Florida’s Solar Energy Workforce Development Programs

PAB Meeting
December 11, 2009

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Talk Outline

- FSEC Training Program
- Banner Center Program
- DOE Solar Installers Training
History –
FSEC Training Programs

- SWH – Began in late 70s – J. Ventre and Doug Root (deceased)
- PV – Began in early 80s – J. Ventre and J. Dunlop
Objective: 3-day training for solar water and pool heating installation

Covers design, installation, troubleshooting, residential and commercial systems

Offered: 2-3 times/year
PV Workshop

- Objective: Week long course for design and installation of PV systems and equipment.

- Offered: Once per month for past 7 years. Restricted to 25 individuals/course because of lab equipment.
PV Workshop

Manuals used:


Work presently being conducted by J. Ventre:

- Compare existing course with NABCEP task analysis
  - Comparison completed and gaps identified.
- Develop new training modules for
  - 3, 8, 16, 20 and 105-hour programs
- Develop training objectives for train-the-trainer participants
Banner Center Program

- Funded by Workforce Florida, Inc.
- Required collaboration between industry and education
- Concept: PV and SWH Technologies
➢ Curriculum development with industry input. Center to be industry driven.

➢ Train-the-trainer program.

➢ Conduct student training at partner institutions.

➢ Develop program sustainability.

➢ Add more training partners.
Six partners:

Tallahassee Community College
Brevard Community College
Broward College
Westside Technical School

Brevard Work Force Development Board
Florida Solar Energy Research and Education Fnd.
Other community colleges trained:

- Indian River State College, Ft. Pierce
- Lely Construction Academy, Venice
- Valencia Community College, Orlando
- Florida Keys Community College, Key West
Training Results

Faculty Trained – 28
Westside Tech – 75
Tallahassee Community College – 78
Brevard Community College – 83
Broward College – 52

TOTAL – 316

And 28 faculty members now can train many more!
DOE Solar Installer Instructor
Training for the Southeast

- Awarded October 2009
- Five year effort
- Part of national network
- Partner states and territories in Southeast
Eight Training Partners:

- Alabama
- Arkansas-
- Florida
- Georgia
- Louisiana
- Tennessee
- Kentucky
- Puerto Rico
- U.S. Virgin Islands
National Network:
- Mid-Atlantic
- Northeast
- Southeast
- South Central
- Rocky Mountain states
- West Coast
DOE Planned Program Activities

- Establish Advisory Board
- Develop Curriculum
- Develop Lab Training Procedures
- Train-the-Trainer
- Train Students at Regional Sites
- Establish Communications
- Develop Portable Training Equipment
Regional and Community College Training Problems

- Equipment
- Equipment
- Equipment
- No funds for purchase of training equipment.
Training Equipment Needs

- Complete PV systems – modules, inverters, BOS components, batteries
- Differing vendor equipment
- Mounting hardware
- Tools
- Safety equipment
- Cost estimate = $35,000 for one
- Multiple systems needed
Second Training Problem

- Industry and workforce recognized completion certificate

- Existing license/certification
  - State construction industry licensing board
  - NABCEP certificate
  - Industry certificate/apprenticeship or ??
Workforce Analysis Results

Results for Florida, Georgia, Alabama, Louisiana, Mississippi, Arkansas, Virgin Islands, Puerto Rico

- **SE solar industry (present time)**
  - 5,000 jobs and value of $282 million

- **SE solar industry (20 years)**
  - 130,000 jobs and value of $32 billion

- **Total area population = 47 million**
Florida Solar Energy Center

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