

NABCEP[®]

Raising Standards. Promoting Confidence.

Certification Handbook

2024 Update



PV Installation
Professional

PV Technical Sales
Professional

Solar Heating
Installer

Small Wind
Installer



Photovoltaic



Solar Heating

NABCEP[®]

Raising Standards. Promoting Confidence.

Applications for all NABCEP Certifications are available at:

<https://www.nabcep.org/certification/enroll-now/>

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Statement of Nondiscriminatory Policy

The North American Board of Certified Energy Practitioners (NABCEP) is dedicated to the principles of equal opportunity and equal access to its programs and services. NABCEP does not discriminate against any individual on the basis of religion, gender, ethnic background, nationality, disability, sexual orientation, or other reason prohibited by law. NABCEP grants certification without regard to an Applicant's membership or non-membership in any organization, association or other group.

Disclaimer Statement:

- NABCEP is a non-profit credentialing organization.
- NABCEP issues voluntary credentials to qualified individuals who satisfy eligibility requirements established by the Board of Directors.
- NABCEP credentials are not professional licenses issued by a government agency and do not authorize a credential holder to practice.
- NABCEP Associates must comply with all legal requirements related to practice, including licensing laws.

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1. Introduction

The North American Board of Certified Energy Practitioners (NABCEP®) offers voluntary personnel board certification for professionals in the renewable energy industry. NABCEP's board certifications include: NABCEP PV Installation Professional® (PVIP), NABCEP Solar Heating Installer® (SHI), NABCEP PV Technical Sales Professional® (PVTS), NABCEP PV System Inspector™ (PVSI), NABCEP Solar Heating System Inspector™ (SHSI), and three PV Specialist Certifications: PV Design Specialist™ (PVDS), PV Installer Specialist™ (PVIS) and PV Commissioning & Maintenance Specialist™ (PVCMS). Individuals seeking these certifications must meet the requirements established by the NABCEP Board of Directors, agree to a Code of Ethics, pay all required fees, and pass an examination. NABCEP Board Certified Professionals (Certificants) must complete continuing education and experience requirements, and pay a recertification fee, to maintain certification during each three-year certification period. This Certification Handbook contains information about NABCEP's board certification programs. It provides guidance and policies for applying, achieving, and maintaining a personnel Board Certification from NABCEP.

Incorporated in 2002, NABCEP's mission is to work with and support renewable energy and energy efficiency industries, professionals, and stakeholders to develop and implement quality credentialing and certification programs for practitioners. Practitioners who choose to become Board Certified must demonstrate their competence in the field and their commitment to upholding high standards of ethical and professional practice.

NABCEP is an internationally recognized credentialing body formed to set competency standards for professional practitioners in the fields of renewable energy and energy efficiency. NABCEP follows best practices of the certification industry in the development and operation of all of its board certification programs. Our Photovoltaic Installation Professional® certification program is accredited by ANSI National Accreditation Board (ANAB) under the ISO/IEC 17024:2012 standard for personnel certification.

Benefits of voluntary board certification for renewable energy professionals:

- Promotes the status and credibility of renewable energy practices
- Improves consumer confidence in renewable energy technologies
- Promotes worker safety and skill
- Advances uniform professional standards by holding Certificants to a Code of Ethics
- Commits Certificants to continued professional development through maintenance of the credential

To create additional value for its certifications, NABCEP has developed many strategic partnerships with businesses and organizations that work with renewable energy companies and professions to provide additional benefits to NABCEP Certificants.

NABCEP Certificants are offered a continually growing list of discounts:

- Registration at NABCEP Annual CE Conference
- Registration at industry conferences such as RE+ Events
- NABCEP Career Center Listings
- Business and specialty insurance
- Loan service fees for solar installation financing
- Solar equipment costs
- Including many more

See the NABCEP website for up-to-date Certification Benefits & Discounts.

NABCEP is committed to providing a Board Certification program of quality and integrity for the professionals and public consumers it is designed to serve. In addition to guiding candidates for certification through the application, examination and maintenance procedures for each Certification, this Handbook contains policies regarding candidate rights and the integrity of the NABCEP credential.

Each Applicant should read this Handbook thoroughly in preparation for applying for certification. This Handbook covers the entire application, examination, certification, and recertification process.

2.1 Purpose

—a procedure by which an independent third-party gives written assurance that a professional conforms to specified standards, usually by holding professionals in a particular field to a set of requirements including a written examination. As a result of meeting the requirements and passing the exam, professionals receive a certificate, which they can display publicly to witness their proficiency.

Certification assures the public, employers and practitioners that a certified professional possesses the skills and knowledge necessary to competently carry out the work processes of a specific field as outlined in the relevant Job Task Analysis (JTA), and that they are committed to continued professional training and education as well as adherence to ethical practices. Qualified, NABCEP approved candidates may take the exam at any time with NABCEP’s testing vendor, Meazure Learning .

2.2 myNABCEP Certemy Platform

myNABCEP is NABCEP’s web-based platform for managing the NABCEP Associate and Professional Board Certification Programs. Each applicant, candidate, and certificant must have an account on myNABCEP in order to apply for, manage, and maintain their certification(s). myNABCEP is accessed at <https://nabcep.certemy.com/entry/login> from any web browser. All applications are started from the Apply Now! section of the NABCEP website.

Emails used must be unique to the individual. The First and Last Name associated with each account must match the individual’s government issued photo identification. NABCEP board certifications are only issued under an individual’s legal name, and the name must match the photo identification in order to be admitted to any exam administration.

IMPORTANT: To assure successful delivery of important communications from NABCEP, Applicants should add the following addresses to their Safe Sender List:

- support@nabcep.certemy.com
- @nabcep.certemy.com
- candidatesupport@meazurelearning.com

2.3 Certification Timeline

Candidates taking the PV Installation Professional, PV Technical Sales, PV Design Specialist, PV Commissioning & Maintenance Specialist, PV Installer Specialist and Solar Heating Installer exams may choose a time and location to take their Exam by computer through our Computer-Based Testing (CBT) network, Meazure Learning. A candidate may schedule a CBT Exam upon NABCEP’s acceptance of their qualifications for testing. Approved candidates will receive a Notice-to-Schedule (NTS) email from Meazure Learning with instructions on how to select a location, date and time for their exam. As explained in the NTS email, CBT Candidates are subject to Meazure Learning’s cancellation and rescheduling policies. All Candidates must submit scheduling requests to Meazure Learning at least two (2) business days prior to the date the Candidate wishes to take or reschedule their exam. The reschedule request must be submit-

ted through Meazure Learning’s online scheduling system. A rescheduling fee will apply and must be paid online at the time of the request.

All NABCEP Board Certification exams, including PV and Solar Heating System Inspector, are offered via Live Remote Proctoring (LRP) with Meazure Learning. A candidate may schedule an LRP Exam upon NABCEP’s acceptance of their application for testing. Approved candidates will receive a Notice-to-Schedule (NTS) email from Meazure Learning with instructions on how to select a date and time for their exam. As noted in the NTS email, LRP Candidates are subject to Meazure Learning’s cancellation and rescheduling policies. All Candidates must submit scheduling requests to Meazure Learning at least two (2) business days prior to the date the Candidate wishes to take or reschedule their exam. The reschedule request must be submitted through Meazure Learning’s online scheduling system. A rescheduling fee will apply and must be paid online at the time of the request.

For more information on exam formats, see Section 14 of this Handbook.

2.4 Certification Period

Certification is valid for three (3) years from the date of issuance. Certificants must meet the requirements for recertification (see Section 19) by the end of each three-year period in order to be eligible to renew their certification. Certificants may perpetually repeat the recertification process every three years for as long as they continue to meet the established requirements for recertification. NABCEP shall regularly review and update standards and requirements as needed.

2.5 Fees

For NABCEP’s Fees Schedule, please see our website, <https://www.nabcep.org>.

All fees are subject to change without notice and are non-refundable and non-transferable, except as may be allowed by procedures contained in this Handbook.

All fees are payable by credit card via the myNABCEP Certemy Platform (see section 2.2)

2.6 G.I Bill Reimbursement

All NABCEP solar PV Board Certifications and Associate Credentials exams are approved by the US Department of Veteran Affairs to receive benefits under the GI Bill. Veterans and military personnel transitioning to the civilian workforce can apply for reimbursement of exam fees for NABCEP exams related to solar PV.

The NABCEP Board Certifications and Associate Credential exams that can be reimbursed by the GI Bill include:

- PV Associate Credential
- PV Installation Professional (PVIP) Board Certification
- PV Installer Specialist (PVIS) Board Certification
- PV Commissioning & Maintenance Specialist (PVCMS) Board Certification
- PV Design Specialist (PVDS) Board Certification

- PV Technical Sales (PVTS) Board Certification
- PV System Inspector (PVSI) Board Certification
- Solar Heating Installer (SHI) Board Certification
- Solar Heating System Inspector (SHSI) Board Certification

U.S Veterans can receive reimbursement for certification test fees if qualifying for VA benefits under one of the following programs:

- Montgomery GI Bill – Active Duty Educational Assistance Program (MGIB) (Chapter 30)
- Post-Vietnam Era Veterans Educational Assistance Program (VEAP) (Chapter 32)
- Post-9/11 GI Bill (Chapter 33)
- Survivors’ and Dependents’ Educational Assistance Program (DEA) (Chapter 35)
- Montgomery GI Bill – Selected Reserve Program (MGIB-SR) (Chapter 1606)
- Reserve Educational Assistance Program (REAP) (Chapter 1607)

GI Bill exam reimbursement applications are linked on the Veterans Page under Certifications on the NABCEP website: <https://www.nabcep.org/veterans-2/>.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by the VA is available at the official U.S. government website at <http://www.benefits.va.gov/gibill>.

3. NABCEP PV Installation Professional® (PVIP) Certification Requirements

The NABCEP PV Installation Professional Certification is a voluntary board certification that provides a set of international standards by which PV Installation Professionals with skills and experience can distinguish themselves from their competition. Board Certification provides a measure of protection to the public by giving them criteria for judging the competency of practitioners. It is not intended to prevent qualified individuals from selling, servicing, or installing PV systems or to replace state license requirements.

3.1 Eligibility Requirements

To become Board Certified and maintain certification, the Applicant must:

- Be at least 18 years of age
- Meet prerequisites of related experience and education as outlined below
- Complete an application form documenting all requirements
- Sign and agree to uphold the NABCEP Code of Ethics
- Pay Application and Examination Fees to NABCEP
- Pass a written examination
- Once Board Certified, complete continuing education and experience requirements, submit a recertification application, and pay a recertification fee, within the three (3) year recertification timeframe.

3.2 Experience Requirements

- The Applicant shall have performed in a decision-making role (DMR), which had a material impact on the quality and serviceability of the PV installation. This may include individuals employed as Lead Installers, System Designers, Project Managers, Site Managers, Foreman, Electricians, System Engineers, and Quality Assurance/Commissioning agents. Due to the variety of decision-making roles that may be involved with any particular system installation, more than one person may qualify for each system; however, each Applicant must document their specific role and level of responsibility for each installation.
- Installations must have been completed within the two (2) calendar years prior to the application submission date.
- All installations must be complete and have a permit and a final approved inspection.
- All systems must have a minimum rating of 1 kW DC (STC).

3.3 Qualifying for the Examination

NABCEP recognizes that professionals in the field of renewable energy and energy-efficient technologies receive their training and work experiences in a variety of ways. NABCEP Staff will review each application to determine compliance with eligibility criteria.

To qualify to sit for the NABCEP PV Installation Professional (PVIP) Certification Examination, Applicant, regardless of background, education, experience, or geographical location, will need to document:

- Completion of a minimum of 10 hours of OSHA Outreach Training Program for the Construction Industry training (or government equivalent);
 - Completion of at least 58 hours of advanced training as defined in Section 3.5.2 below
- (Note: These hours of training do not need to be in addition to apprenticeship or degree coursework if the requirements of Section 3.5.2 were met within the curriculum and timeframe);
- Completion of installations equaling at least 6 Project Credits

Projects Credits are as follows:

System size of 1 – 999kW = 2 Project Credits

System size of 1MW and up = 3 Project Credits

3.4 Documenting Experience

For each completed PV system, an Applicant is required to submit documentation that summarizes system information, document approval by a governing body, and verifies their decision-making role. NABCEP reserves the right to contact system owners/operators, permitting authorities, employers, and sub-contractors to verify the Applicant's work experience and decision-making authority.

3.4.1 System Summary

To document experience as a PV Installation Professional, Applicants are asked to provide a concise description of the system and the work performed, including:



- System location
- Date system completed
- System info (PV array size, number of inverters and total cumulative inverter capacity)
- Name and phone number of installation contractor
- Name and phone number of contractor listed on the permit or inspection
- Name and phone number of Applicant's supervisor
- Description of work performed by the Applicant

3.4.2 Documenting System Installation

To document the system completion date and that the system was installed according to applicable codes, an Applicant is required to submit a copy of Electrical and/or Building Permit(s) and Final Inspection Report(s) issued by the local Authority Having Jurisdiction (AHJ) for each system submitted*. In jurisdictions where permits and inspection reports are not issued, the Applicant is required to submit an inspection report written by an independent qualified electrician recognized by the AHJ, an independent certified electrical inspector or a NABCEP Board Certified PV System Inspector (PVSI)**. Inspections may not be completed by the Applicant, Installation Contractor or customer.

*Note: NABCEP cannot accept site plans, drawings and/or permit applications in lieu of the actual approved permits and/or final approved inspections.

**A NABCEP Board Certified PV System Inspector may be found on the Board Certified Directory on our website.

3.4.3 Documenting Decision-Making Role

If the Applicant was named on the permit/inspection document(s), no additional documentation is needed to verify they held a decision-making role that had material impact on the installation. If the Applicant was not named on the permit/inspection document(s) but held a decision-making role that had a material impact on the installation during the design, project management, installation, and/or commissioning/quality assurance process, the Applicant is required to submit one of the following:

- A physically signed letter on company letterhead from the person, or a member of senior management from the company, who is named on the permit/inspection document(s). The letter must include the addresses of the installations listed in the Applicant's application and clearly explain the role(s) and decision-making authority the Applicant held for the system design, project management, installation, and/or commissioning/quality assurance process for the system installation;
- Design plans and/or line drawings identifying the Applicant as being responsible for the drawing or review of the design;
- A commissioning or quality assurance report which identifies the Applicant as being responsible for the system commissioning or quality assurance process.

3.4.4 Additional Information and Documentation

NABCEP reserves the right to contact system owners/operators, permitting authorities, and responsible

contractors to verify information listed in the application. The NABCEP Application Review Committee decides Applicant eligibility based on application information and documentation submitted in support of the application.

3.5 Training Requirements

A list of NABCEP registered courses may be found on the NABCEP Course Catalog on our website.

3.5.1 OSHA 10 for Construction Industry Training

All Applicants are required to show proof of completion of a minimum of 10 hours of the Occupational Safety and Health Administration (OSHA) Outreach Training Program for the Construction Industry, or government equivalent. To find an OSHA class, Visit: <https://www.osha.gov/training/outreach>

3.5.2 PV Installation Training

PV Installation training must meet the following criteria to be accepted in an application:

- All training must have been completed within the five (5) calendar years prior to the submission of the application.
- All training must have a formal training format, with a teacher-learner structure. This implies a connection between a learner and a learning source. Acceptable training can include online 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.
- A minimum of fifty-eight (58) prescribed hours of advanced training is required for each candidate.

Forty (40) hours must have been taken with an accredited institution and cover "advanced" PV installation and practices as outlined in the NABCEP PV Installation Professional Job Task Analysis (PVIP JTA). "Advanced" is defined as a course which provides instruction beyond the "basic," "fundamental," or "introductory" PV Installation principles and practices. Courses should be designed for the Professional who is prepared to maintain a decision-making role in the design, project management, installation, and/or commissioning & maintenance of a system. Advanced PV training must be offered by one of the following accredited education providers:

- Institutions accredited by an agency recognized by the federal Department of Education, or government equivalent (Accredited Universities, Colleges, Community Colleges, etc.) (<http://ope.ed.gov/accreditation/search.aspx>)
- U.S. Department of Labor Registered Apprenticeship Training Programs (www.doleta.gov/oa/)
- U.S. Department of Veteran Affairs approved WEAMS Institute (<http://inquiry.vba.va.gov/weamspub/buildSearchInstitutionCriteria.do>)
- Interstate Renewable Energy Council (IREC) Accredited Training Providers for the NABCEP PV Installation Professional Job Task Analysis (<http://www.irecusa.org/credentialing/credential-holders/>)

- American National Standards Institute (ANSI)/IREC 14732 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/ANRECDirectory.asp?menuID=229>) or ANSI/ASTM 2659 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/CAPDirectory.asp?menuID=212>) that are based on the NABCEP PV Installation Professional Job Task Analysis
- Training institutions approved by State Contractor Licensing Boards or government equivalents
- State or Provincial Department of Education or government equivalent licensed Vocational / Technical training programs

Note: Courses offered by private training organizations or businesses that are not accredited or otherwise recognized by a third party as described above, will not be accepted for the minimum of 40 hours of advanced accredited PV installation and design training.

Eighteen (18) hours may be obtained from non-accredited, non-certified sources such as:

- Courses covering electrical, fire or building codes relevant to the installation of PV systems
- Having an active NABCEP PV Associate (PVA) credential
- Associate Level coursework through a NABCEP Associate Registered Training Provider AND a passing score on the NABCEP PV Associate (PVA) Exam (Associate Education Pathway only).

Note: Introductory/Fundamental/Entry Level courses leading to the NABCEP Associate Exam do not qualify for the minimum 40 hours of advanced PV installation and design.

- Additional OSHA or equivalent workplace safety courses above and beyond the required OSHA 10-hour course
- Training programs and courses registered with NABCEP for Continuing Education Credits for the PVIP recertification
- Any other coursework that addresses topics included in the PVIP JTA, such as courses taught by a non-accredited training organization

3.6 Documenting Training

To document training, the Applicant is required to submit a certificate of completion or a transcript for each completed advanced 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 relates to advanced PV installation or the National Electric Code (NEC). If NABCEP has questions regarding the subject matter and/or content of the course, then the Applicant will be required to provide a course outline or syllabus and a signed letter on letterhead from the training provider or instructor detailing how many hours were spent covering the PVIP JTA or relevant codes.

3.7 PV Installation Professional Veterans Pathway

- OSHA 10 for Construction Industry Training

- 58 hours of advanced PV related training: Forty (40) hours must have been taken with an accredited institution and cover “advanced” PV installation and practices as outlined in the NABCEP PV Installation Professional Job Task Analysis (PVIP JTA). Eighteen (18) hours may be obtained from non-accredited, non-certified sources
- Completion of installations equaling at least Six (6) Project Credits: With DD-214 form and a physically signed letter on company letterhead from a member of senior management verifying the Applicant has experience in exercising accurate decision-making skills. The letter must include how the Applicant has used prudent judgement to make correct decisions for similar or equivalent tasks and activities to those identified as uniform standards of best practice for established solar professionals in the PVIP JTA.
- In completing the online application, you will be asked for your MOS (or other service branch equivalent). If the MOS listed by the applicant is unrelated to PV, they must demonstrate their experience entirely through projects completed as an employee. MOS experience for Veterans may come from multiple roles or positions within the Armed Forces and may include electrical, construction, roofing, solar, architecture, design, engineering, operation & maintenance of electrical systems or components, finance, or sales experience.

3.8 PV Installation Professional Recertification Requirements

Certificants may submit their Recertification Application during the third (3rd) year of their current certification period. Certificants are required to complete and submit a recertification application electronically for review in their myNABCEP account at nabcep.certemy.com.

All NABCEP Board Certified PV Installation Professionals are required to satisfy the requirements below in order to recertify.

3.8.1 Continuing Education

All Applicants are required complete 30 hours of continuing education broken down into three sections:

- 6 hours specific to Electric (NEC) Codes

- 12 hours specific to the PVIP JTA

- 12 hours specific to Renewable Energy of which 2 hours must be Building and/or Fire Codes

A list of NABCEP registered courses may be found on the NABCEP Course Catalog on our website.

3.8.2 Industry Involvement

All Applicants are required to upload a letter on company letterhead, signed by their employer stating the Applicant is still actively involved in the solar industry and describing the industry activity of the Applicant. If the Applicant is the owner or partner in a business, the Applicant may write their own letter on company letterhead and sign it themselves. Emails will not be accepted in lieu of a physically signed letter.

1. Industry activity must meet one of the minimum requirements as described below.
2. Alternative activities may be submitted for review and acceptance by NABCEP.
3. Letter must include specific details as described below.

Industry activity must meet one (1) of the minimum requirements:

- Applicant had a decision-making role in the installation(s) of at least 3 completed installs within the applicant's three (3) year certification period.
 - The letter must include the system size, job location address, commissioning/ inspection date, and description of the Applicant's decision-making role in the installation.
- Teacher/trainer/instructor who teaches at least 120 hours of an advanced PV course(s) or a Registered NABCEP PV Associate course within the applicant's three (3) year certification period.
 - The letter must include the name of the course, how long the course was for, the date(s) the Applicant taught the course(s), and a syllabus of course(s).
- Leadership role for at least one (1) year in a business or organization that trains students, customers, or clientele to design, install, commission, maintain, inspect or carry out other activities in the PV market within the applicant's three (3) year certification period.
 - The letter must include a description of the Applicant's leadership role in a business or organization.
- Leadership role for at least one (1) year in a business that designs, installs, sells, commissions, maintains, inspects, finances PV systems, or manufactures solar industry equipment within the applicant's three (3) year certification period.
 - The letter must include a description of the Applicant's leadership role in the business.
- Leadership role for at least 36 hours relating to PV in the renewable energy industry within the applicant's three (3) year certification period (e.g., committee or board member in a renewable energy association or company).
 - The letter must come from a representative of the company or organization on which the Applicant served. The letter must include dates and the times of the committee or board meetings.

For further information on Recertification, please visit our website or see Section 19 of this Handbook.

4. NABCEP Board Eligible PV Installation Professional® (PVIP) Certification Pathway Requirements

The NABCEP PV Installation Professional Certification is a voluntary board certification that provides a set of international standards by which PV Installation Professionals with skills and experience can distinguish themselves from their competition. Board Certification provides a measure of protection to the public by giving them criteria for judging the competency of practitioners. It is not intended to prevent qualified individuals from selling, servicing, or installing PV systems or to replace state license requirements.

This pathway allows for those who have completed their advanced training and OSHA requirements to sit for the exam closer to completing their training. Once an applicant has passed the exam, they are considered Board Eligible until they have completed their experience requirement. These installations must have been completed within the **two (2) calendar years** prior to the application submission date or **three (3) calendar years** after taking and passing the exam. If the experience requirement is not completed after three (3) calendar years of taking and passing the exam the applicant will be required to reapply and retake the exam.

Until an applicant has completed all required steps, applicants do not receive a certification number and are not considered to be fully NABCEP Certified.

4.1 Eligibility Requirements

To become Board Certified and maintain certification, the Applicant must:

- Be at least 18 years of age
- Meet prerequisites of related experience and education as outlined below
- Complete an application form documenting all requirements
- Sign and agree to uphold the NABCEP Code of Ethics
- Pay Application and Examination Fees to NABCEP
- Pass a written examination
- Once Board Certified, complete continuing education and experience requirements, submit a recertification application, and pay a recertification fee, within the three (3) year recertification timeframe.

4.2 Experience Requirements

All systems submitted with the application must meet the following minimum criteria:

- The Applicant shall have performed in a decision-making role (DMR), which had a material impact on the quality and serviceability of the PV installation. This may include individuals employed as Lead Installers, System Designers, Project Managers, Site Managers, Foreman, Electricians, System Engineers, and Quality Assurance/Commissioning agents. Due to the variety of decision-making roles that may be involved with any particular system installation, more than one person may qualify for each system; however, each Applicant must document their specific role and level of responsibility for each installation.

- Installations must have been completed within the **two (2) calendar years** prior to the application submission date or **three (3) calendar years** after taking and passing the exam.
- All installations must be complete and have a permit and a final approved inspection.
- All systems must have a minimum rating of 1 kW DC (STC).

4.3 Qualifying for the Examination

NABCEP recognizes that professionals in the field of renewable energy and energy-efficient technologies receive their training and work experiences in a variety of ways. NABCEP Staff will review each application to determine compliance with eligibility criteria.

To qualify to sit for the NABCEP PV Installation Professional (PVIP) Certification Examination, every Applicant, regardless of background, education, experience, or geographical location, will need to document:

- Completion of a minimum of 10 hours of OSHA Outreach Training Program for the Construction Industry training (or government equivalent); **AND**
- Completion of at least 58 hours of advanced training as defined in Section 4.5.2 below
(**NOTE:** These hours of training do not need to be in addition to apprenticeship or degree coursework if the requirements of Section 4.5.2 were met within the curriculum and timeframe); **AND**
- Completion of installations equaling at least 6 Project Credits

Projects Credits are as follows:

System size of 1 – 999kW = **2 Project Credits**

System size of 1MW and up = **3 Project Credits**

4.4 Documenting Experience

For each completed PV system, an Applicant is required to submit documentation that summarizes system information, document approval by a governing body, and verifies their decision-making role. NABCEP reserves the right to contact system owners/operators, permitting authorities, employers, and sub-contractors to verify the Applicant's work experience and decision-making authority.

4.4.1 System Summary

To document experience as a PV Installation Professional, Applicants are asked to provide a concise description of the system and the work performed, including:

- System location
- Date system completed
- System info (PV array size, number of inverters and total cumulative inverter capacity)
- Name and phone number of installation contractor
- Name and phone number of contractor listed on the permit or inspection
- Name and phone number of Applicant's supervisor
- Description of work performed by the Applicant

4.4.2 Documenting System Installation

To document the system completion date and that the system was installed according to applicable codes, an Applicant is required to submit a copy of Electrical and/or Building Permit(s) and Final Inspection Report(s) issued by the local Authority Having Jurisdiction (AHJ) for each system submitted*.

In jurisdictions where permits and inspection reports are not issued, the Applicant is required to submit an inspection report written by an independent qualified electrician recognized by the AHJ, an independent certified electrical inspector or a NABCEP Board Certified PV System Inspector (PVSI)**. Inspections may not be completed by the Applicant, Installation Contractor or customer.

***NOTE:** NABCEP cannot accept site plans, drawings and/or permit applications in lieu of the actual approved permits and/or final approved inspections.

**A NABCEP Board Certified PV System Inspector may be found on the [Board Certified Directory](#) on our website.

4.4.3 Documenting Decision-Making Role

If the Applicant was named on the permit/inspection document(s), no additional documentation is needed to verify they held a decision-making role that had material impact on the installation. If the Applicant was not named on the permit/inspection document(s) but held a decision-making role that had a material impact on the installation during the design, project management, installation, and/or commissioning/quality assurance process, the Applicant is required to submit one of the following:

- A physically signed letter on company letterhead from the person, or a member of senior management from the company, who is named on the permit/inspection document(s). The letter must include the addresses of the installations listed in the Applicant's application and clearly explain the role(s) and decision-making authority the Applicant held for the system design, project management, installation, and/or commissioning/quality assurance process for the system installation; **OR**
- Design plans and/or line drawings identifying the Applicant as being responsible for the drawing or review of the design; **OR**
- A commissioning or quality assurance report which identifies the Applicant as being responsible for the system commissioning or quality assurance process.

4.4.4 Additional Information and Documentation

NABCEP reserves the right to contact system owners/operators, permitting authorities, and responsible contractors to verify information listed in the application. The NABCEP Application Review Committee decides Applicant eligibility based on application information and documentation submitted in support of the application.

4.5 Training Requirements

A list of NABCEP registered courses may be found on the [NABCEP Course Catalog](#) on our website.

4.5.1 OSHA 10 for Construction Industry Training

All Applicants are required to show proof of completion of a minimum of 10 hours of the Occupational Safety and Health Administration (OSHA) Outreach Training Program for the **Construction Industry**, or government equivalent. To find an OSHA class, Visit: <https://www.osha.gov/training/outreach>

4.5.2 PV Installation Training

PV Installation training must meet the following criteria to be accepted in an application:

- All training must have been completed within the five (5) calendar years prior to the submission of the application.
- All training must have a formal training format, with a teacher-learner structure. This implies a connection between a learner and a learning source. Acceptable training can include online 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.
- A minimum of **fifty-eight (58) prescribed hours** of advanced training is required for each candidate. **Forty (40) hours must have been taken with an accredited institution and cover "advanced" PV installation and practices as outlined in the NABCEP PV Installation Professional Job Task Analysis (PVIP JTA).** "Advanced" is defined as a course which provides instruction beyond the "basic," "fundamental," or "introductory" PV Installation principles and practices. Courses should be designed for the Professional who is prepared to maintain a decision-making role in the design, project management, installation, and/or commissioning & maintenance of a system. Advanced PV training must be offered by one of the following accredited education providers:
 - Institutions accredited by an agency recognized by the federal Department of Education, or government equivalent (Accredited Universities, Colleges, Community Colleges, etc.) (<http://ope.ed.gov/accreditation/search.aspx>)
 - U.S. Department of Labor Registered Apprenticeship Training Programs (www.doleta.gov/oa/)
 - U.S. Department of Veteran Affairs approved WEAMS Institute (<http://inquiry.vba.va.gov/weamspub/buildSearchInstitutionCriteria.do>)
 - Interstate Renewable Energy Council (IREC) Accredited Training Providers for the NABCEP PV Installation Professional Job Task Analysis (<http://www.irecusa.org/credentialing/credential-holders/>)



- American National Standards Institute (ANSI)/IREC 14732 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/ANRECdirectory.as-p?menuID=229>) or ANSI/ASTM 2659 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/CAPdirectory.asp?menuID=212>) that are based on the NABCEP PV Installation Professional Job Task Analysis
- Training institutions approved by State Contractor Licensing Boards or government equivalents
- State or Provincial Department of Education or government equivalent licensed Vocational / Technical training programs
 - **NOTE:** Courses offered by private training organizations or businesses that are not accredited or otherwise recognized by a third party as described above, **will not** be accepted for the minimum of 40 hours of advanced accredited PV installation and design training.

Eighteen (18) hours may be obtained from non-accredited, non-certified sources such as:

- Courses covering electrical, fire or building codes relevant to the installation of PV systems
- Having an active NABCEP PV Associate (PVA) credential
- Associate Level coursework through a NABCEP Associate Registered Training Provider **AND** a passing score on the NABCEP PV Associate (PVA) Exam (Associate Education Pathway only).
 - **NOTE:** Introductory/Fundamental/Entry Level courses leading to the NABCEP Associate Exam do not qualify for the minimum 40 hours of advanced PV installation and design.
- Additional OSHA or equivalent workplace safety courses above and beyond the required OSHA 10-hour course
- Training programs and courses registered with NABCEP for Continuing Education Credits for the PVIP recertification
- Any other coursework that addresses topics included in the PVIP JTA, such as courses taught by a non-accredited training organization

4.6 Documenting Training

To document training, the Applicant is required to submit a **certificate of completion** or a **transcript** for each completed advanced 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 relates to advanced PV installation or the National Electric Code (NEC). If NABCEP has questions regarding the subject matter and/or content of the course, then the Applicant will be required to provide a course outline or syllabus and a signed letter on letterhead from the training provider or instructor detailing how many hours were spent passing the exam the applicant will be required to reapply and retake the exam.

Until an applicant has completed all required steps, they do not receive a certification number and are not considered to be full NABCEP Certified.

- OSHA 10 for Construction Industry Training
- 58 hours of advanced PV related training: Forty (40) hours must have been taken with an accredited institution and cover “advanced” PV installation and practices as outlined in the NABCEP PV Installation Professional Job Task Analysis (PVIP JTA). Eighteen (18) hours may be obtained from non-accredited, non-certified sources
- Installations must have been completed within the **two (2) calendar years** prior to the application submission date or **three (3) calendar years** after taking and passing the exam.

5. NABCEP PV Design Specialist™ (PVDS) Certification

The NABCEP PV Design Specialist Certification is a voluntary Board Certification that provides a set of international standards by which PV Design Specialists with skills and experience can distinguish themselves from their competition. Board Certification provides a measure of protection to the public by giving them criteria for judging the competency of practitioners. It is not intended to prevent qualified individuals from designing PV systems or to replace state license requirements.

5.1 Eligibility Requirements

To become board certified and maintain certification, the Applicant must:

- Be at least 18 years of age
- Meet prerequisites of related experience and/or education as outlined below
- Complete an application form documenting all requirements
- Sign and agree to uphold the NABCEP Code of Ethics
- Pay Application and Examination Fees to NABCEP
- Pass a written examination
- Once Board Certified, complete continuing education and experience requirements, submit a recertification application, and pay a recertification fee, within the three (3) year recertification timeframe.

5.2 Experience Requirements

All systems submitted with the application must meet the following minimum criteria:

- The Applicant must have designed and drawn the plans for the installations with their name and/or initials on the drawing.
- Designs/drawings must have been completed within the two (2) calendar years prior to the application submission date.
- All system must have a minimum rating of 1 kW DC (STC).

5.3 Qualifying for the Examination

NABCEP recognizes that professionals in the field of renewable energy and energy efficient technologies receive their training and work experiences in a variety of ways. NABCEP Staff will review each application to determine compliance with eligibility criteria.

To qualify to sit for the NABCEP PV Design Specialist (PVDS) Certification Examination, **every** Applicant, regardless of background, education, experience or geographical location, will need to document:

- Completion of a minimum of 10 hours of OSHA Outreach Training Program for the Construction Industry training (or government equivalent); **AND**
- Completion of 24 hours of advanced training as defined in Section 4.5.2 below
(Note: These hours of training do not need to be in addition to apprenticeship or degree course-work if the requirements of Section 4.5.2 were met within the curriculum and timeframe); **AND**
- Completion of designs for installations equaling at least 12 Project Credits

Projects Credits are as follows:

System size of 1 – 999kW = 2 Project Credits

System size of 1MW and up = 3 Project Credits

5.4 Documenting Experience

For each PV system design, an Applicant is required to submit the design/drawing/plan set (Design) the Applicant designed, documentation that summarizes system information, and documentation of approval by a governing body. NABCEP reserves the right to contact system owners/operators, permitting authorities, employers, and sub-contractors to verify the Applicant’s work experience and decision-making authority. Contact information for the supervisor (or customer) must be provided.

5.4.1 System Summary

To document experience as a PVDS, Applicants are asked to provide information of the system, including:

- System location
- Date project completed
- PV array size of system
- Name and phone number of project installation contractor
- Name and phone number of contractor listed on the permit or inspection
- Name and phone number of Applicant’s supervisor/manager

5.4.2 Design Documentation

All Design and related proprietary information will be treated as confidential. Applicants are required to submit completed Designs with the Applicant’s name or initials listed on the Design as “Designed by” or “Drawn by.”

All Designs in the application must be from completed installations unless they were approved by a governing body.



Designs are required to include the following information:

- System location
- Contractor name and phone number
- Applicant's name listed under "Designed by" or "Drawn by"
- System size in kW
- Modules used (model number, quantity & rated output)
- Inverters used (model number, quantity & rated output)
- Maximum string size (if string inverters)
- Maximum branch size (if micro inverters)
- Plot Plan
- Single Line
- Structural details showing racking type & mounting

5.4.3 Permits and Inspection Records

If the PV system was installed, the applicant is required to submit electrical or building permits and final approved inspection records. To document the system completion date and that the system was installed according to applicable codes, an Applicant is required to submit a copy of Electrical and/or Building Permit(s) and Final Inspection Report(s) issued by the Local Authority Having Jurisdiction (AHJ) for each system submitted*. In jurisdictions where permits and inspection reports are not issued, the Applicant is required to submit an inspection report written by an independent qualified electrician recognized by the AHJ, an independent certified electrical inspector or a NABCEP Certified PV System Inspector (PVSI)**. Inspections may not be completed by the Applicant, Installation Contractor or customer.

*Note: NABCEP cannot accept site plans, drawings and/or permit applications in lieu of the actual approved permits and/or final approved inspections.

**A NABCEP Board Certified PV System Inspector may be found on the Board Certified Directory on our website.

5.4.4 Contractor, Employer or Customer Letters

If the design of an installation system has been sold but not installed, the applicant is required to submit a signed letter on letterhead from the contractor, employer, or customer stating that they are satisfied with the design of the PV system and the reason why the system was not completed. Emails will not be accepted in lieu of the letter.

5.4.5 Additional Information and Documentation

When completing the application, Applicants will be asked to describe the scope of work they were responsible for on each design. NABCEP reserves the right to contact system owners/operators, permitting

authorities, and responsible contractors to verify information listed in the application. The NABCEP Application Review Committee decides Applicant eligibility based on application information and documentation submitted in support of the application.

5.5 Training Requirements

A list of NABCEP registered courses may be found on the NABCEP Course Catalog on our website.

5.5.1 OSHA 10 Training

All Applicants are required to show proof of completion of a minimum of 10 hours of the Occupational Safety and Health Administration (OSHA) Outreach Training Program for the Construction Industry, or government equivalent. To find an OSHA class, Visit: <https://www.osha.gov/training/outreach>

5.5.2 PV Design Training

PV Design training must meet the following criteria to be accepted in an application:

- All training must have been completed in the five (5) calendar years prior to the submission of the application.
- 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.
- A minimum of twenty-four (24) prescribed hours of advanced training is required. Each candidate must have:
 - 18 hours of advanced PV design principles and practices as outlined in the NABCEP PV Design Specialist Job Task Analysis (PVDS JTA). Course(s) must have been taken with an accredited institution.
- 6 hours of the National Electric Code (NEC).

"Advanced" is defined as a course which provides instruction beyond the "basic," "fundamental," or "introductory" PV Installation design principles and practices. Courses should be designed for the Professional who is prepared to maintain a decision-making role in the installation, design or service of a PV system. This advanced PV design training must be offered by one of the following education providers:

 - Institutions accredited by an agency recognized by the federal Department of Education, or government equivalent (Accredited Universities, Colleges, Community Colleges, etc.) (<http://ope.ed.gov/accreditation/search.aspx>)
 - U.S. Department of Labor Registered Apprenticeship Training Programs (www.doleta.gov/oa/)
 - U.S. Department of Veteran Affairs approved WEAMS Institute (<http://inquiry.vba.va.gov/weamspub/buildSearchInstitutionCriteria.do>)
 - Interstate Renewable Energy Council (IREC) Accredited Training Providers for the NABCEP PV Installation Professional Job Task Analysis (<http://www.irecusa.org/credentialing/credential-holders/>)

- American National Standards Institute (ANSI)/IREC 14732 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/ANRECdirectory.asp?menuID=229>) or ANSI/ASTM 2659 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/CAPdirectory.asp?menuID=212>) that are based on the NABCEP PV Installation Professional Job Task Analysis
- Training institutions approved by State Contractor Licensing Boards or government equivalents
- State or Provincial Department of Education or government equivalent licensed Vocational / Technical training programs

NOTE: Courses offered by private training organizations or businesses that are not accredited or otherwise recognized by a third party as described above will not be accepted.

5.6 Documenting Training

To document training, the Applicant is 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 relates to advanced PV Design or the National Electric Code (NEC). If the subject matter of the course is not clearly stated in the title, then the Applicant will be required to provide a course outline or syllabus, and a signed letter on letterhead from the training provider or instructor detailing how many hours were spent covering the PVDS JTA or relevant codes.

5.7 PV Design Specialist Recertification Requirements

Certificants may submit their Recertification Application during the third (3rd) year of their current certification period. Certificants are required to complete and submit a recertification application electronically for review in their myNABCEP account at nabcep.certemy.com.

All NABCEP Board Certified PV Design Specialists must satisfy the requirements below in order to recertify.

5.7.1 Continuing Education

All Applicants are required complete 30 hours of continuing education broken down into three sections:

- 6 hours specific to Electric (NEC) Codes
- 12 hours specific to the PVDS JTA
- 12 hours specific to Renewable Energy of which 2 hours must be Building and/or Fire Codes

A list of NABCEP registered courses may be found on the NABCEP Course Catalog on our website.

5.7.2 Industry Involvement

All Applicants are required to upload a letter on company letterhead, signed by their employer, stating the Applicant is still actively involved in the solar industry and describing the industry activity of the Applicant.

If the Applicant is the owner or partner in a business, the Applicant may write their own letter on company letterhead and sign it themselves. Emails will not be accepted in lieu of a physically signed letter.

1. Industry activity must meet one of the minimum requirements as described below.
2. Alternative activities may be submitted for review and acceptance by NABCEP.
3. Letter must include specific details as described below.

Industry activity must meet one of the minimum requirements:

- Applicant had a decision-making role in the design(s) of at least 3 completed installed systems within the applicant's three (3) year certification period.
 - The letter must include the system size, job location address, commissioning/inspection date, and description of the Applicant's decision-making role in the installation.
- Teacher/trainer/instructor who teaches at least 120 hours of an advanced PV course(s) or a Registered NABCEP PV Associate course within the applicant's three (3) year certification period.
 - The letter must include the name of the course, how long the course was for, the date(s) the Applicant taught the course(s), and a syllabus of course(s).
- Leadership role for at least one (1) year in a business or organization that trains students, customers, or clientele to design, install, commission, maintain, inspect or carry out other activities in the PV market within the applicant's three (3) year certification period.
 - The letter must include a description of the Applicant's leadership role in a business or organization.
- Leadership role for at least one (1) year in a business that designs, installs, sells, commissions, maintains, inspects, finances PV systems, or manufactures solar industry equipment within the applicant's three (3) year certification period.
 - The letter must include a description of the Applicant's leadership role in the business.
- Leadership role for at least 36 hours relating to PV in the renewable energy industry within the applicant's three (3) year certification period (e.g., committee or board member in a renewable energy association or company).
 - The letter must come from a representative of the company or organization on which the Applicant served. The letter must include dates and the times of the committee or board meetings.

For further information on Recertification, please visit our website or see Section 19 of this Handbook.



6. NABCEP PV Installer Specialist™ (PVIS) Certification Requirements

The NABCEP PV Installer Specialist Certification is a voluntary certification that provides a set of international standards by which PV Installer Specialists with skills and experience can distinguish themselves from their competition. Certification provides a measure of protection to the public by giving them a credential for judging the competency of practitioners. It is not intended to prevent qualified individuals from selling, servicing, or installing PV systems or to replace state license requirements.

6.1 Eligibility Requirements

To become certified and maintain certification, the Applicant must:

- Be at least 18 years of age
- Meet prerequisites of related experience and/or education as outlined below
- Complete an application form documenting all requirements
- Sign and agree to uphold the NABCEP Code of Ethics
- Pay Application and Examination Fees to NABCEP
- Pass a written examination
- Once certified, complete continuing education and experience requirements, submit a recertification application, and pay a recertification fee, within the three (3) year recertification timeframe.

6.2 Experience Requirements

All systems submitted with the application must meet the following minimum criteria:

- The Applicant shall have performed in a decision-making role, which had material impact on the installation. PVIS Applicants must have a high level of competency with all aspects of PV installation including DC and AC PV system conductors, and grounding and bonding systems.

- Installation must have been completed within the two (2) calendar years prior to the application submission date.
- All system must have a minimum rating of 1 kW DC (STC).

6.3 *Qualifying for the Examination*

NABCEP recognizes that professionals in the field of renewable energy and energy efficient technologies receive their training and work experiences in a variety of ways. NABCEP Staff will review each application to determine compliance with eligibility criteria.

To qualify to sit for the NABCEP PV Installer Specialist (PVIS) Certification Examination, **every** Applicant, regardless of background, education, experience or geographical location, will need to document:

- Completion of a minimum of 10 hours of OSHA Outreach Training Program for the Construction Industry training (or government equivalent);
- Completion of 24 hours of advanced training as defined in Section 5.7.2 below

(NOTE: These hours of training do not need to be in addition to apprenticeship or degree coursework if the requirements of Section 5.7.2 were met within the curriculum and timeframe); **AND**

- Completion of installations with a decision-making role equaling at least 6 Project Credits

Projects Credits are as follows:

System size of 1 – 999kW = 2 Project Credits

System size of 1MW and up = 3 Project Credits

6.4 *Documenting Experience*

For each completed PV system, an Applicant is required to submit documentation that summarizes system information, documents approval by a governing body, and verifies their decision-making role. NABCEP reserves the right to contact system owners/operators, permitting authorities, employers, and sub-contractors to verify the Applicant's work experience and decision-making authority. Contact information for the supervisor (or customer) of each system must be provided.

6.4.1 **System Summary**

To document experience as a PVIS, Applicants are asked to provide a concise description of the system, including:

- System location
- Date system completed
- System info (PV array size, number of inverters and total cumulative inverter capacity)
- Name and phone number of installation contractor
- Name and phone number of contractor listed on the permit or inspection
- Name and phone number of Applicant's supervisor/manager

6.5 Documenting System Installation

To document the system completion date and the system was installed according to applicable codes, an Applicant is required to submit a copy of Electrical and/or Building Permit(s) and Final Inspection Report(s) issued by the local Authority Having Jurisdiction (AHJ) for each system submitted*. In jurisdictions where permits and inspection reports are not issued, the Applicant is required to submit an inspection report written by an independent qualified electrician recognized by the AHJ, an independent certified electrical inspector or a NABCEP Certified PV System Inspector (PVSI)**. Inspections may not be completed by the Applicant, Installation Contractor or customer.

*Note: NABCEP cannot accept site plans, drawings and/or permit applications in lieu of the actual approved permits and/or final approved inspections.

**A NABCEP Board Certified PV System Inspector may be found on the Board Certified Directory on our website.

6.6 Documenting Decision-Making Role

To document an Applicant's decision-making role during installation, the Applicant is required to submit a physically signed letter on company letterhead from their supervisor/manager. The letter must include the addresses of the job locations listed in the Applicant's application and clearly explain the role(s) and the decision-making authority the Applicant held for the system installation.

6.6.1 Additional Information and Documentation

NABCEP reserves the right to contact system owners/operators, permitting authorities, and responsible contractors to verify information listed in the application. The NABCEP Application Review Committee decides Applicant eligibility based on application information and documentation submitted in support of the application.

6.7 Training Requirements

A list of NABCEP registered courses may be found on the NABCEP Course Catalog on our website.

6.7.1 OSHA 10 Training

All Applicants are required to show proof of completion of a minimum of 10 hours of the Occupational Safety and Health Administration (OSHA) Outreach Training Program for the Construction Industry, or government equivalent. To find an OSHA class, Visit: <https://www.osha.gov/training/outreach>

6.7.2 PV Installer Training

PV Installer training must meet the following criteria to be accepted in an application:

- All training must have been completed in the five (5) calendar years prior to the submission of the application.

- 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.
- A minimum of twenty-four (24) prescribed hours of advanced training is required. Each candidate must have:
 - 18 hours of advanced PV installation principles and practices as outlined in the NABCEP PV Installer Specialist Job Task Analysis (PVIS JTA). Course(s) must have been taken with an accredited institution.
 - 6 hours of the National Electric Code (NEC)
"Advanced" is defined as a course which provides instruction beyond the "basic," "fundamental," or "introductory" PV Installation principles and practices. Courses should be designed for the Professional who is prepared to maintain a decision-making role in the installation, design or service of a PV system. This advanced PV training must be offered by one of the following education providers:
 - Institutions accredited by an agency recognized by the federal Department of Education, or government equivalent (Accredited Universities, Colleges, Community Colleges, etc.) (<http://ope.ed.gov/accreditation/search.aspx>)
 - U.S. Department of Labor Registered Apprenticeship Training Programs (www.doleta.gov/oa/)
 - U.S. Department of Veteran Affairs approved WEAMS Institute (<http://inquiry.vba.va.gov/weamspub/buildSearchInstitutionCriteria.do>)
 - Interstate Renewable Energy Council (IREC) Accredited Training Providers for the NABCEP PV Installation Professional Job Task Analysis (<http://www.irecusa.org/credentialing/credential-holders/>)
 - American National Standards Institute (ANSI)/IREC 14732 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/ANRECDirectory.asp?menuID=229>) or ANSI/ASTM 2659 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/CAPDirectory.ap?menuID=212>) that are based on the NABCEP PV Installation Professional Job Task Analysis
 - Training institutions approved by State Contractor Licensing Boards or government equivalents
 - State or Provincial Department of Education or government equivalent licensed Vocational / Technical training programs

NOTE: Courses offered by private training organizations or businesses that are not accredited or otherwise recognized by a third party as described above, will not be accepted.

6.8 PV Installer Specialist Veterans Pathway

- OSHA 10 for Construction Industry Training
- All applicants are required to complete at least twenty-four (24) hours of classroom training prior to sitting for the Certification Exam. All training must have been completed within the five (5) calendar years prior to the submission of the application. Twenty-Four (24) hours must have been taken with an accredited institution and cover “advanced” PV installation and practices as outlined in the NABCEP PV Installer Specialist Job Task Analysis (PVIS JTA). A minimum of eighteen (18) of the twenty-four (24) prescribed hours must have been taken with an accredited institution and cover advanced solar PV installation principles and practices addressed in the NABCEP PV Installer Specialist Job Task Analysis.
- Completion of installations equaling at least Six (6) Project Credits: With DD-214 form and a physically signed letter on company letterhead from a member of senior management verifying the Applicant has experience in exercising accurate decision-making skills. The letter must include how the Applicant has used prudent judgement to make correct decisions for similar or equivalent tasks and activities to those identified as uniform standards of best practice for established solar professionals in the PVIS JTA.
- In completing the online application, you will be asked for your MOS (or other service branch equivalent). If the MOS listed by the applicant is unrelated to PV, they must demonstrate their experience entirely through projects completed as an employee. MOS experience for Veterans may come from multiple roles or positions within the Armed Forces and may include electrical, construction, roofing, solar, architecture, design, engineering, operation & maintenance of electrical systems or components, finance, or sales experience.

6.9 Documenting Training

To document training, the Applicant is 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 relates to advanced PV Installation or the National Electric Code (NEC). If the subject matter of the course is not clearly stated in the title, then the Applicant will be required to provide a course outline or syllabus and a signed letter on letterhead from the training provider or instructor detailing how many hours were spent covering the PVIS JTA or relevant codes.

6.10 PV Installer Specialist Recertification Requirements

Certificants may submit their Recertification Application during the third (3rd) year of their current certification period. Certificants are required to complete and submit a recertification application electronically for review in their myNABCEP account at nabcep.certemy.com.

All NABCEP Board Certified PV Installer Specialists must satisfy the requirements below in order to recertify.

6.10.1 Continuing Education

All Applicants are required complete 30 hours of continuing education broken down into three sections:

- 6 hours specific to Electric (NEC) Codes

- 12 hours specific to the PVIS JTA

- 12 hours specific to Renewable Energy of which 2 hours must be Building and/or Fire Codes

A list of NABCEP registered courses may be found on the NABCEP Course Catalog on our website.

6.10.2 Industry Involvement

All Applicants are required to upload a letter on company letterhead, signed by their employer stating the Applicant is still actively involved in the solar industry and describing the industry activity of the Applicant.

If the Applicant is the owner or partner in a business, the Applicant may write their own letter on company letterhead and sign it themselves. Emails will not be accepted in lieu of a physically signed letter.

1. Industry activity must meet one of the minimum requirements as described below.
2. Alternative activities may be submitted for review and acceptance by NABCEP.
3. Letter must include specific details as described below.

Industry activity must meet one of the minimum requirements:

- Applicant had a decision-making role in the installation(s) of at least 3 completed installs within the applicant's three (3) year certification period.
 - The letter must include the system size, job location address, commissioning/inspection date, and description of the Applicant's decision-making role in the installation.
- Teacher/trainer/instructor who teaches at least 120 hours of an advanced PV course(s) or a Registered NABCEP PV Associate course within the applicant's three (3) year certification period.
 - The letter must include the name of the course, how long the course was for, the date(s) the Applicant taught the course(s), and a syllabus of course(s).
- Leadership role for at least one (1) year in a business or organization that trains students, customers, or clientele to design, install, commission, maintain, inspect or carry out other activities in the PV market within the applicant's three (3) year certification period.
 - The letter must include a description of the Applicant's leadership role in a business or organization.
- Leadership role for at least one (1) year in a business that designs, installs, sells, commissions, maintains, inspects, finances PV systems, or manufactures solar industry equipment within the applicant's three (3) year certification period.
 - The letter must include a description of the Applicant's leadership role in the business.
- Leadership role for at least 36 hours relating to PV in the renewable energy industry within the applicant's three (3) year certification period (e.g., committee or board member in a renewable energy association or company).
 - The letter must come from a representative of the company or organization on which the Applicant served. The letter must include dates and the times of the committee or board meetings.

For further information on Recertification, please visit our website or see Section 19 of this Handbook.



7. NABCEP PV Commissioning & Maintenance Specialist™ (PVCMS) Certification Requirements

The NABCEP PV Commissioning & Maintenance Specialist Certification is a voluntary certification that provides a set of international standards by which PV Commissioning & Maintenance Specialists with skills and experience can distinguish themselves from their competition. Certification provides a measure of protection to the public by giving them a credential for judging the competency of practitioners. It is not intended to prevent qualified individuals from servicing or installing PV systems or to replace state license requirements.

7.1 *Eligibility Requirements*

To become certified and maintain certification, the Applicant must:

- Be at least 18 years of age
- Meet prerequisites of related experience and/or education as outlined below
- Complete an application form documenting all requirements
- Sign and agree to uphold the NABCEP Code of Ethics
- Pay Application and Examination Fees to NABCEP
- Pass a written examination
- Once certified, complete continuing education and experience requirements, submit a recertification application, and pay a recertification fee, within the three (3) year recertification timeframe

7.2 Experience Requirements

All systems submitted with the application must meet the following minimum criteria:

- The Applicant shall have performed at least 3 Project Credits in a decision-making role related to commissioning or maintenance. 12 Project Credits in total must be submitted. The PVCMS Certification combines operations, maintenance and commissioning tasks into one job specialty. All verification protocols and preventive and corrective maintenance operations will be assessed.
- Service to an installation must have been completed within the two (2) calendar years prior to the application submission date.
- All systems must have a minimum rating of 1 kW DC (STC).

7.3 Qualifying for the Examination

NABCEP recognizes that professionals in the field of renewable energy and energy efficient technologies receive their training and work experiences in a variety of ways. NABCEP Staff will review each application to determine compliance with eligibility criteria.

To qualify to sit for the NABCEP PV Commissioning & Maintenance Specialist (PVCMS) Certification Examination, **every** Applicant, regardless of background, education, experience or geographical location, will need to document:

- Completion of a minimum of 30 hours of OSHA Outreach Training Program for the Construction Industry training (or government equivalent); **AND**
- Completion of 24 hours of advanced training as defined in Section 6.8.2 below

(NOTE: These hours of training do not need to be in addition to apprenticeship or degree course- work if the requirements of Section 6.8.2 were met within the curriculum and timeframe); **AND**

Completion of services on installations equaling at least 12 Project Credits:

Projects Credits are as follows:

System size of 1 – 999kW = 2 Project Credits

System size of 1MW and up = 3 Project Credits

7.4 Documenting Experience

For each PV system, an Applicant is required to submit documentation that summarizes system information, documents approval by a governing body, and verifies their decision-making role. NABCEP reserves the right to contact system owners/operators, permitting authorities, employers, and sub-contractors to verify the Applicant's work experience and decision-making authority. Contact information for the supervisor (or customer) of each system must be provided.

7.5 System Summary

To document experience as a PVCMS, Applicants are asked to provide a concise description of the system and the work performed, including:

- System location
- Date system commissioned or serviced
- System info (PV array size, number of inverters and total cumulative inverter capacity)
- Name and phone number of contractor servicing the PV system
- Name and phone number of Applicant's supervisor
- Description of work performed by the Applicant

7.6 Documenting System Service

For verification of commissioning and/or maintenance of a system, Applicants are required upload one of the following documents:

- Service call record or ticket
- Invoice with service information included
- Commission Report

7.7 Documenting Decision-Making Role

To document an Applicant's decision-making role during servicing, the Applicant is required to submit a physically signed letter on letterhead from their supervisor/manager. The letter must include the addresses of the job locations listed in the Applicant's application and clearly explain the role(s) and the decision-making authority that the Applicant held in regards to servicing the system.

7.7.1 Additional Information and Documentation

NABCEP reserves the right to contact system owners/operators, permitting authorities, and responsible contractors to verify information listed in the application. The NABCEP Application Review Committee decides Applicant eligibility based on application information and documentation submitted in support of the application.

7.8 Training Requirements

A list of NABCEP registered courses may be found on the NABCEP Course Catalog on our website.

7.8.1 OSHA 30 Training

All Applicants are required to show proof of completion of a minimum of 30 hours of the Occupational Safety and Health Administration (OSHA) Outreach Training Program for the Construction Industry, or government equivalent. To find an OSHA class, Visit: <https://www.osha.gov/training/outreach>

7.8.2 PV Commissioning & Maintenance Training

PV Commissioning & Maintenance training must meet the following criteria:

- All training must have been completed in the five (5) calendar years prior to the submission of the application.
- 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.
- A minimum of twenty-four (24) prescribed hours of advanced training is required. Each candidate must have:
 - 18 hours of advanced PV commissioning and maintenance principles and practices as outlined in the NABCEP PV Commissioning & Maintenance Specialist Job Task Analysis (PVCMS JTA). Course(s) must have been taken with an accredited institution.
 - 6 hours of the National Electric Code (NEC)

"Advanced" is defined as a course which provides instruction beyond the "basic," "fundamental," or "introductory" PV Installation principles and practices. Courses should be designed for the Professional who is prepared to maintain a decision-making role in the installation, design or service of a PV system. This advanced PV training must be offered by one of the following education providers:

 - Institutions accredited by an agency recognized by the federal Department of Education, or government equivalent (Accredited Universities, Colleges, Community Colleges, etc.) (<http://ope.ed.gov/accreditation/search.aspx>)
 - U.S. Department of Labor Registered Apprenticeship Training Programs (www.doleta.gov/oa/)
 - U.S. Department of Veteran Affairs approved WEAMS Institute (<http://inquiry.vba.va.gov/weamspub/buildSearchInstitutionCriteria.do>)
 - Interstate Renewable Energy Council (IREC) Accredited Training Providers for the NABCEP PV Installation Professional Job Task Analysis (<http://www.irecusa.org/credentialing/credential-holders/>)
 - American National Standards Institute (ANSI)/IREC 14732 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/ANRECDirectory.asp?menuID=229>) or ANSI/ASTM 2659 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/CAPDirectory.asp?menuID=212>) that are based on the NABCEP PV Installation Professional Job Task Analysis
 - Training institutions approved by State Contractor Licensing Boards or government equivalents
 - State or Provincial Department of Education or government equivalent licensed Vocational / Technical training programs

NOTE: Courses offered by private training organizations or businesses that are not accredited or otherwise recognized by a third party as described above, will not be accepted.

7.9 Documenting Training

To document training, the Applicant is 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 relates to advanced PV Commissioning and Maintenance or the National Electric Code (NEC). If the subject matter of the course is not clearly stated in the title, then the Applicant must provide a course outline or syllabus and a signed letter on letterhead from the training provider or instructor detailing how many hours were spent covering the PVCMS JTA or relevant codes.

7.10 PV Commissioning & Maintenance Specialist Veterans Pathway

- OSHA 30 for Construction Industry Training
- All applicants are required to complete at least twenty-four (24) hours of classroom training prior to sitting for the Certification Exam. All training must have been completed within the five (5) calendar years prior to the submission of the application. Twenty-Four (24) hours must have been taken with an accredited institution and cover “advanced” PV installation and practices as outlined in the NABCEP PV Commissioning & Maintenance Job Task Analysis (PVCMS JTA). A minimum of eighteen (18) of the twenty-four (24) prescribed hours must have been taken with an accredited institution and cover advanced solar PV installation principles and practices addressed in the PV Commissioning & Maintenance Job Task Analysis.
- Completion of commissioning and/or maintenance on solar PV systems for at least Twelve (12) Project Credits: With DD-214 form and a physically signed letter on company letterhead from a member of senior management verifying the Applicant has experience in exercising accurate decision-making skills. The letter must include how the Applicant has used prudent judgement to make correct decisions for similar or equivalent tasks and activities to those identified as uniform standards of best practice for established solar professionals in the PVCMS JTA.
- In completing the online application, you will be asked for your MOS (or other service branch equivalent). If the MOS listed by the applicant is unrelated to PV, they must demonstrate their experience entirely through projects completed as an employee. MOS experience for Veterans may come from multiple roles or positions within the Armed Forces and may include electrical, construction, roofing, solar, architecture, design, engineering, operation & maintenance of electrical systems or components, finance, or sales experience.

7.11 PV Commissioning & Maintenance Specialist Recertification Requirements

Certificants may submit their Recertification Application during the third (3rd) year of their current certification period. Certificants are required to complete and submit a recertification application electronically for review in their myNABCEP account at nabcep.certemy.com.

All NABCEP Board Certified PV Commissioning & Maintenance Specialists must satisfy the requirements below in order to recertify.

7.11.1 Continuing Education

30 hours of continuing education broken down into three sections:

6 hours specific to Electric (NEC) Codes

12 hours specific to the PVCMS JTA

12 hours specific to Renewable Energy of which 2 hours must be Building and/or Fire Codes

A list of NABCEP registered courses may be found on the NABCEP Course Catalog on our website.

7.11.2 Industry Involvement

All Applicants are required to upload a letter on company letterhead, signed by their employer stating the Applicant is still actively involved in the solar industry and describing the industry activity of the Applicant. If the Applicant is the owner or partner in a business, the Applicant may write their own letter on company letterhead and sign it themselves. Emails will not be accepted in lieu of a physically signed letter.

1. Industry activity must meet one of the minimum requirements as described below.
2. Alternative activities may be submitted for review and acceptance by NABCEP.
3. Letter must include specific details as described below

Industry activity must meet one of the minimum requirements:

- Applicant had a decision-making role in the installation(s) of at least 3 completed installs within the applicant's three (3) year certification period.
 - The letter must include the system size, job location address, commissioning/ inspection date, and description of the Applicant's decision-making role in the installation.
- Teacher/trainer/instructor who teaches at least 120 hours of an advanced PV course(s) or a Registered NABCEP PV Associate course within the applicant's three (3) year certification period.
 - The letter must include the name of the course, how long the course was for, the date(s) the Applicant taught the course(s), and a syllabus of course(s).
- Leadership role for at least one (1) year in a business or organization that trains students, customers, or clientele to design, install, commission, maintain, inspect or carry out other activities in the PV market within the applicant's three (3) year certification period.
 - The letter must include a description of the Applicant's leadership role in a business or organization.
- Leadership role for at least one (1) year in a business that designs, installs, sells, commissions, maintains, inspects, finances PV systems, or manufactures solar industry equipment within the applicant's three (3) year certification period.
 - The letter must include a description of the Applicant's leadership role in the business.
- Leadership role for at least 36 hours relating to PV in the renewable energy industry within the applicant's three (3) year certification period (e.g., committee or board member in a renewable energy association or company).
 - The letter must come from a representative of the company or organization on which the Applicant served. The letter must include dates and the times of the committee or board meetings.

For further information on Recertification, please visit our website or see Section 19 of this Handbook.



8. NABCEP PV Technical Sales Professional® (PPTS) Certification Requirements

The NABCEP PV Technical Sales Certification is a voluntary board certification that provides a set of international standards by which PV Technical Sales Professionals with skills and experience can distinguish themselves from competitors. Board certification provides a measure of protection to the public by giving them criteria for judging the competency of practitioners. It is not intended to prevent qualified individuals from selling, servicing, or installing PV systems or to replace state license requirements.

8.1 *Eligibility Requirements*

To become board certified and maintain certification, the Applicant must:

- Be at least 18 years of age
- Meet prerequisites of related experience and education as outlined below
- Complete an application form documenting all requirements
- Sign and agree to uphold the NABCEP Code of Ethics
- Pay Application and Examination Fees to NABCEP
- Pass a written examination
- Once board certified, complete continuing education and experience requirements, submit a recertification application, and pay a recertification fee, within the three (3) year recertification timeframe.

8.2 Experience Requirements

8.2.1 Definition

Verifiable Sales Experience—actively engaged in PV installation systems sales-related activities, including the completion of the number of PV installation system proposals required by the applicant’s Qualifying Category. (See Section 7.3 for Categories.) Sales-related activities include engaging in the sale and/or design of PV installation systems. This may include individuals employed as sales managers, site analysts, system designers, technical support personnel, business development representatives, business development managers, sales representatives, account managers, sales engineers, and project finance analysts.

For each of the proposals completed for PV systems, the following requirements apply:

- At least half ($\frac{1}{2}$) of the installations must have resulted in completed sales AND completed installations;
- No more than one (1) project may be submitted to a relative or person residing at the applicant’s address. This project must have resulted in a completed sales and installation.

8.3 Qualifying for the Examination

To qualify to sit for the NABCEP PV Technical Sales Professional (PVTs) Certification Exam, **every** Applicant, regardless of background, education or experience, must qualify through one of the categories below and complete all requirements for that category.

Sales Credits are as follows:

System size of 1 - 24kW = 2 Sales Credits

System size of 25kW – 999kw = 3 Sales Credits

System size of 1MW and up = 4 Sales Credits

Category A: Applicants must have 8 Sales Credits of verifiable sales experience with 100% of projects sold within the previous 2 year period with a minimum of 50% sold and installed (see Sales Credits above).

Category B: Applicants must have 4 Sales Credits of verifiable sales experience with 100% of projects sold within the previous 2 year period with a minimum of 50% sold and installed (see Sales Credits above); AND hold a:

- Master’s or Bachelor’s degree in science or engineering from an accredited institution; OR
- Associate’s degree in solar or renewable energy from an accredited institution; **OR**
- Current Master or Journeyman Electrician’s License (expired licenses will not be accepted); **OR**
- Current State or government issued Solar Contractor’s License (expired licenses will not be accepted).

8.4 Documenting Sales Experience

Applicants must upload a signed letter on company letterhead from a member of senior management from the company verifying the Applicant’s role in the sale of the PV system and the Applicants experience in the field. A letter must be uploaded for each Sales listed in the application.

8.4.1 PV System is Sold and Installed

If the PV system has been completed, an Applicant must submit a copy of Electrical and/or Building Permit(s) and Final Inspection Report(s) issued by the Local Authority Having Jurisdiction (AHJ) for each system submitted*. In jurisdictions where permits and inspection reports are not issued, the Applicant may submit an inspection report written by an independent qualified electrician recognized by the AHJ, an independent certified electrical inspector or a NABCEP Certified PV System Inspector (PVSI)**. Inspections may not be completed by the Applicant, Installation Contractor or customer.

***NOTE:** NABCEP cannot accept site plans, drawings and/or permit applications in lieu of the actual approved permits and/or final approved inspections.

**A NABCEP Board Certified PV System Inspector may be found on the Board Certified Directory on our website.

8.4.2 PV System is Sold but NOT Installed

Applicants must provide the fully signed contract for the project. All contracts are required to be signed by the customer and contractor.

8.4.3 Additional Information and Documentation

NABCEP reserves the right to contact system owners/operators, permitting authorities, and responsible contractors to verify work listed in the application. The NABCEP Application Review Committee decides Applicant eligibility based on application information and documentation submitted in support of the application.

8.5 Training Requirements

8.5.1 OSHA 10 for Construction Industry Training

All Applicants are required to show proof of completion of a minimum of 10 hours of the Occupational Safety and Health Administration (OSHA) Outreach Training Program for the Construction Industry, or government equivalent. To find an OSHA class, Visit: <https://www.osha.gov/training/outreach>

8.5.2 PV Technical Sales Training

- All training must have been completed within the five (5) calendar years prior to the submission of the application.
- All training must have a formal training format, with a teacher-learner structure. This implies a connection between a learner and a learning source. Acceptable training can include online 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.

- A minimum of fifty-eight (58) prescribed hours of advanced training is required for each candidate. Forty (40) hours must have been taken with an accredited institution and cover “advanced” PV topics as outlined in the NABCEP PV Technical Sales Job Task Analysis (PVTs JTA). “Advanced” is defined as a course which provides instruction beyond the “basic,” “fundamental,” or “introductory” PV Installation principles and practices. Courses should be designed for the Professional who is prepared to maintain a decision-making role in the design, project management, installation, and/or commissioning & maintenance of a system. Advanced PV training must be offered by one of the following accredited education providers:
 - Institutions accredited by an agency recognized by the federal Department of Education, or government equivalent (Accredited Universities, Colleges, Community Colleges, etc.) (<http://ope.ed.gov/accreditation/search.aspx>)
 - U.S. Department of Labor Registered Apprenticeship Training Programs (www.doleta.gov/oa/)
 - U.S. Department of Veteran Affairs approved WEAMS Institute (<http://inquiry.vba.va.gov/weamspub/buildSearchInstitutionCriteria.do>)
 - Interstate Renewable Energy Council (IREC) Accredited Training Providers for the NABCEP PV Installation Professional Job Task Analysis (<http://www.irecusa.org/credentialing/credential-holders/>)
 - American National Standards Institute (ANSI)/IREC 14732 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/ANRECdirectory.asp?menuID=229>) or ANSI/ASTM 2659 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/CAPdirectory.asp?menuID=212>) that are based on the NABCEP PV Installation Professional Job Task Analysis
 - Training institutions approved by State Contractor Licensing Boards or government equivalents
 - State or Provincial Department of Education or government equivalent licensed Vocational / Technical training programs

NOTE: Courses offered by private training organizations or businesses that are not accredited or otherwise recognized by a third party as described above, will not be accepted for the minimum of 40 hours of advanced accredited PV installation and design training.

Eighteen (18) hours may be obtained from non-accredited, non-certified sources such as:

- Courses covering electrical, fire or building codes relevant to the installation of PV systems
- Associate Level coursework through a NABCEP Associate Registered Training Provider AND a passing score on the NABCEP PV Associate (PVA) Exam (Associate Education Pathway only).
 - Note: Introductory/Fundamental/Entry Level courses leading to the NABCEP Associate Exam do not qualify for the minimum 40 hours of advanced PV installation and design.
- Additional OSHA or equivalent workplace safety courses above and beyond the required OSHA 10-hour course
- Training programs and courses registered with NABCEP for Continuing Education Credits for the PVTs recertification
- Any other coursework that addresses topics included in the PVTs JTA, such as courses taught by a non-accredited training organization

8.6 Documenting Training

To document training, the Applicant is required to submit a certificate of completion or a transcript for each completed advanced 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 relates to cover advanced PV topics as outlined in the NABCEP PV Technical Sales Job Task Analysis (PVTS JTA). If NABCEP has questions regarding the subject matter and/or content of the course, then the Applicant will be required to provide a course outline or syllabus and a signed letter on letterhead from the training provider or instructor detailing how many hours were spent covering the PVTS JTA or relevant codes.

8.7 PV Technical Sales Recertification Requirements

Certificants may submit their Recertification Application during the third year of their current certification. Certificants are required to log in to their account to complete and submit a recertification application electronically for review. Certificants will need to log in at nabcep.certemy.com and enter their user name and password. Once logged in, there will be a header on the right-hand side of the screen that says "My Credentials." Certificants will need to click the header to see their credentials and complete the recertification application.

NABCEP Certified PV Technical Sales must satisfy the following requirements in order to recertify:

8.7.1 Continuing Education

30 hours of continuing education broken down into two sections:

- 18 hours specific to the PVTS JTA

- 12 hours specific to Renewable Energy of which 2 hours must be Building and/or Fire Codes



8.7.2 Industry Involvement

All Applicants must upload a letter on company letterhead, signed by their employer stating the Applicant is still actively involved in the solar industry and describing the industry activity of the Applicant. If the Applicant is the owner or partner in a business, the Applicant may write their own letter on company letterhead and sign it themselves. Emails will not be accepted in lieu of a signed letter. The letter must include specific details as described below.

1. Industry activity must meet one of the minimum requirements as described below.
2. Alternative activities may be submitted for review and acceptance by NABCEP.
3. Letter must include specific details as described below

Industry activity must meet one of the minimum requirements:

- Applicant had a decision-making role in the proposal(s) of at least 3 completed installations within the applicant's three (3) year certification period.
 - The letter must include the system size, job location address, commissioning/ inspection date, and description of the Applicant's decision-making role in the proposal.
- Teacher/trainer/instructor who teaches at least 120 hours of an advanced PV course(s) or a Registered NABCEP PV Associate course within the applicant's three (3) year certification period.
 - The letter must include the name of the course, how long the course was for, the date(s) the Applicant taught the course(s), and a syllabus of course(s).
- Leadership role for at least one (1) year in a business or organization that trains students, customers, or clientele to design, install, commission, maintain, inspect or carry out other activities in the PV market within the applicant's three (3) year certification period.
 - The letter must include a description of the Applicant's leadership role in a business or organization.
- Leadership role for at least one (1) year in a business that designs, installs, sells, commissions, maintains, inspects, finances PV systems, or manufactures solar industry equipment within the applicant's three (3) year certification period.
 - The letter must include a description of the Applicant's leadership role in the business.
- Leadership role for at least 36 hours relating to PV in the renewable energy industry within the applicant's three (3) year certification period (e.g., committee or board member in a renewable energy association or company).
 - The letter must come from a representative of the company or organization on which the Applicant served. The letter must include dates and the times of the committee or board meetings.

For further information on Recertification, please visit our website or see Section 19 of this Handbook.

9. NABCEP PV System Inspector™ (PVSI) Certification Requirements

The NABCEP PV System Inspector Certification is a voluntary certification that provides a set of international standards by which PV System Inspector Professionals with skills and experience can distinguish themselves from competitors. Certification provides a measure of protection to the public by giving a credential for judging the competency of practitioners. It is not intended to replace state license requirements.

9.1 Eligibility Requirements

To become certified and maintain certification, the Applicant must:

- Be at least 18 years of age
- Complete an application
- Sign and agree to uphold the NABCEP Code of Ethics
- Pay Application and Examination Fees to NABCEP
- Pass a written examination
- Once certified, complete continuing education and experience requirements, submit a recertification application, and pay a recertification fee, within the three (3) year recertification timeframe

9.2 Qualifying for the Examination

There are no specific pre-requisites to taking a NABCEP PV System Inspector Exam. The Exams are intended to test the knowledge of someone who is familiar with PV systems. Knowledge of applicable codes and ordinances is presumed. Applicants should know how to assess the safety and operation of a system, be able to verify code compliance via interpretation of design plans and building documents, conduct on-site inspections, and report results.

IMPORTANT: PVSI Candidates are eligible to take the PV System Inspector certification exam for a period of one (1) year from the date their application is approved to schedule their LOP Exam. If a Candidate does not take the exam before the one year expires, they must complete a new application and pay the exam fee to take the exam.

9.3 PV System Inspector Recertification Requirements

Certificants may submit their Recertification Application during the third (3rd) year of their current certification period. Certificants are required to complete and submit a recertification application electronically for review in their myNABCEP account at nabcep.certemy.com.

All NABCEP Board Certified PV System Inspectors must satisfy the requirements below in order to recertify.

All Applicants are required complete at least 8 hours of continuing education related to the National Electric Code (NEC) over the course of their 3-year certification cycle.

A list of NABCEP registered courses may be found on the NABCEP Course Catalog on our website.

For further information on recertification, please visit our website or see Section 19 of this Handbook.



10. NABCEP Solar Heating System Inspector™ (SHSI) Certification Requirements

The NABCEP Solar Heating System Inspector Certification is a voluntary certification that provides a set of international standards by which Solar Heating System Inspector Professionals with skills and experience can distinguish themselves from competitors. Certification provides a measure of protection to the public by giving a credential for judging the competency of practitioners. It is not intended to replace state license requirements.

10.1 Eligibility Requirements

To become certified and maintain certification, the Applicant must:

- Be at least 18 years of age
- Complete an application
- Sign and agree to uphold the NABCEP Code of Ethics
- Pay Application and Examination Fees to NABCEP
- Pass a written examination
- Once certified, complete continuing education and experience requirements, submit a recertification application, and pay a recertification fee, within the three (3) year recertification timeframe

10.2 Qualifying for the Examination

There are no specific pre-requisites to taking a NABCEP Solar Heating System Inspector Exam. The Exams are intended to test the knowledge of someone who is familiar with Solar Heating systems. Knowledge of applicable codes and ordinances is presumed. Applicants should know how to assess the safety and operation of a system, be able to verify code compliance via interpretation of design plans and building documents, conduct on-site inspections, and report results.

IMPORTANT: SHSI Candidates are eligible to take the Solar Heating System Inspector certification exam for a period of one (1) year from the date their application is approved to schedule their LOP Exam. If a Candidate does not take the exam before the 1 year expires, they must complete a new application and pay the exam fee to take the exam.

10.3 Solar Heating System Inspector Recertification Requirements

Certificants may submit their Recertification Application during the third (3rd) year of their current certification period. Certificants are required to complete and submit a recertification application electronically for review in their myNABCEP account at nabcep.certemy.com.

All NABCEP Board Certified Solar Heating System Inspectors must satisfy the requirements below in order to recertify.

All Applicants are required complete at least 8 hours of continuing education related to the National Electric Code (NEC) over the course of their 3-year certification cycle.

A list of NABCEP registered courses may be found on the NABCEP Course Catalog on our website.

For further information on recertification, please visit our website or see Section 19 of this Handbook.



11. NABCEP Solar Heating Installer® (SHI) Certification Requirements

The NABCEP Solar Heating Installer Certification is a voluntary board certification that provides a set of international standards by which solar heating installers with skills and experience can distinguish themselves from their competition. Board Certification provides a measure of protection to the public by giving them a credential for judging the competency of practitioners. It is not intended to prevent qualified individuals from selling, servicing, or installing Solar Heating systems or to replace state license requirements.

11.1 *Eligibility Requirements*

To become certified and maintain certification, the Applicant must:

- Be at least 18 years of age
- Meet prerequisites of related experience and education as outlined below
- Complete an application form documenting all requirements
- Sign and agree to uphold the NABCEP Code of Ethics
- Pay Application and Examination Fees to NABCEP
- Pass a written examination
- Once board certified, complete continuing education and experience requirements, submit a recertification application, and pay a recertification fee, within the three (3) year recertification timeframe

11.2 Experience Requirements

One (1) year of experience must include service, repair and/or installation of two (2) solar heating systems. This year of service is required to include a decision-making role (DMR) on the job installing two (2) solar hot water systems, in the role of foreman, supervisor, site manager, or experienced worker performing solar hot water installation without direct supervision.

11.3 Qualifying for the Examination

There are several ways an individual may qualify to sit for the Solar Heating Installer Certification exam. NABCEP recognizes that professionals in the field of renewable energy and energy efficient technologies receive their training and work experiences in a variety of ways. NABCEP Staff will review each application to determine compliance with eligibility criteria.

11.3.1 Qualifying Categories

To qualify to sit for the NABCEP Solar Heating Installer Certification examination, the candidate is required to demonstrate they meet at least ONE of the following Qualifying Categories:

Category A

A.1) Four (4) years of experience installing Solar Hot Water Systems (see Section 10.2 for definition of years of experience); **OR**

A.2) Two (2) years of experience installing Solar Pool Heating Systems in addition to completion of 16 hours of advanced training (see Sections 10.2 and 10.5 for definitions of years of experience and training)

Note: If a candidate chooses Category A, they must choose ONE of the two options listed above.

Category B

Two (2) years of experience installing solar heating systems in addition to completion of 40 hours of advanced training (see Sections 10.2 and 10.5 for definitions of years of experience and training).

Category C

Be an existing licensed contractor in good standing in solar or construction-related areas with one (1) year of experience installing solar heating systems (see Section 10.2 for definition of years of experience). Expired licenses will not be accepted.

Category D

Four (4) years of HVAC, mechanical, pipe-fitting or plumbing-related experience working for a licensed contractor in good standing, including one (1) year of experience installing solar heating systems (see Sections 10.2 and 10.5 for definition of years of experience and training).

Category E

Three (3) years of experience in a Department of Labor Registered construction trade Apprenticeship Program, including one (1) year of experience installing solar heating systems (see Sections 10.2 and 10.5 for definition of years of experience and training).

Category F

Two (2) years construction related, engineering technology, renewable energy technology or technician degree from an accredited educational institution plus one (1) year of experience installing solar heating systems (see Sections 10.2 and 10.5 for definition of years of experience and training).

Category G

Four (4) year engineering degree from an accredited educational institution, including one (1) year of experience installing solar heating systems (see Sections 10.2 and 10.5 for definition of years of experience and training).

Category H

NABCEP PV Installation Professional (PVIP) Board Certification (see Section 3) AND 16 hours of advanced training (see Section 10.5), AND installation of at least two (2) solar hot water systems (see Sections 10.2 and 10.5 for definition of years of experience and training) with documentation.

11.4 Documenting Experience**11.4.1 Documenting Employment**

For the Applicant to demonstrate they have been working in the Solar Heating Installer field for the number of years required by the Qualifying Category chosen, Applicants are asked in the application to list Solar Heating-related employment in chronological order, starting with most current employment. The Applicant will need to write a job description, summarize the number and type of systems installed, and provide contact information for a supervisor.

11.4.2 Documenting Installations

To document the minimum two (2) completed systems required per year of experience, Applicants are required to list qualifying installed systems and provide a concise description of work performed at the job site. The description must including the system size, a list of components, the level of their responsibility on the jobsite, number of full-time equivalent workers supervised, and any other pertinent information.

These two (2) completed systems per year of experience require permitting and inspection by an Authority Having Jurisdiction (AHJ), or in the absence of such, an appropriate underwriter authorized to provide an inspection certificate.

In regions where no inspection options exists, the Applicant may submit the following for consideration:

- A line-drawing of the system showing all components
- A bill of sale or signed contract for services
- Warranty information specific to the customer as available
- Notification of approval of rebate or other incentive
- A signed letter from the Applicant’s supervisor or employer stating that they were the lead installer of that system.
- A signed letter from the Customer attesting to the completion of the system.

An inspection report that written by a NABCEP Board Certified Solar Heating System Inspector (SHSI). You may locate a SHSI on the Board Certified Directory on our website.

11.4.3 Additional Information and Documentation

NABCEP reserves the right to contact system owners/operators, permitting authorities, and responsible contractors to verify work listed in the application. The NABCEP Application Review Committee decides Applicant eligibility based on application information and documentation submitted in support of the application.

11.5 Training Requirements

11.5.1 Training and Education Requirements for Categories A2, B and H

Applicants applying through Qualifying Category A2, Category B, and Category H are required to submit documentation supporting the required hours of advanced accredited training directly related to the subjects identified in the NABCEP Solar Heating Installer Job Task Analysis (SHI JTA).

- All training was completed in the five (5) calendar years prior to the submission of the application.
- 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.

“Advanced” is defined as a course which provides instruction beyond the “basic,” “fundamental,” or “introductory” Solar Heating Installer principles and practices. Courses should be designed for the Professional who is prepared to maintain a decision-making role in the installation, design or service of a system. This advanced Solar Heating training must be offered by one of the following education providers:

- Institutions accredited by an agency recognized by the federal Department of Education, or government equivalent (Accredited Universities, Colleges, Community Colleges, etc.) (<http://ope.ed.gov/accreditation/search.aspx>)
- U.S. Department of Labor Registered Apprenticeship Training Programs ([www. doleta.gov/oa/](http://www.doleta.gov/oa/))
- U.S. Department of Veteran Affairs approved WEAMS Institute (<http://inquiry.vba.va.gov/weamspub/buildSearchInstitutionCriteria.do>)
- Interstate Renewable Energy Council (IREC) Accredited Training Providers for the NABCEP Solar Heating Installer Professional Job Task Analysis (<http://www.irecusa.org/credentiaing/credential-holders/>)

- American National Standards Institute (ANSI)/IREC 14732 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/ANRECdirectory.asp?menuID=229>) or ANSI/ASTM 2659 Accredited Certificate Programs (<https://www.ansica.org/wwwversion2/outside/CAPdirectory.asp?menuID=212>) that are based on the NABCEP Solar Heating Installer Job Task Analysis
- Training institutions approved by State Contractor Licensing Boards or government equivalents
- State or Provincial Department of Education or government equivalent licensed Vocational / Technical training programs

NOTE: Courses offered by private training organizations or businesses that are not accredited or otherwise recognized by a third party as described above, will not be accepted.

Although training is strongly encouraged, it is not a requirement for Categories A2, C, D, E, F, or G for achieving this certification. However, the exam is such that some level of training will likely be necessary for most Applicants to achieve a passing score. It is recommended that Applicants look for accredited training courses taught by certified instructors.

11.6 Documenting Training

If the Qualifying Category requires education, to document training, the Applicant is required to submit a certificate of completion or a transcript for each completed accredited 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 relates to the SHI JTA. If NABCEP has questions regarding the subject matter and/or content of the course, then the Applicant will be required to provide a course outline or syllabus and a signed letter on letterhead from the training provider or instructor detailing how many hours were spent covering the SHI JTA.

11.7 Solar Heating Installer Recertification Requirements

Certificants may submit their Recertification Application during the third (3rd) year of their current certification period. Certificants are required to complete and submit a recertification application electronically for review in their myNABCEP account at nabcep.certemy.com.

All NABCEP Board Certified Solar Heating Installer Professionals are required to satisfy the requirements below in order to recertify.

11.7.1 Continuing Education

30 hours of continuing education broken down into three sections:

- 6 hours specific to National Electric Codes (NEC)
- 12 hours specific to the SHI JTA
- 12 hours specific to Renewable Energy of which 2 hours must be Building and/or Fire Codes

11.7.2 Industry Involvement

All Applicants must upload a letter on company letterhead, signed by their employer stating the Applicant is still actively involved in the solar industry and describing the industry activity of the Applicant. If the Applicant is the owner or partner in a business, the Applicant may write their own letter on company letterhead and sign it themselves. Emails will not be accepted in lieu of a signed letter. The letter must include specific details as described below.

1. Industry activity must meet one of the minimum requirements as described below.
2. Alternative activities may be submitted for review and acceptance by NABCEP.
3. Letter must include specific details as described below

Industry activity must meet one of the minimum requirements:

- Applicant had a decision-making role in the installation(s) of at least 3 completed installs within the applicant's three (3) year certification period.
 - The letter must include the system size, job location address, commissioning/ inspection date, and description of the Applicant's decision-making role in the installation.
- Teacher/trainer/instructor who teaches at least 120 hours of an advanced Solar Heating course(s) or a Registered NABCEP Solar Heating Associate course within the applicant's three (3) year certification period.
 - The letter must include the name of the course, how long the course was for, the date(s) the Applicant taught the course(s), and a syllabus of course(s).
- Leadership role for at least one (1) year in a business or organization that trains students, customers, or clientele to design, install, commission, maintain, inspect or carry out other activities in the Solar Heating market within the applicant's three (3) year certification period.
 - The letter must include a description of the Applicant's leadership role in a business or organization.
- Leadership role for at least one (1) year in a business that designs, installs, sells, commissions, maintains, inspects, finances Solar Heating systems, or manufactures solar industry equipment within the applicant's three (3) year certification period.
 - The letter must include a description of the Applicant's leadership role in the business.
- Leadership role for at least 36 hours relating to Solar Heating in the renewable energy industry within the applicant's three (3) year certification period (e.g., committee or board member in a renewable energy association or company).
 - The letter must come from a representative of the company or organization on which the Applicant served. The letter must include dates and the times of the committee or board meetings.

For further information on Recertification, please visit our website or see Section 19 of this Handbook.



12. Small Wind Installer Certification Requirements

The NABCEP Board of Directors has indefinitely suspended the administration of the NABCEP Small Wind Installer Certification Examination as of September 2012. NABCEP is no longer accepting new applications for the Small Wind Installer Certification.

Existing Small Wind Installers Certificants will have their Certification remain active. Small Wind Installer Certifications will be valid and recognized as long as each Certificant continues to meet the terms of certification and recertification. These terms include: continuing practice in the field; attaining a minimum number of continuing education hours; and, submitting recertification applications on a three year cycle. Small Wind Installer Certificants will continue to be listed on the NABCEP Board Certified Directory.

13. Application for Certification

13.1 Application Submission

To apply and qualify for any NABCEP Board Certification, an Applicant is required to open an account on nabcep.certemy.com, self-enroll in the certification they wish to apply for from the Apply Now! Section of the NABCEP website, complete the online application and submit supporting documentation that verifies they meet the minimum education and experience requirements for that specific certification. Applicants should keep a duplicate copy of all documents for their records. All information and documents submitted to NABCEP will be stored in your digital wallet, which can be found in your myNABCEP account.

- Applicants are required to complete, sign and submit an application online for the specific Certification exam they wish to take. All applications and accounts are maintained in NABCEP online certification management system (CMS), myNABCEP.
- Applicants are required to submit applications with the appropriate application fee. Applicants may pay by credit card through a secure website. All fees must be paid at the time of submission.
- It is highly recommended Applicants add support@nabcep.certemy.com, [@nabcep.certemy.com](https://www.instagram.com/nabcep.certemy.com) and “@nabcep.org” to their safe senders list in their email accounts and/or firewall to help assure successful delivery of important certification related communications from NABCEP.

13.2 Verification of Employment and Education

In an effort to serve the public trust, NABCEP reserves the right to verify information on Applicant applications and recertification materials. Failure to report truthfully may result in the denial and/or revocation of certification.

13.3 Application Review

NABCEP staff, under the supervision and guidance of the President, review every application to verify the minimum eligibility requirements have been met by the Applicant and is properly documented. If NABCEP staff or President are unable to determine whether an Applicant meets eligibility requirements for any of its certification exams, an Application Review Committee will convene to review the application in question. The Committee is made up of three to five NABCEP-selected subject matter experts (SMEs) who have an understanding of the different types of situations and constraints encountered by practitioners in the field. Reviewers will be non-competitive industry peers with no financial or other affiliation with Applicants. Every effort will be made to ensure the objectivity of the Reviewers and they will be charged to act in a manner that is fair, consistent and justifiable.

13.4 Notification of Eligibility or Ineligibility

An Applicant applying for certification will receive notice of eligibility or ineligibility to sit for the certification examination within thirty (30) days of submission.

If the application is complete, and the Applicant has sufficiently demonstrated their compliance with the minimum eligibility requirements, they will be receive an email announcing their eligibility to take the examination. This email will include instructions on how to schedule their exam.

If an application is deemed ineligible, the Applicant will be notified via email and informed of the reason(s) for this finding. The Applicant will be provided with opportunities to reapply to sit for the exam by correcting the application and resubmitting it for review. If the Applicant is deemed to be ineligible, the application will be rejected. If the application is rejected, a new application and application fee must be submitted for the Applicant to be considered for certification again. All current eligibility requirements must be met at the time of both original application submission and resubmission.

If an Applicant chooses to appeal the finding of ineligibility, they may do so in writing to the President of NABCEP within thirty (30) days of the receipt of notification of ineligibility (NABCEP Ethics Policy).

13.5 Refund Policy

The application fee is non-refundable and non-transferrable.

13.6 Eligibility Period

An Applicant who has been accepted to sit for the examination (Candidate) is eligible to take the exam for a period of One (1) year from the date of application approval. If a Candidate does not pass the exam during their eligibility period, they must reapply as a new Applicant by submitting a new complete application and remit another application fee to become eligible to take the examination again.

An Applicant who has been accepted to sit for the System Inspector examination (Candidate) is eligible to take the exam for a period of One (1) Year from the date their application is approved to schedule their exam. If a Candidate does not take the exam before the one year expires, they must complete a new application and pay the exam fee to take the exam.

13.7 Property Rights

NABCEP owns all title, interest, and other proprietary rights related to all NABCEP trademarks, designations, and logos (NABCEP Marks), including NABCEP Certificates. When passing a NABCEP Examination, Certificants are awarded a digital NABCEP Certificate with their unique certification number, NABCEP's Corporate Seal. Certificants are no longer allowed to use NABCEP property at the end of their 3 year certification period if they fail to complete the recertification requirements detailed in Section 19 or if their certification status changes for any reason. Please see NABCEP Trademark and mark use section for full policy.



14. Examination Content

Each certification examination (except System Inspector exams) consists of seventy (70) equally weighted multiple-choice questions, with four (4) choices per question. Sixty (60) of the questions are scored and ten (10) of the questions are un-scored pilot questions. The pilot questions are randomly distributed throughout the examination and are not identified. Pilot questions are utilized so NABCEP can test a question with a sample of real candidates before using it as a scored question, thus helping to ensure the examinations are fair and reliable.

The time limit for the examination is four (4) hours. Exam questions and content are based on a Job Task Analysis developed for each Certification. Please find the respective Job Task Analysis (JTA) on the NABCEP website for the relevant technology.

The System Inspector certification exams consist of forty-five (45) equally weighted multiple-choice questions, with four (4) choices per question. Forty (40) of the questions are scored and five (5) of the questions are un-scored pilot questions. The pilot questions are randomly distributed throughout the examination and are not identified. The time limit for the System Inspector examination is two (2) hours.

Job Task Analyses have been conducted to assure the content of the examination reflects the tasks and knowledge required of the practitioner. A Job Task Analysis gives a detailed description of job activities by defining the necessary knowledge, skills, and abilities required for minimally competent job performance. As part of the job analysis study, a survey was conducted comprised of industry subject matter experts (SMEs) professionals, including manufacturers, contractors, codes and standards developers, research-

ers and educators. The job analysis study also assures the examination content is up to date and relevant to current practice. Subject matter experts (SME's) are used to research and develop examination questions for each of the content areas on the exam. All questions undergo extensive review and editing.

In addition to the specific content areas listed under individual technology sections, knowledge and skills in the following areas are required:

- Reading and interpreting plans and specifications
- Reading and interpreting codes and standards
- Basic mathematics (addition, subtraction, multiplication, division, calculations of area and volume, fractions, decimals, percentages, calculating the sides of triangles, square roots, powers of numbers, and solving simple algebraic equations for unknown variables)

Candidates should be prepared to respond to examination questions on any of the content areas listed in the Job Task Analysis. Questions asked and content areas tested on previous examinations should not be assumed to be the only possible questions to be asked or content areas to be tested on this examination.

14.1 English as a Second Language

Renewable Energy installers in the U.S. and Canada must currently be able to speak and read English to understand system instructions and design specifications. Therefore the certification examinations are written and administered in the English language and materials will be provided only in English. Until training and hardware components begin to feature other languages in sufficient quantity to enable non-English speaking installers other language options in which they can practice competently in the renewable energy field, the application, examination, and materials will remain in English.

15. Examination Formats & Scheduling

Certification Exams are given in two formats:

- Computer-Based Testing (CBT) exam may be taken at any time after application approval
- Live Remote Proctoring (LRP) exam may be taken at any time after application approval

Certification Exam	Exam Format Available	Re-take Exam Format
PV Installation Professional	CBT, LRP	CBT
PV Design Specialist	CBT, LRP	CBT
PV Installer Specialist	CBT, LRP	CBT
PVPV Commissioning & Maintenance Specialist	CBT, LRP	CBT
PV Technical Sales Professional	CBT, LRP	CBT,LRP
PV System Inspector	LRP	LRP
Solar Heating System Inspector	LRP	LRP
Solar Heating Installer	CBT, LRP	CBT, LRP

Candidates taking the PV Installation Professional exam have the option to take the certification exam in LRP or CBT format for the first exam. Upon acceptance to sit for the exam, Candidates will need to log into their account and choose the format they wish to take the exam in. Candidates who take an exam CBT or LRP will receive an email from Measure Learning with instruction on how to schedule their exam. Once a candidate chooses their exam format, the format cannot be changed for that administration. All subsequent administrations, reschedules or retakes, must be taken via CBT.

IMPORTANT: All NABCEP notifications are sent via email from myNABCEP using support@nabcep.ceremy.com. Applicants should any addresses sent from @nabcep.org to their “safe senders” list and/or firewall. This will help assure successful delivery of important certification related communications from NABCEP. Additionally, all candidates strongly encouraged to also add candidatesupport@measurelearning.com to their “safe sender” list, as this is the address from which important scheduling information is sent.

15.1 Scheduling Examination Site & Time

15.1.1 Scheduling a Computer-Based Testing (CBT) Exam

Upon acceptance of an application to sit for a certification exam, Candidates may choose a time and location to take their Exam by computer (if available) through our Computer-Based Testing (CBT) network, Meazure Learning. Accepted Candidates will receive a Notice-to-Schedule (NTS) email from Meazure Learning with instructions on how to select a location, date, and time for their exam. Candidates have one (1) year from the date their application is approved to schedule their CBT Exam. CBT Candidates are subject to Meazure Learning's cancellation and rescheduling policies. All Candidates must submit scheduling requests to Meazure Learning at least two (2) business days prior or to the date the Candidate wishes to take or reschedule their exam. The reschedule request must be submitted through Meazure Learning's online scheduling system. A rescheduling fee will apply and must be paid online at the time of the request.

15.1.2 Scheduling a Live Remote Proctor (LRP) Exam

Upon acceptance of an application to sit for a Board Certification exam, Candidates may choose a day and time to take their Exam by computer through our Live Remote Proctor (LRP) network, Meazure Learning. Accepted Candidates will receive a Notice-to-Schedule (NTS) email from Meazure Learning with instructions on how to select a day and time for their exam. Candidates are eligible to take the exam for a period of one (1) year from the date their application is approved to schedule their LRP Exam. If a Candidate does not take the exam before 1 year expires, they must complete a new application and pay another exam fee to take the exam. LRP Candidates are subject to Meazure Learning's cancellation and rescheduling policies. All Candidates must submit scheduling requests to Meazure Learning at least two (2) business days prior to the date the Candidate wishes to take or reschedule their exam. The re-schedule request must be submitted through Meazure Learning's online scheduling system. A rescheduling fee will apply and must be paid online at the time of the request.

Computer System Requirements

Live Remote Proctoring (LRP) allows Candidates to complete the examination from their own computer via an internet connection at a time and place of their choosing. Testing sessions are available 365/24/7.

The Candidate's computer must have webcam capability as well as speakers and the following system components:

- A webcam installed on the exam workstation and reliable access to the Internet. An Internet connection disruption will suspend the test session.
- A computer with 1 GB of RAM or higher
- A high-speed Internet connection (5 Mbps).
- A webcam with 640×480 video pixel resolution (a laptop camera is acceptable)
- Speakers connected to the computer
- A microphone connected to the computer (consider a webcam with a built-in microphone)
- Flash player version 7 or higher
- Chrome or Firefox Web Brower
- Browser compatibility: Please see Meazure Learning's System Requirements for the latest version of compatible updates. <https://test.examity.com/systemcheck/ComputerReadinessCheck.aspx>.

LRP Exam Proctors

Exam Proctors will connect with the Candidate's computer through NABCEP's testing vendor, Measure Learning. The proctor will have complete access to the Candidate's computer to monitor for unauthorized activities, such as accessing other software applications, using multiple monitors, or having someone else take the examination remotely. The Candidate will also show the proctor a 360-degree view of his/her environment, including the desk, by holding and moving the webcam/laptop as directed by the proctor. The proctor will watch the Candidate on a webcam and record the video and audio, which will be stored for 15 days. When the proctor has completed the necessary steps to ensure monitoring, the Candidate will click a link to launch the examination. The proctor can terminate the examination for integrity reasons at any time.

LRP Test Taking Advice

- Read all instructions carefully.
- Candidates should periodically check their progress and pace. The more questions answered, the better the chance of achieving a passing score.
- There is no penalty for guessing, so Candidates should answer every question. It is recommended that Candidates record an answer for each question, even if not confident in the answer. Blank answers will be counted as incorrect.
- Candidates should speak to a proctor immediately concerning any problems that occur during the examination. Proctors will not answer any questions related to the content of the examination, but may be able to assist with eliminating distractions or other issues.
- Before exam day, Candidates should ensure that they know how to log on to access the exam. To configure your system before the exam, go to: <https://test.examity.com/systemcheck/>

15.2 Special Testing Accommodations

NABCEP complies with the provisions of the Americans with Disabilities Act (42 U.S.C. Section 12101, et. seq.) and with Title VII of the Civil Rights Act, as amended (42 U.S.C. Section 2000e, et. seq.).

All Candidates who desire special testing accommodations due to a disability or religious observance must make this request at the time of exam scheduling. It is the responsibility of the Candidate to provide advance notice and appropriate documentation of the disability or religious observance, along with specifications of the type of accommodations or aids that will be required, when the application registration workflow is submitted.

NABCEP will not pay any costs an individual may incur in obtaining the required diagnosis and recommendation for accommodation. However, NABCEP will pay for any reasonable accommodation(s) that are provided during the exam. NABCEP shall notify the Candidate regarding the acceptance of the request in advance of the Examination date. Appropriate arrangements and accommodation(s) shall be made for all Candidates with disabilities who file the appropriate request and include appropriate documentation, unless an accommodation changes the nature of the test. Under no conditions will an accommodation be made which changes the nature of the test.



16. Taking the Examinations

16.1 Admission to Examinations

All Candidates must show valid government-issued photo identification that exactly matches the name on their application. The Candidate must provide one of the following valid government- issued documents bearing a picture, name, and signature to gain admission to the test site:

- Driver's license
- Photo identification card
- Passport
- Military identification card

Identification that has expired is not valid. Candidates are encouraged to confirm that their identification will not expire before scheduling an examination. Examples of non-acceptable identification include, but are not limited to: student ID, employer-issued ID, library cards, and credit cards.

Candidates who are unable to produce the required identification, or who produce an ID that is expired, will not be permitted entrance to the exam. Under these circumstances, Candidates will be considered absent and will forfeit the full exam fee and will be required to re-schedule the exam and pay all applicable re-examination fees.

It is recommended Candidates arrive at the examination site no later than thirty (30) minutes prior to the scheduled examination time. Additional time needed for procedures, payments, delays, traffic, parking, weather, etc., should be considered when arranging transportation to the examination site. Candidates who arrive after the doors are closed will not be admitted and will be considered to have missed the examination.

16.2 What is provided at the Exam

All materials required to take the examination will be provided for each Candidate at the test site, including:

- 2017 National Electrical Code, NFPA 70 (PVIP,PVDS,PVIS,PVCMS,PVSI)
- Scratch Paper
- A Basic scientific calculator on-screen during the exam.

All materials will be returned to the Proctor at the end of the exam, where they will be inspected. No changes should be made to the National Electrical Code text or to the calculators, and under no circumstance are these items to leave the testing room at any time.

No food or drink items are allowed in the testing room. Any personal items or supplies needed during the examination must be encased in a clear plastic bag, no larger than 8.5" X 11" in size. Please be advised that due to circumstances beyond our control, examination sites may experience minor disturbances. It is recommended that Candidates who are sensitive to noise bring earplugs.

16.3 What Not to Bring to the Exam

Unauthorized supplies will be subject to removal by the Proctor at the examination site. The following items are NOT allowed in the examination room and will be confiscated during the exam and returned afterward:

- Cell phones
- Watches – a clock will be provided in the room
- Water bottles, beverages or food of any kind
- Any books or part of workbooks and materials, bound or loose-leaf notes
- Handwritten and typewritten notes
- Pull-off labels, removable tabs, paper clips, or metal clamps
- Paper, writing tablets, or notepads
- Highlighters
- Personal calculators and electronic organizers
- Cameras, tape recorders, or computers
- Pagers or electronic transmitting devices
- Canisters of mace, pepper spray, or other personal defense items
- Purses, briefcases, portfolios, fanny packs, or backpacks – a space within the testing room will be provided for Candidates to leave bags of this kind. Any personal supplies required during the examination such as inhalers, medication, extra glasses, tissues, etc. should be placed in a clear plastic bag no larger than 8.5" x 11".

16.4 Attire – What to Wear for the Exam

Candidates should dress comfortably, but appropriately, for the examination. The examination rooms are usually climate controlled. However, it is not always possible to maintain a temperature that is preferred by each Candidate. It is suggested that Candidates bring a sweater or jacket to use in the event that the temperature is cooler than individual preference.

Caps, hats or other head coverings, unless they have religious significance, are not allowed to be worn in the test room and must be placed with the other personal belongings if brought into the room.

16.5 Test Taking Advice

The advice offered here is presented primarily to help Candidates demonstrate the knowledge they possess and maximize their chances of passing the examination.

- Read all instructions carefully.
- Candidates should periodically check their progress and pace. The more questions answered, the better the chance of achieving a passing score.
- There is no penalty for guessing. Candidates should answer every question. It is recommended that Candidates record an answer for each question, even if not confident in the answer. Blank answers will be counted as incorrect.
- Candidates may note the questions they want to reconsider in the examination booklet and return to them later.
- Candidates should speak to a Proctor immediately concerning any problems that occur during the examination. Proctors will not answer any questions related to the content of the examination, but may be able to assist with eliminating distractions or other issues.
- Before the exam day, Candidates should ensure that they know the exact location of the examination site, the best way to get there, where parking can be found, and the actual location of the testing room.



17. Examination Administrative Policies

17.1 Rules

Measure Learning, the examination supervisor, and proctors are the designated agents for maintaining a secure and proper administration of the examination. On behalf of NABCEP, administrators are required to enforce the following rules for both CBT and LRP formats.

- There will be no talking or moving around during the examination. Any irregular Candidate conduct which violates the standards of test administration, such as communicating with any other Candidate during the administration of an examination or copying answers from another Candidate during the administration of the examination, is strictly prohibited and grounds for dismissal from the examination. Examination materials will be confiscated. Any Candidate involved in such behavior will be removed from the exam room, reported to NABCEP, and may be prohibited from taking the exam again.
- If a Candidate has an emergency or needs to use the restroom, they should raise their hand. The Proctor will take the examination materials and secure them, then give the Candidate permission to leave the room. Only one Candidate at a time is permitted to leave the room.
- There will be no smoking, eating, or drinking by Candidates in the examination room.
- Personal items besides immediate necessities (which must be in plastic bags no larger than 8.5" x 11") will be stored at the front or back of the examination room, or in an adjacent room.
- The Proctor and assistants cannot answer any questions about examination items during the examination. Candidates should do the best they can on each item. Examination supervisors and proctors are NOT qualified or authorized to answer questions concerning the examination content; however, they will do their best to help with any procedural questions and address other concerns.

- If a Candidate feels there is a misprint or an error within an item, the Candidate should raise their hand. They will receive a Candidate Comment Form, which will be collected at the end of the examination.
- No examination materials, documents, or memoranda of any kind are to be taken from the examination room.
- Candidates are prohibited from writing or marking anything in any reference book or materials, and doing so is grounds for confiscation of these documents by the exam administrators.
- Due to the noise associated with gathering reference books and materials at the end of the examination, Candidates who have not completed the examination when the 15-minute time limit is announced may not be permitted to leave the test center until time is called. Candidates will be asked to remain in their seats until time is called in order to minimize the disruption to Candidates still testing.

17.2 Exam Security

Any Candidate who communicates with, or gives or receives help to others during the exam will be dismissed from the examination room. Candidates involved in such behavior will be reported to NABCEP and their exam will not be scored. Examination fees will not be refunded and the Candidate may be prohibited from taking the examination in the future.

The performance of all Candidates is monitored and may be analyzed to detect fraud. This information is reported to NABCEP. Candidates who violate security measures will not have their exam scored and may be prohibited from taking the examination pending investigation of the violation.

All exam materials, including all questions, answer booklets, and score sheets are the copyrighted property of NABCEP. Any distribution of these materials through reproduction or oral or written communication is strictly prohibited.

17.3 Late Arrivals

Candidates are encouraged to arrive at least thirty (30) minutes before the scheduled start time for the examination. All Candidates who arrive before the scheduled start time of the examination will be processed and seated for the examination. Once all Candidates are processed, the doors to the exam room will be closed to further admission and the test will begin. Candidates who arrive after the doors are closed will not be admitted and will be considered to have missed the examination. These Candidates can reapply for a subsequent examination time and pay the re-examination fee (unless a Candidate's situation meets the specific exceptions listed below and they successfully file for an exception).

17.4 Cancellation and Rescheduling Policy

17.4.1 Cancellation and Rescheduling for CBT and LRP exams

CBT and LRP Candidates are subject to Meazure Learning's cancellation and rescheduling policies. If a Candidate is scheduled to take an examination in CBT or LRP format and cannot attend, Candidates must submit scheduling requests to Meazure Learning at least two (2) business days prior to the date the Candidate wishes to take or reschedule their exam. The reschedule request must be submitted through Meazure Learning's online scheduling system. A rescheduling fee will apply and must be paid online at the time of the request. For information on Meazure Learning's cancellation and rescheduling policies, please see <https://www.assessments.meazurelearning.com/programs/north-american-board-of-certified-energy-practitioners/>.

17.5 Failure to Appear

Candidates who fail to appear for any examination will forfeit their entire exam fee and will be required to reschedule the examination and pay a re-examination fee unless they meet cancellation policy guidelines above. Appearing to the examination site late, is considered a Failure to Appear.

17.6 Comment Prior to Scoring

Following completion of the examination, Candidates may comment in writing on any questions they believe contain errors in content or on the administrative conditions of the examination. Comment forms will be available in the examination room at the conclusion of the exam, and will be collected and forwarded to the Examination Committee. If the Examination Committee judges that an item(s) should not be scored, all affected Candidates scores will be corrected accordingly.

18. Scoring and Grade Notification

18.1 *Pre-Test Exam Questions*

All NABCEP Certification Examinations may contain a number of pre-test or “pilot test” questions. These questions are NOT scored. The purpose of pre-testing questions during the administration of an examination is to gather data on the performance of these items. In order to accurately test the performance of these items, they will not be identified. Including pre-test questions on an examination is a common practice used by many national and state examination programs and is a critical step in developing additional test items and ensuring the continued reliability and validity of the examination. The time allowed for testing has been evaluated to ensure there is adequate time for completing both scored and pre-test questions.

18.2 *Scoring Procedures*

All answer sheets will be electronically scored by a third-party testing provider, Meazure Learning. A statistical comparison of all responses may be performed as a quality control process to verify the accuracy of examination grades and the performance of test items. Any irregularities identified by this analysis may be considered grounds for denial of certification. Paper answer sheets are computer-scanned multiple times by NABCEP’s third-party testing services vendor to ensure accurate scoring.

18.3 *Determination of Passing Score*

The passing score of NABCEP certification examinations is set by a criterion-referenced standard-setting exercise by experts in the field under the guidance of a psychometrician. The NABCEP certification examinations are not graded “on a curve” – any Candidate who meets the entry requirements and achieves a passing score on the examination earns the certification.

Because different test forms may vary slightly in difficulty from one version to another, it is a testing industry best practice to have scores reported as scaled scores. Scaled scores are statistically derived by adjusting the raw score (the number of questions a Candidate answers correctly) by a factor that accounts for the difficulty of a particular exam format relative to other formats. Using a scaled score helps ensure that all candidates are treated fairly whether they take an exam that is slightly easier or more difficult than an exam that other candidates took. A total scaled score is used to determine pass or fail status and is reported as a scaled score ranging between 0 and 99.

18.4 *Exam Scoring Time Frame*

Exam score reports will be completed and uploaded to the Candidates account approximately 3-5 business days following the administration of the exam. Grade results or pass/fail status will not be given out over the telephone or by email. All score reports will be uploaded to your Digital Wallet in your myNABCEP account.

18.5 Score Report

Candidates who pass the exam will receive a Welcome Packet in their account with helpful information about how to benefit the most from their NABCEP Certification. A personalized Certificate, will be uploaded to the Certificants Digital Wallet of their myNABCEP account. NABCEP owns all title, interest, and other proprietary rights related to all NABCEP trademarks, designations, and logos (NABCEP Marks), including NABCEP Certificates. Certificants who pass the certification exam will not receive any score information in their results letter. Upon suspension or withdrawal of a NABCEP credential, Certificants agree to discontinue the use of all claims to being a NABCEP credential holder and return any NABCEP certificates that have not yet expired.

Candidates who fail the exam will receive their scaled score for the full exam and for each major content domain. For a definition of a scaled score, see Section 17.2 for Scoring Procedures. NABCEP provides domain level scores to Candidates who do not pass the examination. NABCEP believes this information can be helpful in identifying areas where a Candidate may need more education and/or experience in order to pass the overall examination; however, it must be noted that individual performance in each domain should be interpreted very cautiously. Because there are fewer questions in each domain than on the overall exam, domain-level performance is less reliable than the total scaled score. Some domains may only have three or four questions, and it is not possible to report how difficult or easy any of these questions may have been compared to others.

When retaking the certification examination, it is important to prepare for questions in all the domains and tasks outlined in the JTA. A Candidate who neglects to study or practice tasks in the domains in which their performance was strongest could result in worse performance on those domains when taking a different version of the examination. Candidates must achieve a passing score on the full examination during a single attempt. Domain level scores may not be combined together from multiple examination attempts in order to obtain a passing score.

18.6 Score Information Made Public

The only information made public regarding the exam will be the major domains being tested, the number and type of questions, and the score required to pass the exam. The following aggregate data about scores may be released for each form of the exam: number of Applicants, number of Candidates tested, number and percentage passing the exam, number and percentage of first-time test takers passing the exam, and number of administration sites.

18.7 How to Challenge Examination Results

NABCEP engages a rigorous process to ensure that no errors occur in the scoring of Candidate answer sheets, including a review of all answer sheets for any possible marking errors, a quality control scoring audit, and a statistical analysis of all questions. Due to the accuracy of electronically- scanned scoring, changes as a result of re-scoring are highly unlikely. However, a Candidate may request a hand-score of their answer sheets by filling out and submitting the Hand Grade of Answer Sheet Request Form and paying a Hand Grading Fee. All such requests must be sent to NABCEP as directed in the form. For NABCEP's Fees Schedule, please see our website, www.nabcep.org.

After the hand graded score has been provided, Candidates who believe their score is inaccurate can send an official appeal to the NABCEP President & CEO within thirty (30) days of receiving their score report. (See Section 22 and the NABCEP website www.nabcep.org)

18.8 Re-Examination Information

All Candidates, except System Inspectors, who fail the examination will be permitted to retake the examination during the 24-month period during which the Candidate's application is "accepted" (see Section 17.6). If a Candidate wishes to retake the exam, they may do so fourteen (14) days after their failed exam. For each subsequent attempt, Candidates will be required to pay a re-examination fee. Candidates who fail to appear for any examination will forfeit their entire exam fee and will be required to reschedule the examination and pay a re-examination fee. All exam retakes must be taken via CBT*, whether the first exam was taken CBT or LRP. Following this 12-month period, a Candidate failing to pass must complete a new application and re-apply for the opportunity to sit for the exam.

System Inspector candidates who do not pass their System Inspector Exam may retake the exam by submitting another application through <https://nabcep.certemy.com/>

18.9 Cancellation of Scores

NABCEP is responsible for the integrity of the scores they report. On rare occasions, circumstances such as a technical malfunction or Candidate misconduct may render a score invalid. NABCEP is committed to rectifying such discrepancies as expeditiously as possible. NABCEP reserves the right to cancel any examination scores if, in the sole opinion of NABCEP, there is adequate reason to question its validity. In the event of cancellation, NABCEP at its discretion may (1) offer the individual an opportunity to take the examination again at no additional fee or (2) revoke or otherwise take action with regard to the application or certification of a Candidate or Certificant deemed to be in violation of any policies or procedures of NABCEP applicable to the appropriate Certification program (see Section 17.4).

19. Certification Status

19.1 *Duration of Certification*

Certification is valid for three (3) years following the date of issuance. During that time, a Certificant may use the certification designation after their name to show they are certified (see Trademark and Mark Use Policy). Certificants will receive a digital certificate. Information on maintaining the credential through the Certification Program when they are notified of their successful certification. NABCEP owns all title, interest, and other proprietary rights related to all NABCEP trademarks, designations, and logos (NABCEP Marks), including NABCEP Certificates. Upon suspension or withdrawal of a NABCEP credential, Certificants agree to discontinue the use of all claims to being a NABCEP credential holder and return any NABCEP certificates that have not yet expired.

19.2 *Displaying a Certification Mark*

Only people certified by NABCEP, who maintain active certification status, and are in good standing, are authorized to use a NABCEP Certification Mark. Each certified individual may use the Mark in professional advertising and informational materials, including telephone directory listings or advertisements, business cards, letterhead, brochures, signs, stationery, packages, and other similar marketing materials, consistent with the rules as explained in Appendix III, Trademark and Mark Use Policy. The Mark is personal to the certified individual and may not be transferred or assigned to any other individual, organization, business, or entity. Certificates may not be displayed for purposes other than verification of the professional's credential and should be displayed only when the certification is current and the Certificant is in good standing with NABCEP.

19.3 *Physical Certificates*

NABCEP no longer mails out physical certificates. Certificants must ACCEPT their credential in their myNABCEP Account to access the Certificates. A digital copy will be available in the certificants digital wallet once their certification has been accepted. Once a Certificants recertification application has been accepted by NABCEP a new digital certificate with an updated expiration date will available for download. Certificants may request a physical certificate. A Certificate Fee* will be charged for each certificate requested.

*For NABCEP's Fees Schedule, please see our website, www.nabcep.org/fees.

19.4 *Digital Badges*

Certificants will receive a digital badge via email within 5-7 business days after successfully passing a NABCEP Board Certification exam from NABCEP via Credly. Digital Badges are valid during the certificants current certification period. Expiration dates listed on all digital badges are updated upon acceptance of the corresponding recertification application.

19.5 *Misconduct*

Any Certificants or Applicants for initial certification who have been determined to be involved in fraud, misrepresentation, or inappropriate behavior in the application, examination, or recertification process will be subject to disciplinary action, which may result in denial or removal of their NABCEP credential.

20. Recertification

20.1 Introduction

NABCEP sponsors and administers rigorous, examination-based, professional certification programs. Certificants are granted the conditional right to use the NABCEP credential and certification mark, but must demonstrate an ongoing professional commitment to the field of a given certification by satisfying the recertification requirements of each certification attained. NABCEP Recertification assures that the Certificant remains committed to continued professional training and education and adheres to the NABCEP Code of Ethics.

This policy establishes and explains the requirements which must be satisfied in order to maintain certification, and related information including the standards, guidelines, and procedures of NABCEP Recertification. Inquiries or questions concerning this policy should be directed to the NABCEP office.

20.1.1 Statement of Purposes

NABCEP Recertification is intended to: require reasonable and appropriate continuing educational and professional activities; enhance the ongoing professional development of Certificants; encourage and recognize individualized learning opportunities; and provide a standardized, objective, and straightforward process for attaining and recording professional development activities.

20.1.2 Basic Requirements for Recertification

NABCEP Certificants must document relevant work experience and at least the required number of Continuing Education (CE) contact hours over the course of their three (3) year certification cycle. A contact hour equals one sixty (60) minute clock hour of organized learning activity including interaction between learner and instructor or learner and home study materials. The number of contact hours for the course must be specified by the provider before the course is offered. Credit is not awarded for time spent on sales presentations, breaks, travel, receptions, or meals. All contact hour credits are subject to approval and confirmation by NABCEP.

As an alternative to meeting CE requirements for any certification, the Certificant may schedule, and successfully complete, the current NABCEP Certification Examination related to their NABCEP certification. A passing score on the Certification Examination is required, and the Examination must be completed prior to the end of the current Certification Period.

20.1.3 Recertification Cycle

Each recertification cycle will be a three (3) year period. The first recertification cycle begins on the date of initial certification, and expires three (3) years after that initial date of certification. The expiration date is printed on the NABCEP Certificate and is listed in each Certificant's account on myNABCEP. A new certificate, with a new expiration date will be issued upon recertification.

20.1.4 Application Time Line

Certificants may submit their Recertification Application during the third year of their current certification. Certificants, however, may log in to their myNABCEP account at any time during the recertification cycle to upload and save documents as they are received in their digital wallet. All uploaded documents will be saved in their digital wallet but will need to be submitted in a recertification application for review.

Certificants are encouraged to file a Recertification Application and pay the Recertification Fee at least ninety (90) days prior to the expiration of their certification. Certificants who fail to recertify before their certification expires will be required to pay a Recertification Late Fee in addition to the Recertification Fee*.

Expired Certificants may renew their certification at any time within one (1) year following their certification expiration date. During this one-year period, the Certificant is not certified by NABCEP nor can they claim to be certified. Expired Certificants are removed from the Professional Directory immediately upon expiration of the certification. During this one-year “expiration period”, an individual will be permitted to recertify without having to re-apply or re-exam. Once the one-year certification renewal period has ended, expired Certificants must re-apply and re-exam in order to become certified again.

Individuals with expired System Inspector certifications may renew their certification 1 year following their credential expiration date. During this time, the System Inspector is not credentialed by NABCEP, nor may claim to be so. Expired System Inspectors are removed from the online Professional Directory immediately upon expiration of the credential. During this renewal period, an individual who meets the continuing education requirements, will be permitted to recertify without having to re-exam upon payment of a recertification fee plus a late fee. Once the 1 year extended renewal period has ended, expired System Inspectors must re-apply and re-exam in order to become credentialed again.

The Certificant’s expiration date will not change regardless of when in the renewal cycle the individual meets recertification requirements. Certificants renewing within the first, second, or third year of the renewal period, or prior to expiration, will all have their new expiration date set as three years from the previous expiration date.

*For NABCEP’s Recertification Late Fees, please see our website, <https://www.nabcep.org/fees>.

20.1.5 Application Process

Certificants must log in to their myNABCEP account to recertify online and pay the recertification fee at nabcep.certemy.com. Certificant’s email address and password are required to log in. If a Certificant forgot their information, a “forgot password” option on the login screen is available. If you continue to have trouble accessing your account, please contact Certemy at support@certemy.com. You may also call 866-907-4088 to leave a voicemail with your question.

The Recertification Application is composed of four sections: code of ethics, renewal fee, continuing education, and industry involvement letter. Applicants must complete the Code of ethics and renewal fee sections in order to upload any recertification documentation. Both the continuing education and industry involvement sections can be submitted independently of each other for review. The myNABCEP platform will submit each section once the requirements have been met.

Only applications that have been submitted via the myNABCEP platform will be reviewed by NABCEP staff.

20.1.6 Notification of Recertification Acceptance

Applicants will receive a confirmation e-mail regarding the status of their Recertification within thirty (30) days after submitting a Recertification application. If the Recertification application is approved, the Certificant will receive a new digital Certificate with a new expiration date in their myNABCEP account.

If a recertification application is rejected, Applicants will receive an email informing them their application has been rejected. Applicants must log in to their myNABCEP account to correct any issues. The section(s) of the application that need to be corrected will be marked with a red “rejected by” verifier [box? - inconsistent within original paragraph]. NABCEP will provide the Applicant with notes and specific details in a pop up window in each marked section, regarding corrections or additional information needed to complete the application. Click on that section of the application to view the information. Applicants will be required to fix all sections that have been marked with a red “rejected by” verifier [box?] before resubmitting the application.

If the application for Recertification is denied, the Certificant will receive an e-mail stating why the application was not accepted. Certificants will have thirty (30) days to supply additional information if it was requested, or to appeal the denial in writing to the President & CEO of NABCEP. (See nabcep.org)

20.2 PV Installation Professional Recertification Requirements

Please see Section 3.7 for PVIP recertification.

20.3 PV Design Specialist Recertification Requirements

Please see Section 4.7 for PVDS recertification.

20.4 PV Installer Specialist Recertification Requirements

Please see Section 5.9 for PVIS recertification.

20.5 PV Commissioning & Maintenance Specialist Recertification Requirements

Please see Section 6.10 for PVCMS recertification.

20.6 PV Technical Sales Professional Recertification Requirements

Please see Section 7.8 for PVTS recertification.

20.7 PV System Inspector Recertification Requirements

Please see Section 8.3 for PVSI recertification.

20.8 Solar Heating System Inspector Recertification Requirements

Please see Section 9.3 for SHSI recertification.

20.9 Solar Heating Installer Recertification Requirements

Please see Section 10.7 for SHI recertification.

20.10 Verification of Information by NABCEP

NABCEP reserves the right to contact system owners/operators, permitting authorities, and responsible contractors to verify work. Certificants are required to attach documentation of permits and inspections to the Recertification Application.

20.11 Qualifying Activities for Contact Hours through Participation in Classes, Training Seminars and Related Offerings

Unless otherwise permitted by this policy, in order to be accepted and approved by NABCEP, continuing education activities must be relevant and technology specific to the certification being recertified. Participation in the following educational activities will qualify for continuing education for recertification:

20.11.1 Registered NABCEP Continuing Education Courses

Credit may be earned by successfully completing coursework that is registered for Continuing Education Credit with NABCEP. Providers of these courses adhere to content standards established by NABCEP and are authorized to issue credit certificates to individuals who complete registered courses. A listing of NABCEP registered courses is posted on the NABCEP website at <https://coursecatalog.nabcep.org/>

- Documentation Required: Certificants must provide a certificate of completion document or letter verifying attendance, and a program description. Certificants may also have their instructor complete a NABCEP CE Credit Form.

20.11.2 College or University Courses

Credit may be earned by successfully completing academic coursework at an accredited university or college during the current recertification cycle. Courses may be “audited for credit” if completed and a passing grade is received.

- Documentation Required: Certificants must provide a certificate of completion document or letter verifying attendance, and a program description. Certificants may also have their instructor complete a NABCEP CE Credit Form.
- A Certificant taking a College or University course may receive 15 contact hours of Continuing Education for each credit earned. (i.e. 1 Credit = 15 hours, 2 Credits = 30 hours, etc.)

20.11.3 Registered Apprenticeship Training

Credit may be earned by successfully completing coursework in a U.S. Department of Labor Approved Apprenticeship Program.

- Documentation Required: Certificants must provide a certificate of completion or letter verifying attendance, and a program description.

20.11.4 State or Provincial Contractor Licensing Board Approved Training

Credit may be earned by successfully completing coursework delivered by a state or provincial Contractor Licensing Board approved training.

- Documentation Required: Certificants must provide a certificate of completion or letter verifying attendance, and a program description. Certificants may also have their instructor complete a NABCEP CE Credit Form.

20.11.5 Interstate Renewable Energy Council (IREC) Institute for Sustainable Power Quality (ISPQ), or similar accrediting body, Accredited/Certified Training

Credit may be earned by successfully completing coursework through a(n):

- IREC ISPQ Accredited Training Program;
- IREC ISPQ Accredited Continuing Education Provider advanced level (not entry level) course;
- Course taught by an IREC ISPQ Certified Instructor or Certified Master Trainer.
- Documentation Required: Certificants must provide a certificate of completion or letter verifying attendance and a program description. Certificants may also have their instructor complete a NABCEP CE Credit Form.

20.11.6 Seminars, Workshops, and Professional Conference Presentations

Credit may be earned for attending seminars, workshops, or other presentations offered by as part of a professional level conference.

- Documentation Required: Certificants must provide a certificate of completion or letter signed by the presenter verifying attendance, and a program description. Certificants may also have their instructor complete a NABCEP CE Credit Form.

20.12 Qualifying Activities for Contact Hours through Instructing, Teaching, Authoring, Publishing or Presenting

In addition to attendance at qualified educational and training events, NABCEP grants limited continuing education contact hours to Certificants who: instruct and teach qualifying courses; author qualifying articles or publications; and/or, present qualifying lectures, seminars or workshops. In order to qualify for continuing education contact hours, such activities should include research or study which enhances and promotes quality professional knowledge or practice related to the appropriate Job Task Analysis, or course content subjects listed below. The total maximum number of combined continuing education credits permitted for teaching, publishing, and presenting is twelve (12) within a recertification period.

20.12.1 Criteria and Allowance for Teaching Credits

Qualified continuing education instructional and teaching activities must satisfy the following requirements:

- The course must be offered through an organization that meets the educational requirements for initial certification;
- The content of the course must align with the Continuing Education requirements specific to recertification;
- The Certificant must be a primary instructor for the course;
- The Certificant must be qualified to teach the course by experience, education, and/or training; and
- The Certificant must provide appropriate materials consistent with these requirements.

In order to receive teaching credits, Certificants will need a signed letter on letterhead from the institution or company the Certificant taught for and an outline for the qualified course. The letter must include the name of the course, how long the course was for and when the Certificant taught it. Continuing education contact hours for teaching activities will be determined based on the number of actual instructional contact hours, and cannot exceed twelve (12) contact hours per three (3) year recertification period. Continuing education contact hours may be claimed only once within a recertification period for each specific course offering.

20.12.2 Criteria and Allowance for Publications Credits

Qualified continuing education activities related to the authorship of articles, book chapters, or other publication must satisfy the following requirements:

- The content of the publication must address, and align with, the Continuing Education requirements specific to recertification;
- The publication must appear in a peer-reviewed journal, a book, or other similar format related directly to the photovoltaic or renewable energy fields;
- The Certificant must be qualified to author the publication by experience, education, and/or training;
- The Certificant must be a primary author of the publication; and
- The Certificant must provide a complete copy or link to the publication, including an identification of the authors.

Continuing education contact hours for authoring a publication will be limited to two (2) contact hours per publication and cannot exceed twelve (12) contact hours within a three (3) year recertification period, pending NABCEP review of the publication.

20.12.3 Criteria and Allowance for Credits Related to Preparing and Presenting Technical Information at Conferences, Lectures, Seminars or Workshops

Qualified continuing education activities related to a conference, lecture or seminar presentation (presentation) must satisfy the following requirements:

The content of the presentation must align with the Continuing Education requirements specific to recertification;

- The Certificant must be a primary presenter/co-presenter of the presentation;
- The presentation must provide attendees with the opportunity to interact with the presenter;
- The Certificant must be qualified to make the presentation by experience, education, and/ or training;
- The Certificant must provide an appropriate professional resume and presentation description consistent with these requirements; and,
- The Certificant must provide a document from the organizational sponsor verifying the presentation activity and explaining the time and content of the presentation.

Continuing education contact hours for presentation activities will be determined based on the number of actual presentation hours and the number of hours that a Certificant would receive for attending the presentation. The presenter will receive the same number of continuing education contact hours as a Certificant who attends the presentation would receive. Continuing education contact hours for presentation activities will be determined based on the number of actual presentation contact hours and cannot exceed twelve (12) contact hours per three (3) year recertification period.

20.13 Ethical Practice Requirement

As a part of the recertification process, Certificants will be required to attest they have maintained and will continue to maintain practices in conformity with the NABCEP Code of Ethics. Violation of the Code of Ethics may be grounds for disciplinary action.

Certificants for recertification must be in good standing with NABCEP. Certificants against whom complaints are brought will be notified and will have the opportunity to refute the complaints filed against them. If a review process finds the Certificant in violation of the Code of Ethics or if they are consistently performing work that does not reflect the skills and experience required for certification, certification status may be revoked and the Certificant may be denied the opportunity to recertify.

20.14 General Recertification Guidelines

20.14.1 Granting Credit

All recertification activities submitted for credit are subject to review and approval by NABCEP. Credit for each qualifying activity will be granted on a one-time only basis. In all cases, credit is granted only after the educational or professional activity has been completed and documented. Credit is not granted for time spent at social functions or for breaks.

20.14.2 Credit Denial

NABCEP reserves the sole and exclusive right to evaluate all activities and programs on an individual basis, and, at its discretion, to deny credits for those activities that fail to meet the terms of this policy and other NABCEP requirements. In its evaluation, NABCEP will consider the number of credits indicated for a program by other providers. However, NABCEP reserves the sole and exclusive right to make all final determinations concerning the number of credits granted for each activity. The Certificant will be notified when credits are reduced or denied, including a statement indicating the basis for such action.

20.14.3 Maintenance of Personal Recertification Records

As explained in this policy, each category of qualifying recertification activities indicates the information and materials that must be collected and maintained in order to receive credit. NABCEP does not track Certificant's Continuing Education credits. Certificants may log in to their myNABCEP account at any time to upload documents as they are received to their Digital Wallet. Documents may only be submitted to NABCEP during the third year of their current recertification period.

20.14.4 Application for Certification Renewal Notices

Certificants are sent recertification notices by email to the email address listed in their myNABCEP account on nabcep.certemy.com at one (1) year, six (6) months, three (3) months, one (1) month and the day before their certification expires. All recertification applications are available in Certificant's accounts and must be completed and submitted online.

20.15 Failure to Satisfy Recertification Requirements

Certificants who fail to satisfy the recertification requirements prior to the conclusion of the current certification cycle will become inactive and will be removed from the NABCEP professional directory. Once a Certificant has expired they are not certified by NABCEP nor can they claim to be certified.

20.15.1 Expiration Period

Former certificants who wish to reinstate their certification may recertify within one (1) year of their certification expiration date without taking the appropriate NABCEP exam. After the 1-year expiration period, expired certificants must reapply and meet all current certification requirements, including passing the appropriate NABCEP exam.

20.15.2 Prohibited Use of Credential

A Certificant who is expired or whose certification has been suspended or revoked may not represent himself or herself as an active Certificant or as certified by NABCEP and may not use the NABCEP Certification Mark until such time as they receive notice from NABCEP that the relevant recertification requirements have been satisfied or their active certification status has been reinstated, consistent with the terms of this policy.



21. Confidentiality

21.1 Confidentiality of Application Materials

An Applicant's materials for certification and recertification shall remain confidential, unless authorized by other NABCEP policies or practices or unless otherwise stipulated in writing by the Applicant. In the event that NABCEP is required by law to release confidential information of its Applicants, Candidates or Credential Holders, we will notify the person concerned, unless prohibited by law, as to what information is being provided. Only members of the Application Review Committee, staff, and designated individuals acting on behalf of the Board shall have access to these documents. NABCEP will take all reasonable precautions to ensure that Applicant's application information will not be released to third parties. Upon certification, professional contact information will be considered public information and may be made available to the public upon request.

21.1 Confidentiality of Scores

Individual Candidate scores shall remain confidential (see Section 17.6), unless a Candidate agrees in writing to release their score to specific authorities, such as a state board of licensure.

21.2 Certificant Registry

NABCEP will maintain a Certificant Registry as a free benefit for Certificants and the public. The Certificant Registry will contain the name and professional contact information of Certificants. This database will be made available in a secure, online format, free of charge.

Certificants can update their contact and company information by logging into their account on nabcep.certemy.com and changing information in their profile. Once the information is saved, it will update to the Certified Locator on NABCEP's website within 3 to 5 business days.

22. Grievances & Appeals

22.1 Grounds for Appeal

NABCEP is directed, administered, and supervised by the NABCEP Board of Directors. All challenges regarding actions of and by NABCEP are governed by the comprehensive and exclusive rules contained in the Certification Appeal Procedures (see NABCEP Ethics). This appeal process is the only way to resolve all NABCEP application, eligibility, examination, and other certification or recertification challenges, complaints, and/or claims of irregularities.

An Applicant, Candidate, or Certificant may submit an initial appeal (request for review) of an adverse NABCEP action or decision based on any of the following grounds:

- The Candidate or Certificant was found to be ineligible to take or unable to complete the Certification Examination;
- The Candidate did not pass or successfully complete the Certification Examination; or,
- The Applicant failed to satisfy a certification requirement or recertification requirement, including those requirements related to qualifications, education, and experience, or was otherwise deemed ineligible for certification or recertification.

In order for a request for review to be considered, the written request must be received by NABCEP within thirty (30) days of the date of the adverse action.

22.2 Appeal Procedures

In order for an appeal to be considered by the Certification Appeals Committee, the appeal submission must contain the following information:

- The identity and signature of the Applicant, Candidate or Certificant submitting the appeal;
- A detailed explanation of; the reasons and basis for the appeal, as defined and limited by Section E.2 in the Appeals Procedure
- All objections, corrections, and factual information the Candidate or Certificant believes to be relevant to the appeal;
- The names, addresses, telephone numbers, and email addresses, if available, of any persons with factual information relevant to the appeal, and a clear description of the factual information available from these persons; and,
- Copies of any and all relevant documents, exhibits, or other information the Applicant, Candidate, or Certificant wants to submit in support of the appeal.

22.3 Complaint, Dispute, & Grievance Policy

The Complaint, Dispute, and Grievance Resolution Policy (available online or by contacting NABCEP) applies to any grievance matter concerning an action, policy or practice of NABCEP as a corporate body; NABCEP Candidates or Certificants; NABCEP Board of Directors and Officers; NABCEP executive management and staff; NABCEP Committee members; and NABCEP volunteers and representatives acting on behalf of NABCEP.

23. Contacting NABCEP

23.1 Obtain Information and Ask Questions

Please contact the NABCEP office at (800) 654-0021, or visit our website at www.nabcep.org for additional information.

North American Board of Certified Energy Practitioners (NABCEP)

56 Clifton Country Road, Suite 202

Clifton Park, NY, 12065

Phone: (800) 654-0021

Fax: (518) 899-1092

For General Inquiries and Continuing Education information, email info@nabcep.org.

For Certification, Recertification, and Application information, email applications@nabcep.org.

23.2 Change of Address or Name

Applicants, Candidates, and Certificants are responsible for updating all employment and contact information in the profile of their myNABCEP account at nabcep.certemy.com. When the new information is saved, it will update to the Board Certified Directory on our website within 3 to 5 business days.

In order to change a Candidate's name on their account, they are required to complete the name change workflow via their myNABCEP account with legal proof of the name change and/or a copy of their government-issued identification.

23.3 Other Policies

Other NABCEP policies, including the Ethics Case Procedure and the Complaint, Dispute and Grievance Resolution Policy, are available online at <https://www.nabcep.org> or by contacting NABCEP at the contact info listed above.

NABCEP®

Raising Standards. Promoting Confidence.

Proudly supports, and works with, the renewable energy and energy efficiency industries, professionals, and stakeholders to develop and implement quality credentialing and certification programs for practitioners.