not enough public policies to drive the creation of green-collar jobs.

4. Links

While we do not address job creation policy directly, this toolkit does provide links to resources and organizations devoted to this critical need.

✦ Growing Green Jobs In A Time Of Economic Crisis

This guide comes at a challenging time for workforce development. The U.S. is in the midst of the worst economic crisis in generations, with California being

one of the hardest-hit states. Jobs of any kind are scarce, let alone those of the green-collar variety.

With this in mind, we must build programs that are driven by the real-world availability of good, green jobs. It is important to train people for jobs that exist. At the same time, it is important to think about and prepare for the future. We are witnessing investments in green economic renewal. Clean energy industries are among the defining drivers of our economic recovery, particularly in California. In the private sector, U.S. venture capital investment in clean energy technology (the vast majority of which is in California) continues to outpace expectations. Nationally, the 2009 American Recovery and Reinvestment Act was the nation's largest-ever public investment in clean energy. And in California, the implementation of the Global Warming Solutions Act of 2006 (AB 32), if done well, will supercharge the Golden State's green economy throughout the next two decades.

This suggests the likelihood of long-term, large scale green economic opportunities. A critical bottleneck in the growth of clean energy industries has been, and will continue to be, workforce development. In 2007, studies in California found that a critical limiting factor for the growth of the solar industry was finding skilled workers. The baby boomer generation is retiring in a giant wave, and, over the next decade, will vacate tens of thousands of skilled jobs. For instance, nearly half of the utility workforce in California (and nationwide) is retirement-eligible, something Northern California's utility Pacific Gas & Electric calls the "Silver Tsunami".

One of society's most pressing challenges will be connecting this opportunity with those facing barriers to employment and those hardest hit by the current economic recession. The goal of this guide is to make that connection.



Courtesy of: Grid Alternatives



Courtesy of: Richmond Build

✚ What is a Green-Collar Job?

The Ella Baker Center defines green-collar jobs:

1. Are in industries that improve the environment.
2. Are blue-collar manual labor, hands-on jobs that cover a range of skill levels.
3. Are quality jobs, they pay family-supporting wages with benefits and provide career pathways and ample upward mobility
4. Present new opportunities for people far too often left out of the existing workforce.

Definitions From Leaders in the Field

*Four definitions of the term
“green-collar job” from leading advocates*

Green For All:

Well-paid, career track jobs that contribute directly to preserving or enhancing environmental quality. If a job improves the environment, but doesn't provide a family-supporting wage or a career ladder to move low-income workers into higher-skilled occupations, it is not a green-collar job. | www.greenforall.org/resources/green-collar-jobs-overview

Van Jones, in his book

“The Green Collar Economy”:

1. Blue-collar employment that has been upgraded to better respect the environment
2. Family-supporting, career-track, vocational, or trade-level employment in environmentally-friendly fields
3. Examples: electricians who install solar panels; plumbers who install solar water heaters; farmers engaged in sustainable agriculture, some non food based bio-fuel production; and

construction workers who build energy-efficient green buildings, wind power farms, solar farms, and wave energy farms.

Apollo Alliance:

“Family-supporting, career-track jobs in green industries”.

“It has to pay decent wages and benefits that can support a family. It has to be part of a real career path, with upward mobility. And it needs to reduce waste and pollution and benefit the environment”.
Phil Angelides, Apollo Alliance chair.

Dr. Raquel Pinderhughes:

Green-collar jobs are blue-collar jobs in green businesses - that is, manual labor jobs in businesses whose products and services directly improve environmental quality. Green-collar jobs are located in large and small for-profit businesses, non-profit organizations, social enterprises, and public sector institutions. What unites these jobs is that all of them are associated with manual labor work that directly improves environmental quality.

(Pinderhughes, 2007 San Francisco State University).



✦ What Green-Collar Jobs Are Not

Let us take a moment to emphasize what green-collar jobs are **NOT**. Temporary and sweatshop jobs are not green-collar jobs. Workforce development providers must do everything they can to ensure that they do not prepare workers for dead-end, low wage work. In instances where low-skill, low-paying jobs are available, we must ensure that these jobs directly provide training and advancement into higher-skilled and better-paying jobs and careers.

✦ Examples Of Green-Collar Jobs

Green-collar jobs are in construction, manufacturing, installation, maintenance, agriculture, large and small for-profit businesses, non-profit organizations, in public institutions and other sectors of the economy. The most popular green-collar jobs at this time are in the solar photovoltaic, energy efficiency, solar thermal, recycling and biofuels sectors. Other common green-collar job areas include electricians, mechanical engineers, welders and metal workers.

Many green-collar jobs are middle-skill jobs, meaning they require a high school diploma or GED, plus a year or two of additional education or training. In

other words, these jobs are accessible to people without a four-year university degree.

✦ What About “White-Collar” Green Jobs?

We do not want to overlook positions such as engineers who create green products, investors and financial analysts who provide funding to green businesses, marketing specialists who educate and motivate the public to purchase green products and services, architects and contractors who design green buildings, and administrative teams who support those with green-collar jobs. Without these positions, the United States would not be able to launch the green economy.

Indeed, workforce development providers may occasionally find that the best opportunities and highest needs in their communities are related to these occupations. However, at the Ella Baker Center, we are focusing on opportunities for people who are most likely to be ignored or excluded, but whose work and involvement will be critical to the success of the green economy. Indeed, we believe the solutions fight poverty and pollution at the same time and are the ones that hold the most transformative impact for our society.

To summarize, green-collar jobs offer the opportunity to advance not only the energy security of our nation, but also the economic security of our families. Now, more than ever, we must all be a part of the change we all so desperately need in this country. Through targeted job training efforts, we can support both our nation’s innovation and technological leadership as well as empower people to lift themselves out of poverty and into prosperity.



Courtesy of: JobTrain



Courtesy of: CDTech



BEST PRACTICES FOR GREEN-COLLAR JOB TRAINING PROGRAMS

In this section we have compiled key elements of successful green-collar job training programs that serve people facing barriers to employment. We draw from interviews with successful programs, professionals in the field of workforce development, and leading academic experts.

This section is not intended to provide a one-size-fits-all formula but rather a guide to help build a program shaped by the unique needs, opportunities and potential partners in your community.



Courtesy of: JobTrain



Courtesy of: Grid Alternatives

✦ Assessment of Opportunities for Green-Collar Jobs in Your Area

A successful green-collar job training program builds its strategy on local priorities, business conditions and economic strengths unique to its city and/or region.

The first step to building a successful green-collar job-training program is to assess the conditions and potential for green industry jobs in your region.

There are 5 steps to assessing opportunities in your area:

1. Convene roundtables
2. Collect market data
3. Identify Skills Gaps
4. Identify Enabling Factors for Economic and Workforce Development
5. Build on Existing Workforce and Economic Development Assets

The Apollo Alliance Model of “Roundtable” Coalition Building

The Apollo Alliance is a national organization that has 14 affiliates across the country. Each affiliate follows the “Apollo Alliance Model” for coalition building by bringing together four sectors: business, labor, environmental, and social justice groups. This model has proven very effective across the country as a way to find common ground to promote clean

✦ Convene Roundtables

Convene a series of cross-sector roundtables (e.g., industry leaders, community leaders, labor leaders, workforce and education providers, municipal staff) to identify opportunities. Invitations to such a roundtable should come from a leader or organization that is broadly respected and trusted. Examine your city’s environmental and economic goals, and explore ways to link those goals to a green-collar workforce strategy. How can leaders from different sectors work together in new ways? For example, if your city already has climate goals to reduce energy use in city buildings by 20% over the next five years, what industries and sectors will this policy affect? Where will job growth occur? What are the occupations and skills related to that job growth? Which organizations are critical?



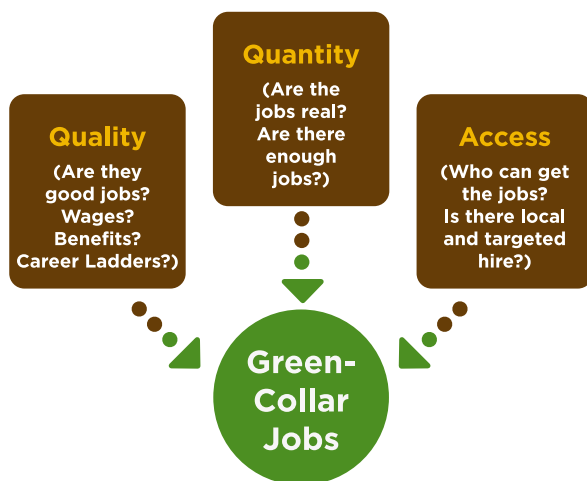
energy and good jobs. In California, there are three city-focused affiliates (Oakland Apollo Alliance, Los Angeles Apollo Alliance, and San Diego Apollo Alliance), as well as a state-focused California Apollo Alliance. Visit www.apolloalliance.org online for more information.



“High Road” Green Economic Development

Too often, strategies to create jobs and grow the economy take the “low road approach” by making deep compromises on job quality and environmental impacts in order to maximize profit. There is an alternative approach. The Center on Wisconsin Strategy defines “high road economic development” as economic growth at the local, regional, and state level that creates quality jobs, protects the environment, and ensures that taxpayers get their money’s worth from public investments. Similarly, workforce development is “high-road” when it meets the needs of both workers and employers—by promoting job training, plant modernization, and other programs that not only help firms remain competitive (by meeting skill shortages, improving productivity, etc.) but also prepare workers for employment that offers higher wages, better benefits, and opportunities to advance into satisfying careers.

Taking the high road in workforce development means holding a commitment to “quality, quantity, and access.” As you develop your program, ask the following questions: How can you ensure the green-collar jobs in your area pay good wages, provide benefits, and provide well-articulated career ladders (quality)? Where are the opportunities that will go to a large enough scale to be meaningful (quantity)? And how can you ensure that those jobs are attainable for people with barriers to employment (access)?



+ Collect Labor Market Data

Compile existing labor market and industry data collected by your local economic development staff - or conduct new studies if none exist - to identify local green industries and workforce skills, and strategize about ways to ramp up these programs to meet the needs of an ambitious new clean energy and green-collar agenda.

+ Identify Skills Gaps

What workforce skills will be in demand, and how well or poorly do they match the skills of job seekers in the community? Who are the target populations in your community?

+ Identify Enabling Factors For Economic & Workforce Development

Assess the policies and infrastructure assets that will affect industry growth and access by the workforce. For example, are there potential land use and zoning policies that could limit industry growth? What is the condition of local industrial land? What is the availability of housing and transportation near job sites?

+ Build On Existing Workforce & Economic Development Assets

Scan existing workforce and economic development programs in your region. Green-collar job training programs should be developed in partnership with these programs where possible, not as stand-alone programs. Building on existing workforce development programs will avoid fragmentation of the workforce and economic development system and also provide an opportunity for green-collar job training to be embedded within existing curriculum.



Courtesy of: JobTrain

Cross-sector Partnerships

A successful green-collar job-training program is built upon cross-sector partnerships. Each partner offers an essential component and an extended support network to the training program. From curriculum development to relationships with potential employers and unions, multiple partners help ensure that the program will truly prepare participants to enter the green-collar workforce. Funders are also more likely to fund programs that represent cross-sector partnerships.

While your program may not involve partners from all of the categories listed below, you should nonetheless scan your region for potential partners in these important sectors.

It is important to identify which organization or entity will play the convenor role, providing the resources and staffing necessary to maintain a partnership. It is a significant amount of work to schedule meetings, set agendas, ensure follow-through on tasks and keep partners aligned.

Potential Partners To Consider

- 1. Community colleges,** may assist with curriculum development based on or building upon existing relevant programs, offer up-skilling for participants to meet eligibility requirements such as obtaining GED, driver's license, and English as a Second Language (ESL), and offer college credit.
- 2. Local governments officials** may provide access to grants and funding for workforce and green development, and provide networking and/or job opportunities with municipal agencies such as public works, and parks and recreation (e.g., street lights, tree planting). Government officials may also add credibility or can play a helpful convening role for cross-sector roundtables.
- 3. Community-based non-profit organizations** can often provide the missing link to community members facing barriers to employment. These connections can be critical for outreach and recruitment, as well as curriculum development. They can also be powerful allies in policy advocacy.
- 4. Green businesses and industry representatives,** may help evaluate the market for various types of green-collar jobs in your area (e.g., building weatherization, alternative energy production, sustainable agriculture, and offer placements for trainees.
 - Consider green business associations or local chambers of commerce (if they are engaging with green economic sectors in a serious way).



- Consider forming a Green Employer Council comprised of green businesses in your community to provide guidance regarding curriculum development and job placement.

5. Labor unions, whose workers may represent some green occupations and industries (construction, building services, energy efficiency, etc), have apprenticeship programs that provide high quality training and career pathways into the middle class. “High road economic development” involves a commitment to jobs that have good wages and benefits, and unions are a core part of building the high road economy. Unions can help develop your curriculum so that your graduates are eligible for union apprenticeships, and they can agree to special entry linkages for your graduates (e.g., waived initiation fees). However, building linkages between unions and pathways out of poverty programs can sometimes be challenging due to cultural, political and structural barriers. Negotiating “local and targeted hire” agreements with unions is a powerful way to

ensure access for communities that are currently under-represented in the unionized workforce.

6. Existing job training programs and educational institutions may provide a platform into which to embed green-collar curriculum and credentials (which, in turn, gives your program greater credibility and cache).

- Already-funded federal programs such as Youth Build, Job Corps, and Americorps may provide established funding access and target audiences, and have established sites in many cities throughout California. For example:
 - Job Corps is free of charge, targets youth facing barriers to employment, and allows them to earn their GED while in training.
 - AmeriCorps targets pre and post college graduates offering them a \$5,000 stipend towards college tuition and federal loan deferment for college graduates.



Courtesy of: CDTech



Courtesy of: the Oakland Green Jobs Corps

Funding

Accessible funding for green-collar job training programs will depend on your region and partners. Our case studies provide examples of the range of relationships with funders existing job training programs have established.

Sources of funding in this area are rapidly changing, in no small part because this is a new area that is experiencing a lot of innovation and growth. New sources are becoming available all the time, and funding sources from one year may not exist the next.

Examples Of Funding In 2009

Below is a list of some prominent sources of funding for green workforce development that were available in 2009, as an indication of what types of funding may be available in the future. This list is not comprehensive. Furthermore, this list is focused on job training and workforce development funds, so it does not include a rich array of funds that will lead to green job creation through investments in public and private employers.

1. State-level funding in California:

- **CALIFORNIA GREEN JOBS CORPS** On June 29, 2009, Governor Schwarzenegger competitively awarded \$10 million to 11 programs throughout the state. Altogether, these programs will train 1,500 at-risk youth for technical, construction and other skilled jobs in environmentally friendly industries. Funds came from the federal American Recovery and Reinvestment Act (ARRA) (specifically, the Governor's discretionary Workforce Investment Act (WIA) funds from ARRA). California Green Jobs Corps participants are youth ages 16-24. They are provided with a range of training and development opportunities, including job-specific training, education, instruction in environmental stewardship and civic responsibility, and community service activities. The state does not directly operate California Green Jobs Corps activities. Instead, it has awarded funding to 11 organizations that design and manage programs based on their unique local needs. Each program operates as a partnership that includes a



workforce investment board, community college or community college district, nonprofit organization and private sector employer. The California Green Jobs Corps is housed at California Volunteers, which works in close partnership with the Labor and Workforce Development Agency and its Employment Development Department and Workforce Investment Board.

- This pilot program was a one-time grant opportunity funded by ARRA. It is not yet known whether there will be continued grants for this model in the future.

- More information online: <http://www.californiavolunteers.org/index.php/GreenJobsCorps/>

- **CALIFORNIA CLEAN ENERGY WORKFORCE TRAINING PROGRAM** In 2009, multiple state agencies and the Governor's office coordinated and combined several areas of ARRA funding to create an inter-agency program called the Clean Energy Workforce Training Program that brings together a total of about \$90 million. On October 2, 2009, this program awarded nearly

\$27 million to a range of green workforce development programs throughout the state.

- The Clean Energy Workforce Training Program is expected to make additional grants in 2010.

- More information online: <http://www.energy.ca.gov/greenjobs/>

- **GREEN CALIFORNIA PARTNERSHIP ACADEMY PLANNING GRANTS (AB 2855)**

In 2009, \$12.5 million in state funds were appropriated for launching green partnership academies in high schools in California. The California Department of Education awarded planning grants of about \$40,000 each. It is unclear whether similar planning grants will be awarded in 2010 or beyond.

- More information online: <http://www.cde.ca.gov/ci/gc/hs/cpagen.asp>

2. Local funding for green jobs:

- **CITY GOVERNMENTS** can be a valuable partner and source of funding for programs. As indicated in the Case Study examples, Richmond Build is a program of the City of Richmond's Employment and Training Department, which consistently provides support and some funding for the program. The Oakland Green Jobs Corps program was launched with a one-time seed grant of \$250,000 from the City of Oakland. (That \$250,000 grant stemmed from a lawsuit settlement in which Oakland had several million dollars to be spent on energy efficiency and renewables.)

- **WORKFORCE INVESTMENT BOARDS** - California has 49 local Workforce Investment Boards (WIBs), covering every locale in the state. These WIBs were established by the federal Workforce Investment Act (WIA) and every year are responsible for administering federal funds for workforce development. WIBs can vary widely in their priorities and spending patterns, but in general, WIBs can be a significant and sustained source of funding, services, and other resources for green workforce development.





3. Federal funding:

- **GREEN JOBS ACT** - The Green Jobs Act of 2007 authorized \$125 million per year to create an Energy Efficiency and Renewable Energy Worker Training Program as an amendment to the Workforce Investment Act (WIA). The Green Jobs Act is a pilot program to identify needed skills, develop training programs, and train workers for jobs in a range of industries - including energy efficient building, construction and retrofits, renewable electric power, energy efficient vehicles, biofuels, and manufacturing that produces sustainable products and uses sustainable processes and materials. It targets a broad range of populations for eligibility, but has a special focus on creating “green pathways out of poverty.”
- The Green Jobs Act was introduced by then-Congresswoman Hilda Solis, who is now the Secretary of Labor. The 2009 federal stimulus bill included \$500 million in green workforce training funds modeled heavily on the Green Jobs Act (see below).
- More information: www.greenforall.org/what-we-do/working-with-washington/the-green-jobs-act

4. Federal stimulus funds for green-collar job training programs:

- **THE 2009 AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA)** included \$500 million in competitive grants for green workforce development. These funds were divided into five areas, including a Pathways out of Poverty grant program of \$150 million. These grants have been administered and granted directly by the federal Department of Labor.
- More information about the \$500 million in competitive grants: www.greenforall.org/get-involved/green-recovery-for-all/resources#comp
- More information about the ARRA-funded Pathways Out of Poverty grant program: www07.grants.gov/search/search.do?oppld=48073&flag2006=false&mode=VIEW

In addition to monetary contributions, non-profit partners, foundations, corporations and individual donors may provide helpful in-kind contributions that reduce a program’s funding burden.



Comprehensive Curriculum

A successful program should prepare graduates not only for immediately available green-collar jobs but also for life-long careers and upwardly mobile pathways.

The curriculum we present below is rooted in the Green-collar Job Training and Job Placement Model developed by Dr. Raquel Pinderhughes (referred to as the Pinderhughes Model; full description can be found at <http://bss.sfsu.edu/raquelrp/>). We have added a few additional elements based on a report by the California Apprenticeship Council (Best Practices: Preparation for Apprenticeship Training) and advice from professionals working in the field of workforce development.

This model was developed specifically for individuals facing barriers to employment (as defined in the Introduction, pg 6).

- 1. Soft skills training:** prepares participants to enter the world of work, including:
 - (a) basic literacy skills (math, English, writing, computer, oral presentation, basic communication skills),
 - (b) life skills, time and anger management, conflict resolution,
 - (c) world of work skills, including interview skills and work ethic, and
 - (d) diversity and sexual harassment training.

- 2. Hard skills training:** thorough hands-on training detailing how to perform tasks that will be required on the job. Prepares participants for entry-level green-collar jobs, including:
 - (a) basic construction trades/manual labor skills training leading to OSHA Safety Training Certification, and



- (b) specialized green-collar job training in areas selected by the training program.

This part of the curriculum should be coordinated with union apprenticeship programs and potential employers in the areas that may hire graduates to make sure that they are acquiring all necessary skills and credentials. Methodologies should include hands on learning, visiting work sites as well as apprenticeship training programs, visits from representatives from the green industry and classroom lectures. Apprenticeship during training deepens the participants' hard skills as well as makes a valuable connection with a potential employer.

- 3. Financial literacy skills training:** prepares participants to responsibly manage their money and save for the future, including:

- (a) learning about money, credit, and assets and prioritizing and managing expenses,
- (b) linking participants to banks that do not charge for small checking and savings accounts, and
- (c) access to debt counselors as needed.

- 4. Environmental literacy:** training prepares participants to:

- (a) think about the work they are doing in larger scientific, environmental, and social contexts,
- (b) do well in job interviews with employers in the green economy,
- (c) pursue additional training and education, and
- (d) become engaged in environmental and environmental justice issues in their communities and beyond.



**ROOTS
OF SUCCESS**

ENVIRONMENTAL
LITERACY
CURRICULUM

Dr. Pinderhughes has developed an environmental literacy curriculum that can be used by staff in green collar job training programs throughout the nation.

The curriculum, entitled ROOTS of Success, is designed to teach environmental literacy while enhancing academic literacy and job readiness skills. The curriculum includes environmental literacy, academic literacy, and job readiness components. The environmental literacy component provides youth and adults training for green jobs and careers with the knowledge they need to understand and think critically about environmental problems and solutions from the multi-disciplinary perspectives of environmental science, land use planning, public health, and social justice. The academic literacy component focuses on English language, reading, math, and computer literacy. The job readiness component focuses on increase labor market skills and information. In addition to job readiness and preparation exercises, each module includes a section focused on green jobs in that thematic area (water, waste, transportation, energy, and building).

The ROOTS curriculum is divided into seven modules: an Introduction; five thematic modules focused on Water, Waste, Transportation, Energy, and Building; and a Conclusion. An eighth module, focused on Food and Agriculture, will be developed in 2010.

The curriculum can be taught:

- (a) as a stand-alone component of a training program or class,
- (b) as a comprehensive curriculum using all seven modules, or
- (c) can be integrated into the academic literacy component of a training program.

The curriculum must be taught by a certified ROOTS of Success instructor. To offer the curriculum a program needs to have its instructor(s) go through a one day Train-the-Instructor ROOTS training. Upon completion they are certified to teach the ROOTS of Success Environmental Literacy Curriculum.

For more information, contact Dr. Raquel Pinderhughes at raquel.roots@yahoo.com.



- 5. Paid Internship or On-the-Job Training component:** provides an opportunity for participants to successfully enter and stay in the labor market. It is essential that case management services are provided during the internship period so that participants are supported as they deal with challenges related to job readiness, transportation, child care, probation requirements, cash flow, violence, housing, etc.
- 6. Green Business/Employer Councils:** are composed of owners and managers of local and regional green businesses in the sectors for which participants are being trained. The Council provides ongoing support to the training program by agreeing to take participants on as interns and, if they do well and there are openings, to hire them as employees. In addition, employers on the Council provide consistent feedback to training program staff to revise and improve the quality of the program.
- 7. Duration:** Programs should balance brevity (so that graduates can get into green-collar jobs quickly) with length (to provide enough time for students to learn and develop their skills in a comprehensive way). We recommend that training programs should be no fewer than 8 weeks in length. As you can see in the case studies, programs can easily be 16 weeks or longer. The length and frequency of programs depend on funding available, whether the students receive stipends while in training, and whether the program is full-time or part-time.



Courtesy of: LATTCC



Courtesy of: JobTrain

✦ Target Participants & Recruitment



Design your green-collar job training program with a definite group of target participants in mind. Wrap-around support services should address unique needs and provide the support required during both training and transition into the workforce. The particular target audience will determine where and how participants are recruited.

The Applied Research Center has produced a *Green Equity Toolkit* that can help to ensure programs are accessible to women and people of color.

The toolkit is intended primarily for social justice advocates and policy makers, but can be helpful to workforce practitioners who want to think through the strategies, practices, and measures for building programs that include disadvantaged communities and under-represented demographic groups. When it comes to inclusion of women, people of color and the LGBTQ community, the construction industry can be an area that is slow to make progress. Even the most progressive construction training programs can benefit from a thoughtful and thorough evaluation of their practices and cultural assumptions.

Green Equity Toolkit: Standards and Strategies for Advancing Race, Gender and Economic Equity in the Green Economy: <http://www.arc.org/greenjobs>



Courtesy of: LATTC

Eligibility Requirements & Admissions

Common minimum requirements for entry into/or completion of green-collar job training programs are:

- minimum age of 17 or 18 years
- current driver's license
- reliable transportation at time of entry
- physical ability to perform the work
- clean drug test
- 8th grade math and English level
- high school diploma or GED

It is important to note that:

- (a) these requirements can be a barrier for many people and can essentially function to “cream-skim” the best applicants from a target population, and
- (b) many programs are lax about enforcing these or admit people who do not meet their stated criteria, and then help them to achieve the criteria.

Eligibility may depend on the support services that a training program provides. For example, if the program is partnered with a community college, a high school GED could be obtainable as part of training and therefore not be a requirement for entry. A pre-screening should be part of the admissions process to determine if the applicant is eligible or if they should be referred to another community service agency for other resources prior to beginning green-collar jobs training.



Courtesy of: JobTrain

Wrap-around support services

Wraparound support services are comprehensive case management services provided by trained counselors or social workers. These services are critical for supporting people who face barriers to employment. Counselors develop individualized plans based on an assessment of a full range of needs, such as child care, transportation, housing, mental health, physical health, financial stability, and educational achievement. Counselors will often work with an individual's family members to involve them as part of the wraparound plan. And counselors will meet regularly and frequently with individuals to ensure progress and follow-through.

Wraparound services can be instrumental for success as students go through a training program. And they are equally important for graduates as they find jobs and adjust to the realities and challenges of employment.

As graduates begin working, the job-training program should continue to provide case management and retention support to keep track of graduates' status. Maintaining relationships with graduates enables the program to refer graduates to community service providers as needed. Data tracking makes it possible to evaluate a program's long-term effectiveness. In addition, strong case management increases the chances of an employer's willingness to hire a graduate. Having a liaison from the job-training program (in most cases, a job developer or trainer) who builds relationships with the employers is a strong practice to consider.



Measures of Success & Evaluation

Placement (or retention) follow-up after 90 days, 6 months and one year is important to determine if and how the graduates are employed, and evaluate the effectiveness of the program in preparing graduates for the workforce. Graduates' continued education, training and job retention are all measurements of success.

In addition to surveying graduates and participants on paper, in person or by phone, on-going dialogue with and feedback from employers and other partners will help to improve the curriculum, job readiness and job placement.



Courtesy of: LATT

Memorandum of Understanding (MOU)

MOUs can provide a critical role in the success of a green-collar job training program by providing formal understandings of specific agreements between two or more parties regarding essential aspects of training and/or job placement. For example:

- A job-training program can have an MOU with a local trade union that states the union agrees to waive initiation fees for a graduate of the training program to become a union member, allowing the graduate to enter the union's apprenticeship program.
- A general contractor working on a project that is funded by city government money will agree to hire a certain amount of job training graduates annually.
- A local community college can agree to reserve a certain amount of slots for trainees of a program to enroll in a vocational training course at the college.

MOUs are especially useful when organizations work together for the first time. Issues such as decision-making authority (Who decides what?), credit (How do we name and describe the program?), and money (How do we share limited funds?) are critical areas for establishing trust and understanding. Clear, written agreements up front can avoid much frustration and grief down the road.



Courtesy of: the Oakland Green Jobs Corps

Credentials/ Accreditations

As of April 2010, there are no standards for accreditations for green-collar job training programs or standard credentials for entry into green-collar jobs.

There is, of course, a wide range of certifications related to specific industries and fields. In some cases, such as the energy efficiency industry, there are multiple overlapping certifications, a situation due in part to rapid growth and change in the industry.

With this in mind, we provide a sampling of some notable certifications and credentials which we found in our scan of green-collar job training programs in California. These are related primarily to construction, energy efficiency, renewable energy, and green building.

- Energy Efficiency/HVAC/Weatherization

- HERS and HERS Phase II (Home Energy Rating System)
- BPI (Building Performance Institute)
- LIUNA (Laborers' International Union of North America)
- NATE (North American Technician Excellence)

- Green Building

- U.S. Green Building Council
- Build It Green Certification

- Renewable Energy

- North American Board of Certified Energy Practitioners (NABCEP)

- General certifications (not specific to green industries)

- OSHA safety training
- First Aid/CPR

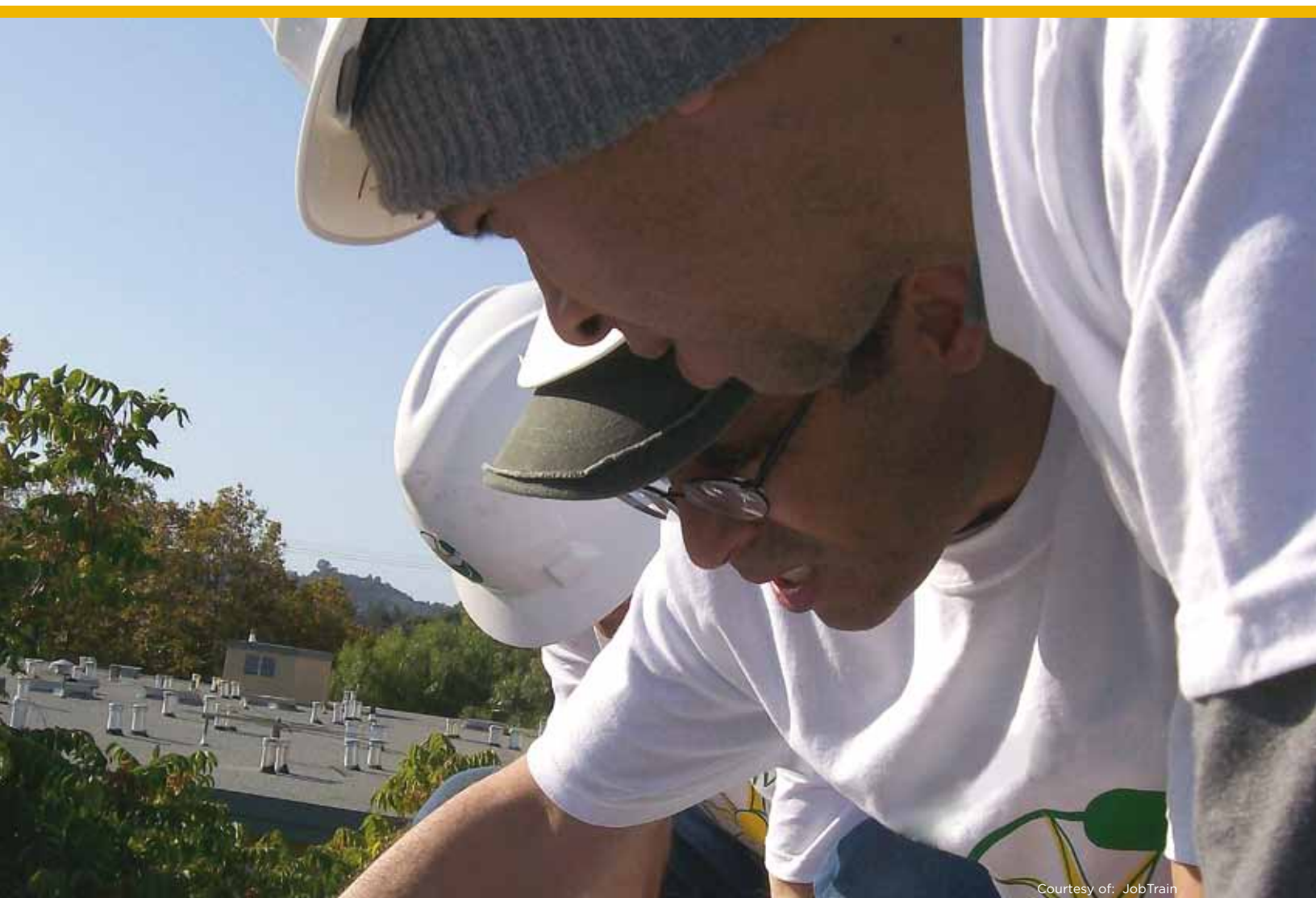


CASE STUDIES

The following case studies provide basic information about a number of exemplary green-collar job training programs in California:

- CDTech
- East LA Skills Center
- JobTrain
- Los Angeles Trade-Technical College (Weatherization and Energy Efficiency Program)
- Oakland Green Jobs Corps
- RichmondBUILD / Solar Richmond
- SEE Green Careers

We hope that you will learn from the successes and challenges each of these leading programs has faced. We encourage you to contact these organizations directly with any questions regarding their programs.



Courtesy of: JobTrain



Courtesy of: CDTech



✦ Program Name & Location

Founded in 1995, CDTech (Community Development Technologies Center) is a nationally recognized nonprofit organization dedicated to promoting economic opportunities and justice for low-income residents and communities throughout the Greater Los Angeles area. This case study will focus on CDTech's Green Corps program, a green career exposure and work experience component of its 911 Green Homes Initiative that began in the fall of 2008.

✦ Program Overview & Approach

The Green Corps program is a green career exposure and work experience program for out-of-school youth between the ages of 18 and 30. The youth are provided a circuit rider training program that provides broad exposure to various aspects of green jobs and careers through community college classroom training and field experience in CDTech's 911 Green Homes Initiative.

The 911 Green Homes Initiative targets neighborhood (zip code 90011) revitalization efforts that link the low-income, South Los Angeles community and its residents to the green economy. The vision is for the Vernon-Central neighborhood of South Los Angeles to be the greenest neighborhood in the city and, in the process, to restore the neighborhood's economy through the development of green housing, green jobs, workforce training and business development. This pilot serves as a city-wide model for stimulating a green economy in low-income neighborhoods.

Specifically, the 911 Green Homes Initiative is directly tied to meeting the critical physical, economic

CDTech

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www.cdttech.org



and social infrastructure needs of the community, including:

1. Rescuing and rebuilding the aging housing stock using green building techniques;
2. Reducing housing costs of low income families through energy efficiency;
3. Decreasing unemployment and underemployment of low income residents;
4. Expanding college and career pathways for residents in emerging and growth sectors, and
5. Breeding sustainable lifestyles, attitudes and behaviors.

In essence, the project connects workforce development to community development. The Green Corps mission is to revitalize their community by providing Tier 1 weatherization services and energy services outreach and consumer education.

✦ Partnerships & Funding

The program uses multiple sources of funding, including:

- Public Allies - Americorps Stimulus funds, which helped to pilot a 6-week Green Corps work experience program, and
- City of Los Angeles Energy Efficiency and Conservation Block Grant Funds from ARRA, supporting a 15-month work experience and jobs program.

✦ Elements Of Curriculum

CDTech worked with faculty at Los Angeles Trade-Technical College and its Community Development Center to design an inter-disciplinary curriculum in energy, water and waste policy, planning and design/development and operations. This 36-hour, 2-unit course on “Green Building Basics” is supplemented by 260 hours of field experience in the major LEED rating areas, including: neighborhood development, energy efficiency, water, and resource management.

This intensive and comprehensive program includes:

1. Classroom and project-based learning experience;
2. Intensive leadership development, career exposure and job readiness training, and
3. Work/field experience.

✦ Instructors

The core instructors include an inter-disciplinary team of faculty from Los Angeles Trade-Technical College’s community planning, property management, and architecture programs who are active in the sustainable/green movement. They are hired based upon their professional training and experience. All instructors are hired through the Los Angeles Community College District application process. Additional classroom trainers and field supervisors are industry trained and certified, including professionals from the Los Angeles



Courtesy of: CDTech



Chapters of the U.S. Green Building Council and the Institute of Real Estate Management.

✦ **Target Participants & Recruitment**

The program participants come from the targeted neighborhood (zip code 90011) revitalization effort or the larger South Los Angeles community. They are between the ages of 18 and 24, out-of-school and typically have a high school diploma or GED.

✦ **Eligibility Requirements & Admissions**

Participation in the community college class is open to all students, but eligibility for the work experience component is dependent upon the source of funding. The Public Allies Green Corps program accepts participants between the ages of 18 and 30, but requires proof of citizenship and a high school diploma or equivalent.

The participants in the second cohort are funded using special workforce investment eligibility criteria. The program is designed for “Disconnected Youth”: those considered out of school and out of work, between the ages of 21-24, and also considered at-risk for youth violence and gang activity.

✦ **Length & Frequency Of Training**

The training is offered twice a year, in the Fall and Spring. Participants pay \$52 and earn 2 units of community college credit .

✦ **On The Job Training Or Paid Internships**

Participants receive on-the-job training and work experience. Green Corps participants received \$2,000 in stipends and an educational voucher of \$1,000 to continue their education. The second cohort of participants will be paid \$8 per hour for up to 180 hours of training and work experience, or about \$1500 in stipends.

✦ **Wraparound Support Services**

The Public Allies Green Corps program provides intensive and evidence-based leadership development and coaching. Eligible participants also have access to WorkSource Center programs and services, including personal skills assessments (basic skills, interest inventory, etc.), career counseling, job preparation, job search, work readiness training, case management and other support services such as transportation, child care, etc.

✦ **Measures Of Success & Evaluation**

The first cohort produced 150 Tier 1 energy assessments and four Tier 3 weatherized units. The cohort contacted 240 household about energy and water conservation practices.

Approximately 60% of the participants took advantage of their educational vouchers to pursue higher educational opportunities.

The first cohort used an abbreviated version of the Public Allies Evaluation System, known as PISD, which is a structured way of documenting their learnings on a weekly basis. Currently, there is no tracking or follow-up evaluation system in place.

✦ **Relationship With Potential Employers**

Training and work experience was provided by industry employers. Students worked at Energy Services and Technologies (ES&T), a 30-year energy services firm that provides comprehensive energy services to major public and private utilities and companies. The first cohort worked on a project to educate low-income residents about the Los Angeles Department of Water and Power energy and water conservation programs. The participants were trained by Energy Services and Technologies (ES&T) on both water conservation and customer service.

✦ **Relationship With Organized Labor**

This career exposure and work experience program has no direct ties to organized labor.



✦ Green Evolution

CDTech established a “Green Component” to its training and community revitalization program in 2008. Prior to that, the work of the organization focused on non-profit workforce, leadership and community development initiatives. The growing interest and demand for a robust green economy – due to both climate change and economic imperatives for new job creation – provided an opportunity to expand current programs into a green program.

✦ Credentials

After successful completion of the classroom component, participants receive 2 hours of community college credit from the Community



Courtesy of: CDTech

Planning Program at Los Angeles Trade-Technical College.

✦ Key Relationships

911 Green Homes Initiative partners include the Los Angeles chapter of the U.S. Green Building Council, the Institute of Real Estate Management-Los Angeles, Federal Department of Housing and Urban Development/Region IX, and LA Causa Youth Build.

The program also participates in the South Los Angeles Green Jobs Collaborative, which includes: the Los Angeles chapter of the U.S. Green Building Council, the Los Angeles Urban League, Community Build, Chrysalis, The United Coalition of Churches/PV Jobs, the Multi-ethnic Green Workforce, Holman Methodist Church, and Southwest College (a community college in the Los Angeles Community College District).

✦ Challenges

Developing Inventory for Energy Assessments: The field work is dependent upon finding and recruiting residential and commercial owners willing to open up their homes to Tier 1 weatherization services. The business model must incorporate an aggressive marketing and outreach component to generate enough inventory for the work experience.

Energy Conservation Measurements: Tracking energy savings is often made more difficult by the lack of historical records (i.e. utility bills) from the owners.

At-risk youth doing residential work: There are additional challenges and risks to manage in residential retrofit work when working with youth who have prior experiences with the criminal justice and corrections systems. It is important to include commercial and institutional work, which carries less of this type of risk.

✦ Lessons Learned

Develop a multiple- pathways approach to career exposure: Youth need to be exposed to a broad range of green jobs and career opportunities. While the sector has broad-based appeal for youth (they get it), most green jobs are too narrowly focused



on green building and construction-related careers. Many young people are not interested in handyman or hardhat careers. More importantly, youth come into the program with a full range of exceptional talents.

CDTech found some students loved talking to other people and excelled in marketing and outreach. Others were phenomenal designers, still others were inclined toward the planning and operations side. The career exposure and work experience program needs to be broadened to include growing careers, such as energy business services, architecture, transportation, land-use planning, urban design, green building operations/property management, environmental impact studies, and water-related careers, all of which have above-average growth projections in California. Community colleges that are unable to provide construction training can train and create opportunities in these professional fields.

Youth come to the program with considerable challenges. This reality requires a strong case management component. Of particular interest was that most of these youth were recently emancipated and struggling to establish themselves in independent living arrangements. Addressing these challenges was so important that CDTech added financial education into the curriculum mid-way through the program.

In communities where there are higher rates of violence and gang activity, it is essential to recruit

youth from the neighborhood to provide the community outreach, education and Tier 1 energy services. Youth from outside the neighborhood feel unprotected or threatened working in “foreign” territories. This effort truly needs to be neighborhood-based.

Involving industry professionals as program trainers ensures that we remain relevant to a quickly changing and emerging industry.

✦ Future Plans & Goals

CDTech plans to:

- Build public, private and consumer interest and demand for sustainable lifestyles and economic strategies.
- Broaden the green jobs program’s targeted neighborhoods program into other parts of South Los Angeles.
- Increase the number of green jobs by improving the energy efficiency of homes, and convert low-performing real estate into high-value, energy-efficient community assets.
- Catalyze neighborhood change through a concentrated, green housing and community investment strategy.



Courtesy of: CDTech



Courtesy of the Oakland Green Jobs Corps

✦ East Los Angeles Skills Center

The East Los Angeles Skills Center's (ELASC) Photovoltaic (PV) Installation Certification Preparation courses began in 2007 in East Los Angeles, California. ELASC was established in 1966 and is part of the Los Angeles Unified School District's Division of Adult and Career Education. ELASC is a Regional Occupational Program training center that offers diverse populations educational offerings and training in a number of career-oriented areas.

✦ Program Overview & Training Methodology

The program's curriculum was approved by the CDE (California Department of Education) in 2007. ELASC, whose local population may best be described as at risk, is dedicated to providing the community with employment preparation that meets industry standards that reflect the latest technology. This training program, coupled with close relationships to business and industry, has resulted in consistent job placements.

ELASC provides a unique curricular program which coordinates academic and vocational training. The instruction is designed to improve the student's academic or basic skills competence while simultaneously preparing the student for job-specific employment. The Center is dedicated to promoting personal development, technical skills and economic opportunity in the diverse communities it serves. Partnerships with educational, business and community-based organizations support the overall program in enabling the student to realize his/her potential as a productive and contributing member of society.

✦ Partnerships & Funding

The program is managed by the Los Angeles Unified School District's Division of Adult and Career Education. Regional Occupational Center and Adult Education funding is provided through the State Department of Education. Federal funding is received through the State by way of the U.S. Department of Education.

East Los Angeles Skills Center

3921 Selig Place
Los Angeles, CA 90031
Ph. 323.224.5970
elasc.adultinstruction.org



ELASC has developed strong partnerships with local community agencies, community leaders, and parent groups. Advisory groups and area businesses provide resources and services and help to fulfill employment needs for students. Some of the local community partners include Homeboy Industries, El Centro Mental Health, Los Angeles County Probation Department and Employment Development Department. These relationships have developed over the years to maintain involvement and presence in the community at large.

✦ Elements Of Curriculum

The Green Technology program offers a Photovoltaic (PV) installation preparation course which involves PV safety, solar electric fundamentals, PV module fundamentals, performance analysis and troubleshooting, basic electric theory, PV system



Courtesy of: Grid Alternatives

components and employment skills. The PV course consists of two courses of training. The introduction course consists of 100 hours of instruction introducing basic PV principles. The advanced course concentrates on hands-on instruction and installation with 300 hours of instruction. Upon completion of the sequence, students may sit for the NABCEP (North American Board of Certified Energy Practitioners) Entry Level Certification exam.

✦ Instructors

There are currently three credentialed instructors dedicated to the PV Solar Power Training Program, which is part of the school's Industrial Education Program.

✦ Target Participants & Recruitment

Program participants are from a number of diverse populations: low-income, economically disadvantaged youth and adults, displaced workers, at-risk youth, unemployment insurance recipients, welfare recipients, teen parents, ex-offenders, and the homeless. Students enroll with a desire to create career opportunities and change their lives. Many students are lacking education and work experience and enroll in the career preparation programs to develop skills necessary to work in the industry. The PV program is so popular that the school has a waiting list for entrance into the program. ELASC provides community outreach at job fairs and career events, but most recruitment is by "word of mouth."

✦ Eligibility Requirements & Admissions

Enrollment is on a first come, first serve basis. Students 16 years of age or older are eligible for enrollment. Those under 18 must have approval from their parents and school counselors to enroll. The students are majority adults and are largely Hispanic. About 20-30% are non-Hispanic and 10% of the participants are female-identified.

✦ Length & Frequency Of Training

Courses are established in a sequence and scheduled according to completion of previous courses.



✦ On-the-Job Training Or Paid Internships

The program at ELASC does not offer paid apprenticeships but provides hands on training on campus.

✦ Wrap-around Support Services

The wrap-around services at ELASC available through the Los Angeles Unified School District. Along with vocational and academic instruction, the students may be referred to on-site community resources including social, probation and employment development services, as well as marital, family, psychological and substance abuse counseling.

✦ Measures Of Success & Evaluation

Success is measured by program completions, industry certification, and job placements. Job placements increase with the growth of the industry. Labor unions and private contractors have both been very interested in the students who complete the program and obtain entry level NABCEP certification from North American Board of Certified Energy Practitioners (NABCEP).

✦ Relationship With Potential Employers

Due to the current economic climate it is difficult to maintain regular hiring practices with employers.

✦ Memoranda of Understanding

There are currently limited Memoranda of Understanding (MOUs) with local organizations that serve to assist special populations.

ELASC, as one of ten Regional Occupational Program centers within the Division of Adult and Career Education, maintains an Employer Advisory Board. The Employer Advisory Board (EAB) assists with many aspects of the program that include curriculum development and employability requirements. EAB support has allowed ELASC to stay in contact with local employers and continuously update course content and equipment needs for classes with changes in technology. Some have assisted in obtaining learning labs and others have provided part-time work for our students during training.



Courtesy of: the Oakland Green Jobs Corps



✦ Relationship With Organized Labor

Labor unions have been open to accepting trainees from the program and may test graduates for acceptance into apprenticeships and careers in the trades.

✦ Key Relationships

ELASC has developed relationships with civic and social service groups that offer assistance through various programs. These additional services are readily available during training hours.

✦ Challenges & Lessons Learned

As a career education institution there is frustration in the ability to create additional job opportunities for trainees when they complete the programs. Some students are subject to the realities of employment barriers such as criminal records, language skills, and employability factors.

✦ Future Plans & Goals

ELASC would like to expand the program, if able, to receive additional funding for staff, equipment and facilities.

✦ Advice For Future Green-Collar Job Trainers

Ensure that the trainees entering the program are assessed properly. Potential student populations often enroll in job training programs without knowledge of the actual requirements of the job they are training for. Without proper assessment of student abilities, a trainee may not be able to adapt to the rigor needed for program completion.





Courtesy of JobTrain

JobTrain

Based in East Menlo Park, California JobTrain's Solar Training: Photovoltaic [PV] Systems Design and Installation program began in January 2008. In October 2009 JobTrain also launched an evening Solar Installation program and a Weatherization program. JobTrain was established in 1964 and was formerly called Opportunities Industrialization Center West.

Program Description & Training Methodology

JobTrain has two Solar Training programs. One is the Daytime Solar Training program which provides 600 hours of training according to a curriculum that JobTrain designed for safe installation of grid-tied photovoltaic electrical systems, as well as related technical, construction and design skills. The second is the Evening/Weekend Solar Training, which is approximately 100 hours in length. JobTrain recently added an additional course that focuses on Weatherization and Energy Efficiency.

Partnerships & Funding

JobTrain's Program Development Committee first evaluated the possibility of starting a green jobs training program in 2007. They engaged representatives from the California Solar Energy Industries Association (CALSEIA), ReGrid and SolarTech to establish parameters for what has become the Solar Training program.

A key component of the program is its Technical Advisory Committee (TAC), made up of solar industry employers who provide ongoing guidance about curriculum and job placement. TAC members, however, do not commit to contributing training funds, providing routine internships or jobs to trainees.

The funding to launch the program in early 2008 came from JobTrain's sale of an off-site childcare center. Subsequent funding sources have included San Mateo County, which provides Workforce

JobTrain

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Menlo Park, CA 94025
Ph. 650.330.6429
www.jobtrainworks.org



Investment Act (WIA) funds for the roughly half of students who qualify, the Sequoia Adult School, which co-offers the program and pays a significant percentage of the instructor’s salary, Silicon Valley Social Venture Fund (SV2), the Federal Pell Grant program, other private donations, and JobTrain’s general fund.

Earlier this year, JobTrain received a commitment of stimulus funds from the City of East Palo Alto, which will be matched by funding from the Morgan Foundation, and used for the Solar Training programs and the evening Weatherization program.

✦ Elements of Curriculum

In addition to hard skills regarding how to install Grid-tied photovoltaic electrical systems, the program includes extended tutoring and math components, environmental education, life-skills and job-readiness training, and additional weatherization training.

✦ Instructor

The Solar Training program is taught by an instructor with experience as the owner of a photovoltaic installation business.

✦ Target Participants & Recruitment

Solar Training students, like JobTrain’s other clients, are low-income. Many face multiple barriers to employment, including a lack of formal education, lack of work experience, and history of incarceration. They are ethnically diverse, and their ages range from 20s to 50s. Women represent a small fraction (approximately 10%) of the students.

JobTrain has had no difficulty recruiting students for the Solar Training program. JobTrain advertised its initial workshop in a local newspaper (the *San Mateo Daily Journal*), from which it had an excellent response, and Craigslist, which elicited little response. Because of high demand (the acceptance rate is less than 20%), JobTrain no longer formally advertises the program. New clients are informed about the program as one of JobTrain’s many offerings, which supplements the word of mouth outreach of the program’s graduates and supporters.

✦ Eligibility Requirements & Admissions

People with incomes below certain guidelines are eligible for JobTrain’s services generally. The Solar Training program also requires attending a JobTrain orientation, passing math, computer and Internet literacy assessments, and being physically fit.

✦ Length & Frequency Of Training

After an initial solar training workshop, JobTrain has conducted five semiannual cycles of the program. The program started as an eight-week program in the first cycle. It was then extended to twelve and then twenty weeks, both to qualify for the Federal Pell Grant Program and also to provide time to address many students’ academic needs, particularly in basic math. The training is highly disciplined, and only three absences from class are permitted throughout the twenty weeks. The recently-added Evening/Weekend Program meets three times per week (two weeknights, plus one weekend day to work in the outdoor lab).



Courtesy of: JobTrain



✦ On-the-Job Training Or Paid Internships

There are no formal internships at this time but there is a significant hands-on portion of each training, and each class participates as a team in one or more live rooftop installations with GRID Alternatives.

✦ Wrap-around Support Services

Using its existing robust suite of services, and leveraging WIA funds, JobTrain provides assistance



to its Solar Training students well beyond the specific technical skills needed to install PV panels. The program provides counseling services, life-skills and job-readiness training, and financial assistance. Based on a student's needs and funding availability, JobTrain can provide funds for transportation and childcare needs. In addition, JobTrain assigns each student a counselor and a job development specialist that assists with finding jobs and transitioning to employment.

✦ Measures Of Success & Evaluation

Much in demand, the Solar Training program has a high graduation rate, about 90%, compared to 80-85% for other JobTrain's programs. JobTrain has a formal evaluation system in place, which is an anonymous survey in which the student evaluates each of her/his teachers.

Over its history, the Solar Training program has had placement rates higher than JobTrain placement average of over 70% for all its training programs. JobTrain calculates its placement rates every month but not in relationship to which cycle of the program the trainee attended. As of September 2009, JobTrain estimates over 60% job placements for the graduates of its most recent Solar Training program cycle, which ended in August 2009.

JobTrain attributes its success to providing not just vocational training, but addressing the "whole person," by providing life-skills and job-readiness training, counseling, and supportive services. In addition, many say that the discipline of the solar program and the instructor prepared them well for interviews, job placement, and for working in a construction environment.

✦ Relationship with Potential Employers

In part through the work of a dedicated Corporate Relations Coordinator, JobTrain has developed contacts with various solar employers, including GRID Alternatives, ReGrid, Solar City, and REC Solar. Many graduates from previous cycles have been successfully placed with these businesses. As JobTrain expands its green course offerings, it is likely to start a Green Employer Council soon.



✦ Relationship with Organized Labor

JobTrain has established relationships with unions through its construction program, Project Build, but labor unions are not formally engaged with the Solar Training program.

✦ Green Program Evolution

The Solar Programs have been green programs from their inception.

✦ Credentials

JobTrain is accredited by the Western Association of Schools & Colleges.

✦ Challenges & Lessons Learned

JobTrain focuses on clients facing multiple barriers to employment. Such barriers usually involve a need to improve soft skills such as how one communicates, dresses, and behaves on a job. One challenge is balancing being “forgiving” while communicating expectations, which requires a different approach with each class and individual trainee. The Solar Training leadership believes that the most dramatic changes occur because of the

personal relationships formed at JobTrain and the positive environment JobTrain provides. Students who feel that they have failed repeatedly in other places find they can succeed at JobTrain.

JobTrain has also found it must continuously be prepared to alter the training course to account for industry changes (for example, more direct-to-consumer sales of solar panels, pre-installed roofing panels, etc.).

JobTrain recommends establishing a Technical Advisory Committee or Green Employer Council at the earliest stages of planning the green collar job-training program to facilitate a path to employment for graduates. TAC members do not have a formal role in terms of governance of the program and are not obligated to hire graduates but they provide critical guidance regarding curriculum, assistance regarding accreditation and procuring funding and other means of support.

✦ Future Plans & Goals

JobTrain intends to continue to increase the aspect of its construction-training program (Project Build) which is dedicated to green building methods and materials.





Courtesy of: LATTC

LA Trade-Technical College (Weatherization and Energy Efficiency Program)

Los Angeles Trade-Technical College (LATTC), located in downtown L.A., has a Weatherization and Energy Efficiency education program (WE2P) that prepares individuals for weatherization and energy auditing occupations. This is one of several green-oriented training and education pathways at LATTC. LATTC was founded in 1925 and WE2P was started in early 2009.

Program Overview & Training Methodology

The Weatherization and Energy Efficiency education program is a career-focused training program designed to integrate industry awareness and skill attainment, academic remediation and basic skills attainment, and supportive wrap-around services. This framework includes:

- Industry and sector-wide occupational mapping;
- Career ladder mapping for weatherization occupations and occupations in the construction sector;
- Developing competency frameworks in which skills are identified for targeted occupations and transferable skills are identified for occupations in identified career ladders and lattices;
- Curriculum that integrates and contextualizes soft skills, core academic skills, and technical skills; and
- Effective teaching principles and practices for under-prepared and disconnected populations.

The Weatherization and Energy Efficiency education program is designed to address several, larger workforce development, initiatives at the college including: utility/ energy sector development green workforce development and creating pathways out of poverty.

Los Angeles Trade Technical College (LATTC)

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The college's development of the Weatherization and Energy Efficiency education program directly stemmed from requests from utility employers participating in the LA Infrastructure and Sustainable Jobs Collaborative. Employers expressed a need for training programs that could incorporate skill and knowledge standards for weatherization and energy auditing services that, in turn, would support the implementation of weatherization programs such as the Low Income Energy Efficiency (LIEE) Program, Low Income Home Energy Assistance Program (LIHEAP), and U.S. Department of Energy Weatherization Assistance Program.

✦ Partnerships & Funding

The main partner in the Weatherization and Energy Efficiency education program is the LATTTC staff and faculty. The college has secured several grants and contracts to support the program. Much of the funding for the Weatherization and Energy Efficiency education program has come from the American Reinvestment and Recovery Act and/or funding directly from green legislation in California. These grants and contracts are listed below:

- Bank of America Foundation
- Los Angeles Department of Water and Power
- City of Los Angeles Community Development Department
- California Public Utilities Commission Low Income Energy Efficiency Program
- California Clean Energy Workforce Training Program

- Governor's Green Jobs Corps - in partnership with Los Angeles Community College District
- EPA Brownsfield - in partnership with Los Angeles Conservation Corps
- Summer Youth Green Jobs Program - in partnership with Los Angeles Community College District and the Los Angeles Workforce Investment Board
- U.S. Youthbuild - in partnership with Coalition for Responsible Community Development
- U.S. Department of Labor VWIP - in partnership with U.S. Vets

✦ Elements Of Curriculum

LATTTC's Weatherization and Energy Efficiency education program offers a series of courses in weatherization, energy efficiency and energy auditing. The courses prepare individuals to be weatherization and retrofit specialists, as well as energy auditors if they take the elective HERS (Home Energy Rating System) course. The series consists of the following courses:

OSHA Safety Standards: Construction and Industry

This course provides instruction on industry safety and health rules as they apply to workers and employers within the construction industry. Topics such as fall protection, lock out, tag out procedures, PPE, excavations, etc. are covered. Participants that meet the required hourly attendance and successfully pass the final exam are eligible to receive their OSHA (30 hr) safety-training certificate.

Weatherization - Practical Energy Efficiency Techniques

This course provides expertise on various techniques that can be used to weatherize homes and other structures. The course is suitable for application by a professional home or energy inspector. Homeowners looking to improve their own homes can also benefit from the knowledge and application of the simpler techniques. Topics covered include: energy basics, sealing, insulating, window replacement/installation, environmental air, water, appliance energy efficiency, and lighting.



Courtesy of: LATTTC



Weatherization - Energy Efficiency Practices (Lab)

This course provides laboratory exercises related to the “Weatherization - Practical Energy Efficiency Techniques” course (see above). Students build skills necessary for the effective application of energy techniques that can be used to weatherize homes and other structures.

Energy Auditing - Residential

This course focuses on residential energy requirements, energy loss and energy efficiency. How energy is used and lost is discussed, along with the testing techniques and approaches to measure the amount of energy lost. Students learn the components of an energy audit report.

Energy Auditor - Residential Practices (Lab)

This course provides laboratory exercises related to the “Energy Auditing - Residential” course (see above). Students perform actual energy audits of simulated structures and complete necessary forms.

Cooperative Education

This is an individually-tailored course in which a student, an instructor, and an employer develop a portfolio documenting several specific educational goals. The instruction is accomplished on-the-job with activities undertaken by the student and supervised and evaluated by the employer and instructor.



Courtesy of: LATTC

✦ Instructors

LATTC hires its own instructors for its community college-level courses.

✦ Target Participants & Recruitment

Classes are for any resident of greater Los Angeles. LATTC targets those who are disconnected from the mainstream economy – lacking formal education, under-prepared, and unemployed young adults (18-24 years old) and other adults in Los Angeles County. In addition, significant outreach efforts are made to formerly-incarcerated individuals. About three-quarters of the participants in the WE2P are youth, ages 20–24, from disadvantaged backgrounds.

✦ Eligibility Requirements & Admissions

All of California’s community colleges are open access institutions that admit students without regard to test scores, grade point averages or other common admissions requirements. Anyone who is 18 years of age or older qualifies for admission. Anyone 17 years of age or younger, who has completed all the necessary supplemental admission forms, also qualifies for admission.

✦ Length & Frequency Of Training

The WE2P courses are ongoing and year-around and range from 8 to 16 weeks. It takes approximately 157 hours to complete the series of weatherization courses and an additional 70 hours to complete the energy auditing courses.

✦ On-the Job Training Or Paid Internships

On the job training and paid internships are not available at this time for all program participants. Some participants may qualify for grant-funded internship programs.



✦ Wrap-around Support Services

LATTC's WE2P program collaborates with community-based organizations to provide wrap-around services for eligible program participants. Partners include LA Conservation Corps, California Conservation Corps, YoWatts, LA Urban League, and the LA Probation Department. These organizations provide wrap-around services such as case management, individual counseling, transportation assistance, childcare assistance and legal advocacy.

✦ Measures Of Success & Evaluation

Completion of the program and job placement rates are used to measure the success of WE2P.

✦ Relationships With Potential Employers

LA Trade-Technical's primary relationships with employers are through the LA Infrastructure and Sustainable Jobs Collaborative, which focuses on understanding the demand for green-collar workers and developing suitable training and education programs. Key employment partners for the WE2P are: The Southern California Gas Company (a Sempra Energy Utility), Community Enhancement Services, Pacific Asian Consortium in Employment (PACE) - Westlake WorkSource Center, and TELACU.

✦ Relationships With Organized Labor

Los Angeles Trade-Technical College has multiple relationships with organized labor. Local unions jointly develop and offer education and training programs including:

1. Partnering with IBEW Local 18 - LADWP (Los Angeles Department of Water and Power) Joint Training Institute; IBEW Local 11; and California Building and Construction Trades Council to develop and implement the Utilities and Construction Prep (UCP) Program;
2. Partnering with IBEW Local 18 - LADWP (Los Angeles Department of Water and Power) Joint Training Institute to conduct Electrical Craft Helper (ECH) courses both at LADWP power plant sites and at LATTC;

3. Partnering with IBEW Local 18 - LADWP (Los Angeles Department of Water and Power) Joint Training Institute to develop collaborative training programs aimed at licensure requirements, eLearning opportunities, increasing Joint Training Institute trainer capacity, and college credit for work experience; and
4. Partnering with SEIU Local 721 to develop weatherization training programs.

✦ Green Program Evolution

LATTC began an extensive effort to "green" its existing programs and develop new green programs beginning in 2006.

✦ Credentials

LATTC's solar energy classes are North American Board of Certified Energy Practitioners (NABCEP) - approved and the community college is on the NABCEP provider list.

✦ Key Relationships

The Los Angeles (LA) Infrastructure and Sustainable Jobs Collaborative was formed in July 2007 with the purpose of bringing together key public, private and community partners to plan and implement an education, training and workforce infrastructure that connects low-income, disadvantaged populations to livable wage jobs with career paths within



Courtesy of: LATTC



the energy-utility industry. The Collaborative is a strategic alliance uniquely positioned to address the immediate and systemic workforce challenges facing the utilities sector. Partners of the Collaborative include: Los Angeles Department of Water and Power, Southern California Gas Company (a Sempra Energy Utility), The Los Angeles Unified School District, The Center of Excellence hosted at the Los Angeles Community College District, IBEW, Local 18-LADWP Joint Training Institute, Southeast-Crenshaw WorkSource Center, IBEW Local 11, California Building and Construction Trades Council, and Water District of Southern California, to name a few.

Key Community Outreach Partners are LA Conservation Corps, California Conservation Corps, LA Urban League, Coalition for Responsible Community Development (CRCD), City of Los Angeles Workforce Investment Board, Work Source Centers, YoWATTS, and the Southeast-Crenshaw WorkSource Center.

✦ Challenges & Lessons Learned

Lack of industry-recognized training standards and certifications. There is no standard curriculum for ensuring that new green-collar workers are appropriately trained for strong, stable careers in the field.



Courtesy of: LATTCC

Growth in training opportunities and partners.

With the interest in and funding for green jobs increasing rapidly, LA Trade-Technical has struggled to prioritize among possible funding and partnership opportunities.

Mismatch between training and job opportunities.

Funding and supportive public policies are needed to encourage employers to create green-collar jobs for LA Trade-Technical students. For instance, LA Trade-Technical students often have trouble finding paid internships. A supply of publicly or privately funded internships would help students build long-term skills.



Courtesy of: LATTCC



Remaining job search hurdles. Participants in and graduates of LA Trade-Technical’s green-collar jobs programs face challenges similar to those they might face in other jobs: a lack of access to transportation, a lack of funds to purchase requisite health insurance, and other pre-employment hurdles like background checks.

Combine focus and flexibility: The field of green-collar jobs is changing rapidly. Potential partners and funding opportunities are changing rapidly. LATTC has learned that participants in the field should both recognize the changing landscape, while staying focused on the needs of their target population.

Contribute to policy: LATTC has found that state and local policy initiatives are important for standardizing training and credentials, promoting job creation, and reducing barriers to employment for target populations.

Build on others’ experiences: Many new organizations are beginning to enter the field of green-collar job training. LATTC has found that organizations should know their niche, while collaborating with existing private, public, and non-profit organizations where appropriate in order to expand their services.

Build relationships with employers: Employer relationships are critical to enable students who are trained in emerging green technologies to find stable and long-lasting employment in the sector.

✦ Future Plans & Goals

The WE2P will soon offer a HERS (Home Energy Rating Systems) course, which is designed for new energy auditing professionals and current home inspectors. A HERS rater is an energy expert certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS). These services include field verification and diagnostic testing to differentiate energy efficiency levels among homes tested for duct efficiency and envelope leakage for compliance with current building efficiency standards. HERS is a rating system commonly used to assess a new or existing home’s energy efficiency.

In addition, LATTC is developing a building science education program that will integrate existing construction technology courses with new courses aimed at enhancing building performance and energy efficiency.



Courtesy of: LATTC



Courtesy of: Oakland Green Jobs Corps

Oakland Green Jobs Corps

Based in West Oakland, California, the Oakland Green Jobs Corps Program (OGJC) began in 2008 as a green-collar job training program that enables trainees to pursue jobs in the growing clean energy and green industry sectors.

Program Overview & Training Methodology

The Oakland Green Jobs Corps provides courses in the classroom for college credit and hands-on training in energy efficiency, solar PV installation and green construction. The program is based on the Pinderhughes Model of job training, a workforce development methodology that is comprehensive and interdisciplinary and helps prepare trainees for many types of jobs through teaching hard skills, vocational skills, soft skills, financial literacy skills and environmental literacy. (See the “Comprehensive Curriculum” section.)

Partnerships & Funding

The three partners that make up the Oakland Green Jobs Corps are Laney College, Cypress Mandela and Growth Sector. Laney College acts as the fiscal agent for the Oakland Green Job Corps and is responsible for designing and executing the courses. In order to package the class, Laney identifies and screens the instructors and develops the curriculum. Laney College’s range of on-campus career technical programs has allowed them to aggressively pursue new programs in energy efficiency and solar installation. The second partner, the Cypress Mandela Construction Training Program, has many years of experience serving adults facing barriers to employment. Cypress Mandela works with students to help them enter or re-enter the workforce, and to help graduates acquire apprenticeships. The third partner, Growth Sector Inc., acts as a workforce intermediary and connects graduates to local green employers.

Oakland Green Jobs Corps

1. Cypress Mandela

Ph. 510.208.7350
2229 Poplar Street Oakland
www.cypressmandela.org

2. Laney College

900 Fallon Street Oakland
Ph. 510.834.8470
greenjobs@peralta.edu
<http://elaney.org/wp/green/ogjc/>



An initial \$250,000 in seed funding was provided by the City of Oakland in 2008 to launch the program. Additional funding sources include a community based job-training grant for \$1.9 million from the federal Department of Labor, a State of California CALGRIP grant for \$500,000, and a Yahoo! For Good grant of \$150,000.

✦ Elements Of Curriculum

The Pre-Construction and Basic Skills Training is led by Cypress Mandela, which provides a range of services, including:

1. introduction to the Skilled Trades;
2. carpentry;
3. GED preparation;
4. basic literacy and math;
5. job readiness including resume development, interviewing skills, financial planning;
6. social services and support including driver's license acquisition, court intervention and record expungement;
7. drug/alcohol counseling, and
8. support in acquiring other needed services such as childcare and financial aid.

The Bridge to Solar and Green Construction segment is led jointly by Laney College and Cypress Mandela and focuses on the education and training specifically needed for green-collar jobs. This component covers solar installation, energy efficiency, green construction, and an introduction to the principles of ecology, environmental sustainability, and environmental justice. Social service support and case management are available to trainees throughout the program. Trainees also spend an hour each day exercising, in order to be in optimal shape for the hands-on work of green-collar jobs.

Because Laney College is a partner, all Oakland Green Job Corps courses are accredited by the community college. Most of the training and

instruction takes place at Cypress Mandela in West Oakland (as opposed to Laney College's campus).

✦ Instructor

Laney College and Cypress Mandela are responsible for selecting and managing the instructors for their respective portions of the program.

✦ Target Participants & Recruitment

The Oakland Green Jobs Corps is open to residents of the East Bay Area. The program targets low-income young adults (ages 18-35) facing barriers to employment. Some help with outreach and recruitment is provided by community-based programs, labor unions, and educational institutions.

✦ Eligibility Requirements & Admissions

Requirements to apply for the Oakland Green Jobs Corps include:

- Age of at least 18 years
- Social Security Card/Right to Work Status

Requirements for Continued Participation and Graduation:

- High school Diploma or GED
- Valid CA Driver's License
- DMV Driving Record Print Out
- Ability to pass a drug test
- Ability to pass a basic (10th grade) math and reading test

✦ Length & Frequency Of Training

The Oakland Green Jobs Corps program spans 38 weeks and includes a 16-week pre-apprenticeship



training, 10 weeks of solar, energy efficiency and green construction training, and, if possible, 12 weeks of paid on-the-job training or apprenticeship.

✦ **On The Job Training Or Paid Internships**

When possible the Oakland Green Jobs Corps provides 12 weeks of paid, on-the-job training or apprenticeship.

✦ **Wrap-around Support Services**

The program offers case management throughout the 38 weeks of training to ensure a coordinated response if an issue arises with a trainee.

✦ **Measures Of Success & Evaluation**

The Oakland Green Jobs Corps aims to place every graduate into an entry-level green-collar career. As a pilot program, OGJC has yet to complete a full evaluation of its program.

✦ **Relationship With Potential Employers**

The Oakland Green Employer Council is a circle of green collar employers that have committed to provide trainees with opportunities, including paid on-the-job training and long-term employment. Several Bay Area employers have committed to providing 90 days of on the job training for graduates. Others have agreed to interview the



Courtesy of: the Oakland Green Jobs Corps



Green Jobs Corps graduates for available openings. Involved employers include SolarCity, Sunlight & Power, Borrego Solar, Swinerton, Canyon Construction, Federal Building Company, REC Solar, Weather Tight, Spectrum Inc., Sungevity, Dan Antonioli Construction and Wellington Energy Corp.

non-profit was designed to prepare students for green-collar careers from the beginning. Cypress Mandela started with a traditional approach to construction training, but since the launch of the Oakland Green Jobs Corps, has adopted elements of green construction in its curriculum.

✦ Relationship With Organized Labor

Cypress Mandela has a long history of working closely with local building trades unions, general contractors, and subcontractors and has been able to leverage those relationships for the program. The strength of these relationships has much to do with the fact that Executive Director Art Shanks is a union member and has strong ties to unions and their apprenticeship programs.

Furthermore, the Oakland Green Jobs Corps has the strong support of the Oakland Apollo Alliance, a coalition of labor unions, environmentalists, community-based organizations and green businesses, working together to create quality jobs in the new energy economy.

✦ Green Program Evolution

This unique partnership between a pre-apprenticeship program, community college and



Courtesy of: the Oakland Green Jobs Corps

✦ Credentials

The Oakland Green Jobs Corp offers 18 units of community college credit as well as a certificate of completion.

✦ Key Relationships

The primary relationships for the Oakland Green Job Corps are with its three key partners: Cypress Mandela Construction Training Program, Laney College and Growth Sector Inc.

Other partners include:

- **OAKLAND MAYOR'S OFFICE:** Representing the city's government, the Mayor's office administered the original seed grant and provides leadership to identify additional resources and funding.
- **RFP SELECTION COMMITTEE:** These five individuals comprised the expert and neutral committee that selected the winners of the original contract. They continue to evaluate and provide technical assistance for the program.
- **RAQUEL PINDERHUGHES, PH.D:** Her research and the Pinderhughes Model informed the development of the Oakland Green Jobs Corps training model and the Green Employer Council. She continues to advise the program, and is involved in replicating the program in other cities.
- **ELLA BAKER CENTER FOR HUMAN RIGHTS AND OAKLAND APOLLO ALLIANCE:** They are the original architects and champions of this program, and continue to advocate for additional resources and funding for all quality green-collar job training programs in Oakland and the East Bay.



✦ Challenges & Lessons Learned

Like many workforce development programs, the Oakland Green Jobs Corps has multiple partners. Each partner has a different approach to the same topic, so it is important to communicate and collaborate. It is important to differentiate and articulate each organization's capacity and function in the program, so that the role of each partner is completely clear. Community colleges operate in a highly mediated and regulated environment, unlike community-based organizations, which can act more fluidly. When both types of entities are working together, it is important to have a strong communication and case management system for the students, so that they know where to turn when different issues arise. Communication and collaboration among organizational partners is essential. Each partner may have a certain way of implementing their portion of the program and which might be different than another partner's, so coordinating these variations is important for success. Being clear about respective roles and responsibilities among partners is critical as well.

✦ Advice For Future Green-Collar Job Trainers

Teach Why. Representatives of the program stress the importance of educating trainees about the larger issues of sustainability and why having a green job is important. For example, the Oakland Green Jobs Corps includes an earth systems class to help trainees better understand how their work in the green economy will have a positive impact on the environment and help address climate change.

Broaden the Curriculum. Green-collar jobs training needs to be interdisciplinary and take into account training opportunities for various economic sectors as well as soft skills that are needed to ensure a trainee is job ready.

Vet Employment Opportunities. It is important to interview potential employers to make sure they actually have green jobs to offer graduates. Although not common, it is easy for an employer to "green wash" their employment opportunities in this economy.

Evaluate Your Program. Take time to reflect and evaluate the program, and build in opportunities

to keep innovating and changing as the market changes.

✦ Future Plans & Goals

The Oakland Green Jobs Corps is working to provide the best expertise in their training. The program will adapt and innovate as the economy and green-collar industries change. The Oakland Green Jobs Corps will also adjust its program to adapt to the availability of different funding streams as they arise.



Courtesy of: the Oakland Green Jobs Corps



Courtesy of: Richmond Build

✚ Richmond BUILD & Solar Richmond

Located in Richmond, California, Richmond BUILD and Solar Richmond are partner organizations in job training and placement. Richmond BUILD was founded in 1997 as a job-training program of the City of Richmond's Employment and Training Department. Solar Richmond was founded in 2006 as a non-profit organization that provides the solar training module of the Richmond BUILD curriculum. In addition to providing its 4-week solar module, Solar Richmond offers transitional employment and placement services to its clients as well. Richmond BUILD and Solar Richmond are separate organizations that collaborate closely and we present them here in one case study to highlight how they are interconnected.

✚ Program Overview & Training Methodology

- Both Richmond BUILD and Solar Richmond have crafted their programs to meet the particular job training and support needs of Richmond residents, 40% of whom live in public housing and 30-40% of whom have a history with the criminal justice system.
- Richmond BUILD provides a variety of wrap-around training and counseling services in their courses, which average about 10 weeks in length. For example, in addition to construction skills, Richmond BUILD provides basic math and reading skills, resume. Job searching skills, and basic computer skills. To give its participants a strong foundation in the green economy, Richmond BUILD has added an environmental literacy component (the ROOTS of Success Environmental Literacy Curriculum developed by Dr. Raquel Pinderhughes) to its program. Richmond BUILD reinforces a wrap-around service approach and focuses on teaching students a strong work ethic by emphasizing skills and characteristics like discipline, a positive attitude and punctuality.

Richmond Build

1. Richmond Build

450 Civic Center Plaza
Richmond, CA 94804
Ph. 510.307.8034
www.ci.richmond.ca.us/index.aspx?nid=1243

2. Solar Richmond

360 South 27th Street
Richmond, CA 94804
Ph. 510.621.1719
info@SolarRichmond.org
www.solarrichmond.org



- Outside of its training classes, Solar Richmond provides as-needed counseling and support services. During its 4-week solar training program, Solar Richmond also employs its own case manager who helps program participants evaluate their success in solar training, brainstorms with them about next career steps, and helps them find advanced job training and support services such as childcare. Solar Richmond continues to add resources, such as a nutrition and financial literacy class, to help its participants be better prepared to focus on training and work.

Richmond BUILD was developed in response to the city's high crime rate, and aims to provide job skills for 17–35 year olds facing barriers to employment. Through its Pre-Apprenticeship Construction Skills and Green Jobs Training Academy, Richmond Build conducts several different tracks of up to 15-week intensive construction skills training programs for Richmond residents.

Solar Richmond's training program is a 4-week solar component in the Richmond BUILD program, which includes classroom training and two hands-on installations of solar panels on low-income homes in the community.



Courtesy of: Richmond Build

✦ Partnerships & Funding

In addition to Solar Richmond, Richmond BUILD relies on a variety of other local non-profit and city government partners/subcontractors to provide many components of its training, including environmental literacy education and math training.

Richmond BUILD directly employs its construction instructors and job counselors. The program is currently funded primarily by federal funds (largely, stimulus package dollars), which account for about \$2 million of a \$2.5 million budget. The program also receives funding from private sources, state sources, and city funds. The program costs between \$5,000 and \$6,000 per student, or about \$400,000 per 15-week cycle.

Richmond BUILD, as a municipal program, focuses on leveraging municipal resources and advantageous policies, such as:

1. **JOINT PROMOTION OF SOLAR PANEL INSTALLATIONS AND GREEN JOB TRAINING.** The City of Richmond provides several financial incentives for the installation of solar panels that promote both solar panel installation and the hiring of Richmond BUILD participants. For example, one city program offers rebates for solar installations when recipients employ a Richmond BUILD/Solar Richmond graduate. The City of Richmond's deferred loan program offers loans to fund eight solar installations on low-income households per year. The program allows low-income households to defer payments until and unless they refinance or sell their home. Richmond BUILD/Solar Richmond participants complete their live solar-panel installation training on households that are beneficiaries of this program.
2. **LEVERAGE CITY RESOURCES.** Richmond BUILD has leveraged resources from the city's Redevelopment Agency, Housing Department, and Housing Authority to pay for facilities and training. The city's Public Works Department has committed to hire graduates into 6-month Public Works job assignments. Local non-profits and public institutions, such as the local community college, provide a variety of instructors. In addition, the city's literacy program provides academic support as needed.



✦ Elements Of Curriculum

Richmond BUILD offers six specialty tracks:

- **Track 1 (Main Track):** Seven weeks of Construction Skills (morning) and Electrical (afternoon); Four weeks of Energy Efficiency (Rising Sun Energy Center); and four weeks of Solar PV/Solar Thermal Installation (Solar Richmond)
- **Track 2:** 14 weeks of Environmental Protection Agency related Environmental Careers Course
- **Track 3:** 7 weeks of Green Plumbing
- **Track 4:** 14 weeks of Electrical, Welding, Scaffolding, Concrete Forms, HAZMAT, and Lead Abatement training
- **Track 5:** Three weeks of Environmental Literacy (ROOTS of Success); seven weeks of Clean Energy Leadership Program (East Bay Academy of Young Scientists); and three weeks of CA Youth Energy Services training (Rising Sun Energy Center)
- **Track 6:** Nine-month YouthBuild Pre-Apprenticeship program, which includes Pre-Phase: Mental Toughness; Phase I: Construction Skills; Phase II: Green Careers Training; Phase III: Construction Skills Training

✦ Instructors

Richmond BUILD employs its own instructors for the construction training component, and 3-4 general staff members who provide a variety of counseling and case management services to participants. In addition to Solar Richmond, Richmond BUILD partners with a number of other partners, including a local charter school with a focus on vocational education, which provides the academic and GED portions of the program, along with teachers of the YouthBuild program; a local public science museum, providing science classes for the Clean Energy track; and the local community college, providing math instructors.

Solar Richmond hires industry experts with field experience who prepare trainees to enter the competitive Bay Area solar industry upon graduation from the program.

✦ Target Participants & Recruitment

Richmond BUILD/Solar Richmond's target age is 17-35 years. Its main track is for participants over the age of 18, and the average age is 26. The YouthBuild track is for 17-24 year olds. Recruitment is word-of-mouth. As of summer 2009, the program had a waiting list in the hundreds.

✦ Eligibility Requirements & Admissions

Participants in the main track program, which includes Solar Richmond, must live in Richmond, have a high school diploma or GED, valid California Driver's License and a minimum 8th-grade math and reading level. The YouthBuild program requires a 5th- or 6th-grade reading level. The Clean Energy program requires an 8th-grade reading level.

✦ Length & Frequency Of Training

All of the programs are on average, 25 hours per week, running daily from 8am to 1pm. Richmond BUILD and Solar Richmond offer three training cycles of the main track per year.



Courtesy of: Richmond Build



✦ On-the Job Training Or Paid Internships

The construction component of Richmond BUILD's main track is a pre-apprenticeship program. About 25% of the program's placements have been into formal building trades apprenticeship programs. Furthermore, after the completion of the 15-week training program, Richmond BUILD partners with employers to provide on-the-job training, funding half of graduates' wages for a probationary period of 12 weeks.

Solar Richmond seeks to "move the job interview from the desktop to the rooftop," providing transitional work opportunities that enable program graduates to work side-by-side with professional solar installers and prove their skills on the job. For this reason Solar Richmond created a Solar Staffing Agency that allows its graduates to work with solar companies on a temporary basis, making the hiring less risky for solar employers. Companies pay the full wages, while Solar Richmond covers workers compensation, insurance and taxes, creating an added incentive to hire its graduates. Solar



Richmond finds that graduates perform well in these transitional jobs and often move onto permanent positions as a result.

More recently, Solar Richmond has organized these transitional work opportunities into a pilot Solar Internship Program, (piloted fall of 2009). By completing 10 weeks of paid work with a solar company, interns obtain a solar work history, reinforce their sense of ability on the roof and learn the culture of the solar industry. To this experience, Solar Richmond adds forty hours of robust professional development and case management support services, including job search and computer skills, interview prep and industry leader presentations. To make the full transition to permanent employment, Solar Richmond also works to generate demand for its graduates by marketing solar directly to consumers and developing deeper relationships with solar installers. (More on this in the Future Plans and Goals section , pg. 34).

✦ Wrap-around Support Services

During the 15-week trainings, Richmond BUILD provides a variety of informal and formal wrap-around services. Richmond BUILD expects its onsite instructors to play a number of support roles as needed, including transportation providers, counselors, and resume-reviewers. For one year after alumni graduate, Richmond BUILD conducts monthly outreach and assists out-of-work graduates to find jobs.

Solar Richmond reinforces this approach. During its 4-week training program, Solar Richmond focuses on teaching students a strong work ethic by emphasizing skills and characteristics like discipline, a positive attitude, and timeliness. Solar Richmond also employs its own counselor, who helps program participants evaluate their success in solar training, brainstorms with them about next career steps, and, when necessary, helps them contact other organizations for additional job training help or support services like childcare.

✦ Measures of Success & Evaluation

Richmond BUILD collects evaluation forms from students and tracks data to determine whether the program is serving its target audience and successfully placing its participants in jobs. As of summer 2009, the program's placement rate



was about 80% and the average starting wage for graduates was \$16-\$18 per hour.

The program has an attrition rate of 17 percent which is low compared to comparable training programs in the area. Richmond BUILD attributes this low rate to its wrap-around support services, the relatively short length of its training programs, and its ability to find part-time jobs for participants through the city's redevelopment agency.

Since late 2007 Solar Richmond has placed 22 trainees into temporary or transitional jobs in the local solar industry and another 22 have been placed in permanent solar industry jobs. Solar Richmond job placements include occupations such as solar installer, operations assistant, warehouse manager, and installation coordinator. Moving forward, Solar Richmond's focus is job retention and career ladder growth. For example, over the course of a year, Solar Richmond helped one of its trainees to secure multiple temporary jobs ranging in length from several weeks to several months. He worked at both small and large solar companies, on both solar PV and solar thermal installations, including at Richmond BART. Over the course of the year he gained enough hands-on experience to land a full-time, permanent job at a reputable Bay Area solar company.

✦ Relationship With Potential Employers

Richmond BUILD does not have formal job placement services or formal relationships with private employers. However, some private employers have signed letters of support stating that they will interview Richmond BUILD graduates when opportunities are available. Furthermore, as part of the city agency that monitors contract compliance, Richmond BUILD has a unique ability to understand the hiring needs associated with upcoming city projects. In addition, the city's Public Works Department has committed to hire graduates to work on city beautification projects.

Solar Richmond provides a number of direct employment opportunities to its graduates. It connects its graduates to jobs through a staffing agency and its bid analysis services. Solar Richmond assists businesses and residences in evaluating bids

for solar panel installations, and require – as part of its services – that its customers use Richmond BUILD graduates to install the solar panels. In addition, it hires a limited number of graduates as assistant trainers while they look for other employment.

✦ Relationship With Organized Labor

Richmond BUILD considers its success in placing graduates into union jobs a key metric of success. The Carpenters Union has agreed to accept graduates of the main Richmond BUILD program directly into its apprenticeship program. Richmond BUILD graduates have also been placed into apprenticeship programs for the Laborers and the Operating Engineers. Due to the nature of the industry and current economic conditions, all of the Richmond BUILD graduates who have found green industry jobs have been employed by non-union employers.

✦ Green Program Evolution

Solar Richmond has focused on solar panel installations since its founding in 2006. Richmond BUILD started in 1997 as a construction skills pre-apprenticeship training program, which has since evolved to include training in solar panel installation and other green-collar components. Of the program's 180 graduates to-date, about 40 have been employed in energy efficiency, weatherization, and solar panel installation. The remainder of the graduates found work in more traditional jobs in the building trades.

✦ Credentials

Richmond BUILD offers its own certification of completion. Solar Richmond offers trainees the opportunity and to take the nationally-recognized NABCEP solar certification test.

✦ Key Relationships

Richmond BUILD has depended on relationships with a number of city agencies to provide funding, job placements, and other resources for program participants. For example, Richmond's Redevelopment Agency has provided funding



to improve Richmond BUILD’s training facility. In addition, as discussed above, a number of non-profit and other partners help provide various portions of the Richmond BUILD training curricula.

✦ Challenges & Lessons Learned

Richmond BUILD has leveraged a number of local relationships but, as the program grows, coordination and management of partners will continue to be a challenge. Additionally, Richmond BUILD and Solar Richmond face a lag between the training they offer and the availability of jobs for their graduates. The green-collar job industry is still young, mostly non-union, and lacking in standard certification. In many cases, Richmond BUILD is finding that the green collar jobs for which they offer training for are simply not available yet in large numbers.

✦ Future Plans & Goals

Richmond BUILD intends to take advantage of growing funding and partnership opportunities to expand the size and content of its programs. Currently, the program accepts 30-40 confirmed students per track per cycle (for a total of 90 students per cycle). With new federal stimulus funding, Richmond BUILD intends to double the size of its main track to 60 students per track. Furthermore, as the “green” construction field grows, Richmond BUILD would like to add additional training components focused on emerging areas, such as water conservation and water efficiency. Richmond BUILD would also like to continue adapting its program to the needs of its students.

Solar Richmond seeks to improve on its model, bringing the benefits of the new green economy to low-income communities in the form of stable energy costs, reduced pollution, and green-collar career opportunities. Without new financing options, clean energy solutions remain out of reach for nonprofits that cannot qualify for federal solar tax incentives or raise the capital needed to buy their own solar arrays. Moreover, while these schools, fire stations, community centers, churches and affordable housing associations have a desire for solar, they do not have the expertise or interest to maintain such a system. Instead of buying a solar power plant, these nonprofits want clean power. Solar Richmond is combining the needs of the

market with the needs of the community as a solar electricity provider that develops green pathways out of poverty into prosperous solar careers. Under this model, called a power purchase agreement (PPA), Solar Richmond installs solar on the nonprofit roof and handles ongoing system maintenance and monitoring for the solar electric systems. Nonprofit customers pay Solar Richmond for the electricity generated from the arrays.



Courtesy of: Richmond Build



Courtesy of: SEE Green Careers

SEE Green Careers

Based in the Fruitvale district of Oakland, California, SEE (Solar Energy Efficiency) Green Careers is a green-collar job training program founded in 2008. The program is a collaborative of many organizations and is led by the Spanish Speaking Citizens' Foundation.

Program Overview & Training Methodology

SEE Green Careers is a job training program that is designed to prepare young adults age 18–24 for entry-level solar installation employment. It is currently a pilot program, having completed one training cohort of training as of April 2010.

As a pilot program, SEE Green Careers takes a broad approach to green jobs and training. While they aim to have their students learn about environmental issues and placed in sustainable jobs, their priority is to place the graduates into any job that can provide pathways out of poverty.

The first pilot program cohort began in January 2009 with 18 students age 18–23. 13 young adults from the original group also participated in a summer program from June to September 2009.

The program began as a five-week program, with approximately 30 hours per week of training. This five-week program featured 72 hours of Solar Installation training, 42 hours of Energy Efficiency training and 42 hours of Employment Readiness training. The program orientation introduced students to environmental justice issues.

Based on lessons learned during the pilot, future training cohorts will be increased in length to twelve weeks, with almost 200 hours of training. Future program curriculum will focus more training on soft skills, as well as a broader set of hard skills, including general construction jobs and disaster relief.

SEE Green Careers

Spanish Speaking Citizens' Foundation
1470 Fruitvale Avenue Oakland, CA 94601-2324
Ph. 510.434.1808
www.sscf.org



Soft skills taught include customer service for the green sector and employability skills (like resume and cover letter writing, conflict resolution, and punctuality). Trainees are also educated in financial and computer literacy, as well as tutored in math and reading.

✦ Partnerships & Funding

SEE Green Careers is a collaborative effort of several different community-based organizations, including the Spanish Speaking Citizens' Foundation (SSCF), The English Center, Urban Services YMCA of the East Bay, Rising Sun Energy Center, SunEnergy, Inc, and Sun's Free Solar.

Spanish Speaking Citizens' Foundation (SSCF) leads the collaborative and provides outreach to program participants, staffing oversight, as well as the facilities for the training program. SSCF also provides much of the soft skills training.

The English Center maintains a one-stop job placement center and provides much of the job preparation services within the collaboration. The center acts as the liaison between the training program and businesses, providing job readiness services to participants while developing effective partnerships with potential employers.

Urban Services YMCA provides case management services, works with participants to develop occupational skills and facilitates job placement.

Funding for the program has come from a variety of sources. Funding for the first cohort came primarily through the California Employment Training Panel and the United Way, while funding for the summer program was made possible through federal stimulus funding. The Sully Foundation and Haas Foundation have also provided funding.

✦ Instructors

Partners involved in the collaboration provide the staffing for the program. There is a business liaison position staffed by The English Center. The Rising Sun Energy Center conducts the energy efficiency training of the program. The Urban Center YMCA of the East Bay provides one staff member for life coaching. SunEnergy conducted solar installation training and Sun's Free Solar was responsible for the transitional employment piece.

✦ Target Participants & Recruitment

SEE Green Careers focuses on at-risk youth in poverty or living near poverty, ages 18-24. This age group was targeted due to funding criteria in the grant from the California Employment Training Panel and the United Way. The program conducts outreach to youth transitioning out of foster care, as well as homeless youth.

To recruit the first set of training participants, Spanish Speaking Citizens' Foundation conducted outreach throughout the East Bay, through distribution of flyers through partner organizations and ten information sessions in various Oakland and Berkeley neighborhoods. In the first cohort, two of the students were parents, and three were homeless. About thirty percent had some involvement with the criminal justice system and all were low-income. Fourteen of the 15 graduates of the first program were young men. Graduates include seven African-Americans, three Latinos, and five refugees from Bhutan.



Courtesy of: SEE Green Careers



✦ Eligibility Requirements & Admissions

Prospective students first complete an application and then an initial assessment of skills. To enter the program, participants have to demonstrate basic math and reading skills. Those who complete an application and meet the minimum assessment requirements are invited for an in-person interview. Participants are selected after this interview process.

✦ Length & Frequency Of Training

The SEE Green Careers program is currently a pilot program, so the length and frequency of training has changed during the first year. Training for the first cohort was five weeks long (30 hours per week) followed by 9 months of additional training, paid summer internships, job search and placement services and intensive case management. Future training cohorts will have 12 weeks of training (20 hours per week) and will last about 6 months from training to placement. The program plans to have 2 cohorts per year.

✦ On-the-Job Training Or Paid Internships

The first cohort did not offer stipends for participation nor paid internships with local companies. However, the summer cohort, due to federal funding, was able to provide paid stipends during training, as well as paid workplace experiences for 9 out of 13 participants. Of these 9 participants, 6 were placed at local solar companies, and 2 were placed at another non-profit renewable energy development organization. Five were placed internally within the partnership and were provided a stipend by SEE Green Careers.

SEE Green Careers hopes to provide other post-graduate opportunities for their students. To date, it has partnered with the Green Training Institute to provide such opportunities. SEE Green Careers is also interested in partnering with a local community college to provide opportunities for further study, training and accreditation.

✦ Wrap-around Support Services

Case management services were provided by one of the collaborative partners, Urban Services YMCA of the East Bay, which was able to provide one staff person, available 15–20 hours per week. Program leaders believe that more case management services are required for the population being trained through the program.

✦ Measures Of Success & Evaluation

SEE Green Careers aims to place every participant who completes the program and passes the certification test in an entry-level Solar Panel Installation job.

As a pilot, SEE Green Careers has yet to complete a full evaluation of its program. Likewise, since the program is in its first year, it is difficult to evaluate its long-term success.

Most of the participants completed the program. The original program started with 18 students. 15 of these students graduated from the five-week program, and 13 of these students stayed on to complete the summer training program.

The program conducted an initial evaluation by graduates after its first January session. It will soon complete a broader internal evaluation, assessing enrollment, training, and placement. Funding limitations preclude contracting for an external evaluation at present but the program would eventually like to conduct an external evaluation with significant input from the graduates.





✦ Relationship With Potential Employers

Establishing relationships with potential employers for the program's graduates has been difficult. One of the collaborative partners, the English Center, is responsible for developing job placement opportunities for graduates. Funding exists for one staff person to spend 10-15 hours per week on this function. However, much more time is required to develop such business relationships.

Many potential employers are sympathetic to the program but not interested in making commitments to hire graduates. The program strongly pursued larger solar companies for placements, but without great success. It then pursued smaller companies and contractors for placement, and was able to place some students.

Given that the program trains people facing barriers to employment, SEE Green Careers has had challenges placing its participants. Barriers included the need for a driver's license, as well as challenges with on-the-job conduct.

SEE Green Careers notes that a local public policy that supports hiring at-risk youth or others with barriers to employment would make a significant difference in its ability to find placements.

No formalized relationships such as a development of a green employer council or establishment of memoranda of understanding have been developed at this time.

✦ Relationship With Organized Labor

SEE Green Careers has worked to establish relationships with local trade unions, but such relationships are evolving slowly. Most importantly, local trade unions are currently not creating apprentice-level positions due to the economic recession, which would normally provide a pathway for graduates to union employment. The program has conducted workshops with union workers, and individual union leaders have expressed interest in partnering, but no formal partnerships or collaborations currently exist.

✦ Green Program Evolution

The lead organization for the SEE Green Careers program, Spanish Speaking Citizens' Foundation, began offering youth workforce training in 1990. In 2006, SEE Green Careers began a strategic plan to develop a collaborative workforce model for youth and young adults. In 2008, SSCF assessed workforce trends to identify growth industries around which training programs could be structured. Information obtained by SSCF from the California Community College Centers of Excellence indicated strong



Courtesy of: SEE Green Careers



growth in the solar installation industry, which was verified by several conversations with local businesses. The current SEE Green Careers pilot program was initiated to prepare young people for work in this area. The intention of the program is to create a direct path to good jobs as well as the possibility of higher education. Still in its pilot phase, SEE Green Careers is working on establishing formal cycles for its programs.

✦ Credentials

SEE Green Careers plans to have their students take the North American Board of Certified Energy Practitioners (NABCEP) test to have them accredited for renewable energy installation work. One student has passed the test as of October 2009. NABCEP is an assessment and certification that is well looked upon by employers in the solar field. One of the program partners, the English Center, became certified as a testing site for the NABCEP for graduates. After the completion of the summer program in 2009, students took a weeklong course to prepare for the NABCEP.



Courtesy of: SEE Green Careers

✦ Challenges & Lessons Learned

Barriers to employment: SEE Green Careers found more barriers facing their students than they had expected. The youth they recruited to the program faced various challenges: homelessness, former incarceration, English as a second language, lack of formal education and work experience and/or lack of drivers licenses. It was especially hard for the students to learn new strategies and pick up soft skills. Many were not familiar with attitudes and behavior related to a work environment and did not know how to respond to on-the-job feedback and criticism. The behavior and language used by students in the workplace often upset their employers.

Connections with businesses & job placement: Making meaningful connections with the private sector and securing spaces for training graduates in local companies has proven very difficult. Amidst an economic recession, more competitive applicants often take entry-level placements. It proved difficult to place graduates in local companies, even with fully subsidized wages, given the investment needed in each employee on the part of employers. Establishing relationships with larger companies was difficult so smaller energy service companies were targeted for placements. These smaller companies, however, require a wider set of skills than students received during instruction in the program training. The program ultimately secured most of its placements in small organizations and companies that had existing relationships with the collaborative partners.

Infrastructure: Creating infrastructure for an entire program in a short period of time was very difficult. Rather than starting from scratch, leaders of SEE Green Careers advise new training programs to work with and improve systems already in place, for example, existing models of case management, discipline or outreach.

Accountability of partners: While the collaborative model includes participation from several organizations and offers wide a range of resources, some challenges emerged. Most notably each partner organization was accountable only to their own organization, making it more difficult to reach goals and take responsibility for everything going on in the program.



Competition among programs: The program found that in the San Francisco Bay Area, and particularly the Oakland area, potential employers were being approached by multiple job training programs for placements.

✦ Advice For Future Green-Collar Job Trainers

If a green job training program is focused on training at-risk youth, the program must include significant soft-skills training, case management and wrap-around services. SEE Green Careers has found that more soft-skills emphasis was needed in the training than initially planned in order to effectively prepare trainees for the workplace.

Strong connections are needed with private companies to place training graduates. Training programs should ensure that they have adequate staff or resources to build relationships with local companies to a point at which companies will reserve positions in their workforce for training graduates.

Companies that hire training graduates need to be prepared to successfully integrate new recruits who may have faced several barriers to employment in the past. In the case of SEE Green Careers, companies that agreed to hire graduates encountered cultural differences in the work environment.

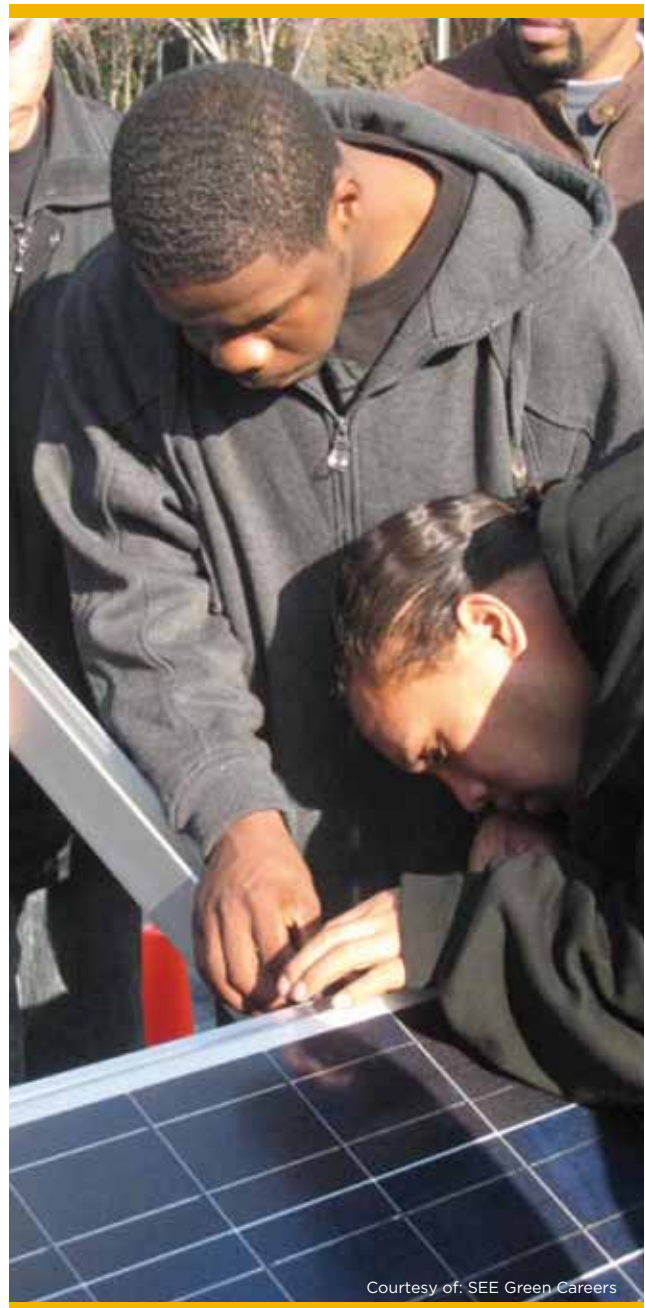
Programs should utilize structures and systems that already exist to minimize the number of elements of the program that must be created.

Stipends or sheltered job placements are important for helping graduates make the transition into the work force.

✦ Future Plans & Goals

In the future, SEE Green Careers hopes to have two to three cohorts each year preparing students for different sectors of green workforce development, including energy efficiency, solar installation, and manufacturing. The program also envisions an entrepreneurial venture in which they train their students and have 100% of their graduates work

in businesses, such as a solar installation company, owned and operated by the program. Utilizing grants from local government, such a business could provide discounted installations to private customers. Program leaders have expressed that work placements must be found for training graduates before the program can be made permanent.



Courtesy of: SEE Green Careers



Courtesy of: JobTrain

⚡ Policy in Support of Green-Collar Job Training Programs

Government policies can play an important role in helping green-collar job training programs succeed. While high quality job training is critical, the ultimate success of job training programs relies on more than quality training. Success depends on helping graduates find and maintain employment and transition to a sustainable career path. Public policy is critical to expanding local demand for green-collar workers by supporting industry and job growth, while making entry-level jobs accessible to training program graduates.

Public policy describes the actions that governments take to tackle challenges. Public policy can include changing laws, taking official positions, funding programs, or finding ways to encourage certain behavior. From simply raising awareness of training programs to increasing the supply of job placement for training graduates, governments can support green training programs in a number of ways. While these public policy efforts are still evolving, city and state governments throughout the U.S. are taking action in promising ways to support training programs.

Governments have a variety of resources that can be tapped for green training programs, including money that can help fund training programs, lawmaking power, and the ability to provide the private sector a range of economic incentives to hire training graduates. In fact, many elements of supportive public policy may already be in place. **For example, many cities are already advancing environmental initiatives, but these initiatives may not connect to training and placement programs. Likewise, most local governments have existing workforce training programs and initiatives, but these workforce efforts may not yet be focused on green industries.**

Before a community decides what public policy it can establish to support training programs, it's important to have a good understanding of what pieces of the puzzle already exist that additional policy can weave together.

Below we outline ideas and examples of government action and public policies to support green-collar job training programs. These ideas are focused on public policy at the local, city level. Many of these are based on the Apollo Alliance's guidebook *Green-collar Jobs in America's Cities* (<http://apolloalliance.org/downloads/greencollarjobs.pdf>). That publication also provides specific examples of supportive public policy in several cities across the U.S.

⚡ Establishing Priority For green-collar Job Training

In order to create effective public policy to support green-collar training programs and build government support for these programs, it is important to gain the support of government officials. Such official support and priority gives implementing departments and funding agencies a clear understanding of the priority of green training programs.

Policy resolution at the City Council. Passing a policy through the legislative branch can be an effective way to educate and mobilize elected leaders to support green-collar job training programs. It can also bring widespread public awareness to training programs.

Official priority for green job training in a city's workforce training policy. Such a statement could



include a policy resolution passed by the city council or be a chapter in a county's strategic workforce plan. Doing so can make these training programs better positioned to receive public funding and ensure the relevant governmental departments and agencies to play an active role in training programs. Ensure that green-collar training programs are prioritized in a government's existing environmental efforts. Many local environmental policies and programs can provide a connection and potential employment for workforce training graduates, if such a connection is made formally as the program is developed and executed.

⚡ Public Funding

Local, state and federal governments are all engaged in efforts to train and prepare the workforce for meaningful employment. From a small county department that distributes modest state and federal grant funding to the Department of Labor in Washington DC, our society has literally thousands

In addition to the **Ella Baker Center**, there are two major organizations dedicated to public policy related to green-collar jobs.

These organizations provide helpful resources for local, state, and federal policy advocacy.

1. **Green For All** - a national organization working to build an inclusive green economy strong enough to lift people out of poverty. www.greenforall.org (see the "Resources" section of their website)
2. **Apollo Alliance** - a coalition of labor, business, environmental, and community leaders working to catalyze a clean energy revolution that will put millions of Americans to work in a new generation of high-quality, green-collar jobs. www.apolloalliance.org (see the "Reports" section of their website)

California's Employment Development Department has a helpful web-based clearinghouse of policies and research reports devoted to green jobs and the green economy. This web page is frequently updated. <http://www.labormarketinfo.edd.ca.gov/?pageid=1032>

of programs and policies that govern workforce training. Green-collar job training programs are funded through a variety of sources, and a program's funding depends on the unique resources and opportunities in each community. Public funding provided by the government can be an important source of funding for training programs, particularly for these programs to continue for several years. Some programs are born with government funding, while others do not receive any funding. Regardless, public funding should be considered as a sustainable funding source to grow and maintain a training program.

City and county governments can provide direct funding for workforce training programs, which usually is dispersed through several departments. In some cases, these local governments run their own workforce training programs. It is important to know about all of the local departments or agencies that provide funding and understand the training priorities of these departments, as well as their process for dispersing funding. Much of the funding that comes through cities and counties is provided annually and is dispersed according to several set criteria. Recently, however, federal and state governments have prioritized green job training programs and have provided increased funding to local governments to support this area of workforce training. For example, the federal Department of Labor and Department of Energy recently provided funding through the 2009 federal stimulus package specifically for green-collar job training programs.

Discretionary funds in a local government's budget can be used for a city's key priorities, such as establishing pilot programs in certain areas. Often elected officials, such as Mayors and City Council representatives, can help to provide seed funding for efforts with strong community support.

Official government support or endorsement for a community-based program can be helpful in various situations such as when applying for private/foundation funding. Having governmental support, and involvement, can increase a program's credibility and attractiveness to private funding sources and can be an important precursor to greater local government support of a community based program.

⚡ Public Investments

Local governments spend large portions of their budgets each year on infrastructure projects,



from paving roads to replacing sewer pipes. These governmental projects create many jobs and represent an important part of the construction and infrastructure industries. Increasingly, governments are investing in green infrastructure upgrades that improve the local environment, from improving buildings to creating more green space. These environmental projects provide excellent entry-level job opportunities for training program graduates. Since the city is in essence the employer on these jobs, it can prioritize placing training graduates into entry-level positions on these projects.

A city can take several actions to increase the number and economic impact of its infrastructure and green projects, including:

Public commitments by a local government to improve the environmental performance of public buildings, including completing energy efficiency retrofits, installing renewable energy like solar on these buildings, and establishing green building standards for municipal buildings. These commitments to greening government buildings can catalyze the industry to provide environmental services in buildings.

Commitments to build transit infrastructure such as new rail lines and bike paths, which generate city jobs that can be reserved for training graduates. While construction of transportation infrastructure is a less common focus of green-collar job training, it can provide numerous jobs and should be considered as one potential employment track if a local government is spending heavily on transportation.

Commitment to plant trees, create green space, and manage storm water with green roofs and other green infrastructure. These projects can employ training graduates that have received green landscaping training.

✦ Incentives or Requirements to Drive Private Sector Investment

Much of the potential projects that employ green-collar workers exist on land or in buildings that will be developed privately. Compared to public-sector projects, government has less control in these cases to ensure greening takes place. To

scale up the number of green-collar jobs available in a community, however, public policy can provide incentives, encouragement and rewards to expand private greening projects.

Tax incentives, rebates, reduced fees, or streamlined permitting for private building owners that invest in energy efficiency, renewable energy, or green building. These “carrots” for private building owners increase the attractiveness and financial benefits of greening private buildings, and in turn can increase the number of projects that are initiated in a city.

Technical assistance or innovative financing for private investment in renewable energy, efficiency, green building, alternative vehicles, or green space. Currently, many private building owners do not know how to pursue green building improvements, and despite the financial benefits of improvements over time, do not have the initial funding to invest in these projects. Local governments can help by providing technical assistance through planning and building departments, and providing financing options such as revolving loan funds. These efforts reduce the barriers to increasing the number of these projects in communities.

Green building codes, energy conservation ordinances, or other requirements for new green buildings or retrofits of existing buildings. Passing such local environmental laws or requirements can move toward ensuring the scale-up of environmental projects in a community, complementing incentives and assistance for green projects, and can greatly increase the demand for green workers. Often, passing laws requiring action is completed after education and incentives have been provided for some time, to allow the private sector to understand and become comfortable with what is being required of them.

Land use and infrastructure policies to support green manufacturing companies. Cities traditionally try to attract factories to their city through preferable zoning and financial investment, with the goal of bringing the jobs that come with that factory to local residents. To expand green-collar jobs, government can prioritize attracting green manufacturing companies through these public economic development tools.



✦ **Securing Placement For Training Graduates**

Public policy can also play a critical role ensuring that training graduates have access to entry-level green-collar job opportunities. This is an important area of policy, because growth in green industries, by itself, will not necessarily mean that training graduates have access to expanding job opportunities. Without clear placement strategies, training graduates can find themselves trained but without employment prospects. The current economic crisis and high unemployment make this challenge an especially pressing one in the near term. Public policy can play an important role by requiring or creating preferences for hiring of training graduates on government-funded projects, and providing incentives and rewards for private projects that are hiring training graduates.

Local and targeted hire policies on public-sector projects. A city can adopt an official policy that a certain portion of entry-level employment slots for public greening projects be reserved for training program graduates. Local governments have great latitude to provide placement opportunities training graduates on projects completed by city employees. It is important to establish a hiring policy across city projects managed by different departments, and then ensure a process for enforcing that this hiring occurs for each relevant project.



The Partnership for Working Families is a leading, national network of organizations that have organized, negotiated, and implemented precedent-setting community benefits agreements (CBAs) on projects around the country. The Partnership for Working Families has a strong presence in many cities in California, and can be a valuable resource for anyone interested in influencing Project Labor Agreements or local and targeted hire policies in general. More information online: www.communitybenefits.org

Local and targeted hire policies on government-funded projects. City governments can also standardize requirements for private contractors completing government-funded 'greening' projects to hire graduates of local training programs. Many local governments hire private contractors to complete greening projects such as energy efficiency retrofits or construction of transit infrastructure. These contracts sometimes represent the majority of placement opportunities for training graduates in government-funded projects. As a result, local governments can create and enforce contracting language that either requires, provides preference, or creates priority to hire training graduates. These policies can be structured so that they apply to any project that is "touched" by government dollars. Certain restrictions against specific local hiring requirements exist in some jurisdictions and for some types of government funding, so it is important for a local government to understand these restrictions.

Incentives for private companies who hire graduates of training programs. Local governments cannot tell a private company whom they must hire, but can provide benefits for those companies who hire training graduates. Such benefits can include tax breaks and fee reduction, expedited permitting of projects and formal recognition.

Project labor agreements and community benefits agreements. On large construction and development projects, especially those that involve government funding, contractors and labor unions will form a legally-binding Project Labor Agreements (PLA) in which they negotiate the wage rates, benefits, and other terms that involve employees working on that project. PLAs play a critical role in determining who has access to the jobs created by development projects. Some PLAs will involve a Community Benefits Agreement (CBA), a negotiated agreement between a developer and a broad community coalition that outlines the project's contributions to the community – including local and targeted hire. CBAs, like PLAs, are legally binding. Local governments that provide some or all of the funding for a project will often influence the terms of both PLAs and CBAs.



Courtesy of: the Oakland Green Jobs Corps

Conclusion

We believe California's green-collar job training programs and supportive policies can lead the nation by building strong, equitable and sustainable communities. Over the next 10-20 years, California must tackle major environmental threats, like the climate crisis, water shortages, and air pollution. At the same time, we must solve California's crippling problems of poverty, over-incarceration, and an alarming high school dropout rate.

In order for our state to survive and succeed, California's future must undoubtedly be a green one. In turn, our green economy must have, at its center, a green-collar workforce that is educated and prepared to show the way forward.

We hope this guide helps practitioners and policy makers to build highly effective green-collar job training and education programs -- programs that provide opportunities especially for those too often locked out of the old, pollution, poison, and poverty-based economy.

Thank you for your interest, and commitment to building a clean energy future while creating opportunities for the people of California.



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