

# Building the Workforce for Energy Efficiency Programs

- Steve Morgan
- Clean Energy Solutions, Inc.
  
- September 15, 2010



# Market Characterization

- The Big Question = How many jobs for how long?
  - Survey the existing market conditions
    - Market Sector: Commercial, Industrial, Residential
    - Geographic Location
    - Skill Type and Level
    - Wage Level

# Market Characterization

- Forecast job growth for three years based on increased funding
  - Is this growth short term or permanent?
  - What level of demand can the existing firms meet?
  - What level of demand for what time period justifies cost for specific EE certification and training?
    - Will the program meet this threshold?

# Stakeholder Engagement

- Key stakeholders in developing a well-trained workforce:
  - Workers
  - Energy Efficiency Employers/Contractors
  - Trainers and Educational Resources

# Stakeholder Engagement

## Workers

- Employed
- Underemployed
- Unemployed
- New entrants to the workforce

### Key levers for engagement:

- Skill Assessment
- Job Ladder Creation
- Wage Expectations

# Stakeholder Engagement

## Energy Efficiency Employers/Contractors

- Firms that are trained and specialize in EE
- Contractors that are aware of EE benefits and incentives and offer them to customers on general projects
- Contractors that do not market EE improvements

### Key levers for engagement:

- Scale up current operations
- Incubate new businesses
- Realistically incentivize trainings for new job creation
- Monitor job creation and preservation

# Stakeholder Engagement

## Trainers and Educational Resources

- Nationally Recognized Programs (BPI and RESNET)
- Local Certifications (State Specific)
- Community Colleges and Vocational Programs

### Key levers for engagement:

- Require Certification
- Continuum of Services
- Internships and Apprenticeships

# Types of Certification

## National

- BPI
- RESNET

- Certifications accepted by the EnergyStar program and HomeStar Legislation
- Through curriculum on the building science of rating and energy efficiency
- Quality Assurance by certification authority
- Expensive and time intensive

---

## Local / Regional

- Tailored to local labor market
- Time and Cost can be managed
- Quality Assurance is local responsibility
- Certification may not be acceptable to national programs and lenders



# Building Performance Institute (BPI)

## Types of Training:

- Audit:
  - Building Analyst
  - Envelope
- Construction
  - Air Leakage Control Installer
  - Whole House Air Leakage Control Crew Chief
  - Manufactured Housing
  - Heating
  - Air Conditioning and Heat Pump
  - Multifamily
- Costs:
  - Each training is the cost of the credits at the educational facility
  - \$500 for audit certification
  - Annual Assessment of up to \$7000 based on gross revenue for continued quality assurance

## Types of Training:

- Energy Audit
  - HERS training is optional as a study mechanism for HERS rater test
  - Test is 50 questions specific to energy rating
- Costs
  - \$1500/year to maintain training and certification

# Hudson Valley Community College

- Center for Energy Efficiency and Building Science (CEEBS)
  - Partnership with BPI and NYSERDA at 10 NY State community college campuses
  - Provides training to achieve BPI certification
  - Also provides RESNET certification
  - Additional training in general building science and specific skills (rater, HVAC, etc)

# Hudson Valley Community College

- Center for Energy Efficiency and Building Science (CEEBS)
  - Spectrum of Skills
    - Labor Unions / Pre-apprenticeship Trade Training
    - Professional Certification Training (BPI)
    - Accredited College/ University Credit
    - Career Development and Professional Continuing Education

# Hudson Valley Community College

- NYSERDA Incentives
  - Partial tuition scholarships
  - BPI certification test cost reimbursement
  - Certifications required to participate in NYSERDA incentive programs

# Clean Energy Works Portland

## Community Work Force Agreement

- Negotiate community benefits that contractors must meet as part of projects
- Created through Stakeholder Evaluation and Implementation Committee:
  - Unions
  - Contractors
  - Local Government
  - Non-Profits
  - Community Groups

# Clean Energy Works Portland

## Community Work Force Agreement

- Pilot Project = 470 residential projects
- Goals for post pilot scale up:
  - Local Hire 80% of the work force
  - Include Minority, Women, and historically disadvantaged groups in the job creation and contracting
  - Good Job creation:
    - Jobs are above 180% of minimum wage
    - Mitigate burdens in providing employee health insurance
    - Provide resources for continuing education

# Clean Energy Works Portland

## Participating Groups

- City of Portland
- Energy Trust of Oregon
- Carpenters Union Local 247
- LIUNA Laborers Local 483
- Construction Apprentice and Workforce Solutions
- Evening Trades Apprenticeship Preparation
- Green For All
- Coalition for a Livable Future
- Change to Win
- Home Energy Life Performance Group, Inc.
- Metropolitan Alliance for Common Good
- Metropolitan Contractor Improvement Partnership
- Eco Tech, LLC



Thank you!