Building a Workforce Training Ecosystem for Customer Success
Clean Energy Workforce Education Conference
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ImagineSolar is catalyzing the rapid growth of the clean/smart/renewable energy industries through advocacy, advisory services for solar projects, and workforce training programs.

We have founded the first licensed career school in the State of Texas dedicated to the solar and smart grid industries.

Our school is licensed by the Texas Workforce Commission (license # S3736, www.twc.state.tx.us) and we offer almost 200 contact hours of classes and workshops.

We have full tuition scholarships available in 2011. These scholarships include all fees, tuition, books, and course binders.

ImagineSolar clients include commercial accounts, contractors, project developers, new ventures, utilities, investors, government agencies, and non-profits, as well as individuals who want to build their careers in the solar and smart grid industries.
Our Workforce Training Ecosystem

• U.S. Department of Labor
• IBEW/NECA: Labor and Electrical Contractors
• 7th District JATCs and Local Unions (Arizona, Kansas, New Mexico, Oklahoma, and Texas)
• Workforce Solutions – Alamo, Central Texas, and Capital Area
• Texas Workforce Commission
• NABCEP
• IREC – ISPQ
• Solar Industry Companies: supply equipment and hire CNEST graduates
• Solar Project Developers: hire CNEST contractors
• Solar Industry Instructors and Experts
• City of Austin, Austin Energy
• Pecan Street Project
7th District – 26 Locations
The Opportunity

• In June 2009, the U.S. Department of Labor made $100M available for training and placement services in the energy efficiency and renewable energy industries.

• National, nonprofit labor management organizations were eligible lead applicants.
Prime Grant Partnerships

• The Austin Electrical JATC together with 2 prime partners created a demonstration project application:
  – ImagineSolar, solar and smart grid career school and industry consulting group
  – Workforce Solutions – Capital Area Workforce Board, publicly-funded workforce board for Travis County

• Austin Electrical JATC partners with Central Texas Chapter National Electrical Contractors Association (NECA) and Local Union 520 of International Brotherhood of Electrical Workers (IBEW).
Role of Electricians in Solar PV

- In Texas all electrical work, including both the DC and AC sides of a PV installation, must be performed by a licensed electrician according to the Texas Department of Licensing and Regulation; New Mexico and Arizona have similar requirements.

- Any training entity wishing to must include electrical workforce development as a foundation of the program as well as be licensed by the Texas Workforce Commission.
The Department of Labor received over 500 applications under their funding solicitation. Only 25 were funded. Central Texas was awarded $4.8M to provide solar electrical training under a program entitled the Comprehensive-National Electrician Solar Training (C-NEST) Project.
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
Partnerships Are Key

- Other grant partners include:
  - Austin Energy, City of Austin, Pecan Street Project
  - IBEW, Local Union 520
  - KST Electric, Inc
  - Rosendin Electric, Inc.
  - Schmidt Electric, LLC
  - South Texas Electrical JATC
  - Texas Workforce Commission
  - Workforce Solutions – Alamo, Central Texas, and Capital Area

ImagineSolar
What are the key challenges facing the education program managers at the renewable education training organizations?

- Rapid Pace of Innovation
- Changing Certification Requirements
- Continuing Policy Changes at the National, State and Local Levels
- Diverse and Evolving Employer Needs
Solar Field Lab
Innovation: AC-Coupled Systems
PV + Inverter + Batteries + Generator; Microinverters
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New NABCEP Job Task Analysis released in July 2010
New NABCEP Alternative Experience Pathway – we piloted the first AEP program in the nation in year 2010

“ImagineSolar provided not only a pathway to the NABCEP Certification Exam but also in-depth installation experience on cutting edge solar.” said Jack Payne, Owner, B.J. Electric, and a member of the AEJATC Board of Trustees.

ImagineSolar starts their students out in an extensive classroom and laboratory based training program that runs 128 hours and includes 5 installations.

In addition to theoretical learning the students participate in group installations that includes a wide variety of system types including; AC-coupled bimodal systems, micro-inverters, dual-axis trackers, and cylindrical CIGS modules as well as traditional solar technology.

In short the participants are exposed to a very wide range of equipment and installation types.
Results: 8 of Our AEP electricians are now fully NABCEP Certified
Key Challenge: New NABCEP Job Task Analysis for PV Technical Sale Certification released in September 2010

We have 2 instructors who are NABCEP Certified in PV Technical Sales

- Finance
- Sales
- Marketing
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- Rapid Pace of Innovation
- Changing Certification Requirements
- **Continuing Policy Changes at the National, State and Local Levels**
- Diverse and Evolving Employer Needs
Key Challenge: Changing Policies at the National, State, and Local Levels

- State Licensing Requirements
  - Texas Department of Licensing and Regulation
- National Electric Code – new version every 3 years
- Upcoming: Fire Marshall regulations
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- Rapid Pace of Innovation
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- Continuing Policy Changes at the National, State and Local Levels
- *Diverse and Evolving Employer Needs*
Key Challenge: Diverse Employer Needs

• Employers have diverse needs from generalists to specialists
• Employer job categories vary according to the markets they serve
• Meet the Challenges:
  – Establish a best-in-class reputation – employers will come to you for candidates
  – Diversify your training offerings: electrician versus non-electrician, engineer versus non-engineer, finance in addition to sales and marketing
  – Be willing to customize per employer
  – Be able to offer cross-trades training
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Thank you – Questions?

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