Solar Market Transformation Conference 2010

October 29, 2010
Normal Theater, Normal, IL

Nick Hylla
Midwest Renewable Energy Association

Solar Training Capacity and Partnerships
1:30 PM
Solar Training Opportunities in the Midwest

About the MREA

The MREA is a non-profit education organization, established in 1990.

- 21st Annual Energy Fair
  June 18-20, 2010
- Hands-on Workshops
- Certified Site Assessors
- Demonstration Site
- Solar Thermal – 10 September
  30 & October 1, 2010
Renew the Earth Institute training facility

- 4 wind Turbines
- 4 solar electric systems
- Solar electric training roof
- solar thermal training roof
- Strawbale demonstration building
- Wood fired masonry heater
- and much more…

Midwest Renewable Energy Association

MREA Past – Workshop Attendance
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- Solar Water: 6
- Wind: 3
- PV: 6
- General: 22
- Construction: 3

MREA Site Assessment Training

PY Site Assessor Flow Chart:
- Core Courses
  - PV 101*
  - PV 201*
  - Skills Assessment/2 Practice Reports
  - Exam
  - Code of Ethics/Certification Fee

SHW Site Assessor Flow Chart:
- Core Courses
  - SW 101*
  - SW 201*
  - Skills Assessment/2 Practice Reports
  - Exam
  - Code of Ethics/Certification Fee

Wind Site Assessor Flow Chart:
- Core Courses
  - W 101*
  - W 201*
  - Skills Assessment/2 Practice Reports
  - Exam
  - Code of Ethics/Certification Fee

* See www.mreaw.com for additional approved training programs for valid site assessment certification.
MREA Installer Training

MREA Present - Market Transformation
Solar Market Transformation Goals

• Energy Independence
• Greenhouse Gas Reduction
• Green Workforce Development

Market Trend - Innovation
Market Framework
Solar Training Pillars

- A professional standard *provides the foundation* for curriculum
- Accreditation *provides the framework* for program development
- The workforce demand *provides the initiative* for educational institutions

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Market Framework
Professional Certification

NABCEP Installer Certification

- Continental Standard (Job Task Analysis)
- Certification, not training
- Certification requires education, experience, and testing
- Shown in inspections to improve system installation quality (NYSERDA, 2008)
- Gateway to State Incentives
Market Framework Professional Certification

PV Entry Level
The NABCEP PV Entry Level Exam -

- Sets a benchmark of knowledge that employers use when assessing potential job candidates.
- Is an entry point for careers in PV; over 20% of recent PV Installer Certificants have previously passed the EL exam.
- Computer based testing is now available at 200 test centers across the US and Canada.
Market Framework Analysis and Advocacy

Interstate Renewable Energy Council

irecusa.org

Market Framework Quality Training

ISPQ Training Program Accreditation

- Training Programs
- Continuing Education
- Instructors
Solar Training Goals

Market Framework: Solar Market Pillars

- An educated consumer population provides the foundation for building a solar market

- Significant, long-term financial incentives provide the initiative for consumers and businesses

- Commitment to professional standards and quality training promotes the sustainable growth of solar businesses
Solar Training Goals

• Curriculum Quality
• Instructor Capacity
• Program Sustainability

Solar Instructor Training Network
US Dept. of Energy
• 7 State Partnership
• 5-year funding support from DOE
• Build solar program capacity

www.midwestsolartraining.org
Program Development Pathways

- Instructor development
- Solar program assistance
- Regional strategic partnerships
  
  [www.midwestsolartraining.org](http://www.midwestsolartraining.org)

- Solar State of the Region Webinar, Nov. 17th at 1pm Central
- Training Lab Design Incubator, Nov 18th at the MREA in Custer
- Instructor Institutes in May 2011
  
  [www.midwestsolartraining.org](http://www.midwestsolartraining.org)
Upcoming Events

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Trends in Solar Training

- Advocacy at all levels
- Federal funding blip
- Entrance and influence by major players
- 40 hour programs
- Technical and community college programs
- Move to accreditation and standardization
- Changing incentive and regulatory landscape
Solar Training Challenges

• System Archetypes
  ▪ Limits to Growth
  ▪ Fixes that Fail
  ▪ Success to the Successful
  ▪ Growth and Underinvestment

Limits to Growth

Behavior Over Time

Performance

Efforts
Limits to Growth

Generic Archetype

Fixes that Fail

Behavior Over Time
Fixes that Fail

Success to the Successful

Behavior Over Time
Success to the Successful

Growth and Underinvestment

Behavior Over Time
Growth and Underinvestment

Questions?