

Guidelines Governing the Certification of Journeymen and Apprentices in the Installation of Photovoltaic Systems (Version 1.0)

The following document contains the Guidelines as adopted by the National Joint Apprenticeship and Training Committee (NJATC) and UL LLC.

Purpose:

The administration Guidelines defined in this manual are intended to provide information for an NJATC affiliated facility to offer the Photovoltaic Installation certification credential as implemented by the NJATC and UL. The following guidelines optimize the quality and the effectiveness of the Photovoltaic Installation Certification program by providing a reference guide path for facilities to train Journeymen and Apprentices, and to offer and host the exams.

Applicability:

These guidelines are intended to apply to the following NJATC affiliated facilities:

1. A Local Joint Apprenticeship or Area Apprenticeship and Training Committee.
2. IBEW Local Unions.

The following guidelines are intended for Photovoltaic Installation Certification when utilizing the UL credentialing process ONLY and should not replace or alter existing policies or procedures such as (but not limited to): Contract Language, Equal Employment Opportunity (EEOC) or The Americans with Disabilities Act (ADA), or other applicable processes and/or procedures.

Underwriters Laboratories (UL LLC)

In addition to providing testing and certification services, UL is a leader in standards development, publishing the UL standards for the US market and actively participating in developing global International Electro-technical Commission (IEC) standards. UL is also a leading organization in supporting the global efforts to harmonize the UL and IEC PV standards with industry colleagues.

UL Knowledge Services, UL's training, personnel certification and advisory services business unit, employs more than 130 professionals and supports customers around the globe. The business unit offers more than 1,500 courses in an array of delivery methods and training programs, including public workshops; private, custom and roundtable workshops; personnel certification programs and online courses.

UL LLC provides the oversight process to enable a Local Joint Apprenticeship, Area Apprenticeship and Training Committee or IBEW local union to properly implement the exam process and coincide with the requirements as specified by these guidelines.

An individual must successfully pass the Solar Photovoltaic Systems Installer Certification Exam offered by UL to obtain a certification credential.

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1.0 Solar Photovoltaic Installer Certification

1.1 The Exam: The certification credential offered by UL is to award certification to electricians that have demonstrated knowledge by successfully passing the Solar Photovoltaic Systems Installer Exam. The PV System Installer certification program is designed to offer individuals an opportunity to set themselves apart with a credential focused on the critical knowledge and skills of the occupation. Open to qualified electricians, the goal of the PV System Installer certification is to improve the safety and performance of PV systems through a qualified workforce. Journeymen and Apprentice(s) - in their final year of Apprenticeship, are eligible to sit for the exam. Final year of apprenticeship is determined by Local JATC or Area Wide JATC to determine all requirements to enter final year of apprenticeship.

1.1.1 Exam Format: 99 Questions, multiple choices.

1.1.2 Scoring: Scoring of the exam is performed by UL. The current passing score is set at 74, but the scheme committee reserves the right to change the passing score. Upon completion of the scoring process, each participant is contacted directly via mail with the results of the exam by UL. A participant who has successfully passed the exam will receive a letter detailing their success and a certification credential. A participant that has not passed the exam will receive a letter detailing the areas of the exam they were not successful passing.

1.1.2.1 Exam Question Challenges: A Test Participant may submit a challenge to a test question by providing a written description of the reasons why a question should not be allowed for scoring purposes. The written challenge to an exam question must be submitted at the time of the exam and challenges will not be accepted at a later date. A form is included in the Proctor's Test Administration Packet. The written challenge is collected by the exam proctor and submitted with the exams for consideration and scoring.

1.1.3 Scheduling: To schedule an exam and become a Host Facility, an affiliated facility must fill out and submit to the NJATC a — "UL PV Test Host Request Form". The NJATC requires a minimum of 30 days between the receipt of the UL PV Test Host Request Form and the exam date being scheduled. The exam date, location, and Host Facility contact information

will be displayed for public viewing on the NJATC website. The form can be obtained by download from the NJATC website. A form may also be obtained by calling the NJATC and requesting a form to be faxed to the sponsoring location. Contact 301-715-2320 for more information. *The Test Host Request Form is attached to the end of the Guidelines.*

1.1.4 Americans with Disabilities Act (ADA) Issues: Disability Request and Accommodation. All (ADA) disability requests are reviewed by the Host Facility prior to the test date. Any necessary special accommodations are arranged by the host facility ahead of time. If a participant arrives and requests special accommodation on the day of the test, the Host Facility **cannot** grant accommodation for the individual requesting accommodation for the test being administered on that day. All requests for accommodation must be submitted in writing for review and consideration prior to the test date. Should an individual show up on the day of the test and request accommodation, two options are available to the Host Facility. The individual can submit the request along with substantiation for the requested accommodation and, after review by the Host Facility be scheduled for a test at a later date or the individual can sit for the test without special accommodation.

Arrangements for persons with disabilities will be provided upon request, in accordance with the Americans with Disabilities Act (ADA).

Professional documentation in support of requests for accommodation must be submitted to the host facility prior to the scheduled test date. No special requests for special accommodation can be addressed on the test day.

Applications must be accompanied by documentation of the disability and an explanation of the need for the accommodation(s). A letter from an appropriate professional (e.g., physician, psychologist, occupation therapist, educational specialist) or evidence of prior diagnosis or accommodation (e.g., special education services) may be included.

Previous school records may also be submitted to document the disability. Any professional providing documentation should have knowledge of the disability, have diagnosed and/or evaluated the candidate, or have provided accommodation previously.

The letter must be on official stationery and include the following information:

- Identification of the specific disability/diagnosis.
- The approximate date when the disability was first diagnosed/identified.
- A brief history of the disability.
- Identification of the test/protocols used to confirm the diagnosis.
- A brief description of the disability.
- A description of past accommodations made for the disability.
- An explanation of the need for the testing accommodation(s).
- Signature and title of the professional.

Requests for special accommodations will be reviewed by the Host Facility. If a candidate has already been granted accommodation, and the disability remains the same for a second examination, you need not submit documentation again, however notification must be provided by the test participant to the Host Facility that accommodation is necessary must be made prior to the test date.

1.2 Exam Facilities: Recommendations for the Host Facility to review the necessary documentation and provide the appropriate accommodation as required.

1.2.1 Eligibility: Any Local or Area JATC, or IBEW Local Union may schedule and host an Exam, at their respective facility.

1.2.2 Exam Facility Requirements: Each Host Facility must have adequate seating space arranged to accommodate all participants for the exam. The Exam Proctor has the right to assign seating and/or request additional room for participants. The testing room must be an indoor facility suitable for testing, to include the following attributes:

- Quiet, well-lit, properly ventilated with a comfortable temperature and free from distractions to candidates.
- Accessible to candidates with special needs.
- A head table or podium at the front of the room.
- A registration table.
- Easy access to unlocked rest rooms stocked with sufficient supplies.
- Easy access to water fountain.
- Large signs prominently posted making candidates aware of the location of the test.
- A clock visible to all candidates, preferably at the front of the room so that candidates can see it without turning their heads.
- There should be sufficient tables and space for the number of candidates registered. The following are recommended guidelines for seating candidates according to the listed table sizes/types:
 - 6-foot tables: No more than two candidates per table.
 - 8-foot tables: No more than three candidates per table.
 - Round tables: No more than one candidate per table. These may be used, but are inefficient due to the requirement of only one candidate per table.
 - Desks: No more than one candidate per desk. Desks may be used only if their surface area is large enough to hold both the test booklet and answer sheet. They should accommodate both left-handed and right-handed candidates with equal comfort.

The tables should have smooth writing surfaces and adequate space to accommodate examination booklets and answer sheets without crowding.

There must be an adequate supply of extra #2 sharpened pencils for candidates to use on test day.

The chairs should be comfortable, with the chair height being appropriate in relation to the tables used. Chairs with backs are preferable to stools or benches without backs.

Rest rooms should be located near examination rooms and should be easy to find. Post directional signs if necessary.

Room acoustics must be good. If the room is large, make sure that a microphone is available and that it works well. Candidates in the back of the room must be able to hear all verbal instructions clearly.

There must be adequate space for the proctor(s) to observe candidates easily.

1.2.3 NJATC and/or UL Auditing: The NJATC and/or UL reserve the right to visit and inspect any Host Facility before, during and after the examination date and time. The NJATC also will perform and maintain a random auditing procedure to visit and review selected host facilities before, during, and after the exams.

1.3 Participant Eligibility: A candidate must provide government issued identification (such as a driver's license) on the day of the exam as proof of identification before becoming eligible to sit for the exam.

1.3.1 Training: An applicant must provide proof of attending and completing the NJATC course —Photovoltaic Systems. Successful completion of the course must be determined by the Host Facility. Successful completion of the NJATC course, which provides instructional material on specified learning objectives, is the only training method that will qualify an individual to take the Exam.

1.3.2 Work Experience: A Journeyman will also qualify to sit for the Exam if they have achieved and remain in good standing with their respective local union. Journeyman classification establishes knowledge of electrical systems of which the Photovoltaic Systems Installer Exam is originated. It is encouraged for local JATC programs to monitor the success rate for Journeyman and Apprentices taking the exam to determine if additional individual training is needed before sitting for the exam.

1.3.3 Other Methods: The Host Facility has the right to accept applications to sit for the exam from applicants not within the IBEW organizational structure. The Host Facility must determine the acceptance or rejection of non IBEW test applicants based upon procedures developed and implemented by the Host Facility. The Host Facility must determine and establish what procedures are acceptable for this review process and implement those procedures in a uniform manner to all exam applicants.

1.3.4 Multiple Test Offerings: A Journeyman or Apprentice may take the Exam more than once. There is no waiting period between exams attempted.

1.4 Exam Proctor: The exam proctor will be provided by UL. A Proctor is scheduled when the UL Solar Photovoltaic Systems Installer Test Host Request Form is submitted to the NJATC.

1.4.1 Exam Proctor Responsibilities: The Exam Proctor will oversee the exam process and return the exams to UL for scoring. The proctor will use contact name and address submitted on the UL Solar Photovoltaic Systems Installer Test Host Request Form as reference for examination requirements.

Included in the Exam Proctor's packet are specific instructions about administering the test. The instructions include specific directions that are provided as a script that is to be read out loud to the test participants. This script method ensures that all test participants are receiving the exact same instructions.

1.5 Exam Fees: This section is to outline the cost of hosting the exam and cost for individuals who wish to take the exam.

1.5.1 Exam Proctor Fees: There is a zero assessment (\$0.0) to the local JATC for Proctor services.

1.5.2 Individual Fees: Individuals may or may not be charged an additional fee to 1.5.2.1 and 1.5.2.2 listed below as per Host Facility determination.

1.5.2.1 Journeyman Fee: UL will issue an invoice to the Host Facility for each Journeyman sitting for the exam as outlined below:

1-10 Journeymen = \$300.00 per exam.

11-30 Journeymen = \$240 per exam.

31-50 Journeymen = \$ 210.00 per exam

>50 Journeymen = \$180.00 per exam

1.5.2.2 Apprentice Fee: UL will issue an invoice for each Apprentice sitting for the exam an amount of \$150.00. Apprentices receiving passing scores will obtain a Solar Photovoltaic Systems Installer in Training (PVIT) certification. Apprentices upon completing Apprenticeship and obtaining Journeyman Classification will receive the full 3-year certification Photovoltaic Systems Installer Certification at no additional charge.

1.6 Records Database: This section outlines the records requirements for Host Facilities.

1.6.1 Local Requirements: Host Facilities are required to maintain all records which are submitted to the Host Facility by individual test participants. Records submitted may consist of an applicant's Journeyman classification and/or training experience(s) to qualify an individual to sit for the exam. A Copy of Journeyman and Apprentice application(s) must also be retained by the Host Facility for current certification period.

1.6.2 NJATC Requirements: The NJATC will maintain a database showing the certification credential of all individuals who have successfully completed the Exam. A public viewable database will be maintained by the NJATC via the NJATC website at <http://www.njatc.org>. The NJATC website will be used to list individuals who have successfully completed the Exam.

1.7 Exam Revisions: Exam revisions are created and submitted for the exam process by the NJATC and the UL. UL maintains a record of the current exam issued. The NJATC is responsible to update and adapt the training requirements to present the necessary learning objectives tested by the Exam.

1.8 Certification Renewal: This section is to outline the renewal process for Host Facilities that wish to maintain Host Facility recognition as well as for individuals that wish to maintain a current certification.

1.8.1 Facility Renewal: Facilities are not required to submit for renewal to offer the exam. Facilities are eligible to host the exam through submission of the UL Solar Photovoltaic Systems Installer Test Host Request Form.

1.8.2 Individual Renewal: An individual's period of certification is displayed on their respective credentials. It is the individual's responsibility to keep his or her certification current.

1.9 Remediation: This section identifies training responsibilities of Host facilities and for individuals.

1.9.1 Facility Requirements: Host Facilities are encouraged to review the reports supplied by the UL that detail the performance of exam participants. Reports can be reviewed to determine concentrated areas of subject matter needed for individuals to successfully pass the Certification Exam. Training courses should be scheduled periodically by the Host Facility to provide a path for an applicant to have received instruction based upon the learning objectives tested for in the Exam.

1.9.2 Individual Requirements: Individuals are encouraged to participate in training courses offered by or through the Host Facility. For Exam participants that were not successful, it is encouraged for additional training to be attended before attempting the Certification Exam.

UL
Solar Photovoltaic Systems Installer
Test Host Request Form

Complete and FAX to 888-568-7575
Version 1.0

Organization Requesting to Host Examination Information:

Organization Name: _____

Organization Address: _____

City, State, Zip: _____

Phone Number: _____

Fax Number: _____

Email: _____

Contact Person Name: _____

Program Number: _____

Exam Information:

Test Date Requested: _____

Test Time Requested: _____

Number of Test Participants: _____

UL KNOWLEDGE SERVICES WILL BE CONTACTING YOU REGARDING YOUR REQUEST TO HOST A SOLAR PHOTOVOLTAICS SYSTEMS INSTALLER EXAMINATION SESSION AS SPECIFIED ABOVE. EXAMINATIONS ARE NOT SCHEDULED UNTIL SUCH A TIME AS YOUR ORGANIZATION HAS BEEN CONTACTED BY UL TO CONFIRM TEST TIME AND DATE.