

## Introduction

This document sets forth changes to the eligibility requirements for the NABCEP PV Installer Certification. The requirements are marked DRAFT because the Directors of the North American Board of Certified Energy Practitioners (NABCEP) seek public comment on the proposed changes. The Board will review comments and suggestions received before finalizing the revised eligibility requirements. The comment period will remain open until December 5, 2011. Please send all comments via email to [PVcomments@nabcep.org](mailto:PVcomments@nabcep.org).

The revised eligibility requirements for the PV Installer Certification will be finalized and become effective on January 14, 2012. They will apply to all applicants for the September 2012 PV Installer Certification Examinations. Please visit the NABCEP website after January 14, 2012 for the finalized version of the requirements.

## 1 Solar PV Installer Certification Requirements

### 1.1 Eligibility Requirements for the Solar PV Installer Certification

To become certified and maintain certification, the applicant must minimally:

- Be at least 18 years of age
- Meet prerequisites of related experience and/or education as outlined in Section 1.2 below
- Complete an application form documenting requirements
- Sign and agree to uphold a code of ethics
- Pay application and exam fee
- Pass a written exam
- Complete continuing education and installation requirements within the recertification timeframe

### 1.2 Qualifying Categories for the Solar PV Installer Certification Examination

To qualify to sit for the NABCEP PV Installer Certification Examination, every applicant will need to:

- 1) Document a minimum of 10 hours of OSHA approved Construction Industry safety training by presenting a 10 OSHA card (or state or provincial equivalent)  
**AND**
- 2) Document that he/she meets at least **one** of the following minimum entry requirement tracks:
  - A. Installation of five (5) PV systems in addition to the completion of 58 cumulative hours of training (see solar PV installation and training requirements in Sections 1.4, 1.5 below); **OR**
  - B. Be an existing licensed contractor in good standing in solar or electrical construction-related areas with the installation of four (4) PV systems in addition to the completion of 58 cumulative hours of training (see solar PV installation and training requirements in Sections 1.4, 1.5 below); **OR**

- C. Four (4) years of electrical construction-related experience working for a licensed contractor, including installation of two (2) PV systems in addition to the completion of 58 cumulative hours of training (see solar PV installation and training requirements in Sections 1.4, 1.5 below); **OR**
- D. Three (3) years experience in a U.S. Dept. of Labor-approved electrical construction trade apprentice program, including installation of two (2) PV systems in addition to the completion of 58 cumulative hours of training. NOTE: training does not need to be in addition to apprenticeship training coursework if requirements of Section 1.5 are met within the curriculum (see solar PV installation and training requirements in Sections 1.4, 1.5 below); **OR**
- E. Two (2) or four (4) year electrical construction-related, electrical engineering technology, or renewable energy technology/technician degree, the installation of two (2) PV systems and at least 58 cumulative hours of training. NOTE: training does not need to be in addition to degree coursework if requirements of Section 1.5 are met within the curriculum (see solar PV installation and training requirements in Sections 1.4, 1.5 below).

### 1.3 OSHA 10 Hour Requirements

All applicants must show proof of completion of an OSHA 10 Hour Construction Industry class or its equivalent. To find an OSHA class near you, [please click here](http://www.osha.gov/dte/outreach/courses.html).  
([www.osha.gov/dte/outreach/courses.html](http://www.osha.gov/dte/outreach/courses.html))

**NOTE:** NABCEP strongly recommends the completion of an OSHA 30 Hour Construction Industry course. OSHA states that “the 10-hour class is intended for entry level workers” and “the 30-hour class is more appropriate for supervisors or workers with some safety responsibility.” Please note: 18 out of 20 of the additional hours of training may be used to meet training requirements for all qualifying categories.

## 1.4 Solar PV Installation Requirements

### 1.4.1 Installation and System Requirements

The applicant shall perform the role of the individual responsible for the installation of the solar PV systems as the foreman, supervisor, site manager, or experienced worker performing all aspects of PV installation work **without direct supervision**. Please see Section 1.7 on how to document your experience.

Systems submitted with the application must meet the following minimum criteria:

- All installations must have occurred within the two calendar years prior to the application start date.
- One of every two submitted systems must have an inverter rated 2 kW AC or greater continuous.
- All systems submitted must have a minimum rating of 1 kW DC (STC).

## 1.5 Solar PV Training Requirements

### 1.5.1 Training must meet the following criteria to be accepted in an application:

- a) The training was completed in the three calendar years prior to the start of the application.
- b) All training must have a formal training format, with a teacher-learner structure. This implies a connection between a learner and a learning source. This can include web-based-training in which he/she is separated from faculty and other students but where the learner receives some sort of feedback and the learner's progress is monitored. All hour requirements are based on "contact hours" between the teacher and the learner.
- c) A minimum of 40 of the 58 proscribed hours must cover the NABCEP PV Installer Task Analysis and address advanced solar PV installation and design principles and practices.

All advanced PV training must be offered by one of the following education providers:

- I. Institutions accredited by an agency recognized by the federal Department of Education, or Canadian equivalent (Universities, Community Colleges etc.)
- II. Apprenticeship training programs (e.g. National Joint Apprenticeship Training Committee Department of Labor approved apprenticeship programs)
- III. Training programs accredited or instructors certified by the Institute for Sustainable Power Quality ([www.irecusa](http://www.irecusa))
- IV. Those approved by State Contractor Licensing Boards (or Provincial equivalents)
- V. Vocational/Technical training programs (e.g. Board of Cooperative Educational Services/New York)

**NOTE:** Courses offered by private training organizations that are not accredited or taught by instructors certified by a recognized third party will not be accepted for the minimum 40 hours of advanced solar PV installation and design training.

- d) Up to 18 of the 58 proscribed hours may be obtained through:
  - Courses covering building and electrical codes relevant to the installation of solar PV systems
  - "Entry Level" coursework by a NABCEP Registered PV Entry Level Provider, provided a passing score achievement was obtained on the NABCEP PV Entry Level Exam
  - Additional OSHA or equivalent workplace safety courses above and beyond the required 10 hours
  - Manufacturers Training that is registered with NABCEP as Continuing Education
  - Any other coursework that addresses topics included in the NABCEP PV Installer Task Analysis (Note: the applicant will need to submit a course

outline and a signed letter from the training provider detailing how many hours were spent covering the NABCEP Solar PV Installer Job Task Analysis)

### **1.5.2 The NABCEP Entry Level Exam**

Applicants that have successfully achieved a passing score on the NABCEP PV Entry Level Exam may submit their passing score achievement in their application. The entry level coursework taken to qualify for the Entry Level Exam will subsequently count for (18) hours of training out of the fifty eight (58) hours proscribed.

**NOTE:** Courses leading to the NABCEP Entry Level Exam do not qualify for the minimum 40 hours of training on advanced solar PV installation and design principles and practices.

### **1.5.3 Manufacturers Training**

Eighteen (18) of the proscribed 58 hours can be gained by attending training programs /courses offered by product manufacturers that are registered with NABCEP as Continuing Education. Manufacturer's training that has been accredited is exempt from this cap.

## **1.6 Documenting Training**

When documenting training, the applicant will be required to submit a certificate of completion or a transcript for each completed training program or course.

All certificates of completion and transcripts must clearly state that the course covered subject matter directly related to advanced PV or National Electric Code. If the subject matter covered in the course is not clearly stated in the title of the course, then the applicant must provide a course outline and a signed letter from the training provider detailing how many hours were spent covering the NABCEP Solar PV Installer Job Task Analysis or relevant building and electrical codes.

## **1.7 Documentation Requirements for Solar PV System Installations**

All systems must be supported with permits, inspections reports and documentation that the applicant was the senior person responsible for the job. In regions where neither permit nor inspection reports are issued, the applicant may hire a qualified electrician recognized by the Authority Having Jurisdiction (AHJ) to write an inspection report.

- To document experience, applicants are asked in the Application Form to provide a concise description of work performed at the job site for each of the qualifying installed systems, including;
  - the system size
  - a list of components
  - the level of their responsibility on the jobsite
  - number of full-time equivalent workers supervised
  - any other pertinent information.
- To show that the applicant held a responsible role in the installation of the system, the applicant must submit the following documentation for each system:
  - Electrical permitting and inspection documents for the system installed

- If the applicant's name is not on the permit and/or inspection report, then the individual who is named or the employer must provide a signed letter on company letterhead that verifies the applicant was the lead installer for that system.
- To document the system size and inverter capacity, the applicant must submit plans and/or bills of materials for each installation.

**NOTE:** NABCEP reserves the right to contact system owners/operators, permitting authorities, and responsible contractors to verify work listed in this section.

### **1.8 Documenting Employment**

Applicants applying under qualifying category (B), (C) or (D), must submit documentation for the required experience, starting with most current employment. The Applicant will need to submit a job description, a summary of the number and type of solar PV systems they helped install (if applicable), and provide contact information for their supervisor.

In addition, a signed letter from the most recent supervisor or employer is required to verify the applicant's employment.

If the applicant is self-employed, they must provide a detailed description of the work that they do. The self-employed applicant's installation documentation will provide additional "proof of employment".

### **1.9 Documenting Education**

If the applicant's qualifying category requires a college education or apprenticeship program, copies of official transcripts or diplomas attesting to the completion of the degree or certificate earned will need to be attached to the application form.

### **1.10 Documenting Licensure**

If the applicant's qualifying category requires that you they hold a specific license, or if a license for solar installation is required in the jurisdiction in which the work is performed, applicants must submit copy of their license with their application.