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JOB EQUITY AND CALIFORNIA'S EMERGING GREEN ECONOMY

by Bobbi Murray

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INTRODUCTION

Our nation faces two crises: environmental and economic. The terms *global warming* and *greenhouse effect* are common now, but Swedish scientist Svante Arrhenius first described the greenhouse effect in 1898. Arrhenius noted that emissions from burning coal and oil—most notably carbon dioxide, or CO₂—trap heat in the earth's atmosphere.¹ Those emissions increased as the world's nations became more industrialized, from a pre-Industrial Revolution level of 280 parts per million in the atmosphere to a record 379 parts per million in 2005.²

As more scientific evidence emerged that showed an increase in greenhouse gases affecting the climate, policymakers began to react. The United Nations founded the Climate Change Convention in 1992, enlisting 180 nations in a pledge to take measures against the production of carbon dioxide. The Convention member countries approved an emissions standard called the Kyoto Protocol in 1997.³ The United States approved the Kyoto agreement in 1998, at that time the hottest year worldwide since such records had been kept, but the Senate scuttled the ratification. The Bush Administration played an obstructive rather

than constructive role in responding to global warming. President George W. Bush withdrew from negotiations to finalize Kyoto.⁴ Moreover, the Bush Administration was reluctant to acknowledge the link between fossil fuel use and global warming. Although the law requires the Presidential Administration to release a climate change assessment every 4 years, the Bush Administration did not issue one until May 2008 and then only after a federal court order. The federal judge in the case called the Administration's failure to release the report a violation of U.S. law.⁵ The May 2008 assessment concluded that global warming is very likely the result of human activity.

In 2005, James Hansen, NASA's top climate change scientist and an internationally respected expert on the subject, told the *New York Times* and *CBS News* program *60 Minutes* that he believed the Bush Administration was behind NASA policies that placed tight controls on his writings and interviews. He had been very public in his calls for curbing greenhouse emissions.

Other government scientists complained of similar interference in their work.⁶ The Bush Administration obstructed at the state level as

¹ Climate Change Interactive Timeline—CBS News.

² *Ibid.*

³ *Ibid.*

⁴ *Ibid.*

⁵ See *Bloomberg News*, “Judge Orders Bush Administration to Issue Global Warming Report,” by Karen Gullo, August 21, 2008.

⁶ The Union of Concerned Scientists joined with another advocacy group, the Government Accountability Project, in releasing a survey in which government scientists complained of interference in their work. Forty-three percent reported edits of their work that changed the meaning of their findings, and 46% said administrative policies created obstacles to climate-related work. See www.msnbc.com, *Bush Administration in Hot Seat Over Warming*, January 30, 2007.

well. When California and 13 other states applied to the Environmental Protection Agency to limit greenhouse emissions from vehicles, the EPA rejected those applications. The Obama Administration asked the EPA to move on the applications during the President's first week in office.⁷

But while federal policy on climate change was stalemated during the Bush Administration, California was able to pursue forward-looking measures to address global warming. In 2006, the California legislature passed the landmark Global Warming Solutions Act. Also called AB 32, this legislation sets up a structure to coordinate California programs to reduce greenhouse gas (GHG) emissions that contribute substantially to global warming. The act sets a goal of reducing GHG emissions to 1990 levels by 2020. Since the passage of AB 32, California and the rest of the nation have been grappling with a devastating recession.

GREEN INVESTMENT AND JOB CREATION IN CALIFORNIA

California is in a good position to respond to build a stronger economy while taking measures to curb greenhouse gas production. The collision of two crises—environmental and economic—has added momentum to a growing consensus in national and international policy circles: efforts to curb global warming and other environmental degradation can create quality jobs and lift economies. “It now appears that a green economy can generate more and better jobs everywhere and that these can be decent jobs,” according to a 2008 report for the United Nations Environmental Program as it described a solar project in Bangladesh that created employment for 100,000 workers, mostly young women, and a replacement program for inefficient stoves in India that employs 150,000.⁸

California's forward-looking energy policies have had a positive economic impact. An October 2008 research paper from UC Berkeley's Center for Energy, Resources, and Economic Sustainability (CERES) noted the state's energy-efficiency policies of the last 35 years reduced its electricity consumption per capita to 40% below the national average. That freed up household budgets for other goods and services and helped create 1.5 million jobs fueled by a \$45 billion payroll.⁹

The C.E.R.E.S report went on to estimate that the innovations required to meet AB 32 emission standards could bolster “the Gross State Product by about \$76 billion, increasing real household incomes by up to \$48 billion and creating as many as 403,000 new efficiency and climate action jobs.”¹⁰

Venture capital investment is one reason for California's immense potential to generate jobs related to pollution and greenhouse gas reduction. Our state has been a cradle for innovations such as semiconductors, information technologies, and e-commerce, making it attractive to venture capital. California is now drawing investment dollars to clean technology sectors such as renewable energy sources—wind and solar—along with energy efficiency products, sustainable agriculture, and water systems.¹¹ California led the country in clean technology investment in 2006, bringing in \$1.13 billion.¹² In 2008, U.S. companies attracted 74% of the world's venture capital; California companies pulled in 40% of that. Entrepreneurial industry groups say government innovations such as AB 32, the Global Warming Solutions Act, draw capital because investors read the measures as increased opportunity and see the potential to reap financial gain from new ventures.¹³ Even with the present economic downturn,

⁷ See *New York Times*, “Obama Directs Regulators to Tighten Auto Rules,” by John M. Broder, January 26, 2009.

⁸ *Green Jobs: Towards Decent Work in a Sustainable, Low-Carbon World*. Commissioned by United Nations Environment Programme (UNEP), produced by Worldwatch Institute with technical assistance from the Cornell University Global Labour Institute, page vii, September 24, 2008. See: www.unep.org/civil_society/Publications/index.asp

⁹ *Energy Efficiency, Innovation, and Job Creation in California*, by David Roland-Holst, Center for Energy, Resources and Economic Sustainability (CERES), UC Berkeley, October 2008, pages 4-7.

¹⁰ *Ibid.*

¹¹ *Clean Tech Venture Capital: How Public Policy Has Stimulated Private Investment*, principal author James Stack, Goldman School of Public Policy, UC Berkeley, May 2007, for E2 Environmental Entrepreneurs and Cleantech Venture Network LLC, pages 8-11. See www.e2.org

¹² *Ibid.*

¹³ *Ibid.*

California continues to attract venture capital for its green technology sector, bringing in \$3.3 billion in 2008.¹⁴

Each investment dollar has the potential to create jobs. Some analysts project the creation of 16.7 jobs directly involved in energy and energy-efficient infrastructure for every \$1 million investment.¹⁵ By that calculation, the \$1.13 billion in investment capital that came in during 2006 could potentially yield 167,145 jobs in California. Some estimate that every \$1 million invested in energy efficiency creates some 10 construction jobs and 3–4 jobs in materials manufacturing. There is a ripple effect in job creation in other areas along the construction supply chain.¹⁶ California has led the nation in green job creation over the past several years, originating 129,390 jobs.¹⁷

With the Obama Administration's emphasis on public investment, the 2009 American Reinvestment and Recovery Act (ARRA) has allotted a total of \$110 billion in energy efficiency, renewable energy transportation, and the manufacture of alternative fuel vehicles, according to the Apollo Alliance. The Apollo Alliance estimates this could create 2 million direct jobs nationally.

It is difficult to quantify how much of the sum set for green technology investment is earmarked for California. Experts who are closely tracking the funds are scrambling to make that assessment. Three areas that clearly overlap with the green technology sector are set for funding infusions. California expects \$4.7 billion for transportation projects, \$3 billion for energy, and \$2.5 billion in water and environmental projects.¹⁸ Recovery Act funding to those sectors could potentially generate jobs in areas such as solar panel manufacture and installation, building retrofitting and weatherization, devising and installing systems

to improve water and energy efficiency, and mass transit construction, to name just a few.

The task now before California is not only about the monumental challenge of cutting greenhouse gases but also a transition to a new economy. There is an opportunity to reduce environmental harm—along with a chance to build an economy that provides quality jobs to individuals from communities chronically afflicted by unemployment or confined to low-wage jobs.

To use the word *complex* understates the intricacy of such a transition. Here is an example: A study from the University of California Center for Labor Research and Education showed that the industries that emit the most greenhouse gases and are most affected by AB 32 have higher wages and unionization rates. They employ a high percentage of Latinos—a group typically locked into low-wage work. The study calls for thoughtful assessment of AB 32's employment impact and outlines responses that emphasize protections for workers in affected industries that include public investment in re-training programs for potentially displaced workers. It also calls for a systemic approach to assure job standards.¹⁹

This policy brief endeavors to explore the potential of California's developing green economy to incorporate all who want to work, especially those who have previously been locked out of quality jobs due to educational shortfalls, incarceration, language gaps, and other obstacles. It will take a look at some of the local programs that have successfully linked public investment with quality employment opportunities and that have employed people from traditionally excluded populations. It will then explore the implications for job equity in California's growing green economy sector.

¹⁴ *California Green Innovation Index 2009*, prepared by Collaborative Economics, produced by Next10 policy organization. See <http://www.nextten.org/next10/publications/greenInnovation09.html>

¹⁵ *Green Prosperity: How Clean-Energy Policies Can Fight Poverty and Raise Living Standards in the United States*, by Robert Pollin, Jeanette Wicks-Lim and Heidi Garret-Peltier, Department of Economics and Political Economy Research Institute, University of Massachusetts, Amherst, prepared under commission of the Natural Resources Defense Council and Green For All. Page 10.

¹⁶ *Greener Pathways: Jobs and Workforce Development in the Clean Energy Economy*, by Sarah White and Jason Walsh, Center on Wisconsin Strategy, 2008.

¹⁷ *The Clean Energy Economy: Repowering Jobs, Businesses, and Investments Across America*, by The Pew Charitable Trusts, 2009.

¹⁸ *State of California Information Related to the American Recovery and Reinvestment Act 2009*. See www.recovery.ca.gov

¹⁹ *Addressing the Employment Impacts of AB 32, California's Global Warming Solutions Act*, by Carol Zabin and Andrea Buffa, UC Berkeley Center for Labor Research and Education, February 2009.

CALIFORNIA'S EMPLOYMENT PICTURE

A July 15, 2009 policy brief from the Economic Policy Institute put California's overall unemployment rate at 10.6%, with communities of color disproportionately affected. The unemployment rate among African Americans stands at 16.5% and among Latinos, 14.3%, as compared with 8.2% among whites.²⁰ The reasons for the unemployment rates differ from community to community. African American unemployment is traditionally high. It has been nearly 3 decades since the high-quality unionized manufacturing jobs that created and sustained a black middle class moved overseas. Other barriers include a disproportionately high incarceration rate for African-American males along with little access to education and/or the training programs that could lead to jobs. Latinos, especially immigrants, suffered sharp job loss in 2008 because of employment cutbacks in industries with high concentrations of Latino workers: construction, production, and the service sector.²¹ Over the long term, language gaps have been part of locking many Latinos into low-wage jobs. Low wages lock workers into dead-end jobs; the lower the wage, the more hours at work are required to make a living. This leaves little time to acquire the necessary education for higher-salaried positions.²²

California's African-American and Latino communities, having long been marginalized in the job market, could particularly benefit from policy measures suggested by the green jobs program models described in this policy brief.

'GREEN JOB' QUALITY AND DISTRIBUTION

As public concern sharpens about the dangers of global warming and the news is all about the flat economy, the phrase *green jobs* appears in headlines and newscasts.

Most would agree that a green job improves the environment—reducing carbon emissions, creating clean energy, or making energy use more efficient. The most obvious green jobs would further those energy and carbon reduction goals, or reduce the amount of waste going to landfills, or protect habitat and ecosystems. Green jobs are embedded in other more traditional industries, such as transportation (mass transit projects), construction (retrofitting), and manufacturing (solar panel and wind turbine production). Raquel Pinderhughes, Ph.D., discusses green jobs as blue collar jobs in green industries that directly improve environmental quality.²³ Pinderhughes, along with many others, insists the definition of a green job should go beyond one that benefits the environment. Employment that fails to provide a living wage, benefits, and safe working conditions should not be classified as green, its benefit to the environment notwithstanding.

The report of the United Nations Environment Programme (UNEP), Labour and the Environment Unit, titled *Green Jobs: Towards Decent Work in a Sustainable, Low-Carbon World*, asserts that "...green jobs . . . also need to be good jobs that meet longstanding demands and goals of the labor movement, i.e., adequate wages, safe working conditions, and worker rights, including the right to organize labor unions."²⁴ The White House Task Force on the Middle Class developed a definition of green jobs that included employment standards. For the Task Force report, *Green Jobs: A Pathway to a Strong Middle Class*, the Council of Economic Advisors (CEA) did a survey of occupations likely to be found in green industries, such as renewable energy production, manufacturing (e.g., wind turbines, solar panels), and construction. Their analysis showed jobs in these industries meet the UNEP standards, paying significantly higher than other jobs.²⁵

²⁰ *Unequal Employment: Racial Disparities in Unemployment Vary Widely by State*, by Algernon Austin, Economic Policy Institute, July 15, 2009. See <http://www.epi.org/publications/entry/ib257/>

²¹ *Workforce Development Needs for Immigrant Job Seekers*, by Naomi Cytron, Federal Reserve Bank of San Francisco, Spring 2009. See www.frbsf.org/community/.../economic_development.html

²² *Immigrant Latino Employment Rises Sharply*, by Rakesh Kochar, Pew Hispanic Center, February 12, 2009.

²³ *Green Collar Jobs: An Analysis of the Capacity of Green Businesses to Provide High-Quality Jobs for Men and Women With Barriers to Employment: A Case Study of Berkeley, CA*, by Raquel Pinderhughes, 2007.

²⁴ *Green Jobs: Towards Decent Work in a Sustainable, Low-Carbon World*. Commissioned by United Nations Environment Programme (UNEP), produced by Worldwatch Institute, September 2008, op cit.

²⁵ *Green Jobs: A Pathway to a Strong Middle Class*, Staff Report for the White House Task Force on the Middle Class, February 27, 2009.

But while the CEA worked from statistics about job categories, the report titled *High Road or Low Road? Job Quality in the New Green Economy*, from the Washington, DC, think tank Good Jobs First, used a different lens to look at green jobs and drew significantly different conclusions. Good Jobs First examined workplaces in “environment-friendly” sectors of the economy: the manufacture of wind and solar energy equipment, construction, and recycling.²⁶ The report found low wages and unsafe, unjust working conditions in many green occupations.

A study by the nonprofit research center Economic Roundtable echoes some of the Good Jobs First report findings. In *Jobs in LA’s Green Technology Sector*, the authors noted that in Los Angeles’ green economy, “low-wage, low-skill occupations are dominated by Hispanics/Latinos, who make up over 60 percent of Construction Laborers, Refuse and Recyclable Collectors, Electrician’s Helpers, Carpenters and Hand Material Movers.... African-Americans are concentrated in clerical, systems operations and hand labor occupations.” The report found that 55% of managerial and professional positions employ whites, and Asian Americans are strongly represented in engineering and architectural occupations, holding 39% of those jobs. “The ethnic distribution of Los Angeles residents in green technology occupations is similar to that of the overall labor force,” the report said.²⁷ As previously noted, many green jobs are found within conventional categories such as construction. That industry has long discriminated against hiring women, African Americans, and Latinos for upwardly mobile jobs. White males hold nearly 60% of construction jobs.²⁸

Clearly, assuring that green jobs are good jobs and that women and people of color—traditionally excluded groups—have access to careers requires deliberate policy measures. What follows is a look at some working models of job training and placement programs that integrate traditionally unemployed and unemployed communities into the local green economy.

MODELS FOR JOB EQUITY IN THE GREEN ECONOMY

Several national nonprofit organizations and networks have been working on issues of job equity and the green economy over the past few years and have developed pilot programs and models that suggest statewide policy steps for California.

The Apollo Alliance and Green for All, a national group that seeks to build a green economy while lifting communities out of poverty, have partnered with local labor and community groups around the country to develop programs that potentially create a career ladder from job training into skilled employment.

The following descriptions demonstrate characteristics of three model programs, the actors and stakeholders involved, the challenges they faced, and solutions they found.

Newark, NJ—The Weatherization Job Training Initiative

Earlier this year, a class of 12 trainees in Newark, New Jersey—all of them people of color and nearly half struggling to reenter society after a prison term—began work in a month-long job training pilot program in green construction skills. Their task as they trained: to make the homes of 30 low-income Newark families more energy-efficient. That means adding weather-stripping, insulation, and updated heating systems. The process, called “weatherization,” can reduce energy use an average of 32%, according to the U.S. Department of Energy, and substantially reduce heating and cooling bills.

The American Reinvestment and Recovery Act of 2009 allots \$8 billion to support state weatherization programs. Newark’s Laborers Local 55 provided experienced instructors for the training, which also included life skills and employability education. A \$90,000 grant from the National Institute of Environmental Health Sciences underwrote the program, including a \$100-a-week stipend.

²⁶ *High Road or Low Road? Job Quality in the New Green Equality*, by Phillip Mattera, Good Jobs First, February 2009. See www.goodjobsfirst.org/pdf/gjfgreenjobsrpt.pdf

²⁷ *Jobs in LA’s Green Technology Sector*, by Patrick Burns and Daniel Flaming, Economic Roundtable, March 2006, pages 29-34. See <http://www.economicrt.org/publications.html>

²⁸ *Green Prosperity: How Clean Energy Technologies Can Fight Poverty and Raise Living Standards in the United States*, by Pollin, Wicks-Lim and Garrett-Peltier op. cit.

Pilot program graduates went on to a green construction and weatherization state training program that targets those who are traditionally excluded from employment. Graduates are certified as trained weatherization technicians and are eligible for programs to upgrade their skills.

The entire project came together through a collaboration among the grassroots nonprofit Garden State Alliance for a New Economy (GANE), the Laborers International Union of North America Eastern Region, and the City of Newark. GANE, a grassroots coalition that organizes for equitable community development policies, includes unions in its membership. Organizers got the ball rolling when they approached the Laborers because the union had established two new locals in the New York/New Jersey area specifically to organize workers into the residential weatherization industry. The two united to create the program. GANE did the on-the-ground recruitment work to find potential trainees and organized them to go to Newark's City Hall to press public agencies such as the housing authority to create weatherization work to employ the trainees. The momentum of the campaign, the credibility of the participants, and the quality of the plan persuaded the mayor's and City Council's support.

It does no good to train for a job that doesn't exist. GANE and the union are working with state, city, and local agencies to assess their needs for weatherization and to identify and pursue funding. The minority-owned firm Air Sealers has signed a union agreement with the Laborers, and GANE and the union are pursuing similar relationships with other weatherization contractors.

The unions in three other east coast cities are replicating the program. In June 2009, some 25 trainees in Trenton, New Jersey, began their training, and the Laborers locals in New York City and Delaware began recruiting trainees for programs in those cities.

It is common for on-the-job trainees to work through union apprenticeship programs that pay a union wage while the trainees work with and learn from more experienced skilled workers. But the newly created Laborers

locals involved in the Newark program decided against setting up an apprenticeship classification, at least in the short run. The conventional program requirements would make it more difficult for trainees to join the brand-new locals. The locals plan to revisit the issue in the future.

Oakland—Green Jobs Corps

Launched in 2008 by the Ella Baker Center for Human Rights and the Oakland Apollo Alliance, the Oakland Green Jobs Corps is a job-training and paid apprenticeship program for jobs that pay well and provide a career ladder in an expanding economic sector. It is designed for at-risk youth 18–25-year-olds, individuals with language barriers and persons with criminal records and other employment obstacles. There are presently 40 young people in the program. They take math classes that apply to construction and solar panel installation and study hazardous waste disposal, green carpentry methods, and other skills applicable to environmentally beneficial careers. Classes at the Cypress Mandela Training Center are followed by others at a local community college. Graduates enter a 3-month paid apprentice program with one of 10 local green businesses collaborating with the project. As was the case in Newark, the program was born of a grassroots initiative propelled by activists that won over policymakers.

Organizers and members of The Ella Baker Center and Oakland Apollo Alliance won support from Mayor Ron Dellums and persuaded the City Council to provide \$250,000 to establish the Corps. The city also took on a coordinating role, soliciting bids from contractors to run the program. Oakland Green Job Corps has also attracted other funding: \$500,000 from the State of California and \$120,000 from Yahoo.

Los Angeles—Apollo Alliance

In April 2009, the Los Angeles City Council approved a Green Jobs Ordinance that will retrofit pre-1978 city structures with energy and water efficient systems. (The Environmental Defense Fund estimates buildings use 40% of California's energy.) The ordinance set goals of starting work on one hundred buildings annually and making

a priority of retrofit projects in economically depressed and environmentally degraded communities such as South Los Angeles.

The Green Jobs Ordinance is linked to another Los Angeles city program, the Green Careers Training Initiative (GCTI), a measure that brings low-income residents into training programs through unions and community colleges. The Green Jobs Ordinance came before Los Angeles City Council through the efforts of the Los Angeles Apollo Alliance, a coalition that includes grassroots groups with community membership bases along with such construction labor organizations as the International Brotherhood of Electrical Workers Local 11, which has taken an outstanding lead role, and P.I.P.E International.

The coalition mobilized community members and brought the ordinance to the council. It also obtained Mayor Antonio Villaraigosa's support. The unions are working with the grassroots organizations in the Apollo Alliance Coalition to recruit low-income residents to their apprenticeship programs.

The apprenticeship connection is significant in that these unions provide workers on such large-scale infrastructure projects as water and power sources (via Los Angeles Department of Water and Power, the largest municipal utility in the United States). The department will need workers to supply city and county efforts to become more energy and water efficient. These will be union projects in which apprenticeship programs, connected to the Apollo Alliance and other grassroots groups, can provide training and placement opportunities to low-income and previously excluded communities.

Los Angeles Trade Technical College has done extensive analysis both of the sectors that are most likely to demand skilled workers and the skill certifications those jobs require. Apollo Alliance member organizations helped design the Green Jobs Ordinance and the Green Careers Training Initiative, provided the political impetus to encourage City Council to approve them, and are now

actively involved in making sure the policies are implemented. The ordinance and the training initiative represent a precedent-setting step by the City of Los Angeles to combine workforce development programs with an economic development strategy aimed at communities in most need.

The foregoing models show that previously excluded populations can successfully integrate into the workforce with the help of deliberate strategies by policymakers, business leaders, and labor- and community-based organizations.

TOWARD A ROBUST AND JUST GREEN ECONOMY IN CALIFORNIA

The following policy options distill the elements of what make for successful and equitable green jobs programs and suggest a way to institutionalize such programs on a large scale in California. The options are addressed by sector.

California State Government—

The California Workforce Investment Board

California's Green Jobs Act, signed into law in late 2008, created the 22-member Green Jobs Council. It includes representatives from business and labor as well as from the California community colleges and K-12 schools.

Labor's presence at the table is key to efforts to incorporate disenfranchised communities through apprenticeship programs. The International Brotherhood of Electrical Workers in California, particularly in Los Angeles, in partnership with the Los Angeles Apollo Alliance, which works on the ground organizing in low-income African-American and Latino communities, has been a leader in this effort.²⁹

Community colleges have traditionally also provided an entry into career paths for students from low-income families and have been active developing green jobs curriculum.³⁰

²⁹ IBEW Working Green website, <http://www.ibew.org/WorkingGreen/index.htm>

³⁰ See: *Affinity online magazine*: Teaching Green: Community Colleges Take the Lead in Training California's Green Workforce, by Angeline Huang Evans, July 21, 2009. See: <http://affinityonline.org/Features/TeachingGreen/tabid/103/Default.aspx>

The Green Jobs Council is part of the California Workforce Investment Board (WIB), which sets state workforce development policy and coordinates with local workforce investment boards throughout the state. Ideally, the local WIBs do sectoral analysis to assess potential growth industries and coordinate workforce training programs to help employers fill the needs. The California WIB should make every effort to assure that the local workforce agencies do the appropriate analysis to identify growth industries and to assure that job quality standards are central in local workforce development planning.

The state WIB needs to assure the quality of local training programs by encouraging coordination with union apprenticeship programs and community colleges.

As previously noted, green jobs are frequently embedded in many traditional sectors such as construction, transportation, and waste management. Marcy Drummond, Vice-President of Workforce and Economic Development at Los Angeles Trade Technical College has done extensive research in identifying job classifications and assessing overlap in certification requirements in green job categories.³¹ The California WIB should make a priority of using the Los Angeles Technical Trade College information to standardize green job classifications and attendant certification requirements throughout the state, so that all local WIBs use them in their workforce development planning.

California is set to receive \$400 million in Recovery Act workforce development funds, with 85% of that going to local workforce investment boards. The state can't mandate how the local WIBs allocate the funds—but the state WIB can offer leadership on policies that promote job quality and equity.

The Green Jobs Council

The Green Jobs Council, which brings many stakeholders to the table, must develop a strategy that taps into all the resources the state offers. One of those resources is the existence of community groups that helped create two of the

models this article reviews. The Council should note the common characteristics of effective green jobs programs: grassroots groups with a link to underserved communities, participation by unions and educational institutions, and leadership from policymakers that fosters partnership and links efforts to funding.

The Los Angeles Apollo Alliance provides an example of a grassroots group that connects disenfranchised members of the community with the institutions that can help them create a path out of poverty. It would not take an untoward expenditure of resources for the Green Jobs Council to support similar relationships around the state and recreate the best practices that led to those successful programs. Working with the regional WIBs and the Apollo Alliance, Green For All, and other community-based organizations, the Council can assist in replicating the best-practices job equity models.

The Green Jobs Council should have a central role in planning the workforce transition as the economy shifts greener as present investment and policy trends encourage growth in the green tech sector.

For example, state legislators have ordered the Air Resources Board to investigate the potential employment impacts of AB 32, the greenhouse gas reduction law. Given the proper resources, the Green Jobs Council should be in the position to take the data and integrate it into policy at the regional level, thus helping workers in polluting industries move into green jobs.

California Local Government—

In all three models discussed here, local governments had a role in promoting green jobs. Local governments should work with their workforce and community development departments to assure that American Reinvestment and Recovery Act job training funds provide meaningful training for green jobs, not make-work training programs that fail to lead to employment. Local governments are also in

³¹ *Green Pathways Out of Poverty Through Partnership and Recovery*, by Marcy Drummond, Vice President of Workforce and Economic Development, Los Angeles Trade Technical College, June 4, 2009.

the position to assess their own green building needs and link that to their own workforce development strategies.

Unions

Union apprenticeship programs include training supervised by more experienced workers. A trade union's relationships with large-scale employers enhance a trainee's placement possibilities.

The International Brotherhood of Electrical Workers in Los Angeles, a partner in the Los Angeles Apollo Alliance, is working with community-based organizations to recruit youth from economically isolated neighborhoods into apprenticeships programs. Trainees will be among those working in the City of Los Angeles' efforts to retrofit older city buildings and equip them to use water and energy more efficiently.

Other labor organizations around the state might look to IBEW 11 for a model. The Green Jobs Council could provide guidance. Some union locals already have a full bench of apprentices waiting for jobs, which would make them reluctant to recruit more trainees. The regional Laborers council in northern New Jersey, when faced with this dilemma in Newark, created brand new locals to accommodate the new trainees. California unions may consider taking equally bold steps.

Grassroots and Nonprofit Organizations

Such grassroots groups as the Apollo Alliance and Green For All have played a key role around the country by bringing research and technical support to the creation of green jobs programs. Local community organizations should make a conscious strategic decision to invite unions into local green job partnerships. The community groups should develop and present data about the potential for green job growth and which specifically addresses labor's interest in expanding pursuing the organizing opportunities in an expanding green tech sector. Community organizations can provide support, both politically and with their own research and resources, to local labor leaders struggling with the challenges of shaping apprenticeship programs to accommodate new trainees.

Community organizations have been essential in creating a policy consensus that defines a *green job* as "one that defends the environment while providing quality wages and working conditions." Job equity is central in their research and organizing.

While government entities need to keep an open door to organizations with track records such as the Apollo Alliance and Green For All, such community organizations must advocate for state and local government to provide equitable workforce development strategies that assure quality job training and placement programs.

CONCLUDING THOUGHTS

The California budget crisis and a yawning deficit have pushed the state toward an economic precipice. But there may be no better time to discuss California's green future, offering as it does opportunity for economic growth. The financing for California's green tech development comes from private investors and the federal government in the form of American Reinvestment and Recovery Act monies. The workforce training aspect also benefits from federal funds from ARRA and the federal Workforce Investment Act.

The infusion of federal dollars and private investment offers California a potential way forward in stabilizing and even expanding the state economy. It will take leadership from government policy makers, but requires the energy of the grassroots, community organizations and unions as well.