



Providing solutions to workforce needs

COMPREHENSIVE-NATIONAL ELECTRICIAN SOLAR TRAINING

Presented to:

Texas Workforce Investment Council Apprenticeship Project Leadership Team

March 8, 2012

THE OPPORTUNITY

- In June 2009, the U.S. Department of Labor made funding available for training and placement services in the energy efficiency and renewable energy industries.
- The Austin Electrical JATC (AEJATC) with partners ImagineSolar (private school licensed by TWC) and Workforce Solutions (publicly-funded workforce board for Travis County) submitted a demonstration project proposal.
- These 3 organizations had excellent working relationships already in place due to successfully implementing previous projects together which allowed them to quickly respond.
- The grant was awarded in January 2010 with training beginning the following month.

FUNDING AND SERVICES

- The C-NEST partnership was awarded \$4.8M to provide solar (photovoltaics) electrical and smart grid training under a program entitled the Comprehensive-National Electrician Solar Training (C-NEST) Project.
- C-NEST has prepared new and current workers in AEJATC's 14-county service area, Bexar county, Arizona, Kansas, New Mexico, Oklahoma and greater Texas.
- The C-NEST program has been extended to mid-July 2012.

ROLES OF EACH PARTNER



Austin Electrical JATC

- Serve as DOL-recognized grantee
- Provide training facilities
- Conduct electrical training
- Recruit current workers for training
- Identify employment opportunities



Workforce Solutions

- Serve as administrative coordinator
- Provide fiscal management and oversight
- Recruit new workers for training
- Identify employment opportunities



ImagineSolar

- Provide solar electrical training
- Provide solar industry consulting expertise
- Identify employment opportunities

ROLES OF ELECTRICIANS IN PV

- In Texas all electrical work, including both the DC and AC sides of a solar photovoltaic installation, must be performed by a licensed electrician according to the Texas Department of Licensing and Regulation.
- Any entity wishing to implement solar training, beyond installation support roles, must include electrical workforce development as a foundation of the program.

SKILLS TRAINING



Electrical Training

- Electrical Code
- OSHA 10
- Safety
- First Aid
- Code of Excellence

PV Solar Training

- PV System Design & Installation
- Advance PV System Design & Installation
- NABCEP Alternative Experience Pathway for Electricians*
- Smart Grid
- Solar PV Economics and Technical Sales

* ImagineSolar has worked with NABCEP (North American Board of Certified Energy Practitioners) to help create one of the few pilot programs in the nation for the NABCEP field experience alternative pathway for Electricians. Allows lab environment for the required 2 installs on the professional level.

OUTCOMES TO DATE

Outcome	Deliverable	Progress to Date
Total Participants Served	1150	1800*
Began Receiving Job Training Activities	1000	1800
# Completing Job Training Activities	950	937
# Total Credentials/Certificate Received	718	460
# Entered Employment:	Not included in grant application	91**
# Entering Training Related Employment	168	29
# Retaining Employment	504***	62

* Includes participants exiting the program and returning for additional training. Unduplicated served is approximately 1660.

** Includes individuals who were unemployed at enrollment who have reported employment after exit from program.

*** Workers returning to the same employer/job position must have utilize competencies acquired in training to be included

RESULTS AND INNOVATIONS

- Established a state-of-the-art solar training facility;
- Revised course schedules and delivery methods to meet the needs of incumbent workers: nights, weekends, online;
- Created a blended training delivery platform: onsite, online, online LIVE;
- Delivered training to JATCs throughout Texas and 4 other states – demonstrated ability to rapidly ramp throughout a large geographic area;
- First in the nation to deliver utility-scale solar training
- Rapid re-visioning based on changing market and employer requirements;
- The C-NEST Program has been recognized by the Department of Labor as using best practices related to partnership building.

CONCLUSION AND NEXT STEPS

- The partners see this as truly a successful demonstration project – however to actually create a *sustainable change in apprenticeship training*, additional funding is needed.
- Next steps would be to institutionalize the **solar and smart grid training** into the 5-year apprenticeship programs themselves thereby creating a successful pathway to **UL or NABCEP industry certifications** in addition to electrician licensing. The UL Certification is exclusive to electricians.
- This would be accomplished in three phases:
 - **Phase 1. Curricula Integration** - through the integration of competency-based design elements and technology, create lesson plans, problem sets, and hands-on exercises and exams, etc. for each year that will correlate with the standard electrician training;
 - **Phase 2. Pilot Program** - Test a Pilot Program at the local AEJATC;
 - **Phase 3. State-Wide Implementation** - Implement across Texas apprenticeship programs throughout the state including train-the-trainer programs;

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