

California Energy Commission Public Workshop



A Presentation on California's GREEN Workforce Coalition

Wednesday, February 18th, 2009

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South Bay Workforce Investment Board

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DATE FEB 18 2009

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California's **GREEN** Workforce Coalition

Established in February, 2008



California's **GREEN** Workforce Coalition

Signature Members

AEG Worldwide

Anaheim Workforce Investment Board

Artilent

Beacon Economics

California Clean Cities Coalition

California EDD Labor Market Information Division

California EDD L.A. - Ventura Workforce Services Division

California Employment Training Panel

California Green Solutions

California State University, Dominguez Hills

California Transportation and Logistics Institute

CCEO YouthBuild

Center of Excellence at Mount San Antonio College

Citrus College

City of Glendale, Community Dev. & Housing Dept.

City of Hawthorne, California

East Los Angeles College

El Camino College

Environmental Charter High School

Ericka Saenz

Foothill Workforce Investment Board

GeoGreen Biofuels

Glendale Community College

Infrastructure Academy

IBEW Local 11

Labeling Ecologically Approved Fabrics

Long Beach Community College District

Los Angeles City College

Los Angeles Community College District

Los Angeles Community College District CACT

**Los Angeles County Center of Excellence at
LACCD**



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Signature Members

Los Angeles County Office of Education
Los Angeles/Orange County Regional Consortium
Los Angeles Trade Tech College
Los Angeles Urban League WorkSource Center
Los Angeles USD East Los Angeles Skills Center
Madeline Drake
Metropolitan Water District of Southern California
North Orange County Community College District
Pacific Gateway Workforce Investment Network
Pasadena City College
Pierce College
Propath, Inc.
Pure Bamboo
Purpose Focused Alternative Learning Corporation
Residential Energy Assessment Services, Inc.
Rio Hondo College

Riverside County Workforce Development Board
Sam Abedzadeh
San Bernardino County Workforce Investment Board
Santa Ana Workforce Investment Board
Santa Monica College
South Bay Workforce Investment Board
Southeast Los Angeles County WIB
Sustainable Programs for Independent Neighborhoods
The Green Hive
Teamsters Joint Council 42
Tongan Community Service Center
Tony Pereira, MSME, EIT, UCLA
Turner Construction
U.S. Green Building Council Los Angeles Chapter
U.S. Veterans Initiative, Inc.
Verdugo Workforce Investment Board
Young Jobs, Inc.



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Meeting Participants

Blue Planet

Building California Construction Careers

Career Dreams Educational Foundation

Cerritos College

Chinatown Service Center

City of Los Angeles Workforce Investment Board

Community Career Development

Community in Schools

County of Los Angeles Workforce Investment Board

Green Leadership Consortium

GREENsultation

green technology

GRID Alternatives - Greater Los Angeles

Hawthorne Chamber of Commerce

Hawthorne School District

Heffernan Insurance Brokers

Imani Energy, Inc.

INTI Energy Solutions, LLC

Ironworkers Local 416

L.A. County Community Development Commission

Los Angeles County Dept. of Public Soc. Serv.

L.A. County Economic Development Corporation

Los Angeles Harbor College

Los Angeles Southwest College

Los Angeles World Airports

Marina del Rey WorkSource Center

PV JOBS

Sempra Energy

South Bay Economic Development Partnership

South Bay Environmental Services Center

Southern California Edison

Southland Cerritos Center for Trans. Technologies



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Meeting Participants

State Building and Construction Trades Council of California

West Basin Water District

Westlake WorkSource Center

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Mission:

To serve as an alliance for the development of a skilled green workforce and a sustainable future.

Goal:

To prepare a green workforce that responds to industry demands and supports economic development and growth in our communities, in our region and in our state.



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- A **Green Workforce**: Two or more engaged in the useful and environmentally sustainable transformation of space, energy, effort, information, ideas, or knowledge, resulting in value.

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- Although California is only one of fifty states, the state represents the world's 8th largest economy.²
- Approximately 1.2 of every 10 U.S. citizens resides in California³ and 1.2⁴ of every 10 civilian labor force participants (12% of the U.S. total) works here.⁵

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- Although the U.S represents only 4 percent of the world's population, [it is] responsible for 25 percent of the world's greenhouse gases.
- Roughly one out of every four carbon molecules superheating the atmosphere has our [the U.S.] name on it.¹

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- Global warming, its immediate affects on the planet, and its long-term affects on the life-supporting systems upon which all of Earth's inhabitants depend, is creating a sense of urgency, and momentum to take action around the world.

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- Around the country, public institutions are eager to launch new efforts to prepare and develop a workforce with the knowledge, skills and abilities to fuel essential economic transformation.

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- Where can federal workforce investments have the best immediate and long-term impacts in response to the skill needs of U.S. businesses already engaged in carbon reducing activities?

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- Where should U.S. investments in its workforce be made to address movement by new industries and businesses toward more environment-conscious industrial processes as a result of a greater and growing understanding of the climate crisis, changing consumer preferences for green products and services, and growing concern for the environment?

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“There are existing industries employing traditional workers in tasks whose outcomes reduce consumption, waste, and pollution while new and distinct **green** occupations are beginning to emerge.”

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It is important that workforce developers understand:

- Traditional jobs/occupations;
- Traditional jobs/occupations and skill sets employed in a more sustainable manner;
- Derivative jobs/occupations focused exclusively on **green** activities; and
- Methods to determine their differences.

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Green Root Occupations

“Jobs/occupations requiring traditional knowledge, skills and abilities (KSAs) that can be applied to achieve sustainable product/service outcomes. Such occupations contain KSAs that are also found in derivative occupations that support sustainable activities and objectives; such derivatives may omit some root KSAs or contain added KSAs.”

Examples:

Computer Software Engineers, Applications
Environmental Engineers
Landscaping and Grounds-Keeping Workers

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Green Derivative Occupations

“Jobs/occupations with traditional KSAs and KSAs that have been added, mixed, or eliminated to achieve sustainable product/service outcomes.”

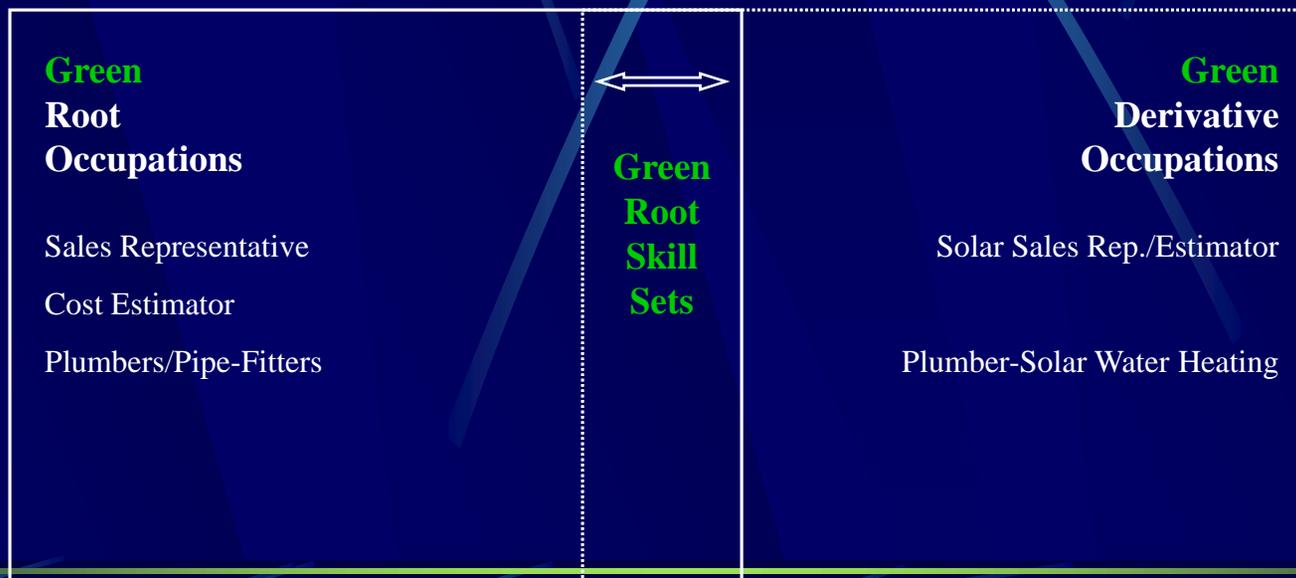
Examples:

Deconstruction Worker
Solar Sales Representative/Estimator
Plumber-Solar Water Heating Collectors

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Green Root Skill Sets

Skill sets, and corresponding knowledge and abilities, for which local demand has been determined with respect to occupations needed for **green** activities.



Guiding Principles for Green Jobs

- **Products/Services**: What is made or provided contributes to the reduction or elimination of greenhouse gases and/or other agents of environmental degradation.
- **Processes**: How a product or service is made or provided is environmentally sustainable.
- **Purpose**: Work functions and outcomes are intended to be environmentally respectful and lead to value.

Applied Definition of a Green Job

A **Green Job** consists of a group of tasks related by similarity of functions. When performed by an employee in an exchange for pay, a **Green Job** consists of duties, responsibilities, and tasks that are: 1) defined and specific; and 2) can be accomplished, quantified, measured, and rated.¹ In this job: 1) what is made or provided by the incumbent contributes to the reduction or elimination of greenhouse gases and/or other agents of environmental degradation; 2) how a product or service is made or provided by the incumbent is environmentally sustainable; and 3) the incumbent's work functions and outcomes are intended to be environmentally respectful and lead to value.

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Outcomes-Based Criteria for **Green** Jobs Training Projects:

- Net Energy Savings
- Net Reduction in the Employer's Carbon Footprint
- Radically Different Knowledge, Skills and Abilities Requiring Training

Green Evaluation Criteria for Service Occupations:

- Consumption, Waste, or Pollution
- Mitigation Measures
- Energy Efficiency or Sustainability Plans
- Contributions to Sustainable Products, Services or Systems

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Green-Focused Employer Services:

- Re-examination of energy consumption and emissions
- Development/revision of business strategies
- Redesigning of production and delivery processes
- Revision of work assignments
- Modification of community services and philanthropic efforts

Other Green Jobs Measures:

- Green Jobs Advisory Panels
- Green Employer Certification

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Locally, Standards-Based Criteria for **Green Jobs Education and Training Will be Reflected in:**

- **A Green Education and Training Provider Directory (GETPD)**
- **The SBWIB Green Root Demand Occupations List**
- **Outcomes-Based Criteria for Green Jobs Training Projects**
- **Green Evaluation Criteria for Service Occupations**
- **Green Jobs Advisory Panels**

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2006-2016 Green Root Growth Occupations

- **Transportation, Storage, and Distribution Managers**
- **Construction Managers**
- **Cost Estimators**
- **Training and Development Specialists**
- **Human Resources, Training, and Labor Relations Specialists, All Other**
- **Business Operations Specialists, All Other**
- **Accountants and Auditors**
- **Financial Analysts**
- **Computer Software Engineers, Applications**
- **Computer Software Engineers, Systems Software**
- **Computer Systems Analysts**
- **Civil Engineers**

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2006-2016 Green Root Growth Occupations

- **Environmental Engineers**
- **Life Scientists**
- **Microbiologists**
- **Biological Scientists, All Other**
- **Life Scientists, All Other**
- **Physical Scientists**
- **Physicists**
- **Chemists**
- **Environmental Scientists and Specialists, Including Health**
- **Environmental Science and Protection Technicians, Including Health**
- **Interior Designers**
- **Security Guards**

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- **2006-2016 Green Root Growth Occupations**
- **First-Line Supervisors/Managers of Landscaping, Lawn Service, and Grounds-Keeping Workers**
- **Janitors and Cleaners, Except Maids and Housekeeping Cleaners**
- **Landscaping and Grounds-Keeping Workers**
- **Sales Reps., Wholesale and Mfg., Technical and Scientific Products**
- **Sales Reps., Wholesale and Mfg., Except Technical and Scientific Products**
- **Bookkeeping, Accounting, and Auditing Clerks**
- **Customer Service Representatives**
- **Executive Secretaries and Administrative Assistants**
- **Office Clerks, General**
- **Construction Laborers**

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2006-2016 Green Root Growth Occupations

- **Paving, Surfacing, and Tamping Equipment Operators**
- **Janitors and Cleaners, Except Maids and Housekeeping Cleaners**
- **Landscaping and Grounds-Keeping Workers**
- **Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products**
- **Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products**
- **Bookkeeping, Accounting, and Auditing Clerks**
- **Customer Service Representatives**
- **Executive Secretaries and Administrative Assistants**
- **Office Clerks, General**
- **Construction Laborers**
- **Paving, Surfacing, and Tamping Equipment Operators**

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2006-2016 Green Root Growth Occupations

- *Electricians*
- **Roofers**
- **Construction and Building Inspectors**
- **Automotive Service Technicians and Mechanics**
- *Heating, Air Conditioning, and Refrigeration Mechanics and Installers*
- **Industrial Machinery Mechanics**
- **Power Plant Operators**
- **Production Workers, All Other**
- **Truck Drivers, Heavy and Tractor-Trailer**
- **Refuse and Recyclable Material Collectors**

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ARFVT Program Growth Occupations According to the SCAG Clean Cities Coalition:

- *AFV Certified Technicians*
- *Infrastructure Maintenance Workers*
- *Automotive Service Technicians and Mechanics*
 - *After Market Retrofit Technicians*
- *Truck Drivers, Heavy and Tractor-Trailer*
- *Transportation, Storage, and Distribution Managers*
- *Computer Software Engineers, Applications*
- *Computer Software Engineers, Systems Software*
- *Computer Systems Analysts*

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RECOMMENDATIONS:

- **To Federal & State Labor Market Information Systems:**
 - Expand national occupational data collection systems to recognize and track green industry activities and occupations; make refinements based on qualitative input from employers, and provide relevant information to specific geographies
 - Promote recognition and incentive systems for exemplary *green* employers

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RECOMMENDATIONS:

- To Federally Funded Local Workforce Development Entities:
 - Establish Green Demand Occupations Lists
 - Adopt Guiding Principals for Green Jobs
 - Adopt Outcomes-Based Criteria for Green Jobs
 - Provide Green-Focused Employer Services
 - Adopt Green Evaluation Criteria for Service Occupations
 - Establish Green Jobs Advisory Panels to evaluate training opportunities and projects

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RECOMMENDATIONS:

- **To Federally Funded Local Workforce Development Entities:**
 - Develop and implement green employer certification systems
 - Establish Green Education and Training Provider Directories
 - Provide apprenticeship preparation services in collaboration with organized labor as needed
 - Seat green experts on local workforce investment boards
 - Promote recognition and incentive systems for exemplary green employers

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RECOMMENDATIONS:

- To Summer Youth Employment & Training Program Funders & Operators :
 - Collaborate with public and community-based agencies to develop summer opportunities that provide youth exposure to and experience in sustainability-oriented education, employment, and community-service activities, and tie such opportunities to year-round programming
 - Facilitate access to and connections with secondary and post-secondary education programs that focus on sustainability and pathways to green careers

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RECOMMENDATIONS:

- To Summer Youth Employment & Training Program Funders & Operators :
 - Facilitate private sector labor market opportunities with **green** employers that offer job-bound youth upward mobility and livable wage potential; this includes preparation for licensed apprenticeship programs leading to **green** work opportunities in the skilled trades

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RECOMMENDATIONS:

- **Other Recommendations for the Federal Workforce Investment System:**
 - Fund training/education for incumbent workers and job-seekers who have a desire and propensity to work in green science, technology, engineering and mathematics (STEM)-oriented careers. Exclude participants from federal *Common Measures* requirements
 - Provide incentives for currently undeclared associate, bachelor's, and advanced degree aspirants to focus their trajectories into green STEM fields and careers

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RECOMMENDATIONS:

- **Other Recommendations for the Federal Workforce Investment System:**
 - Promote a national campaign to encourage and enable opportunities for **green** STEM education and careers in environmental technology fields
 - Fund public sector and community-based activities designed to provide career and academic support to high school and college-bound youth who plan to pursue a **green** STEM career

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California's GREEN Workforce Coalition

KEY Dates:

February 19 th , 2009	1-4	Industry Intelligence Group @	SBWIB
February 24 th , 2009	1-4	Industry Intelligence Group @	SBWIB
February 25 th , 2009	1-4	Industry Intelligence Group @	SBWIB
February 26 th , 2009	1-4	Industry Intelligence Group @	TBD



THANK YOU