Becoming a Certified PV Installer

A guide for learners in any state

Why this matters

Who may install a solar photovoltaic (PV) system is decided by each state, and sometimes by the city or county too. Before you plan your career, find out what your state requires. This guide shows you where to look, the kinds of credentials that exist, and how one state's process works from start to finish.

Text in [square brackets] is for your instructor to fill in for your state.

Step 1: Find out what your state requires

States handle PV installation in different ways. Common patterns are:

- an electrical license: in many states, the electrical work on a PV system must be done or supervised by a licensed electrician or electrical contractor;
- a solar or specialty contractor license, issued by the state's contractor licensing board;
- an installer certification run by the state's utility commission or energy office, often tied to incentive or net metering programs;
- local permits and inspections, which apply to almost every installation whatever the license.

For our state: [the agency that licenses or certifies PV installers, the license or certification needed, and a link to its official page].

Step 2: Know the national certifications

National certifications are voluntary, but employers and some states and incentive programs recognize them. The best known is offered by the North American Board of Certified Energy Practitioners (NABCEP), which has credentials from entry level to experienced professional:

- PV Associate: an entry-level exam that shows you know the basics of PV systems. It is often taken at the end of a training course like this one.
- PV Installation Professional and other professional or specialist certifications: for people with installation experience and further training.

Requirements, fees and exam content change. Always check the current candidate handbook on NABCEP's website before you apply.

Other bodies, such as the Electronics Technicians Association (ETA) and Underwriters Laboratories (UL), have also offered PV credentials. Your state may list which ones it accepts.

Step 3: Build the experience a credential asks for

Most professional credentials, and many state licenses, ask for proof of experience. Typical ways to show it are:

- documented installations you worked on, with dates, system sizes and your role;
- completion of a registered electrical apprenticeship;

- a college certificate or degree in the technology;
- training hours from an approved provider.

Start a record now. For each system you help install, write down the address or project name, the date, the system size, what you did, and who supervised you. Keep copies of permits and inspection sign-offs when you can.

A worked example: Illinois

As an example of a state process, here is how Illinois certified distributed generation (DG) installers when the source of this guide was written (2015). It shows the kinds of steps to expect; it is not current advice for Illinois or for any other state.

- Who certified: the Illinois Commerce Commission (ICC). A certified installer was called a "qualified person".
- Who qualified: someone with experience or training in the same technology (for example PV), and one of: at least five completed installations of that technology; a registered electrical apprenticeship; a NABCEP, UL or ETA certification in the technology; or an Associate in Applied Science degree in the technology from an approved Illinois community college.
- How to apply: read the ICC's frequently asked questions; fill in a cover letter, the application form and a verification form; attach proof of qualification, such as a list of installations, transcripts, a certification sheet or apprenticeship papers; and pay a small fee.
- Keep private data private: the application had a public version and a confidential version. Personal details such as a Social Security or tax number went only on the confidential page.
- What happened next: the commission assigned a docket number, staff reviewed the application, and it went to a routine hearing, which the applicant could attend or waive.
- Proof of certification: an order placed in the applicant's docket, found by searching the docket number. No paper certificate was mailed.
- Renewal: certification had to be renewed on a schedule set by the commission.

Check yourself

1. Which agency in our state licenses or certifies PV installers, and what does it require?
2. What is the difference between a state license and a voluntary national certification?
3. Name three kinds of evidence you could use to show installation experience.
4. Why should personal identifiers never appear on a public application?