

The background of the slide is a light green color with a subtle grid pattern. The grid lines are slightly darker green and form a series of squares. The grid is more prominent in the upper half of the slide and fades out towards the bottom. The overall aesthetic is clean and professional, with a focus on green, which aligns with the 'Green Pipeline' theme.

Developing, Cultivating, & Training a Green Pipeline

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Los Angeles Trade-Technical College

Los Angeles Trade-Technical College

Green College Initiative

Launched in Fall, 2006
the LA Trade-Tech Green College Initiative
Consists of 4 Primary Objectives

Green Built Environment

- **Green Buildings**

Green Practices

- Clean & **"Green"** Practices
- **Green** Certified Business Standards

Green Awareness

- **Green** Advocates
 - Students
 - Community Members

Green Education & Training

- Infusing **Sustainability** as Theme Throughout Curriculum
- **Green Workforce Development**

Green Workforce Development Challenges

- Dedicated Staff
- Equipment, Facilities
- Funding
- Expertise

Time & Resource Commitment

- So Many Options to Choose
 - Where to Begin?
 - Easy to Get Distracted

Difficult to Prioritize or Focus Efforts

Challenges

Insufficient Information

- Only a Few SOC Codes
- Skill Standards & Certifications Not Universal
- Data Not Available at Regional/Local Level

Everyone is Getting Into the “Green Game”

- Duplication of Efforts
 - Competition
- Risk of Oversaturation

Los Angeles Infrastructure and Sustainable Jobs Collaborative

Industry-Sector Driven

- **Energy/Utility**
 - Construction
 - Transportation

Regional Partners

- **Industry** - L.A. Department of Water and Power, Southern CA Gas Company (Sempra), Water District of Southern CA
- **Gov't** - LA Community Development Dept
- **K20** - LAUSD, LA Trade-Tech College, CSULA
- **Labor** - IBEW Local 18 and Local 11, CA Building & Construction Trades Council
- **CBOs** - Apollo Alliance, Urban League
- **WIA** - Southeast Crenshaw WorkSource Center

Intermediary

- **Regional Economic Development Institute (REDI) @ LA Trade-Tech**

Sector Research

Industry & Occupation Trends

- Retirements
- Aging Infrastructure
- Renewable Energy Policy & Standards

Workforce Challenges

- Employment Eligibility
- Basic & Workplace Skills
- Job Classifications – **Green**

Greening of the Sector

- Existing Occupations – **Green** Technologies & Practices
- Emerging **Green** Occupations – Solar, Wind

Priorities

- Vacancies
- Prep Programs (Pre-Apprenticeship)
- Most Promising **Green** Occupations



The Regional Economic Development Institute (REDI)
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Clean Technology
Workforce Challenges and Opportunities

Presented to the
Los Angeles/Orange County Regional Consortium &



Partial Funding Provided by the Los Angeles Office of Water and



REGIONAL ECONOMIC DEVELOPMENT INSTITUTE (REDI)

The
Strategic Opportunity
To Build a Green Workforce
In Los Angeles
(Working Copy)



A Regional Education and Training Action Plan
February 2008

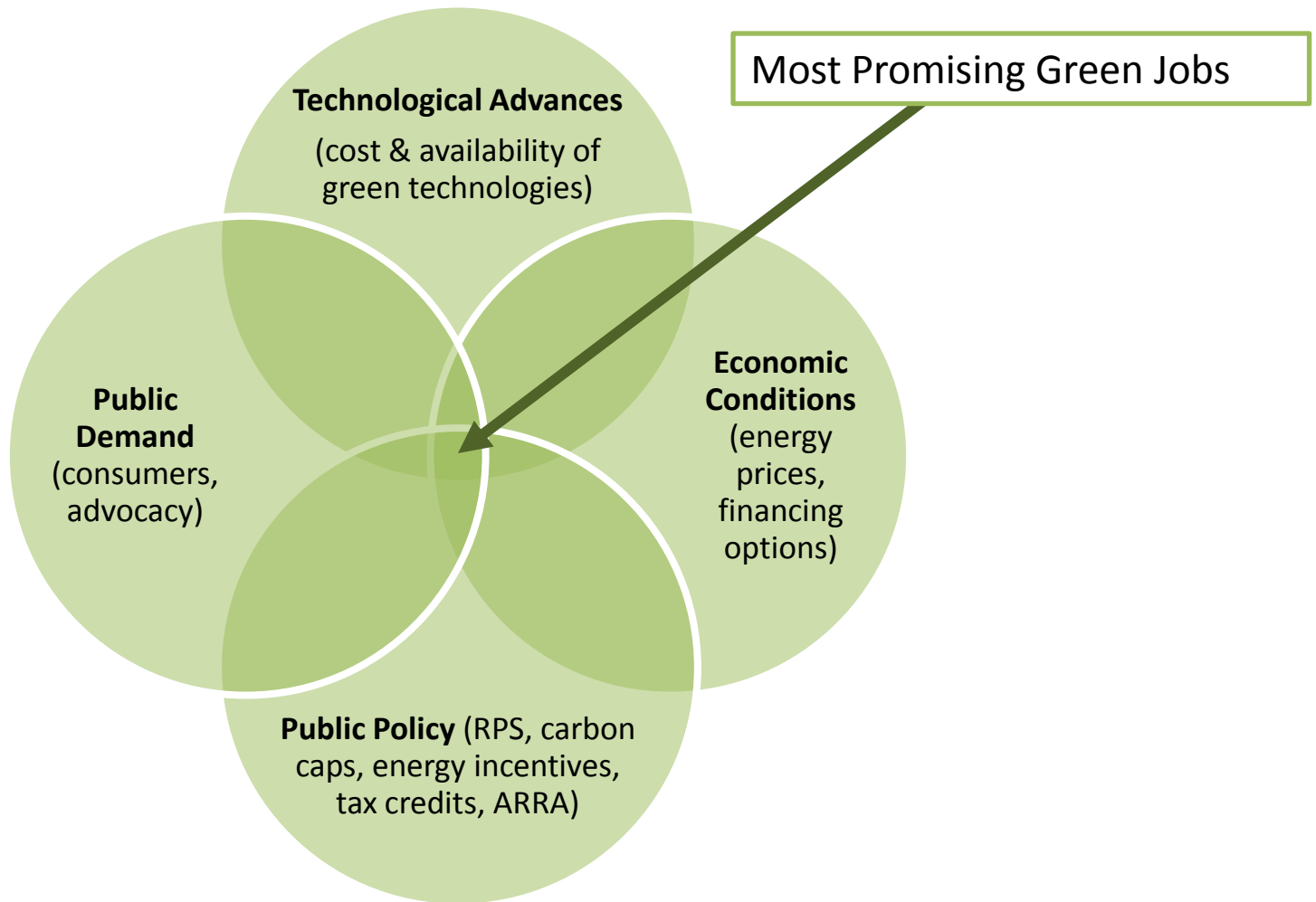
Prepared for
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REDI@latc.edu
<http://www.latc.edu/dept/latc/REDI/index.html>

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<http://www.latc.edu/dept/latc/REDI/Utility.html>



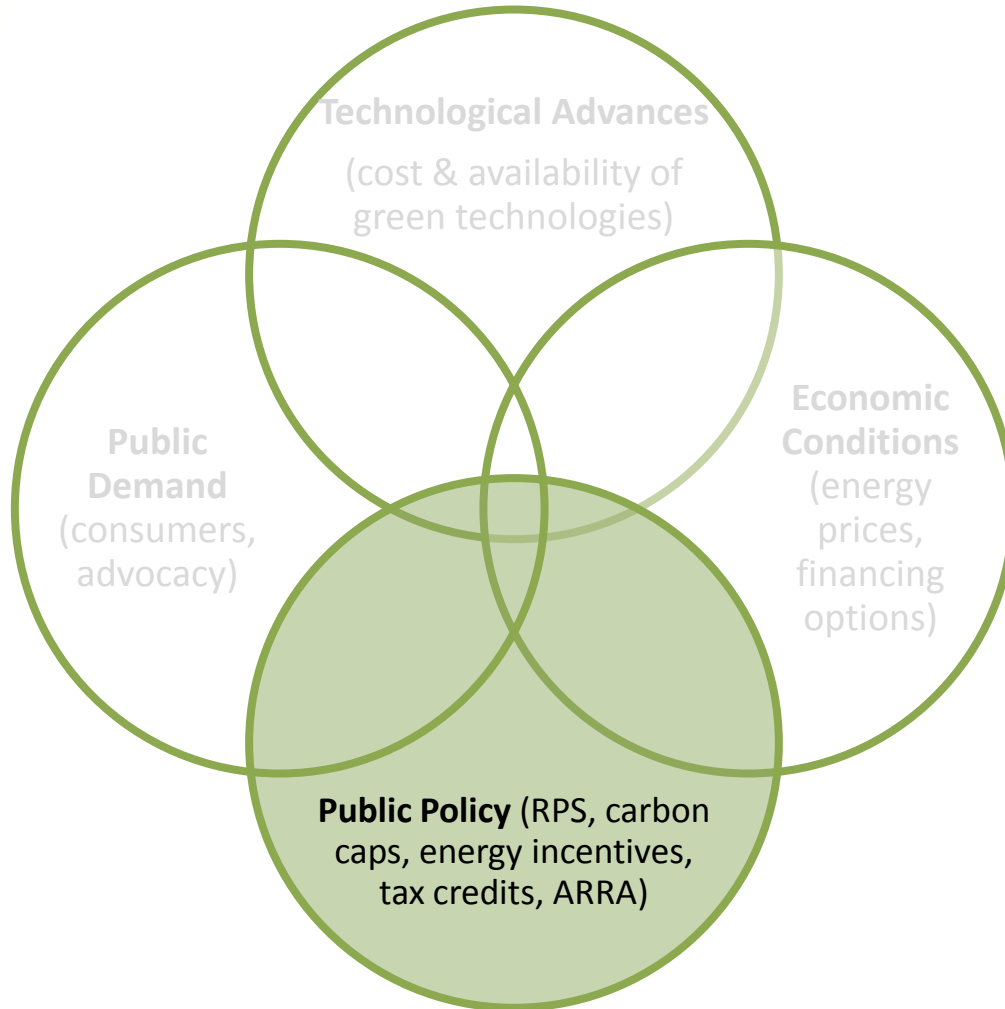
Green Workforce Research

What Drives Demand for Green Jobs?



Green Workforce Research

What Drives Demand for Green Jobs?



Public Policy

- American Recovery & Reinvestment Act
 - \$5 billion weatherization, low income homes
 - \$6.3 billion, energy-related grants to states
 - \$4.5 billion, federal building retrofits
 - \$11 billion, electrical grid modernization
 - \$4 billion WIA adult, dislocated, & youth job training & employment (emphasis on “green jobs”, renewable energy, infrastructure, energy efficiency, home retrofitting, biofuel development, vehicle development/manufacturing)
 - \$500 million DOL green jobs training competitive grant program (projects that prepare workers for careers in the energy efficiency and renewable energy sectors)
 - Labor Market Information
 - Energy Training Partnerships
 - Pathways Out of Poverty
 - State Sector Training
 - Green Capacity

Public Policy

- California Green Legislation – Enacted or Currently Proposed

[AB 3](#) - Energy: Renewable Energy Workforce Readiness Program

[AB 19](#) - Greenhouse Gas Emissions: Consumer Product Labeling

[AB 32](#) - Fact Sheet - California Global Warming Solutions Act of 2006

[AB 64](#) - Energy: renewable energy resources: generation and transmission

[AB 118](#) - Alternative fuels and vehicle technologies: funding programs

[AB 177](#) - Energy: Green Economy Inclusion Act of 2009

[AB 210](#) - Green building standards

[AB 212](#) - Energy: building standards: zero net energy buildings

[AB 231](#) - California Global Warming Solutions Act of 2006: Climate Protection Trust Fund

[AB 234](#) - Energy: efficiency

[AB 238](#) - Renewable energy resources

[AB 262](#) - American Recovery and Reinvestment Plan: energy activities, programs, or projects

[AB 289](#) - Public resources: geothermal resources: disposition

[AB 290](#) - Neighborhood Stabilization Program grants: funding priorities and criteria

[AB 811](#) - Contractual assessments: energy efficiency improvements

[AB 2006](#) - California Community Colleges Economic and Workforce Development Program: Center of Innovation for Green Technology

[AB 2224](#) - California Clean Energy Curriculum and Training Initiative of 2008

[AB 2267](#) - California-based entities: self-generation incentive

[AB 2477](#) - California Green Jobs Act of 2008

[AB 2622](#) - Employment Training Programs: Clean Technology Industry

[AB 2855](#) - Career Technical Education: Partnership Academies: Green Technology and Goods Movement

[AB 2864](#) - School facilities: energy efficiency

[AB 2868](#) - Redevelopment agencies: affordable housing

[AB 3001](#) - Global warming: California Voluntary Carbon Offset

[AB 3018](#) - California Green Collar Jobs Act of 2008

[Executive Order S-14-08](#) - Governor Streamlines California's Renewable Energy Project Approval Process and Increases the State's Renewable Energy Standard to 33 Percent Renewable Power by 2020

[SB 7](#) - Renewable Energy Sources: Net Metering

[SB 14](#) - Utilities: Public Utilities Commission: Energy: Renewable Energy Resources: Rates

[SB 17](#) - Electricity: Smart Grids Systems

[SB 31](#) - California Global Warming Solutions Act of 2006: Revenue Allocations

[SB 32](#) - Renewable Electric Generation Facilities

[SB 104](#) - California Global Warming Solutions Act of 2006: designation of greenhouse gases

[SB 128](#) - California Climate Change Institute

[SB 1672](#) - Renewable Energy, Climate change, Career Technical Education, and Clean Technology Job Creation Bond Act of 2010

[SB 1754](#) - Energy: California Alternative Energy and Advanced Transportation Financing Authority

[SB 1760](#) - Energy: greenhouse gas emissions

Green Workforce Development

Priorities

Priorities

- Occupations with High Retirements
- Prep Programs (Pre-Apprenticeship)
- **Most Promising Green Occupations**

- Renewable Energy Technician
- Energy Auditor
- Compliance Specialist
- Resource Conservation/Efficiency Manager
- Energy Analyst
- Solar Installer Technician
- Energy & Indoor Air Quality Auditor
- Deconstruction Worker
- HVAC and PV Operations & Maintenance Technicians
- Diesel & Auto Technicians with alternative fuels and emissions controls competencies
- Water Supply, Distribution & Treatment Technicians/Operators

Workforce Challenges

- Employment Eligibility
- Basic & Workplace Skills
- Job Classifications – **Green**

Utility & Construction Prep Program

Electrical Distribution Mechanic

Greening of the Sector

- Existing Occupations – **Green** Technologies & Practices
- Emerging **Green** Occupations – Solar, Wind

Solar Installer & Maintenance Technician Program

Weatherization & Energy Efficiency Technician Program

Green Workforce Program Design

Employment Barriers - Gatekeepers

- Eligibility Requirements
 - Criminal Record
 - Right to Work
 - Driver's License
 - Automobile & Insurance
 - Drug-Free
- Civil Service Process
- Entry Occupations – Part-time; living wage

Career-Pathways

- Industry-Recognized Certifications & Standards
- US Department of Labor, Employment & Training Administration (DOLETA) Competency Framework
 - www.careeronestop.org/CompetencyModel
- Prep Programs – Workplace skills; math & English skills (contextualized)
- Pathway Mapping
 - Entry-level
 - Incumbent, career ladder
 - Professional, management

Competency Framework

Building Block Competencies for Utilities Careers

Tier 5: Industry-Sector Technical Competencies
Competencies Specified by Industry Sector Representatives

Tier 4: Industry-Wide Technical Competencies
Competencies Specified by Industry Sector Representatives

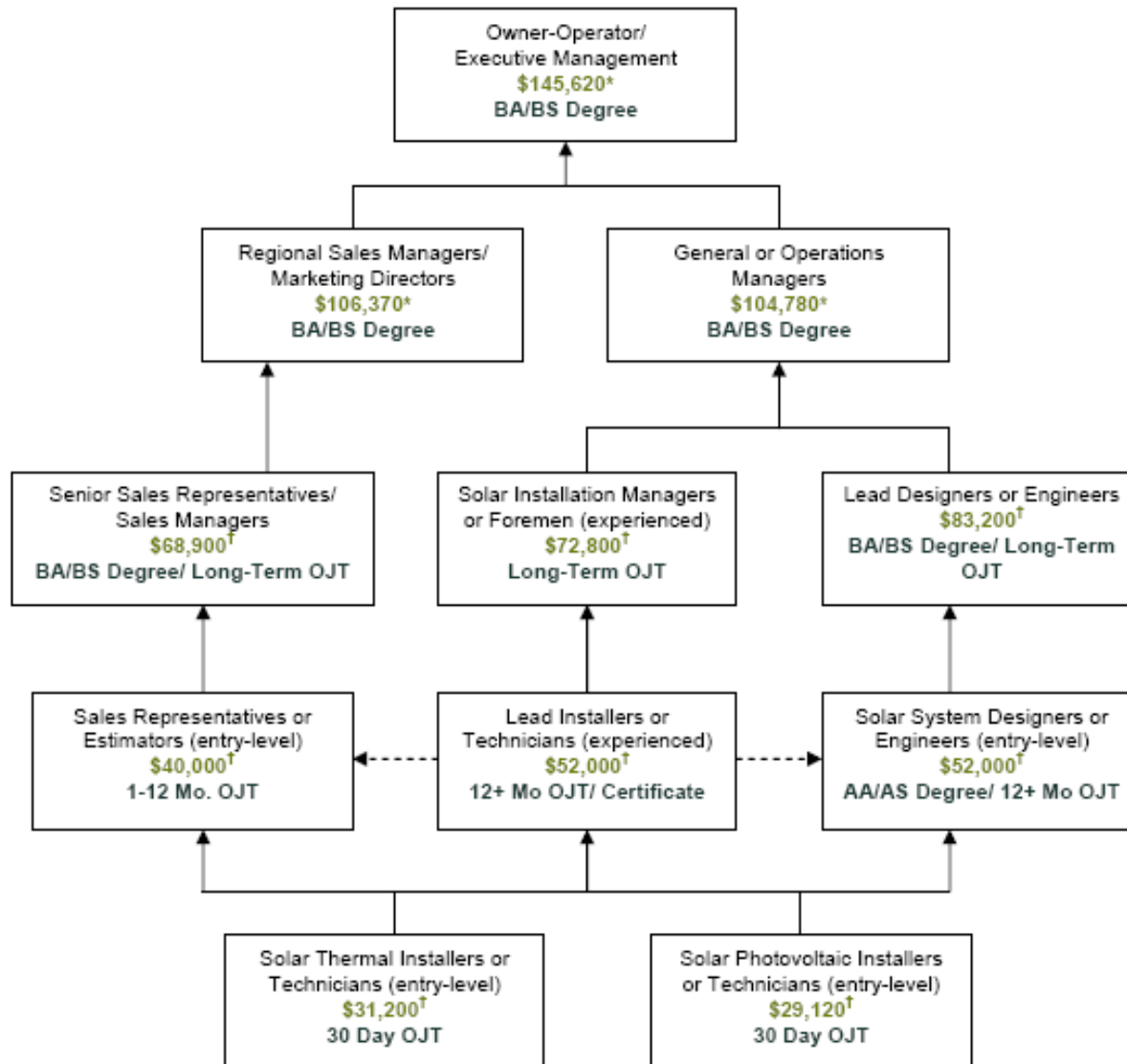
Tier 3: Workplace Competencies				
Teamwork	Customer Focus	Problem Solving & Decision-Making	Working with Tools & Technology	Checking, Examining, & Recording

Tier 2: Academic Competencies			
Reading	Writing	Mathematics	Communications, Listening, & Speaking

Tier 1: Personal Effectiveness Competencies				
Interpersonal Skills	Integrity	Professionalism	Initiative	Dependability & Reliability

Eligibility Requirements					
Physical	Legal	Age	Prior Education	Eligible to Work	Drivers License

Career Pathways (Solar)



Green Workforce Program Design – Role of Partners

Entry-Level Programs

Tiers 1-3 Competency Framework

- **Industry:** Participate in Program Design, Hiring Barriers, Program Support, Mentorships, Instructors & Guest Lecturers
- **Gov't:** Policy, Funding
- **Labor:** Participate in Program Design, Transitions From Pre-apprenticeship to Apprenticeship Programs, Instructors & Guest Lecturers
- **K12 and CCs:** Personal Effectiveness, Academic & Workplace Skills Education Programs; Tech-Prep Articulation
- **CBOs & WorkSource Centers:** Outreach, Workplace Skills, Case Management, Placement

Career-Pathways

Tiers 4-6 Competency Framework

- **Industry:** Participate in Program Design, Hiring Barriers, Program Support, Internships
- **Gov't:** Policy, Hiring Barriers, Funding
- **Labor** – Apprenticeship Programs
- **CCs and Universities:** Technical & Professional Certificate/Degree Programs, Apprenticeship Programs, Standardizing Curriculum, Articulating Programs
- **CBOs & WorkSource Centers:** Case Management, Placement

Role of Community Colleges

- Serve as Collaborative Intermediary
- Conduct Research: **Green**-Related Research, Industry-Sector Studies, Environmental Scans
- **Green** Liberal Arts & Career-Technical Programs
- Develop New, Targeted **Green** Career-Technical & Professional Certificate/Degree Programs
- Articulate Programs with K12 & Universities
- **Green** Advocacy & Policy
- Facilitate Transitions to Apprenticeship Programs &/or Serve as LEA
- Partner with CBO's & WorkSource Centers for Outreach, Case Management, Joint Training Programs, & Placement
- Serve as Fiscal Agent for Collaborative Grants & Contracts