

First Regular Session
Seventy-fifth General Assembly
STATE OF COLORADO

INTRODUCED

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

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 (3); and **add** (7.5), (7.7), and (9.5) as follows:

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

6 (3) "Electric light, heat, and power" means the standard types of
7 electricity that are supplied by an electric utility, regardless of whether the
8 source is an electric utility or the inverter output circuit of a photovoltaic

1 ~~system, direct-current lighting system, or a similar circuit from another~~
2 ~~type of renewable energy system or electric vehicle charging~~
3 ~~infrastructure, and used and consumed in a real estate improvement or~~
4 ~~real estate fixture~~ REGULATED IN ACCORDANCE WITH THE NATIONAL
5 ELECTRICAL CODE, EXCLUDING CHAPTER 8, "COMMUNICATION SYSTEMS".

6 (7.5) "NABCEP" MEANS THE NORTH AMERICAN BOARD OF
7 CERTIFIED ENERGY PRACTITIONERS.

8 (7.7) "NABCEP PV INSTALLATION PROFESSIONAL" MEANS AN
9 INDIVIDUAL WHO IS CERTIFIED BY THE NABCEP TO INSTALL
10 PHOTOVOLTAIC SYSTEMS.

11 (9.5) "PV INSTALLATION TRAINING" MEANS TRAINING CONCERNING
12 PHOTOVOLTAIC SYSTEMS INSTALLATION PRACTICES DESCRIBED IN THE "PV
13 INSTALLATION PROFESSIONAL JOB TASK ANALYSIS" DOCUMENT
14 PUBLISHED BY THE NABCEP.

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

18 **12-115-110. License requirements - rules - continuing**
19 **education - repeal. (2) Journeyman electrician.** (a) An applicant for
20 a journeyman electrician's license shall furnish written evidence that the
21 applicant has had the following:

22 (I) At least four years' OR EIGHT THOUSAND HOURS' apprenticeship
23 in the electrical trade or four years' OR EIGHT THOUSAND HOURS' practical
24 experience in wiring for, installing, and repairing electrical apparatus and
25 equipment for electric light, heat, and power;

26 (II) At least two ~~of the applicant's years'~~ YEARS OR FOUR
27 THOUSAND HOURS OF THE APPLICANT'S experience required by subsection

1 (2)(a)(I) of this section has been in commercial, industrial, or
2 substantially similar work; and

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

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

11 (3) **Residential wireman.** (a) An applicant for a residential
12 wireman's license shall furnish written evidence that the applicant has at
13 least two years of accredited training or two years OR FOUR THOUSAND
14 HOURS of practical experience in wiring one-, two-, three-, and
15 four-family dwellings.

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

19 (II) If the applicant has academic training, including military
20 training OR PV INSTALLATION TRAINING, that is not sufficient to qualify
21 under subsection (3)(b)(I) of this section, the board ~~shall~~ MAY provide
22 work experience credit for the training according to a uniform ratio
23 established by rule.

24 (6) (a) FOR THE PURPOSES OF SUBSECTIONS (2)(a)(I) AND (3)(a) OF
25 THIS SECTION, UNTIL JULY 1, 2029, AN APPLICANT EARNS PRACTICAL
26 EXPERIENCE BY WORKING:

27 (I) TWO THOUSAND HOURS AS AN NABCEP PV INSTALLATION

1 PROFESSIONAL;

2 (II) UP TO TWO THOUSAND HOURS AS AN APPRENTICE TO AN
3 NABCEP PV INSTALLATION PROFESSIONAL, SO LONG AS THE SUPERVISING
4 NABCEP PV INSTALLATION PROFESSIONAL PROVIDES PROOF OF THE
5 APPLICANT'S EMPLOYMENT AND AN AFFIDAVIT ATTESTING THAT THE
6 APPLICANT EARNED THE HOURS AS AN APPRENTICE; OR

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

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

20 (c) THIS SUBSECTION (6) IS REPEALED, EFFECTIVE AUGUST 1, 2034.

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

23 **12-115-111. Credit for experience not subject to supervision**
24 **of a licensed electrician.** For all applicants seeking work experience
25 credit toward licensure, the board ~~shall~~ MAY give credit for electrical
26 work that is not required to be performed by or under the supervision of
27 a licensed electrician if the applicant can show that the particular

1 experience received or the supervision under which the work has been
2 performed is adequate.

3 **SECTION 4.** In Colorado Revised Statutes, 12-115-115, **amend**
4 (4)(a); and **add** (3)(d) as follows:

5 **12-115-115. Apprentices - supervision - registration -**
6 **discipline - rules.** (3) (d) FOR AN APPRENTICE WHO HOLDS AN ACTIVE
7 RESIDENTIAL WIREMAN'S LICENSE, AN ELECTRICAL CONTRACTOR, AN
8 APPRENTICESHIP PROGRAM REGISTERED WITH THE UNITED STATES
9 DEPARTMENT OF LABOR'S OFFICE OF APPRENTICESHIP, OR A STATE
10 APPRENTICESHIP AGENCY RECOGNIZED BY THE UNITED STATES
11 DEPARTMENT OF LABOR THAT EMPLOYS THE APPRENTICE IN THIS STATE
12 SHALL REPORT QUALIFYING YEARS OR HOURS OF WORK EXPERIENCE ONLY
13 FOR COMMERCIAL, INDUSTRIAL, OR SUBSTANTIALLY SIMILAR WORK, AS
14 REQUIRED BY SECTION 12-115-110 (2)(a)(II).

15 (4) On and after January 1, 2021, contingent on the availability of
16 existing resources within the department or the receipt of gifts, grants,
17 and donations pursuant to subsection (7) of this section:

18 (a) (I) An apprentice who has been registered for at least six years,
19 has completed eight thousand hours of practical training, ~~and~~ meets all
20 other journeyman electrician license requirements specified in section
21 12-115-110, AND DOES NOT POSSESS AN ACTIVE RESIDENTIAL WIREMAN'S
22 OR MASTER ELECTRICIAN'S LICENSE shall take the journeyman electrician
23 license examination at least every three years in alignment with the
24 license renewal cycle until the apprentice receives a passing score.

25 (II) If an apprentice has failed to pass the license examination in
26 two consecutive three-year periods, the apprentice may request an
27 exemption from the board from future examination requirements. The

1 board shall grant the exemption if the board determines that the
2 apprentice has legitimate educational or professional circumstances that
3 justify the exemption. The board shall ~~promulgate~~ ADOPT rules
4 concerning the process of requesting and approving license examination
5 exemptions.

6 **SECTION 5.** In Colorado Revised Statutes, **add** 12-115-125 as
7 follows:

8 **12-115-125. Duties of department relating to electrical work.**

9 (1) THE DEPARTMENT SHALL:

10 (a) UPHOLD THE RULES AND REGULATIONS OF THE CURRENT
11 EDITION OF THE NATIONAL ELECTRICAL CODE IN ITS ENTIRETY, INCLUDING
12 APPLYING THE CODE TO ALL EQUIPMENT FROM THE POINT AT WHICH
13 SERVICE TRANSFORMERS GENERATE VOLTAGE TO USABLE SYSTEMS FOR
14 CONSUMERS, INCLUDING ALL ASSOCIATED WIRING; RISERS, WHETHER
15 OVERHEAD OR UNDERGROUND; AND METERING SYSTEMS;

16 (b) COOPERATE WITH UTILITIES TO MAINTAIN SAFE CLEARANCES
17 AND SAFE WORKING DISTANCES FOR THE UTILITIES BASED ON THE
18 CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE; AND

19 (c) ALLOW EACH UTILITY TO INSTALL ITS PROPER METERING
20 EQUIPMENT WITH THE ASSISTANCE OF QUALIFIED ELECTRICAL PERSONNEL.

21 (2) ALL EQUIPMENT IS SUBJECT TO INSPECTION BY AN AUTHORITY
22 HAVING JURISDICTION TO PERFORM ELECTRICAL INSPECTIONS.

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

25 **40-2-128. Solar photovoltaic installations - supervision -**
26 **qualifications of electrical contractors - definitions.** (1) For all
27 photovoltaic installations allowed under section 40-2-124 with a direct

1 current design capacity of less than three hundred kilowatts:

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

10 (II) ~~Neither the commission nor the utility shall have~~
11 ~~responsibility for monitoring or enforcing compliance with this section.~~
12 ~~It shall be the responsibility of the applicant to obtain the information~~
13 ~~required by subparagraph (I) of this paragraph (a), and it shall be the~~
14 ~~responsibility of the qualifying retail utility to obtain from the applicant~~
15 ~~and retain, for at least one year after completion of the installation, copies~~
16 ~~of all documentation submitted by the applicant in connection with the~~
17 ~~installation.~~

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

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

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

27 (I) IS NOT A REGISTERED ELECTRICAL CONTRACTOR, AS DEFINED

1 IN SECTION 12-115-103 (4);

2 (II) IS REGISTERED WITH THE DEPARTMENT OF REGULATORY
3 AGENCIES AS A PHOTOVOLTAIC INSTALLER NO LATER THAN DECEMBER 31,
4 2025;

5 (III) IS A BUSINESS IN GOOD STANDING WITH THE STATE; AND

6 (IV) EMPLOYS A NABCEP PV INSTALLATION PROFESSIONAL, AS
7 DEFINED IN SECTION 12-115-103 (7.7).

8 **SECTION 7.** In Colorado Revised Statutes, 12-115-107, **amend**
9 (2)(f) as follows:

10 **12-115-107. Board powers and duties - rules - definitions.**

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

13 (f) (I) Regulate a licensed master electrician, journeyman
14 electrician, or residential wireman who, acting within ~~his or her~~ THEIR
15 scope of competence, supervises a solar photovoltaic installation pursuant
16 to section 40-2-128.

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

22 (A) Be performed by a licensed master electrician, licensed
23 journeyman electrician, licensed residential wireman, or properly
24 supervised electrical apprentices; ~~and must~~

25 (B) Comply with all applicable requirements of this article 115,
26 including sections 12-115-109 and 12-115-115, and all applicable rules
27 of the board;

1 (C) COMPLY WITH ELECTRICAL PERMITTING REQUIREMENTS AND
2 MUST BE PERFORMED BY AN ELECTRICAL CONTRACTOR PURSUANT TO
3 SECTION 12-115-120;

4 (D) INCLUDE A CONTEMPORANEOUS REVIEW PURSUANT TO
5 SECTION 12-115-120 (10) TO ENSURE THAT THE REQUIREMENTS OF THIS
6 ARTICLE 115 HAVE BEEN MET; AND

7 (E) BE SUBJECT TO COMPLIANCE CHECKS BY A STATE ELECTRICAL
8 INSPECTOR OR AN INDIVIDUAL APPOINTED BY THE DIRECTOR TO PERFORM
9 COMPLIANCE CHECKS PURSUANT TO SECTION 12-115-119. COMPLIANCE
10 CHECKS PERFORMED UNDER THIS SECTION MUST BE CONSISTENT WITH THE
11 NATIONAL ELECTRICAL CODE AND STATE AND LOCAL ELECTRICAL CODES.

12 (III) (A) AS USED IN THIS SECTION, "PHOTOVOLTAIC ELECTRICAL
13 WORK" MEANS ELECTRICAL WORK PERFORMED ON A PHOTOVOLTAIC
14 SYSTEM THAT IS COVERED ELECTRICAL WORK IN ACCORDANCE WITH THE
15 NATIONAL ELECTRICAL CODE, INCLUDING ARTICLES 100, 690, 90.2 (1),
16 AND 90.2 (3) OF THE NATIONAL ELECTRICAL CODE.

17 (B) "PHOTOVOLTAIC ELECTRICAL WORK" INCLUDES THE
18 PREINSTALLATION ASSEMBLY OF PHOTOVOLTAIC MODULES TO
19 PHOTOVOLTAIC MODULE MOUNTING EQUIPMENT FOR INSTALLATION ON
20 SITE.

21 (C) "PHOTOVOLTAIC ELECTRICAL WORK" DOES NOT INCLUDE SITE
22 PREPARATION, TRENCHING OR EXCAVATING, HAULING, OR OTHER WORK
23 THAT IS NOT SPECIFICALLY DESCRIBED IN SUBSECTION (2)(f)(III)(A) OR
24 (2)(f)(III)(B) OF THIS SECTION.

25 **SECTION 8. Act subject to petition - effective date.** This act
26 takes effect at 12:01 a.m. on the day following the expiration of the
27 ninety-day period after final adjournment of the general assembly; except

1 that, if a referendum petition is filed pursuant to section 1 (3) of article V
2 of the state constitution against this act or an item, section, or part of this
3 act within such period, then the act, item, section, or part will not take
4 effect unless approved by the people at the general election to be held in
5 November 2026 and, in such case, will take effect on the date of the
6 official declaration of the vote thereon by the governor.