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Green Jobs in the Residential Energy Efficiency Industry:

The Home Performance Industry Perspective on
Training & Workforce Development

*Presented By: **Efficiency First***

Summary presentation for CEC IEPR Workshop
"Clean Energy Jobs and the Growth of the Clean
Energy Economy"

21 July 2010



Full Presentation Outline

Summary Presentation

- Research Overview & Methods
- The State of Industry
- Job Types & Requirements
- Employment Growth Projections
- The State of Training
- Recommendations for Workforce Training
Providers & Policymakers
- Conclusions

Who is Efficiency First?

- National non-profit trade association
- More than 900 U.S. Home Performance contractors
- Representing the Home Performance industry in public policy discussions at state and national level
- Promoting the benefits of efficiency retrofitting
- Helping grow the Home Performance industry
- Key player in HOME STAR

America's Home Performance Workforce



Data & Methods

- Interviews with 20+ *industry experts*
- Survey polling 161 *home performance companies in 36 states*
- Review of existing literature
- Attendance at national & CA home performance conferences
- Peer review
- Full report and presentation @ hprcenter.org

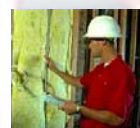
How do you do a Home Performance Retrofit?

- Find a Customer
- Identify & Explain the Problems
 - Home Performance Evaluation/Assessment “Test in”
 - Present the problems and possible solutions to homeowner
- Fix the Problems
 - Basic: Duct sealing, air sealing, insulation, etc.
 - Skilled Work: HVAC, Mechanical or Electrical Work, Window & Door Replacement, Plumbing
- Quality Assurance & Testing
 - “Test Out”



Job Types & Requirements

- Home Performance Auditors, Raters and Estimators:
 - evaluate the home energy usage & areas for improvement
- Retrofit Technicians:
 - conduct a basic retrofit or weatherization work
- Skilled Laborers
 - complete electrical work, plumbing, HVAC or mechanical system upgrades, and window and door replacement
- Quality Assurance Providers:
 - certify home performance improvements.
- Office & Support Staff:
 - provide administrative, managerial, promotional, and clerical support for the field workforce and customers.





Pre-Screen

- Evaluate individuals' physical, psychological, and intellectual aptitude for a position in the home performance industry *before* training begins.
- Screen based on
 - 1) applicant's desire to work in industry
 - 2) their ability to fulfill industry requirements for specific positions.

<ul style="list-style-type: none"> • Attention to detail • Customer service, interpersonal and communication skills • Reliable Transportation, Drivers License, Clean Driving Record • Drug Fee • Physically fit: able to lift 75 pounds, fits through crawl space dimensions 	<ul style="list-style-type: none"> • Construction or trade background • Willing to get dirty • No criminal background, or at least no theft or violence • Able to accurately and legibly write and interpret reports • "Green" or sustainable life philosophy
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Follow Industry-Approved Standards

- Teach to BPI, RESNET, Home Performance w/ Energy Star, or other industry-accepted standards
- Following professional certification program standards offers consistency & quality assurance
- Prepare workers for written and field tests
- Department of Energy to provide a single international standard for training provider accreditation and instructor certification



Conduct Training in the Field

- Classroom learning is not sufficient
- No house is the same – no substitute for experience
- Important skills include:
 - equipment use and maintenance, air sealing, insulation materials and techniques, code compliance, moisture and mold abatement, asbestos removal, lead paint protocols, etc.
- Most successful programs include fast-transition field work, internships, apprenticeships, or other “on-the-job” (OJT) training

Teach Other Relevant Skills

- Include instruction on other relevant skills and provide information that will help trainees be more effective on the job.
 - Health & Safety
 - General politeness and punctuality
 - Sales & customer service
 - Problem solving
 - Software & Energy Modeling Programs
 - Local incentive or utility program rules and requirements
 - Basics of energy conservation
 - Complementary skill sets, such as installation of PV or solar hot water.

Develop Employer Relationships

- Recruit an industry advisory group
- Industry groups can help reach multiple employers
- Offer employers benefits, such as:
 - Marketing and community recognition
 - Assistance with other business issues
 - Candidate screening
 - Financial compensation for providing on-the job-training, internships, and apprenticeships
 - Other incentives for superior mentoring or participation.

Track Participants After Training

- Trainers should develop a systems of communications with trainees
- Follow up with program participants to:
 - Know who has found work
 - Who is still looking for work
 - Those companies looking for additional staff
 - Starting wages, benefits, etc.
- Identify effective mentors at companies, subsidize companies at higher rates if training effectively

Recommendations for Policymakers



Match Supply with Demand

- Creating jobs is 1st step toward workforce development
- Most companies are more concerned about customer demand than worker supply
- 71% can find qualified entry-level retrofit workers in less than 1 month
- Develop demand-generating policies and programs at the same time as programs to increase worker readiness and training.
 - Pass proposed legislation like HOME STAR & REEP
 - Roll out PACE financing, utility incentives and home audit and retrofit rebate programs



Provide clear and reliable information

- Provide businesses with a solid understanding about:
 - Standards, certifications, or licenses required
 - Program timelines & “grace periods” before requirements begin

Simplify training access and subsidization

- Provide businesses with simple methods to access training
- Be sensitive to the cash-flow issues of contractors when designing subsidies for training programs and certification exams.

Support Training- Within-Industry

- Provide funding to offset the cost of on-the-job training, apprenticeships, and mentoring.
- Using a TWI model could:
 - 1) Jump-start the residential energy efficiency industry
 - 2) Spend training funds only on workers with real potential for a defined career path within the industry
 - 3) Offer the fastest way for trainees to gain portable industry skills since they would gain field experience on a daily basis.

Allow choice in the training marketplace

- Make sure training subsidies can be received through multiple certified providers
- Employers will select the training that works best for their needs

Offer Funding Consistency

- ARRA funds offer a large infusion of cash for 2 years
- Training funds should be consistent over several years or escalated in response to increases in program scale or customer demand

Industry Challenges & Concerns

- **Today:** How can we hire people if we don't first increase customer demand?
- **As demand grows:** How quickly will we be able to scale and find qualified workforce?
- **When economy rebounds:** Will we be able to keep good employees in this industry when other construction jobs provide more pleasant working environments?

Conclusions

- Increasing demand is first step toward workforce development
- Once demand increases, companies will grow
 - Re-hire/Retrain incumbent workforce
 - Increase use of subs
 - Train & hire new entrants
- Important to lay the groundwork now and get the training infrastructure right
- Established standards, OJT, and partnerships between training providers & employers will support quick industry scaling

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Full report will be available

On Home Performance Resource Center website:

www.hprcenter.org

