

**First Regular Session
Seventy-fifth General Assembly
STATE OF COLORADO**

PREAMENDED

*This Unofficial Version Includes Committee
Amendments Not Yet Adopted on Second Reading*

LLS NO. 25-0383.01 Josh Schultz x5486

SENATE BILL 25-165

SENATE SPONSORSHIP

Pelton B. and Daugherty,

HOUSE SPONSORSHIP

(None),

Senate Committees

Business, Labor, & Technology
Appropriations

House Committees

A BILL FOR AN ACT

101 **CONCERNING ELECTRICAL WORK REGULATED IN THE STATE.**

Bill Summary

(Note: This summary applies to this bill as introduced and does not reflect any amendments that may be subsequently adopted. If this bill passes third reading in the house of introduction, a bill summary that applies to the reengrossed version of this bill will be available at <http://leg.colorado.gov>.)

Section 1 of the bill amends a definition and adds new definitions under the electricians' practice act.

Current law requires an applicant for a journeyman electrician's license or a residential wireman's license to provide evidence of having certain minimum years of apprenticeship experience, accredited training, or practical experience. For the purpose of these requirements, **section 2** allows an applicant for a journeyman electrician's license to have a minimum of 8,000 hours, as an alternative to 4 years, of certain

Shading denotes HOUSE amendment. Double underlining denotes SENATE amendment.
Capital letters or bold & italic numbers indicate new material to be added to existing law.
Dashes through the words or numbers indicate deletions from existing law.

apprenticeship or practical experience and an applicant for a residential wireman's license to have a minimum of 4,000 hours, as an alternative to 2 years, of certain practical experience.

Current law allows an applicant for a journeyman electrician's license or a residential wireman's license to substitute for required practical experience evidence of academic training or practical experience in the electrical field. **Section 2** also allows an applicant to also substitute evidence of training in photovoltaic systems installation. However, **section 2** also states that the state electrical board (board) may, but is no longer required to, provide work experience credit for academic training, military training, photovoltaic systems installation training, or substantially similar training.

Current law requires that, for all applicants seeking work experience credit toward licensure, the board give credit for electrical work that is not required to be performed by or under the supervision of a licensed electrician if the applicant can show that the experience or supervision is adequate. **Section 3** allows the board to give the credit, but it is not required to do so.

Section 4 requires that, for an apprentice who holds a residential wireman's license, an electrical contractor, an apprenticeship program, or a state apprenticeship agency that employs the apprentice must report qualifying years or hours of work experience only for commercial, industrial, or substantially similar work. **Section 4** also allows an individual who possesses an active residential wireman's or master electrician's license to not take the journeyman electrician license examination.

Section 5 requires the department of regulatory agencies to:

- Uphold the rules and regulations of the current edition of the national electrical code, including applying the code to certain equipment;
- Cooperate with utilities to maintain safe clearances and safe working distances for the utilities based on the current edition of the national electrical code; and
- Allow each utility to install its proper metering equipment with the assistance of qualified electrical personnel.

Current law requires that the contract for any public works project that does not receive federal money in an amount of \$1,000,000 or more require the general contractor or other entity to submit documentation to the agency that certifies that all firms identified:

- Participate in an apprenticeship program registered with the United States department of labor's office of apprenticeship or a state apprenticeship agency recognized by the United States department of labor (registered apprenticeship program); and
- Have a proven record of graduating apprentices.

Current law allows for photovoltaic installations with a direct current design capacity of less than 300 kilowatts, the performance of all photovoltaic electrical work, the installation of photovoltaic modules, and the installation of photovoltaic module mounting equipment (applicable work) to be subject to on-site supervision by a certified photovoltaic energy practitioner designated by the NABCEP. **Section 6** requires that the photovoltaic energy practitioner is also working for a contractor that is not a registered electrical contractor; is registered with the department of regulatory agencies as a photovoltaic installer no later than December 31, 2025; is a business in good standing with the state; and employs a NABCEP PV installation professional.

Section 6 also removes language:

- Stating that neither the public utilities commission nor a utility is responsible for monitoring or enforcing compliance with statutory requirements concerning solar photovoltaic installations (installations); and
- Requiring a qualifying retail utility to obtain and retain all documentation submitted in connection with an installation.

Section 6 also defines "photovoltaic electrical work" as electrical work performed on a photovoltaic system that is covered electrical work in accordance with the national electrical code.

Section 7 addresses photovoltaic electrical work for installations of at least 300 kilowatts, requiring that the work must:

- Comply with electrical permitting requirements and be performed by an electrical contractor;
- Include a contemporaneous review of the work; and
- Be subject to compliance checks by state electrical inspectors or individuals appointed by the director of the division of professions and occupations in the department of regulatory agencies.

1 *Be it enacted by the General Assembly of the State of Colorado:*

2 **SECTION 1.** In Colorado Revised Statutes, 12-115-103, **amend**
3 **(2.5) and (3); and add (7.5), (7.7), (9.3), and (9.5) as follows:**

4 **12-115-103. Definitions.** As used in this article 115, unless the
5 **context otherwise requires:**

6 **(2.5) "Direct supervision" means that the supervising licensed**
7 **master electrician, journeyman electrician, or residential wireman, OR**
8 **PHOTOVOLTAIC INSTALLER is physically present at the same physical**

1 address where the apprentice is working.

2 (3) "Electric light, heat, and power" means the standard types of
3 electricity that are supplied by an electric utility, regardless of whether the
4 source is an electric utility or the inverter output circuit of a photovoltaic
5 system, direct-current lighting system, or a similar circuit from another
6 type of renewable energy system or electric vehicle charging
7 infrastructure, and used and consumed in a real estate improvement or
8 real estate fixture REGULATED IN ACCORDANCE WITH THE NATIONAL
9 ELECTRICAL CODE, EXCLUDING CHAPTER 8, "COMMUNICATIONS SYSTEMS".

10 (7.5) "NABCEP" MEANS THE NORTH AMERICAN BOARD OF
11 CERTIFIED ENERGY PRACTITIONERS.

12 (7.7) "NABCEP PV INSTALLATION PROFESSIONAL" MEANS AN
13 INDIVIDUAL WHO IS CERTIFIED BY THE NABCEP TO INSTALL
14 PHOTOVOLTAIC SYSTEMS.

15 (9.3) "PHOTOVOLTAIC INSTALLER" HAS THE MEANING SET FORTH
16 IN SECTION 40-2-128 (2)(a.5).

17 (9.5) "PV INSTALLATION TRAINING" MEANS TRAINING CONCERNING
18 PHOTOVOLTAIC SYSTEMS INSTALLATION PRACTICES DESCRIBED IN THE "PV
19 INSTALLATION PROFESSIONAL JOB TASK ANALYSIS" DOCUMENT
20 PUBLISHED BY THE NABCEP.

21 **SECTION 2.** In Colorado Revised Statutes, 12-115-110, **amend**
22 **(2)(a)(I), (2)(a)(II), (2)(b) introductory portion, (2)(b)(II), (3)(a), (3)(b)**
23 **introductory portion, and (3)(b)(II); and add (6) and (7) as follows:**

24 **12-115-110. License requirements - rules - continuing**
25 **education - photovoltaic installer registration - repeal.**
26 **(2) Journeyman electrician. (a) An applicant for a journeyman**
27 **electrician's license shall furnish written evidence that the applicant has**

1 had the following:

2 (I) EIGHT THOUSAND HOURS OVER A PERIOD OF at least four years'
3 apprenticeship in the electrical trade or EIGHT THOUSAND HOURS OVER A
4 PERIOD OF AT LEAST four years' practical experience in wiring for,
5 installing, and repairing electrical apparatus and equipment for electric
6 light, heat, and power;

7 (II) Two THOUSAND HOURS OVER A PERIOD OF at least two of the
8 applicant's ~~years~~ YEARS OF THE APPLICANT'S experience required by
9 subsection (2)(a)(I) of this section has been in commercial, industrial, or
10 substantially similar work; and

11 (b) An applicant ~~shall be permitted to~~ MAY substitute for required
12 practical experience evidence of academic training or practical experience
13 in the electrical field, which ~~shall be~~ IS credited as follows:

14 (II) If the applicant has academic training, including military
15 training OR PV INSTALLATION TRAINING, that does not qualify under
16 subsection (2)(b)(I) of this section, the board ~~shall~~ MAY provide work
17 experience credit for the training or for substantially similar training
18 established by rule.

19 (3) **Residential wireman.** (a) An applicant for a residential
20 wireman's license shall furnish written evidence that the applicant has at
21 least two years of accredited training or FOUR THOUSAND HOURS OVER A
22 PERIOD OF AT LEAST two years of practical experience in wiring one-,
23 two-, three-, and four-family dwellings.

24 (b) An applicant ~~shall be permitted to~~ MAY substitute for required
25 practical experience evidence of academic training in the electrical field,
26 which ~~shall be~~ IS credited as follows:

27 (II) If the applicant has academic training, including military

training OR PV INSTALLATION TRAINING, that is not sufficient to qualify under subsection (3)(b)(I) of this section, the board ~~shall~~ MAY provide work experience credit for the training according to a uniform ratio established by rule.

(6) (a) FOR THE PURPOSES OF SUBSECTIONS (2)(a)(I) AND (3)(a) OF THIS SECTION, AN APPLICANT EARNS PRACTICAL EXPERIENCE BY WORKING:

(I) TWO THOUSAND HOURS AS A NABCEP PV INSTALLATION PROFESSIONAL WORKING FOR OR WORKING AS A PHOTOVOLTAIC INSTALLER;

(II) UP TO TWO THOUSAND HOURS OF PRACTICAL EXPERIENCE WORKING UNDER THE SUPERVISION OF A NABCEP PV INSTALLATION PROFESSIONAL WORKING FOR OR WORKING AS A PHOTOVOLTAIC INSTALLER, SO LONG AS THE SUPERVISING NABCEP PV INSTALLATION PROFESSIONAL PROVIDES PROOF OF THE APPLICANT'S EMPLOYMENT AND AN AFFIDAVIT ATTESTING THAT THE APPLICANT EARNED THE HOURS WORKING UNDER THE SUPERVISION OF A NABCEP PV INSTALLATION PROFESSIONAL; OR

(III) UP TO FOUR THOUSAND HOURS AS A NABCEP PV INSTALLATION PROFESSIONAL WORKING FOR OR WORKING AS A PHOTOVOLTAIC INSTALLER IF THE APPLICANT SUBMITS ADDITIONAL DOCUMENTATION TO THE BOARD, INCLUDING PAYROLL RECORDS, WORK ORDERS, PROJECT DESCRIPTIONS, OR OTHER RELEVANT MATERIALS THAT DOCUMENT SIGNIFICANT SOLAR INDUSTRY WORK THAT QUALIFIES AS ELECTRICAL HOURS. THE BOARD SHALL REVIEW THE DOCUMENTATION AND DETERMINE HOW MANY HOURS OF PRACTICAL EXPERIENCE THE APPLICANT EARNS BEYOND THE TWO THOUSAND HOURS PERMITTED BY SUBSECTION (6)(a)(I) OF THIS SECTION.

1 (b) FOR EVERY TWO HOURS THAT AN APPLICANT WORKS AS
2 DESCRIBED IN SUBSECTION (6)(a)(II) OR (6)(a)(III) OF THIS SECTION, THE
3 APPLICANT EARNS ONE HOUR FOR THE PURPOSES OF SUBSECTION (2)(a)(I)
4 OR (3)(a) OF THIS SECTION.

5 (7) (a) A CONTRACTOR THAT IS OPERATING AS OF SEPTEMBER 1,
6 2025, AND THAT PERFORMS WORK AS A PHOTOVOLTAIC INSTALLER
7 PURSUANT TO SECTION 40-2-128 WITH AT LEAST ONE NABCEP CERTIFIED
8 EMPLOYEE SHALL REGISTER AS A PHOTOVOLTAIC INSTALLER WITH THE
9 BOARD ON OR BEFORE DECEMBER 31, 2026; EXCEPT THAT A CONTRACTOR
10 MAY REGISTER WITH THE BOARD DURING A SIXTY-DAY GRACE PERIOD IN
11 ACCORDANCE WITH SECTION 12-20-202 (1)(e).

12 (b) A CONTRACTOR REGISTERING AS A PHOTOVOLTAIC INSTALLER
13 PURSUANT TO THIS SUBSECTION (7) SHALL DESIGNATE THE CONTRACTOR'S
14 PRIMARY OWNER AS THE DESIGNATED AGENT FOR THE PURPOSE OF
15 REGISTRATION WITH THE BOARD.

16 (c) IF THE DESIGNATED AGENT DESIGNATED PURSUANT TO
17 SUBSECTION (7)(b) OF THIS SECTION IS NO LONGER AFFILIATED WITH THE
18 CONTRACTOR:

19 (I) THE CONTRACTOR'S REGISTRATION AS A PHOTOVOLTAIC
20 INSTALLER WITH THE BOARD IS INVALID; AND

21 (II) THE CONTRACTOR'S REGISTRATION IS INELIGIBLE FOR
22 REINSTATEMENT.

23 **SECTION 3. In Colorado Revised Statutes, amend 12-115-111**
24 **as follows:**

25 **12-115-111. Credit for experience not subject to supervision**
26 **of a licensed electrician.** For all applicants seeking work experience
27 credit toward licensure, the board ~~shall~~ MAY give credit for electrical

1 work that is not required to be performed by or under the supervision of
2 a licensed electrician if the applicant can show that the particular
3 experience received or the supervision under which the work has been
4 performed is adequate.

5 **SECTION 4.** In Colorado Revised Statutes, 40-2-128, amend
6 (1)(a)(I)(A) and (2)(a)(I); and add (2)(a.5) as follows:

7 **40-2-128. Solar photovoltaic installations - supervision -**
8 **qualifications of electrical contractors - definitions.** (1) For all
9 photovoltaic installations allowed under section 40-2-124 with a direct
10 current design capacity of less than three hundred kilowatts:

11 (a)(I)(A) The performance of all photovoltaic electrical work, the
12 installation of photovoltaic modules, and the installation of photovoltaic
13 module mounting equipment is subject to on-site supervision by a
14 certified photovoltaic energy practitioner, as designated by the North
15 American Board of Certified Energy Practitioners (NABCEP) AND THAT
16 IS WORKING FOR A PHOTOVOLTAIC INSTALLER, or a licensed master
17 electrician, licensed journeyman electrician, or licensed residential
18 wireman, as THOSE TERMS ARE defined in section 12-115-103.

19 (2) As used in this section, unless the context otherwise requires:

20 (a)(I) "Photovoltaic electrical work" means wiring, grounding, or
21 repairing electrical apparatus and equipment in a photovoltaic distributed
22 generation system MEANS ELECTRICAL WORK PERFORMED ON A
23 PHOTOVOLTAIC SYSTEM THAT IS COVERED ELECTRICAL WORK IN
24 ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, INCLUDING
25 ARTICLES 90.2 (1), 90.2 (3), 100, AND 690 OF THE NATIONAL ELECTRICAL
26 CODE.

27 (a.5) "PHOTOVOLTAIC INSTALLER" MEANS A CONTRACTOR THAT:

1 (I) IS NOT A REGISTERED ELECTRICAL CONTRACTOR, AS DEFINED
2 IN SECTION 12-115-103 (4);

3 (II) IS REGISTERED WITH THE STATE ELECTRICAL BOARD AS A
4 PHOTOVOLTAIC INSTALLER PURSUANT TO SECTION 12-115-110 (7) NO
5 LATER THAN DECEMBER 31, 2026;

6 (III) IS A BUSINESS IN GOOD STANDING WITH THE STATE AND
7 REGISTERED WITH THE SECRETARY OF STATE;

8 (IV) IS PERFORMING PHOTOVOLTAIC ELECTRICAL WORK AS OF
9 SEPTEMBER 1, 2025; AND

10 (V) EMPLOYS A NABCEP PV INSTALLATION PROFESSIONAL, AS
11 DEFINED IN SECTION 12-115-103 (7.7).

12 **SECTION 5.** In Colorado Revised Statutes, 12-115-107, **amend**
13 **(2)(f); and add (2)(f.5) as follows:**

14 **12-115-107. Board powers and duties - rules - definitions.**

15 **(2)** In addition to all other powers and duties conferred or imposed upon
16 the board by this article 115, the board is authorized to:

17 (f) (I) Regulate a licensed master electrician, journeyman
18 electrician, ~~or~~ residential wireman, OR PHOTOVOLTAIC INSTALLER WHO,
19 acting within ~~his or her~~ THEIR scope of competence, supervises a solar
20 photovoltaic installation pursuant to section 40-2-128.

21 (II) ~~On and after January 1, 2020,~~ All photovoltaic electrical work
22 for installations of at least three hundred kilowatts, including the
23 interconnection of the modules, grounding of the modules, any balance
24 of system wiring, and the customer-side point of connection to the utility
25 grid, must:

26 (A) Be performed by a licensed master electrician, A licensed
27 journeyman electrician, A licensed residential wireman, or properly

1 supervised electrical apprentices; and ~~must~~

2 (B) Comply with all applicable requirements of this article 115,
3 including sections 12-115-109 and 12-115-115, and all applicable rules
4 of the board.

5 (III) ONLY AN ELECTRICAL CONTRACTOR OR A PHOTOVOLTAIC
6 INSTALLER MAY PERFORM OR OFFER TO PERFORM PHOTOVOLTAIC
7 ELECTRICAL WORK FOR INSTALLATIONS OF LESS THAN THREE HUNDRED
8 KILOWATTS.

9 (f.5) REGULATE PHOTOVOLTAIC ELECTRICAL WORK FOR
10 INSTALLATIONS OF LESS THAN THREE HUNDRED KILOWATTS PERFORMED
11 IN ACCORDANCE WITH SECTION 40-2-128;

12 **SECTION 6.** In Colorado Revised Statutes, 12-115-117, **amend**
13 **(1)(l); and add (1)(m) as follows:**

14 **12-115-117. Fees. (1) As established pursuant to section**
15 **12-20-105, fees shall be charged by the board for the following:**

16 **(l) Apprentice registration; AND**

17 **(m) PHOTOVOLTAIC INSTALLER REGISTRATION.**

18 **SECTION 7. Act subject to petition - effective date.** This act
19 takes effect at 12:01 a.m. on the day following the expiration of the
20 ninety-day period after final adjournment of the general assembly; except
21 that, if a referendum petition is filed pursuant to section 1 (3) of article V
22 of the state constitution against this act or an item, section, or part of this
23 act within such period, then the act, item, section, or part will not take
24 effect unless approved by the people at the general election to be held in
25 November 2026 and, in such case, will take effect on the date of the
26 official declaration of the vote thereon by the governor.