North American Board of Certified Energy Practitioners

NABCEP

An overview of North America's Leading Renewable Energy Practitioner

Certification Program

Presented July 2, 2009 Phoenix, Arizona



Introduction

- I am Ezra Auerbach the Executive Director of NABCEP.
- Part of my passion for this job and mission comes from living off grid for 40 years.
- 23 years ago I entered the RE industry and installed wind, solar electricity and solar hot water on my home, shop and office and I was hooked for life.
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NABCEP Overview

- This presentation will provide an overview of the key elements of the NABCEP and its' PV Installer Certification
- It will also cover the benefits that NABCEP offers to consumers, governments and installers.



It starts with a reason...

to develop and implement quality

credentialing and certification programs

Mission Statement
 The mission is to support,
 and work with, renewable
 energy and energy
 efficiency stakeholders

for practitioners.





...a desire to distinguish...

NABCEP Certification is designed to serve professionals who choose to demonstrate their competence in specialized fields such as solar PV, solar thermal and small-scale wind by successfully passing the NABCEP exams.





...and a goal.

NABCEP's goal is to develop voluntary national certification programs that will:

- promote renewable energy
- provide value to practitioners
- promote worker safety and skill
- promote consumer confidence.





Definitions

Certification -

Awarded to people, products, and processes by employees, independent agencies, and vendors.

Voluntary



Definitions

Accreditation -

Awarded to learning programs and testing laboratories by non-government agencies.

Voluntary, sometimes mandatory



Definitions

License -

Awarded to people by government agencies.

Mandatory



Certification vs. Certificate

Nationally recognized voluntary <u>Certification</u> for professional PV and Solar Thermal Installers

- For experienced installers that have training and experience
- NABCEP Certification programs help consumers and incentive programs identify qualified installers.



The Solar PV Entry Level Certificate of Knowledge



- For new entrants in the industry
- The certificate demonstrates basic knowledge, comprehension and application of key terms and concepts of photovoltaic system design and installation



Task Analysis

- The central core of our Certifications is the Task Analysis.
 - This is developed
 by leading subject
 matter experts in
 the field to identify
 what needs to be

PV Task Analysis Main Tasks

- ✓ Working safely with photovoltaic systems
- ✓ Conducting the site assessment
- √ Selecting a system design
- ✓ Adapting the mechanical design
- ✓ Adapting the electrical design
- ✓ Installing subsystems and components at the site
- ✓ Performing a system checkout and inspection
- ✓ Maintaining and troubleshooting a system

taught and tested in a Certification Program.



No NABCEP Training?

- NABCEP does not offer training
 - It would be a conflict of interest to train and test the same individual.
- Training to the NABCEP Task
 Analysis is available at a wide variety of places.
 - Everyone from the IBEW to oldstyle solar schools covers the TA in their programs - so does our exam





- All NABCEP Certifications and Certificates of Knowledge are market driven.
 - We develop programs to meet market and industry demand.
- Our Installer Certifications
 (PV and ST) require a
 combination of training
 AND installation experience
 before a candidate can qualify to sit for the
 Exam.

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NABCEP Program Chart

Installer Certifications Entry Level Certificate Programs

Solar Photovoltaic

Solar PV Certificate of Knowledge

Solar Thermal

Solar Thermal Equivalent (2010)

Small Wind (2010)

-	CA	30%
_	CO	10%
	NY	7.6%
	NJ	4%
	MA	3.8%
\	TX	3.5%
	AZ	3.4%
	OR	2.8%
	VT	2.8%
	WI	2.7%
	Regional Distribution of PV	



Certificants Top

10 States

- The Entry Level Certificate of Knowledge is aimed at those who want to enter the industry.
- The Certificate is offered by over 100 Educational Providers to students who an entry level training program.



- Certified PV Installer
 - Over 700 individuals have
 - earned this Certification since 2004.
 - It is a ANSI recognized Certification.



- Certified Solar Thermal Installer
 - Same rigorous standards as the PV Installer.



 We are working on launching a Small Wind Installer Certification.

- The task analysis is complete as are the eligibility requirements
- Technical Committee members are being recruited to sit on the Exam and Study Guide committees.
 Photo C





- Other programs in development are:
- Solar Thermal Certificate of Knowledge
 - This program will be geared to those who seek to enter the solar thermal industry.
- A Technical Sales Certification
 - This will be a full Certification program that is oriented towards RE professionals who do non-installation jobs.



NABCEP Benefits

- Installers distinguish themselves by becoming Certified
 - The exams are difficult and Certificants are rightfully proud of their accomplishment
- The Certification identifies them as a "best choice" for consumers





NABCEP Benefits

- Consumers can quickly and easily identify qualified PV and ST installers by looking for a NABCEP Certified Installer.
- A report presented last year sums up the benefits nicely:
- "Systems installed by NABCEP certified installers have fewer problems at the time of inspection than those installed by non-certified installers."
- PV Workforce Development and the Market for Customer-Sited PV. McRae et al. ASES 2008

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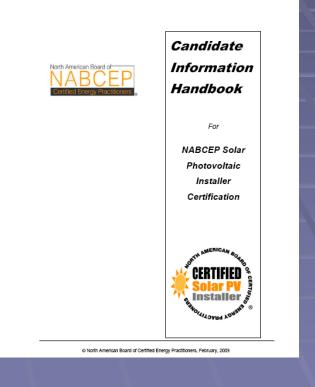
NABCEP Benefits

- Governments and Utilities
 Benefit too.
 - Our Certifications eliminate the need for state by credentialing programs and help assure portability of credentials.
 - Offer a standard to which installers getting public funds can be qualified to.
- Many incentive programs encourage NABCEP Certification of installers.



Becoming Certified

- The NABCEP Candidates Handbook is the ultimate source of information about how to become a Certified Installer.
 - In brief, you'll need to apply and document your experience and training to qualify to sit for the exam.





Staying Certified

- NABCEP requires re-certification every three years.
 - All that is required, beyond the application and fee is documentation of continuing education (CE).
- We require 18 hours of CE.
 - 8 hours will need to be on the NEC
 - The other 12 can be any variety of manufacturers trainings and other business improvement courses.

Certificate of Knowledge

- This Certificate may be earned by completing a course and then passing an examination.
- It is an entry level Certificate aimed at those looking to enter the industry at the bottom rung of the ladder.
- This is NOT an installer certification and does not guarantee empl



Contact NABCEP

- Want to learn more?
 - Subscribe to our
 Newsletter by sending an email with "Newsletter request" in the subjecty line to: info@nabcep.org.
 - Visit our website for full details on all of our programs:

www.nabcep.org



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The NABCEP Newsletter highlights activities about its certificants and other stakeholders. There is no fee for this newsletter which is distributed six times/year and multished on NABCEP's website.

If you have comments about this newsletter, email Jane Pulaski at janep@irecusa.org

As always, thanks for your interest in and support of NABCEP

Jane Pulaski Editor

In this issue...

From the Chair Installer's Corner Special NABCEP Administration Update Featured Board/Technical Committee Member Entry Level Certificate Program Update Continuing Education/Recertification Update Other News About this Newsletter/How to Subscribe

From the Chair, by Ezra Auerbach: Certification, Recertification and the Value of NABCEP



In this issue, I want to use my column to ask questions rather than to provide news.

In previous issues, I've written about the growth of NABCEP and some of the strategic planning challenges facing us. NABCEP is doing well, our new management team, spearheaded by Executive Director Rebecca Eaton, hit the ground running and have brought a host of new resources to



Questions





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