

CONSULTANT REPORT

APPENDICES TO EVALUATION OF THE CLEAN ENERGY WORKFORCE TRAINING PROGRAM

Prepared for: California Energy Commission
Prepared by: DNV KEMA Energy & Sustainability



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APPENDIX A:

List of Stakeholders Engaged in Training Program Partnerships

This appendix contains three tables:

- Table 1: Stakeholders by EDD Pre-Apprentice Subgrantees
- Table 2: Stakeholders by EDD Retraining Subgrantees
- Table 3: Stakeholders by ETP Career Advancement Subcontractors

In the tables, Community College District is represented with CCD, and Community Colleges are represented with CC.

Table 1: Stakeholders by EDD Pre-Apprenticeship Subgrantees

EDD Pre-Apprenticeship Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
Hartnell College	Monterey WIB Santa Cruz WIB	Hartnell CC, Cabrillo CC						Ecology Action
Humboldt County	Humboldt County WIB	Humboldt County College, College of the Redwoods	GreenWay Partners, Pacific Gas & Electric, Umpqua Bank, North Coast Small Business Resource Center, Aalfs and Evans Accountancy, Pacific Builders, Alternative Energy Engineering, Hoopa Modular Homes, SHN Consulting Engineers, Winzler and Kelly Consulting Engineers, Crystal Air, Arcata Community Recycling Center, Freshwater Tissue, BBW Forest Consultants, Environmental Technology Controls, Fisch Environmental, North Coast Environmental Construction, McMurray and Sons, DG Energy, Humboldt State University, Kokatat, Tomas Jewelry, Fire and Light Originals, Wing Inflatables, Cypress Grove Chevre, Lost Coast Brewery, SPI Co-Generation.					Redwood Coast Green Employer Council, facilitated by Plan-it Green

EDD Pre-Apprenticeship Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
Imperial Valley College	Imperial County Workforce Development Board	Imperial Valley College	Max Castillo Construction, GMG Graphics, CalEnergy, Imperial Irrigation District, SDG&E and several others.	Imperial Valley Economic Development Corp	Labor unions IBEW and United Association of Journeymen and Pipefitter	County of Imperial, city of Imperial	•	Community-based organizations such as Campesinos Unidos
Kern/Inyo/Mono Consortium	Employers' Training Resource (ETR) of the Kern/Inyo/Mono WIB	Kern CCD	Green Regional Employer Council (GREC): Tulare County, PG&E, Albiassa, NextEra Energy Resources, and Solar Millenium. Pure Energy Systems and Fiberset, Incorporated	Kern Economic Development Corporation (KEDC)	Kern, Inyo, Mono Building Trades Council, the Sheet Metal Workers International Association (SMWIA) Local 105, International Brotherhood of Electrical Workers (IBEW) Local 428, United Association of Plumbers and Steamfitters Local 60	City of Bakersfield, Economic and Community Development Department	•	Mexican American Opportunity Foundation (MAOF); Proteus, Inc.; Farmworker Institute for Education & Leadership Development (FIELD)
Los Angeles City	City of Los Angeles WIB and LA County WIB	Los Angeles CCD	Green Employer Council; Green WEST Alliance include Public Housing Developments, public agencies, non-profit agencies, private sector employers, non-governmental organizations, organized labor (and labor-management organizations), economic development corporations, and public educational entities.	Los Angeles Economic Development Corporation	Los Angeles County Federation of Labor	City of Los Angeles' Mayor's Office, Los Angeles Area Chamber of Commerce	•	Los Angeles Unified School District, United Way of Greater Los Angeles, Los Angeles Workforce Funder Collaborative

EDD Pre-Apprenticeship Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
Long Beach CCD	Pacific Gateway WIB	Long Beach CCD	<p>Green Employer council, McDonald, Soutar & Paz Architects, Inc., the Long Beach Branch of the US Green Building Council, the Long Beach & South Bay American Institute of Architects, and McCarthy Construction Co. In the Deep Building Retrofit and Retro-commissioning industries, Siemens USA, Water Replenishment District of Southern California, Southern California Edison, the City of Long Beach, Energy Efficiency Management Inc., Harding Construction & Sustainable Solutions Inc." Village Green Sustainable Solutions and Go Green Lending LLC</p>			City of Long Beach Office of Sustainability, Port of Long Beach,		Manpower Inc., Long Beach Small Business Development Center, Long Beach Chamber of Commerce and Green Feather Consulting

EDD Pre-Apprenticeship Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
Northern Rural Training and Employment Consortium	Northern Rural Training & Employment Consortium (NoRTEC) WIB	North/Far North Regional Consortium of CA Community Colleges	Green Employer Council: Kurtis Carman, BCM Construction Norm Nielsen, Chico Electric Don Fowler, McClelland HVAC Tom DiGiovanni, Urban Builders Gage Chrysler, Modern Building Robert Leckinger, FAFCO (Solar Thermal) Gordon Beall, CalHERS Kate Leyden, Valley Contractors Hiram Oilar, Marketing & Management Dana Griffith, NCPA Joe Parlett, Solar Power Partners	•		Small cities & counties	•	Oroville Energy Farm, Rural Development Employer Outreach for Green Collar Jobs and Energy Solutions
Peralta CCD	Oakland WIB	Laney CC, Cypress Mandala Center	Green Employer Council			City of Oakland	•	Oakland Green Jobs Corps
Richmond City		RichmondBUILD Green Careers Academy	Turner Group Construction, Environmental Conservation Options, Rising Sun Energy Center, CESC, Omega Pacific, and NET Electric			City of Richmond		Contra Costa College, Rising Sun Energy Center, Solar Richmond

EDD Pre-Apprenticeship Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
San Bernardino CCD	San Bernardino County Department of Workforce Development	Chaffey College, San Bernardino CCD	AGC (Associated General Contractors), Laborer's Union, Carpenter's Apprenticeship, Plumbers & Pipefitters, HeaUFrostiAsbestos Union, and International Brotherhood of Electrical Workers, Mohr Power Solar, SunEarth Systems, PermaCity, Solar POWer Projects, Bernard's, Turner Construction, AGC & their affiliate contractors, CACTUS, and Cucamonga Valley Water District.		AGC (Associated General Contractors), Laborer's Union, Carpenter's Apprenticeship, Plumbers & Pipefitters, HeaUFrostiAsbestos Union, and International Brotherhood of Electrical Workers	San Bernardino County	•	Manufacturing Council of the Inland Empire, Logistics Training Consortium, regional Water/Utility Consortium, and Inland Empire Solar Energy Council, Uncommon Good

EDD Pre-Apprenticeship Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
San Diego Workforce Partnership	The Workforce Partnership/San Diego Workforce Investment Board	San Diego CC	Green Building Partnership Green Employer Council: Paul Clifford, San Diego Air Pollution Control District, renewable energy; Tony Lazarus, Strategic Integration Group, energy efficiency; Don Leonard, Architects Mdwf, energy efficiency; Clyde Marion, Hawthorne CAT, construction; Kathleen Mastrl, El Cajon Roofing Inc." construction, Tracy Mathis, Onsite Energy Corporation, energy efficiency; John Mueller, Jackson &Blanc, construction; Marcel Perry, Sunpro Glass Tinting, energy efficiency; Bob Ramirz, ITRON, Claude Rowe, Horizon Solar Systems, Ulf Waldmann, Mission Valley Roofing, Inc.	Veterans Employment Services	Associated General Contractors, Black Contractors Association, San Diego County Plumbers/Pipefitters Trades	San Diego government	•	
San Francisco		CityBuild Academy, City College of San Francisco		San Francisco Office of Economic and Workforce Development			•	Mission Hiring Hall, Goodwill Industries, Jewish Vocational Service, Young Community Developers, Florence Crittendon Services, and Charity Culture Services Center

EDD Pre-Apprenticeship Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
Sacramento Employment Training Agency	WIBs, Sacramento Works, Inc. and Golden Sierra Job Training	Los Rios CCD, Sierra College, American River				Sacramento Metropolitan Chamber of Commerce and the Sacramento Area Commerce and Trade Organization in Partnership for Prosperity; The Sacramento Area Commerce and Trade Organization	•	<p>Sacramento Employment and Training Agency/Sacramento Works, Inc. American River College / Los Rios Community College District Los Rios Community College District/The Training Source Community Resource Project Sacramento Area Electrical Tgraining Center (NECA-IBEW Local 340) Green Capital Alliance § Golden Sierra Job Training Agency Cosumnes River College/Los Rios Community College District Sacramento Municipal Utility District Sacramento Sierra Building and Construction Trades Council (SBCTC) Buetler Corporation North State Building Industry Association/Foundation</p>
San Luis Obispo County	San Luis Obispo WIB and Santa Barbara WIB	Cuesta College, Hancock College, Santa Barbara City College	Santa Barbara Contractor's Association, Tradart Foundation, Campanelli Construction		California Conservation Corps	California Central Coast Chapter of the US Green Building Council, San Luis Obispo County Department of Planning and Building	•	<p>Santa Barbara Contractors Association, Tradart, Workforce Investment Resource Center</p>

EDD Pre-Apprenticeship Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
Solano Community College	Solano WIB	Solano CC	<p>Green Employer Council represent the following targeted industry sectors: Energy Auditing and HERS Rater, Toni Turnbull, CalCERTS: Energy Efficiency, Rich Wulff, Wulff Electric; Alternative Energy, Rodney Pitts, Go Green Biofuels; Civil Engineering and Green Plumbing and Technology, Gary Andrews, Amos & Andrews; Water Efficiency, Ken Williams, Landscape Architect; LEED AP, LEED GA, Biofuels, General Engineering, General Contracting, Electrical and Haz Materials Licenses, Paul Fair, Green Build Education Group; Code Compliance Expertise and Green Training Provider; Jay Salazar, City of Vacaville; Electrical and Nat Gas Utility Provider, Clay Schmidt, PG&E; PV Installation and Operation, Bryce Robicheau, PetersenDean.</p>	<p>SCC Small Business Development Center</p>	<p>Napa-Solano Building and Construction Trades Council, Napa-Solano Counties Carpenters Training Committee, Western Electrical Contractors Association, N. CA and the N. Nevada Stationary Engineers</p>	<p>Solano and Napa county municipalities</p>	<p>•</p>	

EDD Pre-Apprenticeship Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
South Bay WIB	11 local WIBs	16 community colleges	<p>Green Employer Council: Healing Spaces by Design-Charisse B. Dunn, Owner</p> <p>The Green Hive-Kris D. Kimble, CEO</p> <p>DuctTesters, Inc.-Dave B. Hegarty</p> <p>ASF Millworks, Inc.-Sandi Sinicrope, President</p> <p>Quilite- Alice Taylor, VP, Strategic Planning</p> <p>Building Doctors-Dan Thomsen, President</p> <p>Jasana-Gregory J. Sharp, President</p> <p>Solartech Power Inc.-Sherry Fu, President</p> <p>Imani Energy, Inc.-Jeffrey Richardson, President</p> <p>Southern California Edison</p>			<p>South Bay Environmental Services Center (SBESC), a GGB partner, is operated by the South Bay Cities Council of Governments (SBCCG) in partnership with: the Gas Company, Southern California Edison, the West Basin Municipal Water District, the Sanitation Districts of Los Angeles County and the Los Angeles Metropolitan Transportation Authority</p>	•	
EDD Pre-Apprentice - Green Building (n=16)	14	16	13	7	7	13	12	13

EDD Pre-Apprenticeship Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
College of the Desert		College of the Desert Palo Verde Community College	Green Employer Council	Riverside County Economic Development Department, the Coachella Valley Economic Partnership, Coachella Valley Enterprise Zone	IBEW 440	Riverside County Department of Public Social Services (DPSS), CalWORKs GAIN	•	National Joint Apprenticeship and Training Committee for the Electrical Industry, Riverside & San Bernardino Counties Building and Construction Trades Council
Los Angeles Trade Technical College	LA County WIB and Los Angeles City WIB	Los Angeles Trade-Technical college, Los Angeles CCD		Regional Economic Development Institute; L.A. Economic Development Corporation	Operations and Maintenance Engineers, Local 501; SCADA (Glendale, Burbank, and Pasadena Lineman and Cable Above Ground Cable Splicers); Burbank Water and Power Electrician and Test Technician; Steam-Refrigeration-Air Conditioning-Pipe Fitters Local #250; HVAC-R Technicians, Local #40 IBEW; and SETC-UCLA Carpenter, Electrician, Plumber and HVAC apprenticeship program			Los Angeles Department of Water and Power, Southern California Edison, Burbank Water and Power, Glendale Water and Power, and Sempra Energy, Coalition for Responsible Community Redevelopment, LA Conservation Corps, WINTER, Los Angeles Urban League, OneLA, Watts Youth Opportunity Program and others.
EDD Pre-Apprentice - Clean Energy (n=2)	1	2	1	2	2	1	1	2
EDD Pre-Apprenticeship Total (n=18)	15	18	14	9	9	14	13	15

Source: EDD proposals and agreements

Table 2: Stakeholders by EDD Retraining Subgrantees

EDD Retraining Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
Contra Costa CCD	Contra Costa Workforce Development Board	Contra Costa College, Diablo Valley College, Los Medanos College	Heliodyne, Sun Pirate, BSH Home Appliance, USS-POSCO, City of Pittsburg			Contra Costa Co Dept. of Conservation and Development, City of Richmond	•	Build it Green
Grossmont-Cuyamaca CCD	San Diego Workforce Partnership	Cuyamaca College, Palomar College	Green Employers Council, San Diego Gas & electric, A.O. Reed & Co., RHA, Bulter Sun Solutions, Independent Energy Solutions, Building Technology Systems	San Diego East County Economic Development Council		County of San Diego, San Diego Assoc. of Gov.	•	Metro United Methodist Urban Ministry, MAAC Project, San Diego Regional Sustainability Partnership, Goodwill Industries, Pioneer Consultants, San Diego Housing Commission, Green LMI, Heliodyne, Dept of Navy, C4STEP
Humboldt County	Humboldt County WIB	Humboldt County College, College of the Redwoods	Redwood Coast Green Employer Council and Several local business that inform through participation in surveys from the Green Business Council and who have committed to providing job placements, but who are not members of the Council. Yurok Tribal Housing Authority, Redwood Coast Energy Authority (RCEA), Redwood Coast Action Agency (RCAA), DANCO-Group, Dale Maples Plumbing, City of Arcata and Pacific Gas & Electric				•	

EDD Retraining Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
Long Beach CCD	Long Beach WIB, Pacific Gateway Workforce Investment Network	Long Beach CCD	Green Employer Council	Long Beach Small Business Development Center	Local labor	Office of California's 26th District Senator Alan Lowenthal, City Council members Tonia Uranga and Robert Garcia, City of Long Beach Office of Sustainability, Port of Long Beach, Long Beach Branch of the US Green Building Council, the Long Beach Chamber of Commerce	Virtual One-Stop (VOS)	McDonald, Soutar & Paz Architects, Inc., the Long Beach & South Bay American Institute of Architects, and McCarthy Construction Co, Siemens USA, Water Replenishment District of Southern California, Southern California Edison, the City of Long Beach, Energy Efficiency Management Inc., Harding Construction & Sustainable Solutions Inc., Village Green Sustainable Solutions and Go Green Lending LLC., Manpower Inc., the Long Beach Small Business Development Center
Los Angeles County	LA County WIB and Los Angeles City WIB	Los Angeles CCD	Green WEST Alliance (www.GreenWestAlliance.com): a group comprised of educational, employment, training, and economic development agencies and is administered by the LACCD	LA Economic Development Corp.	Laborers and IBEW Local 18	Los Angeles County Board of Supervisors	•	

EDD Retraining Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
Northern Rural Training and Employment Consortium (NoRTEC)	NoRTEC, a Workforce Investment Board and Joint Powers Authority (JPA) for the eleven counties in Northern California		<p>Green Employer Council represents a broad section of the targeted industries including utilities (utility scale projects, solar, hydro and geothermal), construction, solar installation, solar thermal manufacturing, associations and local residential and commercial developers:</p> <p>Kurtis Carman, BCM Construction Norm Nielsen, Chico Electric Don Fowler, McClelland HVAC Tom DiGiovanni, Urban Builders Gage Chrysler, Modern Building Robert Leckinger, FAFCO (Solar Thermal) Gordon Beall, CalHERS Kate Leyden, Valley Contractors Hiram Oilar, Marketing & Management Dana Griffith, NCPA Joe Parlett, Solar Power Partners</p>			City of Oroville, City of Gridley - NCPA; City of Yreka; NCRC, Siskiyou County	•	<p>Project: Energy Farm; Roseburg Forest Products; Cal Forest; Ore Cal RC&D – Etna HS; Box Canyon Dam; Wholesale Solar; CalPine; Etna Elementary; Wind Energy Farms; Invenergy and Horizon; Small Hydro Plants; Ski lift & groomers; Wheelabrator, Biomass Energy; Shasta EDC, Upstate EDC & Collaborative Partners; Cogeneration Plant</p>

EDD Retraining Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
North Orange County CCD		North Orange County CCD's LA/Orange Environmental Training Center	Business Partners of the Los Angeles/Orange County Environmental Training Center (LA/OC ETC). Green Employer Council: <ul style="list-style-type: none"> • Energy Efficiency Management Inc. <ul style="list-style-type: none"> • Harding Construction • Electrical Training Institute International Brotherhood of Electrical Workers Local 11 • Coneybeare Inc. • Green Plumbers USA • Anaheim Public Utilities 		The International Brotherhood of Electrical Workers Local Union 11	Green Plumbers USA: South Coast Water, Municipal Water District of Orange County, City of San Juan Capistrano, City of San Clemente, and City of Anaheim		Source of Future Trainees: US Veterans Group, Dept of Correction from the Cities of Anaheim and El Monte, High school graduates who are unemployed and not going to a college or university

EDD Retraining Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
Sacramento Employment Training Agency	Sacramento Works, Inc.	Los Rios CCD	<p>Green Capital Alliance:</p> <ul style="list-style-type: none"> • SMUD • UC Davis <ul style="list-style-type: none"> • Sacramento State College • Beutler Corporation <ul style="list-style-type: none"> • City of Sacramento (representing the Departments of Utilities and Public Works) <ul style="list-style-type: none"> • County of Sacramento • North State Building Industry Association • Roseville Electric/City of Roseville • Pacific Gas and Electric • Bank of America 	Economic center of the MSA	<p>Sacramento Sierra Building and Construction Trades Council, California Building Performance Contractors Association, California Association of Building Energy Consultants</p>	Sacramento County	•	<p>Sacramento Regional Clean Energy Workforce Training Partnership, Sacramento Electrical Training Center,</p> <ul style="list-style-type: none"> • Sacramento Employment and Training Agency/Sacramento Works, Inc. • Golden Sierra Job Training Consortium • Valley Vision/Green Capital Alliance • American River College • Los Rios Community College District • Sacramento Municipal Utility District • Sacramento Sierra Building and Construction Trades Council and training programs • Community Resource Project • Beutler Corporation • Green Plumbers USA

EDD Retraining Subgrantee	Workforce Investment Boards (WIB)	Community Colleges (CC)	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
Sonoma County	Marin WIB, Napa WIB, Solano WIB, and Sonoma WIB	College of Marin	North Bay Employment Connection (NBEC): Sonoma County General Services Department, Jose Obregon Marin Municipal Water District, Irene Maxcy Sustainable Spaces, Patch (Carol) Garcia Conservation Corps North Bay, Marilee Eckert North Coast Energy Services, Inc., Linda McQueen Rogers Remodel, Jamie Rogers		IEW Local 551	Sonoma County General Services Department	•	LeDuc & Dexter Inc., Industrial Carting, Wanen Brown Construction, Solar By Design, Cal Inc., and Conservation Mechanical Systems. These employers represent industries ranging from Government, Water, Energy Efficiency, Renewable Energy, Plumbing, Solar, Green Building, Fire Insulation, and General Contracting.
EDD Retraining - Green Building (n=9)	8	8	9	4	5	8	8	7
Kern CCD	Kern/Inyo/Mono WIB and Tulare WIB	Kern CCD	Green Employer Council and Southern California Edison, Albiassa and NextEra Energy Resources	Kern Economic Development Corporation (KEDC)	Labor and community organizations: Kern Inyo & Mono AFL-CIO Building & Construction Trades Council, the Builders' Exchange, the International Brotherhood of Electrical Workers (ISEW) Local 428; United Association of Plumber and Steamfitters Local 460 as well as the Pipefitters union	County government representatives, Chuck Lackey, P.E., Director of the Engineering & Survey Services Division of the Resource Management Agency, County of Kern, has agreed to serve on the Green Employers' Council.		
EDD Retraining - Clean Energy (n=1)	1	1	1	1	1	1	0	0
EDD Retraining Total (n=10)	9	9	10	5	6	9	8	7

Source: EDD proposals and agreements

Table 3: Stakeholders by ETP Career Advancement Subcontractors

ETP Career Advancement Subcontractor	Workforce Investment Boards (WIB)	Community Colleges	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
CA Labor Federation AFL-CIO			The participating employers will be members of the following JATCs: Tri County Electrical JATC; Fresno, Madera, Kings, and Tulare Counties for CA Electrical JATC; Santa Clara County Electrical JATC; Kern County Electrical JATC; San Diego Sheet Metal Workers JATC; UA Local 467 JATC; San Mateo Electrical JATC; Sacramento Electrical JATC; Laborers Training, Retraining and Apprenticeship Trust of Southern California; and San Francisco County Electrical JATC.		International Brotherhood of Electrical Workers (IBEW); Sheet Metal Workers; United Association (UA) – Plumbers; or Laborers International Union of North America (LIUNA)	State Building & Construction Trades Council of California		
Cal & Nevada Labor Management Cooperation Trust (dba California Labor Management Cooperating Committee (LMCC))					International Brotherhood of Electrical Workers (IBEW), National Electrical Contractors Association (NECA) and various Locals.			California Energy Commission (CEC), the UC Davis California Lighting Technology Center (CLTC), the California Investor-Owned and Municipal Utilities (IOMU), and the National Lighting Manufacturers Association (NEMA)
California Building Performance Contractors Association								California Building Performance Contractors Association

ETP Career Advancement Subcontractor	Workforce Investment Boards (WIB)	Community Colleges	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
Chabot-Las Positas Community College District		Chabot-Las Positas CCD	Finelite (Energy Lighting Manufacturer, Designer, Installer), Johnson Controls (Building Efficiency Product Manufacturer), Hurricane Electric, Associated Builders and Contractors, a statewide employer association with 583 member companies.					
Efficiency First, Inc.						Local government workforce development programs		Efficiency First has 721 member companies nationwide. Member and community-based organizations. Energy Conservation Institute in Ventura, CalCERTs, Inc., based in Folsom, and Greener Dawn located in Solano Beach. Efficiency First will also subcontract with CleanEdison, LLC, a national training firm based in New York City.
Farmworker Institute of Education and Leadership Development	Local WIBs			In partnership with State and local entities	International Brotherhood of Electrical Workers (IBEW)	In partnership with State and local entities	•	In partnership with State and local entities
Home Energy Systems			Home Energy Systems				•	Metro United Methodist Urban Ministries
Mendocino Solar Service			Mendocino Solar Service					
Northern California Solar Energy Association, Inc.			Akeena Solar, American Solar, Fidelity Roof Company, REC Solar, SPG Solar Inc., Sun Light & Power, Sungevity	American Solar Energy Society (ASES)				Solar Universe, Inc.

ETP Career Advancement Subcontractor	Workforce Investment Boards (WIB)	Community Colleges	Employers	Economic Development	Labor Organizations	Local Government	One Stop Career Centers	Other
ONNI, Inc. dba GreenPlumbers@USA			ONNI, Inc. dba GreenPlumbers@USA		ONNI, Inc. dba GreenPlumbers@USA			Environmental Protection Agency and its WaterSense Program, the Alliance for Water Efficiency, the California Center for Sustainable Energy, and the California Urban Water Conservation Council.
Plumbing & Piping Industry (Apprentice & Journeymen Training Trust Fund Of The Southern California)			California Plumbing & Mechanical Contractors Association; the Air Conditioning, Refrigeration and Mechanical Contractors Association of Southern California, Inc.; and the California Landscape and Irrigation Council		Southern California Plumbing and Piping Trades District Council 16			
Santa Monica Community College District		Santa Monica CCD	Clean Fuel Connection Inc., Imani Energy Inc., Phat Energy Corp., Solar City	Santa Monica College Office of Workforce & Economic Development (SOWED) and the Santa Monica College Small Business Development Center (SBDC) Centers of Excellence at the California Community College's Chancellor's office				
Shasta Tehama Trinity Joint Community College District		Shasta Tehama Trinity Joint CCD (Tri-County College District)			Shasta Builders Exchange			
ETP Career Advancement (n=13)	1	8	6	2	6	2	2	4

Source: ETP proposals and agreements

APPENDIX B: Data Collection Instruments

This Appendix includes the following data collection instruments:

1. In-depth Interview Guide: EDD Regional Advisors
2. In-depth Interview Guide: ETP Regional Analysts
3. In-depth Interview Guide: EDD Subgrantees
4. In-depth Interview Guide: ETP Subcontractors
5. In-depth Interview Guide: EDD Employers
6. CATI Survey Instrument: Training Participants

1. Interview Guide: EDD Regional Advisors

This document is intended as a guide; the actual interview may deviate from the questions presented.

I am calling from Itron on behalf of the California Energy Commission. We are seeking feedback on the Clean Energy Workforce Training Program. Your feedback will help us evaluate the program and develop recommendations. Our interview will take roughly one hour to complete and all information will be kept confidential. Also, for informational purposes, we may choose to record this conversation.

Key Features

Please describe each of the subgrantee programs under your supervision in terms of:

- Course topics, curriculum
- Student demographic

[Interviewer to note any discrepancies with Summary reports]

What has been your role in this program?

What sort of assistance do you provide to the sub-recipients? (for example, technical assistance)

Program Support

What has been your role in supporting:

- Curriculum design
- Program roll-out

Do you observe classroom training or visit the training location? What is the nature of these visits?

What types of questions do sub-grantees ask of you? How do you resolve these issues?

Can you characterize where problems have arisen with subgrantees?

What other interactions do you have with subgrantees?

Program Implementation

Now I would like to discuss the implementation of your program in more detail...

What factors affect trainee retention? What are some reasons that a student might withdraw from training? How might have trainee retention been increased?

How do subgrantees help trainees find jobs using the skill sets learned in the training? Does the program offer access to job boards or career counseling?

How does your program attract employers for job placement of trainees?

What aspects of the program have been effective in preparing trainees for jobs in clean energy?

What aspects have NOT been effective in preparing trainees for jobs in clean energy?

What clean energy skills are needed in the workplace? [Probe: What needs are not currently delivered by EDD program training? What skills or training might be added to the program to better meet the needs of employers?]

Does the training curriculum align with workforce needs? Please explain.

Measuring Success

Now I would like to discuss how you measure the success of training programs...

How do you monitor and track clean energy training activities? What is the result?

Do the subgrantees obtain information pertaining to trainee satisfaction through surveys or other means? If so, what is the result?

In comparing the different grantees programs, what are your perceptions and observations of relative success? What conditions differ among programs and how do these contribute to the success of a training program?

Are these clean energy training programs sustainable beyond the funding period?

After the CEWTP funding period, are there other sources of funding available for the continuation of clean energy programs?

Reporting Data of Program Activity

Can you comment on the goals and outcomes presented in the close-out reports, specifically:

- Enrollment figures
- Training completion figure
- Certification numbers
- Employment numbers

[Interviewer references for each sub-grantee close-out report, as necessary]

Could you provide other supporting materials such as:

- Monthly reports
- Training materials (brochures, curriculum outline)
- Other reports?

Request for Follow-up & Conclusion

Your insights have been very useful and will help the CEC in its efforts to improve their future workforce training programs. We appreciate your time and feedback.

2. Interview Guide: ETP Regional Analysts

This document is intended as a guide; the actual interview may deviate from the questions presented.

I am calling from Itron on behalf of the California Energy Commission. We are seeking feedback on the Clean Energy Workforce Training Program. Your feedback will help us evaluate the program and develop recommendations. Our interview will take roughly one hour to complete and all information will be kept confidential. Also, for informational purposes, we may choose to record this conversation.

Key Features

What has been your role in this program? What sort of assistance do you provide to the sub-recipients?

Please describe each of the subgrantee programs under your supervision in terms of:

- Course topics, curriculum
- Student demographic

How did you decide the target employee population for the ETP training?

[Interviewer to note any discrepancies with Summary reports]

Program Support

What has been your role in supporting:

- Proposals & Contracts
- Curriculum design
- Program roll-out
- Marketing & Recruitment

Have you visited the sub-recipient training sites? Was the purpose and nature of these visits?

What types of questions do sub-recipients ask of you? How do you resolve these issues?

Program Implementation

How did ETP market the program to potential employers/sub-recipients? Do you coordinate with local agencies (for example, workforce investment boards)?

How are potential employers identified? Have employers fulfilled their expected role?

What role do trade organizations and employers play in the design of this program?

Does the training curriculum align with workforce needs? How do you assist with aligning the training curriculum with workforce needs?

What factors affect trainee retention? For what reasons might a student withdraw from training?

Are there features of the initial program design that have been added or dropped in the implementation of the program? If so, why?

What clean energy skills are needed in the workplace? [Probe: What needs are not currently delivered by EDD program training? What skills might be added to the program to meet the needs of employers?]

Your agreements with the sub-recipients establish performance incentives based on number and hours of trainees, completed training, and employment over a 90 day period. Are there difficulties meeting this requirement? If so, please explain.

What aspects of the program have been most effective in preparing trainees for jobs in clean energy?

What aspects have NOT been effective in preparing trainees for jobs in clean energy?

Measuring Success

How do you monitor training activities?

How do you upload or track training information received from sub-recipients?

How do you assess whether the goals stated in your agreements with employers are being met?

Do you attempt to assess career advancement or track the progress of trainees? If so, how?

Do you obtain information pertaining to trainee satisfaction through surveys or other means?

In comparing different sub-recipients' programs, what are your perceptions of relative success? What characteristics differ among programs and how do these contribute to the success of a training program?

Are these clean energy training programs sustainable beyond the funding period?

After the CEWTP funding period, are there other sources of funding available for the continuation of clean energy programs?

How could the ETP program be improved?

Reporting Data of Program Activity

Can you comment on the goals and outcomes of sub-recipient programs, specifically:

- Enrollment figures
- Training completion figure
- Certification numbers
- Employment numbers

Are close-out reports available?

Could you provide other supporting materials such as:

- Monthly reports
- Training materials (brochures, curriculum outline)
- Other reports?

Request for Follow-up & Conclusion

Your insights have been very useful and will help the CEC in its efforts to improve their future workforce training programs. We appreciate your time and feedback.

3. Interview Guide: EDD Subgrantees

This document is intended as a guide; the actual interview may deviate from the questions presented.

Introduction

I am calling from Itron on behalf of the California Energy Commission. We are seeking feedback on the Clean Energy Workforce Training Program. Your feedback will help us evaluate the program and develop recommendations. Our interview will take roughly 30 -45 minutes to complete and all information will be kept confidential. For informational purposes, we may record this conversation.

Key Features

What, personally, has been your role in the Green Building / Clean Energy training? Please describe your role in terms of management, design, curriculum development, marketing, recruitment, training, etc.

Please describe your Green Building / Clean Energy Training in terms of:

- Course topics, curriculum, certifications offered
- Student demographic
- Job placement

[Interviewer to note any discrepancies with summary report]

Program Design

How did you decide the training curriculum? Why did you focus on these topics?

Are the offered certifications recognized by the industry?

How did you identify the target population for your training program?

Was this training program designed in response to the solicitation for proposals from EDD or was it based on existing resources?

How do you align your Clean Energy / Green Building training curriculum with workforce needs?

Does the program provide training in “soft” job skills? (for example, communication, conflict resolution, etc.) If so, please comment on the importance of these skills in finding and retaining employment

Did you identify and engage potential employers in the design of the Green Building / Clean Energy training activities?

Which of the following elements were MOST important in your program's design? [READ ALL, PICK 3]:

- Staff experience
- Student Screening
- Collaboration with employers
- Location training
- Coordination with other programs
- Supporting services to trainees
- Other element

Program Implementation

Now I would like to discuss the implementation of your program in more detail...

How does your Clean Energy program recruit trainees? What have been the greatest barriers to trainee recruitment? What external factors affect trainee recruitment? (for example, transportation costs, childcare, etc.)

What factors affect Clean Energy trainee retention? What are some reasons that a student might withdraw from training? How might trainee retention be increased? What screening procedures do you use?

What factors influence trainees to continue training in Clean Energy beyond the scope of this program?

With what other training or education programs does this program coordinate?

Are there features of your initial training design that have been dropped or added in the implementation of the program? If so, why?

What skills are needed in the workplace? What needs are not currently delivered by program training? What skills or training might be added to the program better to meet the needs of employers?

How does the training help trainees find jobs using Clean Energy skills? Does the program offer access to job boards or career counseling?

What methods of job placement and career counseling are most / least effective?

What aspects of the program have been effective in preparing trainees for jobs in green building or clean energy?

What aspects have NOT been effective in preparing trainees for jobs in green building or clean energy?

What role did the regional advisor play in implementing the program?

Measuring Success

Now I would like to discuss how you measure the success of training programs...

How do you follow up with trainees to track employment? What percentage of trainees obtain jobs after training? What can the program do to improve this percentage?

Do you assess whether employers are satisfied with the training provided to their employees? What is the result of this assessment? Do you incorporate this feedback into your program design?

Do you assess trainee satisfaction through surveys or other means? What is the result of this assessment? Do you incorporate this feedback into your program design?

Has Green Building / Clean Energy training been incorporated into the standard curriculum? Are there any plans to do so? Why or why not?

Is Clean Energy / Green Building training sustainable beyond the CEWTP funding period?

After the CEWTP funding period, are there other sources of funding available for the continuation of this Green Building / Clean Energy training?

Reporting Data of Program Activity

The most recent close-out report indicates that:

- [# TRAINEES COMPLETE] had completed your program training.
- [# TRAINEES DROPPED OUT] had started but dropped out of your program training.
- [# TRAINEES EMPLOYED] graduates are currently employed in a related field.

Are these figures accurate? Can you provide more recent data?

Please describe your regular interactions with EDD staff (for example, monthly meetings, reporting, information requests). How helpful was the provided support?

Could you provide any additional training materials such as program brochures, curriculum, etc.?

[If not already provided] Could you provide trainee and/or employer contact information?

Are there any other program features that contribute to success and have not been discussed?

Request for Follow-up & Conclusion

Your insights have been very useful and will help the CEC in its efforts to improve their future workforce training programs. We appreciate your time and feedback.

4. Interview Guide: ETP Subcontractors

Introduction

I am calling from Itron on behalf of the California Energy Commission. We are seeking feedback on the Clean Energy Workforce Training Program. Your feedback will help us evaluate the program and develop recommendations. Our interview will take roughly 30 -45 minutes to complete and all information will be kept confidential. For informational purposes, we may record this conversation.

Key Features

What, personally, has been your role in the training program? Please describe your role in terms of management, design, curriculum development, marketing, recruitment, training, etc.

Please describe your training program in terms of:

- Course topics, curriculum, certifications offered
- Student demographic

Program Design

How did you decide the training curriculum? Why did you focus on these topics?

How did you identify the target population for your training program?

Were the training activities designed in response to receiving support from ETP or were you doing the training anyway?

Does the program provide training in “soft” job skills? (for example, communication, conflict resolution, etc.) If so, please comment on the importance of these skills in finding and retaining employment

Are you providing other supplementary training such as ESL, basic job skills, remedial education?

How do you align your training curriculum with workforce needs?

Did you identify and engage potential employers in the design of the Green Building / Clean Energy training activities?

Which of the following elements were MOST important in your program's design? [READ ALL, PICK 3]:

- Staff experience
- Student Screening
- Collaboration with employers
- Location training
- Coordination with other programs
- Supporting services to trainees
- Other element

Program Implementation

How does your Clean Energy program recruit trainees? What have been the greatest barriers to trainee recruitment? What external factors affect trainee recruitment? (for example, transportation costs, childcare, etc.)

What factors affect Clean Energy trainee retention? What are some reasons that a student might withdraw from training? How might trainee retention be increased? What screening procedures do you use?

With what other training or education programs does this program coordinate?

Are there features of your initial training design that have been dropped or added in the implementation of the program? If so, why?

What skills are needed in the workplace? What needs are not currently delivered by program training? What skills or training might be added to the program better to meet the needs of employers?

What aspects of the program have been effective in preparing trainees for jobs in clean energy?

What aspects have NOT been effective in preparing trainees for jobs in green building or clean energy?

Measuring Success

Have you met the goals stated in your contract with the ETP? Please describe.

How you faced any challenges in meeting the employment requirement for trainees? How has the recent economic downturn affected employment opportunities?

How do you follow up with trainees to track employment? What percentage of trainees obtain jobs after training? What can the program do to improve this percentage?

Do you attempt to assess career advancement? If so, how? What is the result of this assessment

Do you assess whether employers are satisfied with the training provided to their employees? What is the result of this assessment? Do you incorporate this feedback into your program design?

Do you assess trainee satisfaction through surveys or other means? What is the result of this assessment? Do you incorporate this feedback into your program design?

After the ETP funding period, are there other sources of funding available for the continuation of this training?

Has the training curriculum been incorporated into the standard curriculum? Are there any plans to do so?

Will these training activities continue beyond the ETP funding period?

Employer-Related Questions

Were employers involved in the design of this program?

What type of training and certifications are employers looking for in potential employees?

How important is hands-on training or on-the-job training in an employer's decision to hire an employee? Does this program offer hands-on training?

What skills and qualities are lacking in the current labor market?

Does this training program meet the needs of the current labor market?

Would the skills provided by the training have an effect on an employee's potential wages?

Reporting Data of Program Activity

How many trainees have completed your training? How does this number compare to the initial estimates in the training proposal?

What types of certificates are offered? How many of each certificate was awarded? Are these certificates recognized by the industry?

How many individuals are still employed in the field related to the training?

Could you provide any additional training materials such as program brochures, or monthly reports?

Request for Follow-up & Conclusion

Your insights have been very useful and will help the CEC in its efforts to improve their future workforce training programs. Do you have any other comments regarding the program?

5. In-depth Interview Guide: EDD Employers

Introduction

I am calling on behalf of the California Energy Commission. May I please speak with [EMPLOYER CONTACT NAME]? We are conducting a study regarding how local employers recruit graduates of clean energy training programs. These training programs are designed to increase the knowledge of potential employees working in the clean energy industries and expand the pool of qualified labor available to companies like yours.

Hiring Practices & Desired Skills

Are you familiar with the Clean Energy training that [SUBGRANTEE] provides?

- [If YES] How did you hear about the availability of potential hires through the EDD retraining/pre-apprenticeship program?

What types of knowledge and skills do you look for when hiring new employees?

What types of training, education, or certifications do you look for in a potential hire?

What methods does your firm typically use to find potential employees? [PROBE: classifieds, referrals, job matching services, green work boards, word of mouth, labor pools, union, job fairs]

Have you been able to identify and hire people qualified to support your clean energy business activities?

What skills and knowledge are lacking in the existing labor pool?

What skills or certifications should be included in clean energy training programs?

How important is hands-on training or on-the-job training in your decision to hire an employee?

Were you involved with the planning and design of this program and its curriculum? Please describe your role. With whom did you coordinate?

Has your company/organization hired anyone that participated in the Clean Energy training program? If so:

- What types of job-related knowledge and skills does the employee demonstrate that you believe were acquired as a result of the clean energy training
- Were there other skills or knowledge that would have been beneficial for the employee to have when they were hired? Based on your experience working with this/these trainee(s), are there skills or knowledge that should be added to the training curriculum?

- How important was the clean energy training in your decision to hire this employee? [Was the training irrelevant / influential / critical in your decision to hire this employee?]
- Would you have hired this/these employee(s) if he/they had NOT participated in the clean energy re-training/ pre-apprenticeship program?

[If employer has NOT hired a training program participant] :

- Would you consider hiring someone who had the knowledge and skills provided in the training program? Would the knowledge and skills received from training be sufficient?

Opportunity and Advancement

Would the skills provided by clean energy training have an effect on the employee's wages at your firm? [In other words, does training increase an employee's wages?]

Would the skills provided by clean energy training have an effect on an employee's potential for advancement at your firm? [In other words, might training help an employee move up in your company?]

Does training have an effect on the likelihood of your firm retaining an employee? [PROBE: All other things being equal, would your firm be more likely to retain a trained employee than a non-trained employee?]

Is this training program effective in preparing workers for the job market? Is this program effective in placing workers in jobs?

Conclusion

Your insights have been very useful and will help the CEC in its efforts to improve their future workforce training programs. Do you have any additional comments or suggestions related to clean energy workforce training?

6. CATI Survey Instrument: Training Participants

Introduction

I am calling from Itron on behalf of the California Energy Commission.

May I please speak with [FIRST AND LAST NAME OF TRAINEE]?

We are seeking your feedback on the clean-energy training provided by [TRAINING PROVIDER]. Your feedback will help us understand how the training has enhanced your skills related to the design, analysis and installation of energy efficient equipment. This survey should only take about 15 minutes of your time.

Confirmation of Training Attended

A1. Our records indicate that you enrolled in the clean energy training at [NAME OF PROGRAM or NAME OF SUBCONTRACTOR]. Is this correct?

1. Yes [A2]
2. No [A1a]
88. Refused [TERMINATE]
99. Don't know [A1a]

A1a. Did you participate in clean energy training sessions which were possibly under a different name or at a different location?

1. Yes [A2]
2. No [Terminate]
88. Refused [Terminate]
99. Don't know [Terminate]

[TERMINATE] Thank you, those are all the questions that I have for you today.

A2. What type of topics did the clean energy training relate to? [READ ALL, ALLOW MULTIPLE RESPONSES]

1. Solar, PV or Thermal
2. Equipment Installation, Retrofitting (for example, HVAC, lighting, non-solar hot water)
3. Design, Building and Construction (for example, LEED)
4. Water conservation (for example, landscape, grey water)

5. Codes, Standards, Inspection
6. Basic Skills, Safety, Health (for example, OSHA)
7. Weatherization, Envelope Sealing
8. Audits, HERS, Building Performance Institute
9. Energy-efficiency, Energy Fundamentals, Renewables, non-specific
10. Comprehensive Course
77. Other [RECORD]
88. Refused
99. Don't know

Background

B1. How did you hear about the training? [DO NOT READ, ACCEPT MULTIPLE RESPONSES]

1. Word of Mouth (for example, friends, family, workshop attendee, or co-worker)
2. Advertisement (brochure, press release)
3. College, University
4. Career service center (One-stop, Work Investment Agency, etc.)
5. Referred by current or former employer
6. Trade organization, union
7. Website
8. Email
9. Fair
77. Other [RECORD RESPONSE]
88. Refused
99. Don't know

B2. Why did you decide to attend the training? [DO NOT READ, ACCEPT MULTIPLE RESPONSES]

1. Required by employer
2. To improve skills or acquire new skills
3. To improve likelihood of getting a job, unemployed
4. For a promotion or new job within current career
5. To get a better job in a new career
6. Interest in clean energy

- 7. To make more money
- 8. Referred/Recommended (for example, friends, family, workshop attendee, or co-worker)
- 9. Grant/incentive
- 77. Other [RECORD RESPONSE]
- 88. Refused
- 99. Don't know

B3. Did you complete the training course?

- 1. Yes
- 2. No [SKIP to E1a]
- 88. Refused [SKIP to E1a]
- 99. Don't know [SKIP to E1a]

Effects of Training: Knowledge Baseline & Knowledge Gained

Now, I would like to ask you some questions regarding the effectiveness of the training program...

On a scale of 1 to 5, where 1 means "NOT AT ALL knowledgeable" and 5 means "EXTREMELY KNOWLEDGEABLE," how would you rate...

C1... your knowledge of the training topics BEFORE you participated in the program?

- #. [RECORD]
- 88. Refused
- 99. Don't know

C2. ...your knowledge about the training topics AFTER you participated in the training?

- #. [RECORD]
- 88. Refused
- 99. Don't know

Satisfaction & Rating of Training Content

Now, I would like to ask you some questions regarding your opinion of the training course.

D1. On a scale of 1-5, where 1 means "I strongly disagree" and 5 means "I strongly agree," please rate the following statements:

- D1a. I was satisfied with the training overall
 - #. [Record response 1-5]
 - 88. Refused
 - 99. Don't know
- D1b. The training topics were clearly communicated
 - #. [Record response 1-5]
 - 88. Refused
 - 99. Don't know
- D1c. Much of the material provided during the training was new to me
 - #. [Record response 1-5]
 - 88. Refused
 - 99. Don't know
- D1d. The material provided by the training was relevant to my desired career path
 - #. [Record response 1-5]
 - 88. Refused
 - 99. Don't know

D2. What worked well in the training sessions?

1. Useful information
2. Hands-on training
3. Effective instructors
4. Training location
5. Class discussions
6. Schedule
7. Materials used
8. Class size

9. Nothing
77. [Record verbatim]
88. Refused
99. Don't know

D3. How might the training program be improved?

1. Emphasis on job placement
2. Increase advertisement/recruitment
3. More experienced instructors
4. Improve materials
5. More hands-on training
6. Extend course length
7. Expand topics / more in-depth instruction
8. Improved student screening
9. Decrease class size
10. No suggestions
77. [Record verbatim]
88. Refused
99. Don't know

Employment Characteristics of Trainee

For the next set of questions, I would like to ask you about your work experience and job skills...

- E1a. Are you currently attending school, or attending another training program?
 1. Yes
 2. No [SKIP TO E2]
 88. Refused [SKIP TO E2]

99. Don't Know [SKIP TO E2]

- E1b. What type of school or training are you attending?

1. ESL
2. GED
3. Technical school
4. Certificate Program
5. Apprenticeship
6. College, undergraduate
7. College, post-graduate
8. Other [RECORD]

88. Refused

99. Don't Know

- E1c. Are you attending part-time or full-time?

1. Part-time
2. Full-time

88. Refused

99. Don't Know

E2. Do you have any professional or technical certifications or licenses?

1. Yes

2. No

88. Refused

99. Don't know

- E2a. Please list the certifications and/or licenses that you have?

1. OSHA

2. BPI

3. Green Building

4. LEED

5. NABCEP

6. Journeyman

7. Green Energy
8. Other Building certification
9. HERS
77. [OPEN END]
88. Refused
99. Don't know

[DO NOT ASK E2b IF B3 = 2, 88, or 99, "Did NOT complete training"]

- E2b. Are any of these certification and/or licenses related to the training?
 1. Yes
 2. No [E3]
 3. Some
 88. Refused
 99. Don't know
- E2c. Did you earn any of these certifications or licenses through the training?
 1. Yes
 2. No
 3. Some
 88. Refused
 99. Don't know

E3. Are you currently employed?

- Yes
- No, unemployed [SKIP TO E16]
- Refused [SKIP TO E16]
- Don't Know [SKIP TO E16]

E4. What is your current job / position?

1. Solar-related
2. Electrician
3. Building Energy Auditor
4. Energy Technician
5. Energy Laborer

6. Non-Energy related

77. [OPEN END]

88. Refused

99. Don't know

- E4a. Is your job / position related to the clean energy training?

1. Yes

2. No

88. Refused

99. Don't know

- E5a. How long have you been working in this job position?

1. Less than 6 months

2. 6 months or more, but less than 12 months

3. 12 months or more, but less than 18 months

4. 18 months or more but less than 2 years

5. 2 years or more, but less than five years [SKIP TO E6]

6. 5 years or more [SKIP TO E6]

88. Refused

99. Don't know

- E5b. How long have you been working with this employer?

1. Less than 6 months

2. 6 months or more, but less than 12 months

3. 12 months or more, but less than 18 months

4. 18 months or more but less than 2 years

5. 2 years or more, but less than five years [SKIP TO E6]

6. 5 years or more [SKIP TO E6]

88. Refused

99. Don't know

- E5c. How long have you been working in this field?

1. Less than 6 months

2. 6 months or more, but less than 12 months
3. 12 months or more, but less than 18 months
4. 18 months or more but less than 2 years
5. 2 years or more, but less than five years
6. 5 years or more
88. Refused
99. Don't know

E6. How many hours a week are you working at this job?

[RECORD]

88. Refused

99. Don't Know

- E6a. Where is this job located?

#. [RECORD CITY & STATE]

88. Refused

99. Don't Know

E7. How would you describe your professional level?

1. Entry-level or Apprentice
2. Mid-level or Journeyman
3. Upper-level or Master
77. Other, specify
88. Refused
99. Don't know

E8. How did you find your current job?

1. Job listing offered by training or instructor
2. Recruited through employer partnered with training
3. Other direct-hire method from program
4. Employment services (for example, One-stop, work investment agency)
5. Classified advertisement (online, newspaper)
6. Friend, Word of mouth

7. Walk-in application
8. Original employee / founder
9. Union member
77. Other, [RECORD]
88. Refused
99. Don't know

E9. Did the clean energy training help you get your current job?

1. Yes
2. No[E10a]
88. Refused [E10a]
99. Don't know [E10a]

- E9a. In what ways did the clean energy training help you get your current job?

1. Accumulation of skills / knowledge
2. Networking
3. Resume / interview training
77. Open [RECORD]
88. Refused
99. Don't Know

- E10a. Did the topics covered in the clean energy training relate to your current line of work?

1. Yes
2. No [SKIP TO E11]
88. Refused [SKIP TO E10c]
99. Don't know [SKIP TO E10c]

- E10b. How did the clean energy training relate to your current work? What are some examples?

1. Solar, PV or Thermal
2. Equipment Installation, Retrofitting (for example, HVAC, lighting, non-solar hot water)

3. Design, Building and Construction (for example, LEED)
4. Codes, Standards, Inspection
5. Basic Skills, Safety, Health (for example, OSHA)
6. Audits, HERS, Building Performance Institute
7. Energy-efficiency, Energy Fundamentals, Renewables, non-specific
77. [OPEN END]
88. Refused
99. Don't know

- E10c. Do you feel that your career has advanced or will advance as a result of the clean energy training?
 1. Yes
 2. No
 88. Refused
 99. Don't know

E11. Do you think of this field as a long-term career?

1. Yes [E11a]
2. No [E11b]
88. Refused
99. Don't know

- E11a. What type of training would increase your opportunities to advance within your current line of work?
 1. LEED
 2. Managerial
 3. Marketing and sales
 4. Solar
 5. Engineering
 6. None
 77. [OPEN END] [SKIP TO E12]
 88. Refused
 99. Don't know

- E11b. Why do you NOT think of this field as a long-term career?
 - 77. [OPEN END]
 - 88. Refused
 - 99. Don't know

- E12a. When you began training, were you employed at your current position?
 - 1. Yes, same position [SKIP TO E16]
 - 2. No
 - 88. Refused
 - 99. Don't know

- E12b. When you began training, were you employed by your current employer?
 - 1. Yes, same employer [SKIP TO E16]
 - 2. No
 - 88. Refused
 - 99. Don't know

- E12c. Were you employed in a different field when you began the clean energy training?
 - 1. Yes, in a different field
 - 2. No, unemployed [SKIP TO E16]
 - 88. Refused
 - 99. Don't know

E13. In what field or occupation did you work before the clean energy training?

- 77. [OPEN END]
- 88. Refused
- 99. Don't know

- E13a. Was this field/occupation related to the clean energy training?
 - 1. Yes
 - 2. No

- 88. Refused
- 99. Don't know

- E14a. How long were you employed in this field/occupation before the training?
 1. Less than 6 months
 2. 6 months or more, but less than 12 months
 3. 12 months or more, but less than 18 months
 4. 18 months year or more but less than 2 years
 5. 2 years or more, but less than five years
 6. 5 years or more
- 88. Refused
- 99. Don't know

- E14b. How many hours per week were you working before you began the clean energy training?
 - #. [RECORD]
 - 88. Refused
 - 99. Don't know

E15. How would you describe your professional level where you were working when you began the clean energy training? [READ ALL]

1. Entry-level or Apprentice
2. Mid-level or Journeyman
3. Upper-level or Master
77. Other, specify
88. Refused
99. Don't know

[IF UNEMPLOYED OR EMPLOYED AT SAME JOB, BEGIN HERE]

[DO NOT ASK E16-E17a IF B3 = 2, 88, 99 "Did NOT complete training"]

E16. Since you began/completed training, have you applied for any jobs?

1. Yes
2. No [SKIP TO E16c]

88. Refused [SKIP TO E17]

99. Don't know [SKIP TO E17]

- E16a. Were any of these jobs in a field related to the clean energy training?

1. Yes

2. No

88. Refused

99. Don't know

- E16b. What type of jobs have you applied for?

1. Solar-related

2. Electrician

3. Building Energy Auditor

4. Energy Technician

5. Energy Laborer

6. Non-Energy related

77. [OPEN END] [SKIP TO E17]

88. Refused

99. Don't know

[ASK E16c ONLY IF E16 =2, "has not applied for any jobs."]

- E16c. Why did you not apply for jobs during this time?

1. Already had a job

2. Retired

3. Physical limitations

4. Union takes care of it

77. [OPEN END]

88. Refused

99. Don't know

[IF EMPLOYED, SKIP E17]

E17. How long have you been unemployed?

1. Less than 6 months
2. 6 months or more, but less than 12 months
3. 12 months or more, but less than 18 months
4. 18 months or more but less than 2 years
5. 2 years or more, but less than five years
6. 5 years or more
88. Refused
99. Don't know

Effects of Training

[SKIP SECTION F IF B3=2, 88, 99 "Did NOT complete training"]

- F1a. What type of program career services did you use? [READ ALL, ACCEPT MULTIPLE RESPONSES]
 1. Career coaching/planning
 2. Resume and interview workshops
 3. Access to job boards/fairs
 4. Job placement service
 5. Did not use any career services
 77. Other [RECORD]
 88. Refused
 99. Don't know

- F1b. How did those services help you? [READ LIST, ACCEPT MULTIPLE RESPONSES]
 1. Creating a resume
 2. Locating job openings
 3. Going through job application process
 4. Getting interviews
 5. Going through the interview process
 6. Getting job offers
 7. Negotiating job offers
 8. Getting a job
 9. Job retention

- 10. Career advancement
- 77. Other
- 78. Not helpful
- 88. Refused
- 99. Don't know

[ASK F2 ONLY IF E9 = 1, "Job resulted from training" OR IF E12a = 1, "Working in same job after training as before training"]

F2. Please state simply whether you agree or disagree with the following statements:

I believe that the training has:

- F2a. Increased my pay
 - 1. Agree
 - 2. Disagree
 - 88. Refused
 - 99. Don't know

- F2b. Created more opportunities for career advancement
 - 1. Agree
 - 2. Disagree
 - 88. Refused
 - 99. Don't know

- F2c. Increased the likelihood of keeping my job
 - 1. Agree
 - 2. Disagree
 - 88. Refused
 - 99. Don't know

- F2d. Motivated me to consider additional training in clean energy
 - 1. Agree
 - 2. Disagree
 - 88. Refused

99. Don't know

- F2e. Motivated me to continue to work in a field related to clean energy
 1. Agree
 2. Disagree
- 88. Refused
- 99. Don't know

Barriers

For this next set of questions, I would like to determine whether there were any difficulties associated with attending the training program...

G1. Please state whether you any of the following issues made it difficult for you to attend or complete the training course:

- G1a. Language difficulties
 1. Yes, it was a barrier
 2. No, it was NOT a barrier
- 88. Refused
- 99. Don't know

- G1b. Difficulties with hands-on training (for example, tools)
 1. Yes, it was a barrier
 2. No, it was NOT a barrier
- 88. Refused
- 99. Don't know

- G1c. The time of day the training was offered
 1. Yes, it was a barrier
 2. No, it was NOT a barrier
- 88. Refused
- 99. Don't know

- G1d. Time constraints on my schedule
 1. Yes, it was a barrier

- 2. No, it was NOT a barrier
- 88. Refused
- 99. Don't know

- G1e. Course Fees and/or costs of materials
 - 1. Yes, it was a barrier
 - 2. No, it was NOT a barrier
 - 88. Refused
 - 99. Don't know

- G1f. Transportation
 - 1. Yes, it was a barrier
 - 2. No, it was NOT a barrier
 - 88. Refused
 - 99. Don't know

- G1g. Care of dependents (for example, Childcare, elderly)
 - 1. Yes, it was a barrier
 - 2. No, it was NOT a barrier
 - 88. Refused
 - 99. Don't know

- G1h. Material was too difficult
 - 1. Yes
 - 2. No
 - 88. Refused
 - 99. Don't Know

- G1i. Were there any other difficulties in attending the training course? If so, what difficulties were there?
 - 1. Yes, [RECORD]
 - 2. No
 - 3. Transportation issues
 - 4. Instructor issues

- 5. Insufficient resources
- 88. Refused
- 99. Don't know

[SKIP TO I1]

Withdrawal Battery

H1. Question omitted.

H2. Why did you decide to withdraw from the training?

- 1. Transportation issues
- 77. [RECORD]
- 88. Refused
- 99. Don't know

H3. What changes to the training might have prevented you from withdrawing?

- 77. [RECORD]
- 88. Refused
- 99. Don't know

H4. Would you consider attending similar clean energy training in the future?

- 1. Yes
- 2. No
- 88. Refused
- 99. Don't know

Demographics

And for the final few questions, I would like to ask about your background...

I1. [NOTE TO CATI: DO NOT ASK BUT INDICATE GENDER OF TRAINEE]

- 1. Male
- 2. Female

I2. Which of the following best describes your age?

1. Less than 25,
2. 25 to 34,
3. 35 to 44,
4. 45 to 54,
5. 55 to 64, or
6. 65 or older?
88. Refused
99. Don't know

I3. How would you describe your ethnicity? [ACCEPT MULTIPLE RESPONSES.]

1. White
2. Black or African American
3. Hispanic
4. American Indian or Alaska Native
5. Asian
6. Filipino
7. Pacific Islander
77. Other (specify)
88. Refused
99. Don't know

I4. What is the primary language spoken in your home? [DO NOT READ LIST.]

1. English
2. Spanish
3. Mandarin
4. Cantonese
5. Tagalog
6. Korean
7. Vietnamese
8. Russian
9. Japanese

10. Other (specify)

88. Refused

99. Don't know

I5. What is the highest level of education you have completed?

1. 8th grade or less

2. Some high school

3. GED

4. High school graduate

5. Some college

6. College graduate

7. Post-college graduate

88. Refused

99. Don't know

I6. What was your annual household income from all sources in 2010, before taxes? Please stop me when I reach the category that best describes your household's income. [READ LIST]

[IF NECESSARY: This information is confidential and will only be used for the purpose of characterizing study respondents.]

1. Less than \$20,000 per year

2. 20 to less than \$30,000

3. 30 to less than \$40,000

4. 40 to less than \$50,000

5. 50 to less than \$60,000

6. 60 to less than \$75,000

7. 75 to less than \$100,000

8. 100 to less than \$150,000

9. 150 to less than \$200,000

10. \$200,000 or more

88. Refused

99. Don't know

APPENDIX C: CEWTP Trainee Survey Results

Trainee Survey Instrument

Introduction

I am calling from Itron on behalf of the California Energy Commission.

May I please speak with [FIRST AND LAST NAME OF TRAINEE]?

We are seeking your feedback on the clean-energy training provided by [TRAINING PROVIDER]. Your feedback will help us understand how the training has enhanced your skills related to the design, analysis and installation of energy efficient equipment. This survey should only take about 15 minutes of your time.

Confirmation of Training Attended

A1. Our records indicate that you enrolled in the clean energy training at [NAME OF PROGRAM or NAME OF SUBCONTRACTOR]. Is this correct?

1. Yes [A2]
2. No [A1a]
99. Don't know [A1a]
88. Refused [TERMINATE]

A1	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
No	5%		7%
Yes	95%	100%	93%
Number of respondents (n)	128	73	306

Source: DNV KEMA analysis

A1a. Did you participate in clean energy training sessions which were possibly under a different name or at a different location?

- 1. Yes [A2]
- 2. No [Terminate]
- 88. Refused [Terminate]
- 99. Don't Know [Terminate]]

A1a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
No	100%		100%
Yes			
Number of respondents (n)	7		7

Source: DNV KEMA analysis

[TERMINATE] Thank you, those are all the questions that I have for you today.

A2. What type of topics did the clean energy training relate to? [READ ALL, ALLOW MULTIPLE RESPONSES]

- 11. Solar, PV or Thermal
- 12. Equipment Installation, Retrofitting (for example, HVAC, lighting, non-solar hot water)
- 13. Design, Building and Construction (for example, LEED)
- 14. Water conservation (for example, landscape, grey water)
- 15. Codes, Standards, Inspection
- 16. Basic Skills, Safety, Health (for example, OSHA)
- 17. Weatherization, Envelope Sealing
- 18. Audits, HERS, Building Performance Institute
- 19. Energy-efficiency, Energy Fundamentals, Renewables, non-specific
- 20. Comprehensive Course
- 77. Other [RECORD]
- 88. Refused
- 99. Don't know

A2	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Energy-efficiency	70%	53%	35%
Solar	69%	45%	57%
Construction	53%	52%	19%
Equipment Installation	49%	29%	35%
Weatherization	48%	27%	18%
Building Codes	40%	37%	18%
Water conservation	39%	34%	15%
Audits	39%	27%	12%
Other/Don't know*	2%	1%	5%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

Background

B3. How did you hear about the training? [DO NOT READ, ACCEPT MULTIPLE RESPONSES]

1. Word of Mouth (for example, friends, family, workshop attendee, or co-worker)
2. Advertisement (brochure, press release)
3. College, University
4. Career service center (One-stop, Work Investment Agency, etc.)
5. Referred by current or former employer
6. Trade organization, union
7. Website
8. Email
9. Fair
77. Other [RECORD RESPONSE]
88. Refused
99. Don't know

B1	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Word of Mouth (for example, friends, family, workshop attendee, or co-worker)	22%	26%	13%
Advertisement (brochure, press release)	15%	3%	9%
College, University	13%	15%	3%
Career service center (One-stop, Work Investment Agency, etc.)	32%	23%	2%
Referred by current or former employer	1%		7%
Trade organization, union	9%	21%	65%
Website	9%	11%	10%
Email	2%		
Fair	1%		1%
Church/Religious Organization	16%	14%	1%
Other	2%	1%	
Don't know	2%	1%	1%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

B4. Why did you decide to attend the training? [DO NOT READ, ACCEPT MULTIPLE RESPONSES]

1. Required by employer
2. To improve skills or acquire new skills
3. To improve likelihood of getting a job, unemployed
4. For a promotion or new job within current career
5. To get a better job in a new career
6. Interest in clean energy
7. To make more money
8. Referred/Recommended (for example, friends, family, workshop attendee, or co-worker)
9. Grant/incentive
77. Other [RECORD RESPONSE]
88. Refused
99. Don't know

B2	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Required by employer	1%	1%	22%
To improve skills or acquire new skills	30%	45%	54%
To improve likelihood of getting a job, unemployed	32%	32%	10%
For a promotion or new job within current career	14%	11%	9%
To get a better job in a new career	35%	26%	11%
Interest in clean energy	55%	38%	31%
To make more money	5%	3%	2%
Referred/recommended (for example, friends, family, workshop attendee, coworker, etc.)	3%		
Grant/incentive	3%	7%	3%
Other	2%		
Don't know	1%		
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

B3. Did you complete the training course?

1. Yes
2. No [SKIP to E1a]
88. Refused [SKIP to E1a]
99. Don't know [SKIP to E1a]

B3	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	92%	89%	92%
No	7%	8%	8%
Don't know		3%	
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

Effects of Training: Knowledge Baseline & Knowledge Gained

Now, I would like to ask you some questions regarding the effectiveness of the training program...

On a scale of 1 to 5, where 1 means “NOT AT ALL knowledgeable” and 5 means “EXTREMELY KNOWLEDGEABLE,” how would you rate...

C1...Your knowledge of the training topics BEFORE you participated in the program?]

- #. [RECORD]
- 88. Refused
- 99. Don't know

C1	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
1 Not at all knowledgeable	33%	38%	21%
2	33%	31%	33%
3	23%	18%	22%
4	7%	8%	15%
5 Extremely knowledgeable	5%	3%	8%
Don't know		2%	1%
Number of respondents (n)	119	65	97

Source: DNV KEMA analysis

C2. ...your knowledge about the training topics AFTER you participated in the training?

- #. [RECORD]
- 88. Refused
- 99. Don't know

C2	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
1 Not at all knowledgeable			
2	1%		
3	10%	5%	6%
4	41%	43%	46%
5 Extremely knowledgeable	47%	51%	47%
Don't know	1%	2%	
Number of respondents (n)	119	65	97

Source: DNV KEMA analysis

Satisfaction & Rating of Training Content

Now, I would like to ask you some questions regarding your opinion of the training course.

D1. On a scale of 1-5, where 1 means "I strongly disagree" and 5 means "I strongly agree," please rate the following statements:

- D1a. I was satisfied with the training overall
 - #. [Record response 1-5]
 - 88. Refused
 - 99. Don't know

D1a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
1 Strongly disagree	3%	2%	1%
2	3%	3%	
3	13%	5%	11%
4	25%	25%	34%
5 Strongly agree	56%	65%	54%
Don't know		2%	
Number of respondents (n)	119	65	97

Source: DNV KEMA analysis

- D1b. The training topics were clearly communicated
 - #. [Record response 1-5]
 - 88. Refused
 - 99. Don't know

D1b	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
1 Strongly disagree	1%	2%	
2			
3	8%	5%	8%
4	34%	23%	31%
5 Strongly agree	57%	69%	61%
Don't know		2%	
Number of respondents (n)	119	65	97

Source: DNV KEMA analysis

- D1c. Much of the material provided during the training was new to me
#. [Record response 1-5]
88. Refused
99. Don't know

D1c	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
1 Strongly disagree	3%	6%	5%
2	5%	11%	12%
3	29%	23%	24%
4	21%	20%	26%
5 Strongly agree	41%	38%	32%
Don't know		2%	1%
Number of respondents (n)	119	65	97

Source: DNV KEMA analysis

- D1d. The material provided by the training was relevant to my desired career path
#. [Record response 1-5]
88. Refused
99. Don't know

D1d	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
1 Strongly disagree		2%	2%
2	5%	8%	4%
3	19%	15%	13%
4	31%	14%	28%
5 Strongly agree	44%	60%	52%
Refused	1%		1%
Don't know		2%	
Number of respondents (n)	119	65	97

Source: DNV KEMA analysis

D2. What worked well in the training sessions?

1. Useful information
2. Hands-on training
3. Effective instructors
4. Training location
5. Class discussions
6. Schedule
7. Materials used
8. Class size
9. Nothing
77. [Record verbatim]
88. Refused
99. Don't know

D2	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Useful information	21%	22%	26%
Hands-on training	38%	29%	29%
Effective instructors	28%	37%	20%
Training location			1%
Class discussions	8%	5%	6%
Schedule	1%	3%	3%
Materials used	3%	2%	11%
Class size	1%		3%
Nothing	2%		3%
Other		3%	
Don't know	1%	3%	3%
Number of respondents (n)	119	65	97

Source: DNV KEMA analysis

D3. How might the training program be improved?

1. Emphasis on job placement
2. Increase advertisement/recruitment
3. More experienced instructors
4. Improve materials
5. More hands-on training
6. Extend course length
7. Expand topics / more in-depth instruction
8. Improved student screening
9. Decrease class size
10. No suggestions
77. [Record verbatim]
88. Refused
99. Don't know

D3	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Emphasis on job placement	15%	15%	2%
Increase advertisement/recruitment	2%		
More experienced instructors	5%	6%	6%
Improve materials	3%	8%	10%
More hands-on training	25%	15%	19%
Extend course length	12%	11%	9%
Expand topics / more in-depth instruction	12%	6%	14%
Improved student screening	7%	6%	2%
Decrease class size	2%		
No suggestions	6%	11%	24%
Other	8%	11%	1%
Don't know	7%	12%	13%
Number of respondents (n)	119	65	97

Source: DNV KEMA analysis

Employment Characteristics of Trainee

For the next set of questions, I would like to ask you about your work experience and job skills...

- E1a. Are you currently attending school, or attending another training program?
 1. Yes
 2. No [SKIP TO E2]
 88. Refused [SKIP TO E2]
 99. Don't Know [SKIP TO E2]

E1a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	25%	26%	8%
No	75%	74%	92%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

- E1b. What type of school or training are you attending?
 1. ESL
 2. GED
 3. Technical school

4. Certificate Program
5. Apprenticeship
6. College, undergraduate
7. College, post-graduate
77. Other [RECORD]
88. Refused
99. Don't Know

E1b	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Technical School	9%	5%	
Certificate Program	9%	32%	25%
Apprenticeship	6%		13%
College (undergraduate)	72%	47%	25%
College (postgraduate)	%	5%	
Other	3%	11%	38%
Number of respondents (n)	32	19	8

Source: DNV KEMA analysis

- E1c. Are you attending part-time or full-time?
 1. Part-time
 2. Full-time
 88. Refused
 99. Don't Know

E1c	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Part-time	50%	63%	63%
Full-time	47%	37%	38%
Don't know	3%		
Number of respondents (n)	32	19	8

Source: DNV KEMA analysis

E2. Do you have any professional or technical certifications or licenses?

1. Yes

- 2. No
- 88. Refused
- 99. Don't know

E2	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	75%	79%	86%
No	25%	21%	14%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

- E2a. Please list the certifications and/or licenses that you have?
 1. OSHA
 2. BPI
 3. Green Building
 4. LEED
 5. NABCEP
 6. Journeyman
 7. Green Energy
 8. Other Building certification
 9. HERS
 77. [OPEN END]
 88. Refused
 99. Don't know

E2a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
OSHA	11%	2%	13%
BPI	8%	14%	3%
Green Building	4%	3%	1%
LEED	3%	12%	1%
NABCEP	7%	7%	3%
Journeyman	11%	10%	50%
Green Energy	8%		3%
Other Building Certification	7%	9%	7%
HERS	1%		1%
Other	39%	43%	20%
Don't know		2%	
Number of respondents (n)	96	58	90

Source: DNV KEMA analysis

[DO NOT ASK E2b IF B3 = 2, 88, or 99, "Did NOT complete training"]

- E2b. Are any of these certification and/or licenses related to the training?
 1. Yes
 2. No [E3]
 3. Some
 88. Refused
 99. Don't know

E2b	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	74%	74%	75%
No	26%	26%	25%
Number of respondents (n)	90	53	85

Source: DNV KEMA analysis

- E2c. Did you earn any of these certifications or licenses through the training?
 1. Yes
 2. No
 3. Some
 88. Refused

99. Don't know

E2c	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	66%	77%	61%
No	34%	23%	38%
Don't know			2%
Number of respondents (n)	67	39	64

Source: DNV KEMA analysis

E3. Are you currently employed?

1. Yes
2. No, unemployed [SKIP TO E16]
88. Refused [SKIP TO E16]
99. Don't Know [SKIP TO E16]

E3	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	52%	47%	69%
No	48%	53%	31%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

E4. What is your current job / position?

1. Solar-related
2. Electrician
3. Building Energy Auditor
4. Energy Technician
5. Energy Laborer
6. Non-Energy related
77. [OPEN END]
88. Refused
99. Don't know

E4	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Solar sales / installation	6%	9%	
Electrician	4%	12%	38%
Building Energy Auditor	6%	9%	4%
Other Clean Energy	10%		11%
General Trades	27%	26%	31%
Non-Energy related	45%	32%	15%
Other	0%	12%	
Refused	1%		1%
Number of respondents (n)	67	34	72

Source: DNV KEMA analysis

- E4a. Is your job / position related to the clean energy training?
 1. Yes
 2. No
 88. Refused
 99. Don't know

E4a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	45%	50%	50%
No	55%	50%	50%
Number of respondents (n)	67	34	72

Source: DNV KEMA analysis

- E5a. How long have you been working in this job position?
 1. Less than 6 months
 2. 6 months or more, but less than 12 months
 3. 12 months or more, but less than 18 months
 4. 18 months or more but less than 2 years
 5. 2 years or more, but less than five years [SKIP TO E6]
 6. 5 years or more [SKIP TO E6]
 88. Refused

99. Don't know

E5	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Less than 6 months	40%	29%	15%
Between 6 months and a year	28%	21%	10%
Between 12 months and 18 months	6%	6%	4%
Between 18 months and 2 years	3%	12%	3%
Between 2 years and 5 years	7%	12%	8%
5 years or more	13%	21%	60%
Refused	1%		
Number of respondents (n)	67	34	72

Source: DNV KEMA analysis

- E5b. How long have you been working with this employer?
 1. Less than 6 months
 2. 6 months or more, but less than 12 months
 3. 12 months or more, but less than 18 months
 4. 18 months or more but less than 2 years
 5. 2 years or more, but less than five years [SKIP TO E6]
 6. 5 years or more [SKIP TO E6]
 88. Refused
 99. Don't know

E5b	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Less than 6 months	52%	35%	43%
Between 6 months and a year	35%	30%	22%
Between 12 months and 18 months	6%	13%	9%
Between 18 months and 2 years	4%	17%	
Between 2 years and 5 years	2%	4%	17%
5 years or more	2%		9%
Number of respondents (n)	52	23	23

Source: DNV KEMA analysis

- E5c. How long have you been working in this field?
 1. Less than 6 months
 2. 6 months or more, but less than 12 months
 3. 12 months or more, but less than 18 months
 4. 18 months or more but less than 2 years
 5. 2 years or more, but less than five years
 6. 5 years or more
- 88. Refused
- 99. Don't know

E5c	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Less than 6 months	30%	27%	18%
Between 6 months and a year	24%	9%	6%
Between 12 months and 18 months	12%	5%	
Between 18 months and 2 years	4%	18%	6%
Between 2 years and 5 years	12%	5%	6%
5 years or more	18%	36%	65%
Number of respondents (n)	50	22	17

Source: DNV KEMA analysis

E6. How many hours a week are you working at this job?

#. [RECORD]

88. Refused

99. Don't Know

E6	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
0-10 hours	6%	3%	1%
11-20 hours	12%	6%	4%
21-30 hours	13%	12%	4%
31-40 hours	48%	47%	61%
41-50 hours	13%	15%	13%
50+ hours	6%	12%	13%
Refused	1%		1%
Don't know		6%	3%
Number of respondents (n)	67	34	72

Source: DNV KEMA analysis

- E6a. Where is this job located?
 - #. [RECORD CITY & STATE]
 - 88. Refused
 - 99. Don't Know

E6a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
2 locations, Pleasanton and Fairfield, California			1%
Alameda, California	1%		
all around the Bay Area/San Jose, California			1%
All over PGE territory: Livermore, Fremont, Dublin, San Ramon	1%		
All over, between San Francisco and San Diego, California	1%		
All over, mostly in Concord to Napa, California	1%		
Anaheim, California			1%
Apple Valley, San Bernardino Cty, California			1%
Atascadero, California / NFI	1%		
Berkeley, California	1%		1%
Brawley, California	4%		
Brentwood, California		3%	

E6a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Burbank, California	1%		3%
California	1%		
CA Valley			1%
California – everywhere from Oakland to Napa/NFI	1%		
California – whole from San Diego to Van Nuys in the valley	1%		
California, Hemet	1%		
California, Stateline			1%
California / NFI	1%		
Calipatria, California	1%		
Camarillo, Ventura County, California	1%		
Carlsbad, California	1%		
Chatsworth, California (I telecommute, live in Santa Monica, California)			1%
Chino, California			1%
Clovis, California			1%
Compton, California	1%		
Concord, California	1%	3%	1%
Contra Costa, California		3%	1%
Corte Madera, California			1%
Costa Mesa, California	1%		
Covina, California		3%	
Cupertino, California			1%
Desert Center, California	1%		
Various cities in California /contract work			1%
East Bay, California		3%	
East Los Angeles, California			1%
El Centro, California	1%		
El Cerrito, California	1%		
Elk Grove, California. / NFI	1%		
Emeryville, California		3%	
Escondido, California	1%		

E6a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Fairfield, California	1%	3%	
Filming locations all over California and the United States			1%
Fresno, California			1%
Garden Grove, California		3%	
Huntington Beach, California	1%		
Huron, California			1%
Irvine, California		3%	
Lake Mendocino and Sonoma Counties, California			1%
Lakeside, California	1%		
Little River, California			1%
Livermore, California		3%	
Long Beach, California		6%	1%
Los Angeles, California	4%	6%	7%
Los Banos, California		3%	
Lost Hills, California			1%
Marin Cty, some in Sonoma, Solano, SF, Alameda, Contra Costa, California	1%		
Menifee, California / NFI			1%
Mobile – work out of home, office listed San Ramon, California	1%		
Modesto, California			1%
Newport Beach, California		3%	
Oakhurst, California			1%
Oakland, California	6%	6%	
Ontario, California / NFI	1%		
Orangevale, California (near Sacramento)		3%	
Palm Desert, California	1%		
Pasadena, California			1%
Placer County, California / NFI		3%	1%
Primarily Vallejo, California; also Venicia and American Canyon, California			1%
Rancho Mirage, California	1%		

E6a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Redding, California			3%
Richmond, California		3%	
Sacramento, California	4%	18%	3%
Salinas, California			1%
San Diego, California	6%		3%
San Fernando Valley, California / NFI	1%		
San Francisco, California	12%	3%	6%
San Jose, California		3%	7%
San Leandro, California			1%
San Leanzo, California		3%	
San Luis, Obispo	4%		1%
San Marcos, California	1%		
San Mateo & Santa Clara County, California			1%
San Ramon, California		3%	
Santa Anna, California		3%	
Santa Barbara, California	1%		
Santa Clara County, California			4%
Silverlake, California		3%	
Soledad, California			1%
Sonoma County, California			6%
Southern California			1%
Springs, California	1%		
Stanislaus, California			1%
Stockton, California			3%
Syracuse, New York	1%		
Tracy, California			3%
Vacaville, California	1%		
Valencia, California			1%
Vallejo, California	3%		
Walnut Creek, California (main) Oakland, California (secondary)		3%	
Watsonville, California			1%
Refused			1%

E6a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Number of respondents (n)	67	34	72

Source: DNV KEMA analysis

E7. How would you describe your professional level?

1. Entry-level or Apprentice
2. Mid-level or Journeyman
3. Upper-level or Master
77. Other, specify
88. Refused
99. Don't know

E7	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Entry-level or Apprentice	45%	24%	6%
Mid-level or Journeyman	34%	32%	46%
Upper-level or Master	18%	41%	40%
Other	3%	3%	7%
Don't know			1%
Number of respondents (n)	67	34	72

Source: DNV KEMA analysis

E8. How did you find your current job?

1. Job listing offered by training or instructor
2. Recruited through employer partnered with training
3. Other direct-hire method from program
4. Employment services (for example, One-stop, work investment agency)
5. Classified advertisement (online, newspaper)
6. Friend, Word of mouth
7. Walk-in application
8. Original employee / founder
9. Union member
77. Other, [RECORD]

88. Refused

99. Don't know

E8	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Job listing offered by training or instructor	12%	3%	
Recruited through employer partnered with training	7%	9%	3%
Other direct-hire method from program	1%	3%	3%
Employment services (for example, One-stop, work investment agency)	10%	3%	4%
Classified advertisement (online, newspaper)	18%	35%	8%
Friend, Word of mouth	25%	18%	14%
Walk-in application	9%		3%
Original employee / founder	6%	18%	21%
Union member	4%	9%	38%
77. Other, [RECORD]	4%	3%	3%
88. Refused	1%		
99. Don't know			4%
Number of respondents (n)	67	34	72

Source: DNV KEMA analysis

E9. Did the clean energy training help you get your current job?

1. Yes

2. No[E10a]

88. Refused [E10a]

99. Don't know [E10a]

E9	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	37%	47%	21%
No	63%	53%	79%
Number of respondents (n)	67	34	72

Source: DNV KEMA analysis

- E9a. In what ways did the clean energy training help you get your current job?
 1. Accumulation of skills / knowledge
 2. Networking
 3. Resume / interview training
 77. Open [RECORD]
 88. Refused
 99. Don't Know

E9a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Accumulation of skills / knowledge	80%	69%	87%
Networking	12%	13%	7%
Resume / interview training	4%		
Other	4%	19%	
Don't know			7%
Number of respondents (n)	25	16	15

Source: DNV KEMA analysis

- E10a. Did the topics covered in the clean energy training relate to your current line of work?
 1. Yes
 2. No [SKIP TO E11]
 88. Refused [SKIP TO E10c]
 99. Don't know [SKIP TO E10c]

E10a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	51%	50%	67%
No	49%	50%	33%
Number of respondents (n)	67	34	72

Source: DNV KEMA analysis

E10b How did the clean energy training relate to your current work? What are some examples?

1. Solar, PV or Thermal
2. Equipment Installation, Retrofitting (for example, HVAC, lighting, non-solar hot water)
3. Design, Building and Construction (for example, LEED)
4. Codes, Standards, Inspection
5. Basic Skills, Safety, Health (for example, OSHA)
6. Audits, HERS, Building Performance Institute
7. Energy-efficiency, Energy Fundamentals, Renewables, non-specific
77. [OPEN END]
88. Refused
99. Don't know

E10b	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Solar, PV or Thermal	29%	6%	10%
Equipment Installation, Retrofitting	15%	29%	29%
Design, Building and Construction	18%	18%	8%
Codes, Standards, Inspection	3%	12%	6%
Basic Skills, Safety, Health	12%	6%	19%
Audits, HERS, Building Performance Institute	3%	6%	2%
Energy-efficiency, Energy Fundamentals, Renewables	18%	12%	17%
Other	6%	12%	6%
Don't know			2%
Number of respondents (n)	34	17	48

Source: DNV KEMA analysis

- E10c. Do you feel that your career has advanced or will advance as a result of the clean energy training?
 1. Yes
 2. No
 88. Refused
 99. Don't know

E10c	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	88%	82%	71%
No	6%	18%	23%
Don't know	6%		6%
Number of respondents (n)	34	17	48

Source: DNV KEMA analysis

E11. Do you think of this field as a long-term career?

1. Yes [E11a]
2. No [E11b]
88. Refused
99. Don't know

E11	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	61%	74%	89%
No	34%	18%	6%
Don't know	4%	9%	6%
Number of respondents (n)	67	34	72

Source: DNV KEMA analysis

- E11a. What type of training would increase your opportunities to advance within your current line of work?
 1. LEED
 2. Managerial
 3. Marketing and sales
 4. Solar
 5. Engineering
 6. None
 77. [OPEN END] [SKIP TO E12]
 88. Refused
 99. Don't know

E11a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
LEED	5%	8%	6%
Managerial	10%	8%	13%
Marketing and sales	2%	12%	5%
Solar	12%	4%	11%
Engineering	7%	4%	23%
None	7%	12%	27%
Other	44%	48%	3%
Don't know	15%	4%	13%
Number of respondents (n)	41	25	64

Source: DNV KEMA analysis

- E11b. Why do you NOT think of this field as a long-term career?
 77. [OPEN END]
 88. Refused
 99. Don't know

E11b	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Other	100%	100%	100%
Number of respondents (n)	23	6	4

Source: DNV KEMA analysis

- E12a. When you began training, were you employed at your current position?
 1. Yes, same position [SKIP TO E16]
 2. No
 88. Refused
 99. Don't know

E12a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	21%	29%	72%
No	79%	71%	28%
Number of respondents (n)	67	34	72

Source: DNV KEMA analysis

- E12b. When you began training, were you employed by your current employer?
 1. Yes, same employer [SKIP TO E16]
 2. No
 88. Refused
 99. Don't know

E12b	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	2%	0	10%
No	98%	100%	90%
Number of respondents (n)	53	24	20

Source: DNV KEMA analysis

- E12c. Were you employed in a different field when you began the clean energy training?
 1. Yes, in a different field
 2. No, unemployed [SKIP TO E16]
 88. Refused
 99. Don't know

E12c	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
No, unemployed	71%	71%	44%
Yes, in a different field	25%	21%	17%
No, same field	2%	8%	39%
Don't know	2%		
Number of respondents (n)	52	24	18

Source: DNV KEMA analysis

E13. In what field or occupation did you work before the clean energy training?

77. [OPEN END]

88. Refused

99. Don't know

E13	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Construction/Electrician	31%	80%	100%
Non construction field	69%	20%	
Number of respondents (n)	13	5	2

Source: DNV KEMA analysis

- E13a. Was this field/occupation related to the clean energy training?

1. Yes

2. No

88. Refused

99. Don't know

E13a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
No	77%	40%	100%
Yes	23%	60%	
Number of respondents (n)	13	5	3

Source: DNV KEMA analysis

- E14a. How long were you employed in this field/occupation before the training?
 1. Less than 6 months
 2. 6 months or more, but less than 12 months
 3. 12 months or more, but less than 18 months
 4. 18 months year or more but less than 2 years
 5. 2 years or more, but less than five years
 6. 5 years or more
- 88. Refused
- 99. Don't know

E14a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Less than 6 months	15%		
Between 6 months and a year	23%		
Between 2 years and 5 years	8%		33%
5 years or more	54%	100%	33%
Don't know			33%
Number of respondents (n)	13	5	3

Source: DNV KEMA analysis

E14b. How many hours per week were you working before you began the clean energy training?

- #. [RECORD]
- 88. Refused
- 99. Don't know

E14b	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Partial employment (<20 hours/week)	38%		
Part-time (>=20 hours/week)	15%		
Full-time (>=40 hours/week)	46%	100%	33%
Don't know			67%
Number of respondents (n)	13	5	3

Source: DNV KEMA analysis

E15. How would you describe your professional level where you were working when you began the clean energy training? [READ ALL]

1. Entry-level or Apprentice
2. Mid-level or Journeyman
3. Upper-level or Master
77. Other, specify
88. Refused
99. Don't know

E15	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Entry-level or Apprentice	38%	20%	
Mid-level or Journeyman	46%	80%	
Upper-level or Master	15%		33%
Don't know			67%
Number of respondents (n)	13	5	3

Source: DNV KEMA analysis

[IF UNEMPLOYED OR EMPLOYED AT SAME JOB, BEGIN HERE]

[DO NOT ASK E16-E17a IF B3 = 2, 88, 99 “Did NOT complete training”]

E16. Since you began/completed training, have you applied for any jobs?

1. Yes
2. No [SKIP TO E16c]
88. Refused [SKIP TO E17]
99. Don't know [SKIP TO E17]

E16	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	81%	80%	30%
No	19%	20%	70%
Number of respondents (n)	119	65	97

Source: DNV KEMA analysis

- E16a. Were any of these jobs in a field related to the clean energy training?
 1. Yes
 2. No
 88. Refused
 99. Don't know

E16a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	88%	73%	48%
No	11%	27%	52%
Don't know	1%		
Number of respondents (n)	96	52	29

Source: DNV KEMA analysis

- E16b. What type of jobs have you applied for?
 1. Solar-related
 2. Electrician
 3. Building Energy Auditor
 4. Energy Technician
 5. Energy Laborer
 6. Non-Energy related
 77. [OPEN END] [SKIP TO E17]
 88. Refused
 99. Don't know

E16b	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Solar sales / installation	47%	17%	31%
Non-Energy related	22%	33%	24%
Building Energy Auditor	11%	31%	
Electrician	6%	6%	21%
Energy Laborer	6%	4%	21%
Energy Technician	4%	8%	3%
Other	1%		
Refused	1%		
Don't know	1%	2%	
Number of respondents (n)	96	52	29

Source: DNV KEMA analysis

[ASK E16c ONLY IF E16 =2, "has not applied for any jobs."]

- E16c. Why did you not apply for jobs during this time?
 1. Already had a job
 2. Retired
 3. Physical limitations
 4. Union takes care of it
 77. [OPEN END]
 88. Refused
 99. Don't know

E16c	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Already had a job	35%	46%	66%
Union takes care of it	13%	23%	21%
Retired	9%		6%
Physical limitations	9%	15%	4%
Other	35%	8%	1%
Don't know		8%	1%
Number of respondents (n)	23	13	68

Source: DNV KEMA analysis

[IF EMPLOYED, SKIP E17]

E17. How long have you been unemployed?

1. Less than 6 months
2. 6 months or more, but less than 12 months
3. 12 months or more, but less than 18 months
4. 18 months or more but less than 2 years
5. 2 years or more, but less than five years
6. 5 years or more
88. Refused
99. Don't know

E17	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Less than 6 months	26%	18%	58%
Between 6 months and a year	15%	15%	3%
Between 12 months and 18 months	11%	26%	9%
Between 18 months and 2 years	15%	10%	6%
Between 2 years and 5 years	20%	31%	21%
5 years or more	13%		3%
Number of respondents (n)	61	39	33

Source: DNV KEMA analysis

Effects of Training

[SKIP SECTION F IF B3=2, 88, 99 “Did NOT complete training”]

- F1a. What type of program career services did you use? [READ ALL, ACCEPT MULTIPLE RESPONSES]
 1. Career coaching/planning
 2. Resume and interview workshops
 3. Access to job boards/fairs
 4. Job placement service
 5. Did not use any career services
 77. Other [RECORD]
 88. Refused
 99. Don't know

F1a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Resume and interview workshops	58%	53%	8%
Job placement service	58%	20%	8%
Career coaching/planning	42%	33%	
Access to job boards/fairs	42%	20%	
Did not use any career services	29%	33%	85%
Other		7%	
Number of respondents (n)	24	15	13

Source: DNV KEMA analysis

- F1b. How did those services help you? [READ LIST, ACCEPT MULTIPLE RESPONSES]]
 1. Creating a resume
 2. Locating job openings
 3. Going through job application process
 4. Getting interviews
 8. Going through the interview process
 9. Getting job offers
 10. Negotiating job offers

- 11. Getting a job
- 12. Job retention
- 13. Career advancement
- 77. Other
- 78. Not helpful
- 88. Refused
- 99. Don't know

F1b	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Creating a resume	88%	40%	50%
Locating job openings	82%	40%	
Going through job application process	71%	20%	
Getting interviews	71%	10%	
Getting job offers	71%	20%	
Going through the interview process	59%	30%	
Job retention	59%	20%	
Career advancement	59%	30%	
Getting a job	53%	40%	50%
Negotiating job offers	47%	40%	
Other		10%	
Number of respondents (n)	17	10	2

Source: DNV KEMA analysis

[ASK F2 ONLY IF E9 = 1, “Job resulted from training” OR IF E12a = 1, “Working in same job after training as before training”]

F2. Please state simply whether you agree or disagree with the following statements:

I believe that the training has:

- F2a. Increased my pay
 1. Agree
 2. Disagree
 88. Refused
 99. Don't know

F2a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Agree	49%	39%	31%
Disagree	51%	57%	69%
Don't know		4%	
Number of respondents (n)	37	23	59

Source: DNV KEMA analysis

- F2b. Created more opportunities for career advancement
 1. Agree
 2. Disagree
 88. Refused
 99. Don't know

F2b	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Agree	84%	74%	71%
Disagree	14%	26%	29%
Don't know	3%		
Number of respondents (n)	37	23	59

Source: DNV KEMA analysis

- F2c. Increased the likelihood of keeping my job
 1. Agree
 2. Disagree

88. Refused

99. Don't know

F2c	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Agree	68%	61%	61%
Disagree	32%	39%	34%
Don't know			5%
Number of respondents (n)	37	23	59

Source: DNV KEMA analysis

- F2d. Motivated me to consider additional training in clean energy
 1. Agree
 2. Disagree

88. Refused

99. Don't know

F2d	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Agree	89%	91%	73%
Disagree	11%	9%	24%
Don't know			3%
Number of respondents (n)	37	23	59

Source: DNV KEMA analysis

- F2e. Motivated me to continue to work in a field related to clean energy
 1. Agree
 2. Disagree

88. Refused

99. Don't know

F2e	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Agree	95%	78%	78%
Disagree	5%	13%	20%
Don't know		9%	2%
Number of respondents (n)	37	23	59

Source: DNV KEMA analysis

Barriers

For this next set of questions, I would like to determine whether there were any difficulties associated with attending the training program...

G1. Please state whether you any of the following issues made it difficult for you to attend or complete the training course:

- G1a. Language difficulties
 1. Yes, it was a barrier
 2. No, it was NOT a barrier

G1a	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes, it was a barrier	3%		1%
No, it was NOT a barrier	97%	100%	99%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

- G1b. Difficulties with hands-on training (for example, tools)
 1. Yes, it was a barrier
 2. No, it was NOT a barrier

G1b	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes, it was a barrier	5%	12%	
No, it was NOT a barrier	95%	88%	99%
Refused			1%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

- G1c. The time of day the training was offered
 1. Yes, it was a barrier
 2. No, it was NOT a barrier

G1c	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes, it was a barrier	15%	12%	7%
No, it was NOT a barrier	85%	88%	93%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

- G1d. Time constraints on my schedule
 1. Yes, it was a barrier
 2. No, it was NOT a barrier

G1d	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes, it was a barrier	20%	14%	20%
No, it was NOT a barrier	80%	86%	80%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

- G1e. Course Fees and/or costs of materials
 1. Yes, it was a barrier
 2. No, it was NOT a barrier

G1e	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes, it was a barrier	3%	11%	6%
No, it was NOT a barrier	97%	89%	94%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

- G1f. Transportation
 1. Yes, it was a barrier
 2. No, it was NOT a barrier

G1f	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes, it was a barrier	14%	11%	6%
No, it was NOT a barrier	86%	89%	94%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

- G1g. Care of dependents (for example, Childcare, elderly)
 1. Yes, it was a barrier
 2. No, it was NOT a barrier

G1g	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes, it was a barrier	7%	12%	6%
No, it was NOT a barrier	93%	88%	94%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

- G1h. Material was too difficult
 1. Yes
 2. No

G1h	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes, it was a barrier	5%	5%	7%
No, it was NOT a barrier	95%	95%	93%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

- G1i. Were there any other difficulties in attending the training course? If so, what difficulties were there?
 1. Yes, [RECORD]
 2. No
 3. Transportation issues
 4. Instructor issues
 5. Insufficient resources
 88. Refused
 99. Don't know

<i>	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
No other difficulties	84%	85%	80%
Other difficulties	4%	1%	5%
Transportation issues	4%	4%	7%
Instructor issues	5%	4%	2%
Insufficient resources	4%	5%	7%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

[SKIP TO I1]

Withdrawal Battery

H1. Question omitted.

H2. Why did you decide to withdraw from the training?

1. Transportation issues
77. [RECORD]
88. Refused

99. Don't know

H2	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
77. Other	56%	25%	88%
1. Transportation	44%	38%	13%
Number of respondents (n)	9	8	8

Source: DNV KEMA analysis

H3. What changes to the training might have prevented you from withdrawing?

- 77. [RECORD]
- 88. Refused
- 99. Don't know

H3	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Other	67%	63%	50%
Refused			
Don't know	33%	38%	50%
Number of respondents (n)	9	8	8

Source: DNV KEMA analysis

H4. Would you consider attending similar clean energy training in the future?

- 1. Yes
- 2. No
- 88. Refused
- 99. Don't know

H4	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Yes	78%	75%	75%
No	22%	13%	13%
Don't know		13%	13%
Number of respondents (n)	9	8	8

Source: DNV KEMA analysis

Demographics

And for the final few questions, I would like to ask about your background...

I1. [NOTE TO CATI: DO NOT ASK BUT INDICATE GENDER OF TRAINEE]

1. Male
2. Female

I1	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Male	93%	77%	95%
Female	7%	23%	5%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

I2. Which of the following best describes your age?

1. Less than 25,
2. 25 to 34,
3. 35 to 44,
4. 45 to 54,
5. 55 to 64, or
6. 65 or older?
88. Refused
99. Don't know

I2	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Less than 25	16%	4%	1%
25 to 34	18%	14%	11%
35 to 44	20%	22%	19%
45 to 54	27%	40%	34%
55 to 64	16%	16%	30%
65 or older	3%	3%	4%
Refused		1%	1%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

I3. How would you describe your ethnicity? [ACCEPT MULTIPLE RESPONSES.]

1. White
2. Black or African American
3. Hispanic
4. American Indian or Alaska Native
5. Asian
6. Filipino
7. Pacific Islander
77. Other (specify)
88. Refused
99. Don't know

I3	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
White	38%	52%	67%
Hispanic	19%	22%	18%
Black or African American	17%	15%	6%
Asian	9%	4%	1%
Other	5%	3%	2%
Filipino	5%	1%	
Refused	3%	4%	5%
Pacific Islander	2%	1%	
American Indian or Alaska Native	2%		1%
Don't know	1%		1%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

I4. What is the primary language spoken in your home? [DO NOT READ LIST.]

1. English
2. Spanish
3. Mandarin
4. Cantonese
5. Tagalog
6. Korean
7. Vietnamese
8. Russian
9. Japanese
77. Other (specify)
88. Refused
99. Don't know

I4	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
English	84%	86%	90%
Spanish	9%	3%	9%
Cantonese	2%	3%	
Tagalog	2%		
Mandarin		1%	
Russian		1%	1%
Other	5%	3%	
Refused		3%	
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

I5. What is the highest level of education you have completed?

1. 8th grade or less
2. Some high school
3. GED
4. High school graduate
5. Some college
6. College graduate

- 7. Post-college graduate
- 88. Refused
- 99. Don't know

I5	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Some college	49%	37%	46%
College graduate	26%	34%	26%
High school graduate	16%	16%	17%
Post-college graduate	5%	7%	6%
Some high school	2%		4%
GED	2%	4%	1%
8th grade or less			1%
Refused		1%	
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis

I6. What was your annual household income from all sources in 2010, before taxes? Please stop me when I reach the category that best describes your household's income. [READ LIST]

[IF NECESSARY: This information is confidential and will only be used for the purpose of characterizing study respondents.]

- 1. Less than \$20,000 per year
- 2. 20 to less than \$30,000
- 3. 30 to less than \$40,000
- 4. 40 to less than \$50,000
- 5. 50 to less than \$60,000
- 6. 60 to less than \$75,000
- 7. 75 to less than \$100,000
- 8. 100 to less than \$150,000
- 9. 150 to less than \$200,000
- 10. \$200,000 or more
- 88. Refused
- 99. Don't know

I6	EDD Pre-Apprenticeship	EDD Retraining	ETP Career Advancement
Less than \$20,000 per year	37%	19%	10%
\$20,000 to less than \$30,000	27%	12%	10%
\$30,000 to less than \$40,000	6%	7%	8%
\$40,000 to less than \$50,000	6%	16%	9%
\$50,000 to less than \$60,000	5%	5%	9%
\$60,000 to less than \$75,000	3%	12%	9%
\$75,000 to less than \$100,000	3%	7%	15%
\$100,000 to less than \$150,000	2%	3%	16%
\$150,000 to less than \$200,000	1%	4%	2%
\$200,000 or more		1%	3%
Refused	6%	10%	10%
Don't know	4%	3%	2%
Number of respondents (n)	128	73	105

Source: DNV KEMA analysis