

# NABCEP

## PV Installer Certification Eligibility Requirements

### AN EXTRACT FROM *THE CANDIDATE INFORMATION HANDBOOK: NABCEP PAPER AND PENCIL CERTIFICATION EXAMS V6.0*

(Please refer to the Candidate Information Handbook for full details regarding NABCEP certification and the application process.)

#### 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 3.2 below
- Complete an application form documenting requirements
- Sign and agree to uphold a Code of Ethics
- Pay Application and Examination Fees to NABCEP
- Pass a written examination
- Complete continuing education and installation requirements, and pay a Recertification Fee, within the recertification timeframe

#### Qualifications for the Solar PV Installer Certification Examination

There are several ways that an individual may qualify to sit for the certification examination. NABCEP recognizes that professionals in the field of renewable and sustainable energy and energy efficient technologies receive their training and work experiences in a variety of ways. Therefore each requirement to qualify for the exam stipulates specific training and/ or experience. NABCEP Staff will review each application to determine compliance with eligibility criteria. Compliance with the requirements of one of the Qualifying Categories below must be documented.

To qualify to sit for the NABCEP PV Installer Certification Examination, every applicant will need to provide documentation as defined in Sections 3.6 to 3.10 to demonstrate:

- 1) A minimum of 10 hours of OSHA approved Construction Industry safety training by presenting an OSHA 10 card (or state or provincial equivalent) **AND**
- 2) That he/ she meets at least **ONE** of the following minimum entry requirement categories:

##### **CATEGORY A**

- i. Completion of 58 cumulative hours of training as defined in Section 3.5 below; **AND**
- ii. Installation of five (5) PV systems in compliance with the requirements of Section 3.4 below;

##### **CATEGORY B**

- i. Licensure as a contractor in good standing in solar or electrical construction-related areas; **AND**
- ii. Completion of 58 cumulative hours of training as defined in Section 3.5 below; **AND**
- iii. Installation of three (3) PV systems in compliance with Section 3.4 below

##### **CATEGORY C**

- i. Four (4) years of electrical construction-related experience working for a licensed contractor; **AND**

- ii. Completion of 58 cumulative hours of training as defined in Section 3.5 below; **AND**
- iii. Installation of three (3) PV systems in compliance with Section 3.4 below

**CATEGORY D**

- i. Three (3) years of experience in a U.S. Department of Labor Registered electrical construction trade Apprenticeship Program; **AND**
- ii. Completion of 58 cumulative hours of training as defined in Section 3.5 below; **NOTE:** Training does not need to be in addition to apprenticeship training coursework if requirements of Section 3.5 are met within the curriculum; **AND**
- iii. Installation of three (3) PV systems in compliance with Section 3.4 below

**CATEGORY E**

- i. Two (2) or four (4) year degree in a field related to electrical construction, electrical engineering technology, or renewable energy technology; **OR**
- ii. Four (4) year degree in a field related to mechanical, structural, or civil engineering technology; **AND**
- iii. Completion of 58 cumulative hours of training as defined in Section 3.5 below; **NOTE:** Training does not need to be in addition to degree coursework if requirements of Section 3.5 are met within the curriculum; **AND**
- iv. Installation of three (3) PV systems in compliance with Section 3.4 below

<b>SUMMARY TABLE OF NABCEP SOLAR PV INSTALLER ELIGIBILITY REQUIREMENTS</b>			
Requirements for all applicants	Be at least 18 years of age and Document a minimum of 10 hours of OSHA approved Construction Industry safety training by presenting a 10 OSHA card (or state or provincial equivalent).		
Category	Who	PV Installation Experience	Education
A	Any PV Installer	Five (5) PV Systems	58 Hours (see Section 3.5)
B	An existing licensed contractor in good standing in solar or electrical construction-related areas	Three (3) PV Systems	
C	Someone with four (4) years of electrical construction-related experience working for a licensed contractor (includes licensee or owner/ operator)		
D	Someone with three (3) years of experience in a U.S. Dept. of Labor Registered electrical construction trade Apprenticeship Program		
E	Holder of a two (2) or four (4) year electrical construction-related, electrical engineering technology, renewable energy technology/ technician degree, or a four (4) year degree in mechanical, structural or civil engineering		

**OSHA 10 Hour Requirement**

All applicants must show proof of completion of an OSHA 10 Hour Construction Industry class or its equivalent. To find an OSHA class visit: [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.” Additional note: 18 of the 20 additional hours of training in the 30 hour class may be applied to the 58 hour training qualification requirements in all Categories as described in Section 3.5.1.d

## **Solar PV Installation Requirements**

### **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 – see Section 3.7 on how to document 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
- At least fifty percent (50%) of the submitted systems must have an inverter rated 2 kW AC or greater continuous. At least fifty percent means that two of three (2 of 3) or three of five (3 of 5) systems submitted meet this requirement.
- All systems submitted must have a minimum rating of 1 kW DC (STC).

## **Solar PV Training Requirements**

### **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 the student is separated from faculty and other students but where the learner receives feedback and the student’s progress is monitored. All hour requirements are based on “contact hours” between the teacher and the learner.
- C. A minimum of forty (40) of the fifty eight (58) prescribed hours must cover advanced solar PV installation and design principles and practices addressed in the NABCEP PV Installer Job Task Analysis. 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. U.S. Department of Labor Registered Apprenticeship Training Programs ([www.doleta.gov/ oa/](http://www.doleta.gov/oa/) )
  - III. Training programs accredited or instructors certified by the Interstate Renewable Energy Council (IREC) to IREC or IREC ISPQ Standards ([www.irecusa.org](http://www.irecusa.org))
  - IV. Training institutions approved by State Contractor Licensing Boards or Canadian Provincial equivalents
  - V. State or Provincial Department of Education or equivalent registered Vocational / Technical training programs

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

- D. A maximum of eighteen (18) of the fifty eight (58) prescribed hours may be obtained from non-accredited, non-certified sources such as:

- I. Courses covering building and electrical codes relevant to the installation of solar PV systems
- II. Entry Level coursework through a NABCEP Registered PV Entry Level Exam Provider, provided that a passing score achievement was obtained on the NABCEP PV Entry Level Exam. NOTE: Courses leading to the NABCEP Entry Level Exam do not qualify for the minimum 40 hours of advanced PV installation and design.
- III. Additional OSHA or equivalent workplace safety courses above and beyond the required OSHA 10 hour course
- IV. Training programs and courses that are registered with NABCEP for Continuing Education Credits for the PV Installer Certification
- V. Any other coursework that addresses topics included in the NABCEP PV Installer Job Task Analysis (NOTE: the applicant will need to submit a course outline and signed letter from the training provider detailing how many hours were spent covering the NABCEP Solar PV Installer Job Task Analysis in the course.)

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

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

Each system must be supported with permit(s) and final inspection report(s) issued by the Local Authority Having Jurisdiction. In regions where final inspection reports are not issued, the applicant may hire an independent, qualified electrician recognized by the Authority Having Jurisdiction (AHJ), or independent certified electrical inspector, to write an inspection report. If the applicant is not specifically named on the permit and/ or inspection report, they must also submit documentation that he/ she was the senior person responsible for the installation of the system.

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:

- System location
- System size
- List of major components
- Level of responsibility on the jobsite (job description)
- Number of full-time equivalent workers supervised
- Any other pertinent information

To show that the applicant held the responsible role in the installation of the system, the applicant must submit the following documentation for each system:

- To document the system size and inverter capacity the applicant must submit design plans and/ or line drawings.
- Electrical permitting and inspection documents for the system installed.
- If the applicant's name is not specifically listed on the permit and/ or inspection report, then the individual who is named, or a member of senior management from the company named, must provide a signed letter on company letterhead that verifies the responsible role that the applicant maintained for the installation of the system.

- In cases where the permit and or inspection report does not identify the individual or company performing the work, or the individual or business the work is being performed for, NABCEP will require documentation that links the applicant to the installation.

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

### **Documenting Licensure**

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

### **Documenting Employment**

Applicants applying under qualifying Categories C or D, must submit documentation for the required experience, starting with the 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.

A signed letter from the current or most recent supervisor 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 as it relates to PV installation. The self-employed applicant's installation documentation will provide additional "proof of employment".

### **Documenting Education**

Applicants applying under qualifying Category E must submit copies of official transcripts or diplomas attesting to the completion of the degree(s) or certificate(s) earned.