NATIONAL FIRE PROTECTION ASSOCIATION
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M E M O R A N D U M

TO: NEC® Correlating Committee

FROM: Sarah Caldwell, *Senior Committee Administrator*

DATE: February 3, 2026

SUBJECT: NFPA 70E Second Draft Correlating Committee FINAL Ballot Results (A2026)

According to the final ballot results, all Second Correlating Revisions and the Ballot to Forward NFPA 70E through the Development Process received the necessary affirmative votes to pass ballot.

Second Correlating Revisions (SCRs):

12 **Members Eligible to Vote**
2 **Members Not Returned** (*Holub, Jackson*)

Ballot to Forward NFPA 70E through the Development Process:

12 **Members Eligible to Vote**
2 **Members Not Returned** (*Holub, Jackson*)

The attached report shows the number of affirmative, negative, and abstaining votes as well as the explanation of the vote for **each** Second Correlating Revision.

To pass ballot, **each** Second Correlating Revision requires: (1) simple majority of those eligible to vote and (2) an affirmative vote of $^{3}/_{4}$ of ballots returned. See Sections 3.3.4.3.(c) and 4.4.11.5 of the ***Regulations Governing the Development of NFPA Standards***.

Second Correlating Revision No. 14-NFPA 70E-2025 [Detail]

380.2 Exposure Levels.

Risk control measures shall be selected and implemented from the hierarchy of risk control ifany of the following thresholds are exceeded:

(1) Direct-current (dc) contact thermal hazard: 1000 watts

(2) Direct-current (dc) electric shock hazard: 100 volts and 40 milliamperes

(3) Direct-current (dc) arc flash hazard: 150 volts and 1.2 cal/cm^2

Submitter Information Verification

Committee: NEC-AAC
Submittal Date: Wed Dec 17 11:14:24 EST 2025

Committee Statement

Committee Statement: The charging statement in 380.2 is revised for clarity and correlation with the use of the term "measures" throughout Chapter 3.

Ballot Results

This item has passed ballot

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.
Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.
Costello, Paul
Hittinger, David L.
Kendall, David H.
Krueger, Kyle
Manche, Alan
McDaniel, Roger D.
Osborne, Robert D.
Porter, Christine T.

Williams, David A.

Second Correlating Revision No. 2-NFPA 70E-2025 [Section No. 110.2(B)]

(B) When Required.

Energized electrical conductors and circuit parts operating at voltages equal to or greater than 50 volts or where an electrical hazard exists shall be put into an electrically safe work condition before an employee performs work if any of the following conditions exist:

(1) The employee is within the limited approach boundary.

(2) The employee interacts with equipment where conductors or circuit parts are not exposed but an increased likelihood of injury from an exposure to an arc flash hazard exists.

Informational Note: See 120.2 through 120.6 for requirements to establish and verify an electrically safe work condition for the period of time for which the state is maintained.

Exception No. 1: Normal operation of electric equipment shall be permitted where a normal operating condition exists. A normal operating condition exists when all of the following conditions are satisfied:

(1) The equipment is properly installed.

(2) The equipment is properly maintained.

(3) The equipment is rated for the available fault current.

(4) The equipment is used in accordance with instructions included in the listing and labeling and in accordance with manufacturer's instructions.

(5) The equipment doors are closed and secured.

(6) All equipment covers are in place and secured.

(7) There is no evidence of impending failure.

Informational Note No. 1: The phrase *properly installed* means that the equipment is installed in accordance with applicable industry codes and standards and the manufacturer's recommendations. The phrase *properly maintained* means that the equipment has been maintained in accordance with the manufacturer's recommendations and applicable industry codes and standards. The phrase *evidence of impending failure* means that there is evidence such as arcing, overheating, loose or bound equipment parts, visible damage, deterioration, or water damage.

Informational Note No. 2: See NEMA GD 1-2019, *Evaluating Water-Damaged Electrical Equipment*, as an example of a document that provides further information on evaluating electrical equipment that may have been exposed to water.

Exception No. 2: An energized disconnecting means or isolating element shall be permitted to be operated to achieve an electrically safe work condition or to return equipment to service that has been placed in an electrically safe work condition. The equipment supplying the disconnecting means or isolating element shall not be required to be placed in an electrically safe work condition provided a risk assessment is performed and there is no unacceptable risk identified.

Exception No. 3: Energized work shall be permitted where the employer can demonstrate that the task to be performed is ~~infeasible~~ not possible in a de-energized state due to equipment design or operational limitations.

Informational Note: Examples of work that might be performed within the limited approach boundary of exposed energized electrical conductors or circuit parts because of infeasibility due to equipment design or operational limitations include performing diagnostics and ~~testing (e.g.,~~ testing, such as start-up or troubleshooting~~)~~ , of electric circuits that can only be performed with the circuit energized and work on circuits that form an integral part of a continuous process that would otherwise need to be completely shut down in order to permit work on one circuit or piece of equipment.

Exception No. 4: Energized work shall be permitted where the employer can demonstrate that de-energizing introduces additional hazards or increased risk.

Informational Note: Examples of additional hazards or increased risk include, but are not limited to, interruption of life-support equipment, deactivation of emergency alarm systems, and shutdown of hazardous location ventilation equipment.

Exception No. 5: Energized electrical conductors and circuit parts that operate at less than 50 volts shall not be required to be de-energized where the capacity of the source and any overcurrent protection between the energy source and the worker are considered and it is determined that there will be no increased exposure to electrical burns or to explosion due to electric arcs.

Submitter Information Verification

Committee: NEC-AAC

Submittal Date: Wed Dec 17 10:20:12 EST 2025

Committee Statement

Committee Statement: The revision correlates with the action taken on SR-50 and in this case "infeasible" is replaced with "not possible". Revises a possible unenforceable and vague term per NEC Style Manual Section 3.2.1.

Committee Comment No. 10-NFPA 70E-2025 [Section No. 110.2(B)]

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.

Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.

Costello, Paul

Hittinger, David L.

Kendall, David H.

Krueger, Kyle

Manche, Alan

McDaniel, Roger D.

Osborne, Robert D.

Porter, Christine T.

Williams, David A.

Second Correlating Revision No. 3-NFPA 70E-2025 [Section No. 120.5(B)(5)]

(5) Verification.

~~The procedure shall verify that equipment cannot be restarted. The equipment operating controls, such as push-buttons, selector switches, and electrical interlocks, shall be operated or otherwise it shall be verified that the equipment cannot be restarted.~~

(a) The procedure shall verify that equipment cannot be restarted.

(b) The equipment operating controls, such as push-buttons, selector switches, and electrical interlocks, shall be operated or otherwise ~~it shall be~~ verified that the equipment cannot be restarted.

Submitter Information Verification

Committee: NEC-AAC

Submittal Date: Wed Dec 17 10:21:49 EST 2025

Committee Statement

Committee Statement: The revision clarifies the requirement and removes redundant wording to comply with the NEC Style Manual.

SR-43-NFPA 70E-2025

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.

Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.

Costello, Paul

Hittinger, David L.

Kendall, David H.

Krueger, Kyle

Manche, Alan

McDaniel, Roger D.

Osborne, Robert D.

Porter, Christine T.

Williams, David A.

Second Correlating Revision No. 4-NFPA 70E-2025 [Section No. 120.5(B)(6)]

(6) Testing.

The procedure shall establish the following:

(1) Test instrument to be used, the required PPE, and the person who will use it to verify proper operation of the test instrument on a known voltage source before and after use

(2) Requirement to define the boundary of the electrically safe work condition

(3) Requirement to test before touching every exposed conductor or circuit parts within the defined boundary of the work area

(4) Requirement to retest for absence of voltage when circuit conditions change or when the job location has been left unattended

(5) Planning considerations that include methods of verification where there is no accessible exposed point to take voltage measurements

(6) Additional methods of testing if the testing for the absence of voltage alone does not confirm that electrical conductors and equipment are de-energized

Informational Note to (6): An example of an additional method includes testing for the absence of current in current-driven circuits.

Submitter Information Verification

Committee: NEC-AAC
Submittal Date: Wed Dec 17 10:25:44 EST 2025

Committee Statement

Committee Statement: The term “indicate” is changed to a less ambiguous term “confirm” for clarification.

Committee Comment No. 44-NFPA 70E-2025 [Section No. 120.5(B)(6)]

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.

Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.

Costello, Paul

Hittinger, David L.

Kendall, David H.
Krueger, Kyle
Manche, Alan
McDaniel, Roger D.
Osborne, Robert D.
Porter, Christine T.
Williams, David A.

Second Correlating Revision No. 5-NFPA 70E-2025 [Section No. 120.6]

120.6 Process for Establishing and Verifying an Electrically Safe Work Condition.

Establishing and verifying an electrically safe work condition shall include all of the following steps~~. The steps shall be~~ , performed in the order presented to the extent ~~feasible~~ possible :

(1) Determine all possible sources of electrical supply to the specific equipment~~. Check~~ including, but not limited to, checking applicable up-to-date drawings, diagrams, and identification tags.

(2) After properly interrupting the load current, open the disconnecting device(s) for each source.

(3) ~~Wherever possible, visually~~ Visually verify that all blades of the disconnecting devices are fully open or that drawout-type circuit breakers are withdrawn to the test or fully disconnected position.

(4) Release stored electrical energy.

(5) Block or relieve stored nonelectrical energy in devices to the extent the circuit parts cannot be unintentionally energized by such devices.

(6) Apply lockout/tagout devices in accordance with a documented and established procedure.

(7) Test for the absence of voltage as follows:

a. Use ~~an adequately rated~~ a portable test instrument that is rated for the application to test for the absence of voltage of each phase conductor or circuit part at each point of work, phase to phase and phase to ground.

b. Before and after testing, determine that the test instrument is operating ~~satisfactorily~~ correctly through verification on any known voltage source.

Informational Note No. 1: See UL 61010-1, *Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements*, for rating, overvoltage category, and design requirements for voltage measurement and test instruments intended for use on electrical systems 1000 volts and below.

Exception No. 1 to 7: ~~An adequately rated~~ A permanently mounted absence of voltage tester rated for the application shall be permitted to be used to test for the absence of voltage of the conductors or circuit parts at the work location, provided it meets all of the following requirements:

(1) It is permanently mounted and installed in accordance with the manufacturer's instructions and tests the conductors and circuit parts at the point of work.

(2) It is listed and labeled for the purpose of testing for the absence of voltage.

(3) It tests each phase conductor or circuit part both phase-to-phase and phase-to-ground.

(4) The test device is verified as operating ~~satisfactorily on~~ correctly, using any known voltage source before and after testing for the absence of voltage.

Informational Note 2: See UL 1436, *Outlet Circuit Testers and Other Similar Indicating Devices*, for additional information on rating and design requirements for permanently mounted absence of voltage testers.

Exception No. 2 to 7: On electrical systems over 1000 volts, ~~adequately rated~~ noncontact capacitive test instruments rated for the application shall be permitted to be used to test for the absence of detectable voltage at each phase conductor in lieu of using a contact test instrument for testing for absence of voltage both phase to phase and phase to ground.

Informational Note No. 3: Noncontact capacitive test instruments require a minimum voltage to operate and are therefore not suitable to test for the absence of voltage.

Informational Note No. 4: See IEC 61243-1, *Live Working — Voltage Detectors — Part 1: Capacitive type to be used for voltages exceeding 1kV a.c.*, or IEC 61243-2, *Live Working — Voltage Detectors — Part 2: Resistive type to be used for voltages of 1kV to 36 kV a.c.*, or IEC 61243-3, *Live Working — Voltage Detectors — Part 3: Two-pole low voltage type*, for additional information on rating and design requirements for voltage detectors.

Exception No. 3 to 7: If the testing for absence of voltage alone does not confirm that electrical conductors and equipment are de-energized, then additional methods of testing shall be required.

Informational Note to Exception No. 3: An example of additional methods include testing for the absence of current in current-driven circuits.

(8) Temporary protective grounding equipment shall be applied to electrical conductors and circuit parts before touching them where the following conditions exist:

a. Where there is the possibility of induced voltages or stored electrical energy exists, all circuit conductors and circuit parts shall be grounded before touching them in those conductors or circuit parts.

b. Where it could be reasonably anticipated that the conductors or circuit parts being de-energized could contact other exposed energized conductors or circuit parts, temporary protective grounding

equipment shall be applied.

(9) If required by 120.6(8), temporary protective grounding equipment shall be installed in accordance with the following:

a. *Placement.* Placement of temporary grounding equipment shall meet the following requirements:

i. Temporary protective grounding equipment shall be placed at such locations and arranged in such a manner as to prevent each employee from being exposed to an electric shock hazard ~~(i.e., hazardous differences in electrical potential)~~ .

ii. The location, sizing, and application of temporary protective grounding equipment shall be identified as part of the employer's job planning.

b. *Capacity.* Temporary protective grounding equipment shall be capable of conducting the maximum fault current that could flow at the point of grounding for the time necessary to clear the fault.

Informational Note No. 5: See ASTM F855, *Standard Specification for Temporary Protective Grounds to be Used on De-energized Electric Power Lines and Equipment*, which is an example of a standard that contains information on capacity of temporary protective grounding equipment.

c. *Impedance.* Temporary protective grounding equipment and connections shall have an impedance low enough to cause immediate operation of protective devices in case of unintentional energizing of the electric conductors or circuit parts.

Supplemental Information

File Name	Description	Approved
70E_120.6_SCR5.docx		
70E_120.6_SCR5.docx	For prod use	

Submitter Information Verification

Committee: NEC-AAC
Submittal Date: Wed Dec 17 10:34:15 EST 2025

Committee Statement

Committee Statement: "Wherever possible" is deleted in (3) as redundant to the parent text "to the extent possible."

New Exception No. 3 to 7 changed the term "indicate" to a less ambiguous term "confirm" for clarification.

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.

Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.
Costello, Paul
Hittinger, David L.
Kendall, David H.
Krueger, Kyle
Manche, Alan
McDaniel, Roger D.
Osborne, Robert D.
Porter, Christine T.
Williams, David A.

Second Correlating Revision No. 6-NFPA 70E-2025 [Section No. 130.7(C)(1)]

(1) General.

~~When an employee is working within the restricted approach boundary, the worker shall wear PPE in accordance with 130.4 . When an employee is working within the arc flash boundary, he or she shall wear protective clothing and other PPE in accordance with 130.5 . All parts of the body inside the arc flash boundary shall be protected.~~

~~Informational Note: Where the estimated incident energy exposure is greater than the arc rating of commercially available arc-rated PPE, then for the purpose of testing for the absence of voltage, the following examples of risk reduction methods could be used to reduce the likelihood of occurrence of an arcing event or the severity of exposure:~~

(0) ~~Use of noncontact capacitive test instrument(s) or a permanently installed metering device(s) in the equipment for indication, before using a contact-type test instrument to test for the absence of voltage.~~

(0) ~~If equipment design allows, observe visible gaps between the equipment conductors and circuit parts and the electrical source(s) of supply.~~

(0) ~~Increase the working distance.~~

(0) ~~Consider system design options to reduce the incident energy level.~~

(a) When an employee is working within the restricted approach boundary, the worker shall wear PPE in accordance with 130.4.

(b) When an employee is working within the arc flash boundary, ~~he or she~~ the worker shall wear protective clothing and other PPE in accordance with 130.5.

(c) All parts of the body inside the arc flash boundary shall be protected.

Informational Note: Where the estimated incident energy exposure is greater than the arc rating of commercially available arc-rated PPE, then for the purpose of testing for the absence of voltage, the following examples of risk reduction methods could be used to reduce the likelihood of occurrence of an arcing event or the severity of exposure:

(1) Use of noncontact capacitive test instrument(s) or a permanently installed metering device(s) in the equipment for indication, before using a contact-type test instrument to test for the absence of voltage.

(2) If equipment design allows, observe visible gaps between the equipment conductors and circuit parts and the electrical source(s) of supply.

(3) Increase the working distance.

(4) Consider system design options to reduce the incident energy level.

Submitter Information Verification

Committee: NEC-AAC
Submittal Date: Wed Dec 17 10:40:38 EST 2025

Committee Statement

Committee Statement: The phrase "he or she" in subdivision (b) is changed to "the worker" to parallel language in subdivision (a).

SR-80-NFPA 70E-2025

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.

Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.

Costello, Paul

Hittinger, David L.

Kendall, David H.

Krueger, Kyle

Manche, Alan

McDaniel, Roger D.

Osborne, Robert D.

Porter, Christine T.

Williams, David A.

Second Correlating Revision No. 7-NFPA 70E-2025 [Section No. 240.4]

240.4 Cell Ventilation and Cell Flame Arresters ~~and Cell Ventilation~~ .

~~When present, battery cell ventilation openings shall be unobstructed. Cell flame arresters shall be inspected for proper installation and unobstructed ventilation and shall be replaced when necessary in accordance with the manufacturer's instructions.~~

(A) Cell Ventilation.

When present, battery cell ventilation openings shall be unobstructed.

(B) Cell Flame Arresters.

Cell flame arresters shall be inspected ~~for~~ to ensure proper installation and unobstructed ventilation and ~~shall be~~ replaced ~~when~~ as necessary in accordance with the manufacturer's instructions.

Submitter Information Verification

Committee: NEC-AAC
Submittal Date: Wed Dec 17 10:46:55 EST 2025

Committee Statement

Committee Statement: The revision clarifies the requirement and removes redundant wording to comply with the NEC Style Manual.

Committee Comment No. 97-NFPA 70E-2025 [Section No. 240.4]

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.
Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.
Costello, Paul
Hittinger, David L.
Kendall, David H.
Krueger, Kyle
Manche, Alan
McDaniel, Roger D.

Osborne, Robert D.

Porter, Christine T.

Williams, David A.

Second Correlating Revision No. 1-NFPA 70E-2025 [Article 310]

Global SR-169

Article 310 ~~Safety-Related Work Practices:~~ Direct Current (dc) Electrical Hazards ~~(Reserved)~~

310.1 Scope.

This article identifies direct current (dc) electrical hazard thresholds for the implementation of electrical safety-related requirements for the practical safeguarding of employees while working with dc. This article applies only to the systems covered in Chapter 3.

310.2 dc Electrical Hazard Thresholds.

Risk control shall be selected and applied from the hierarchy of risk control if any of the following hazard thresholds for dc systems are exceeded:

(1) For contact thermal hazards if the power is equal to or greater than 1000 W

(2) For electric shock hazards if the voltage is equal to or greater than 100 volts dc and the current is greater than 40 mA

(3) For arc flash hazards if the voltage is greater than 150 volts dc and the incident energy is greater than 1.2 cal/cm^2

Submitter Information Verification

Committee: NEC-AAC
Submittal Date: Wed Dec 17 10:12:27 EST 2025

Committee Statement

Committee Statement: The revision uses the full term with the acronym in lower case, rather than beginning the article title with the lower-case acronym which is the editorial convention when only using the acronym.

Committee Comment No. 192-NFPA 70E-2025 [Article 310]

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.

Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.

Costello, Paul

Hittinger, David L.
Kendall, David H.
Krueger, Kyle
Manche, Alan
McDaniel, Roger D.
Osborne, Robert D.
Porter, Christine T.
Williams, David A.

Second Correlating Revision No. 8-NFPA 70E-2025 [Section No. 320.3]

320.3 Stored Energy Hazard Thresholds.

~~Appropriate controls~~ Risk control measures shall be selected and applied from the hierarchy of risk control where any of the following hazard thresholds are exceeded:

(1) *Contact Thermal Hazard.* Less than 100 volts and greater than 100 joules of stored energy ~~(contact thermal hazard)~~

(2) *Electric Shock Hazard.* Greater than or equal to 100 volts and greater than 1.0 joules of stored energy ~~(electric shock hazard)~~

(3) *Electric Shock Hazard.* Greater than or equal to 400 volts and greater than 0.25 joules of stored energy ~~(electric shock hazard)~~

(4) *Arc Flash Hazard.* Greater than or equal to 1.2 cal/cm^2 incident energy at the working distance ~~(arc flash hazard)~~

(5) *Hearing Acoustic Hazard.* Greater than 100 joules of stored energy regardless of voltage ~~(hearing acoustic hazard)~~

(6) *Lung Collapse Acoustic Hazard.* Greater than 122 kJ of stored energy when the rate of change of current (dI/dt) is greater than 10^9 amperes per second ~~(lung collapse acoustic hazard)~~

Submitter Information Verification

Committee: NEC-AAC
Submittal Date: Wed Dec 17 10:48:56 EST 2025

Committee Statement

Committee Statement: The charging statement is revised for clarity and correlation where “measures” is used in 360.3(B)(2)(b) list item 1 “additional protective measures”.

Committee Comment No. 103-NFPA 70E-2025 [Section No. 320.3]

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.

Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.

Costello, Paul

Hittinger, David L.
Kendall, David H.
Krueger, Kyle
Manche, Alan
McDaniel, Roger D.
Osborne, Robert D.
Porter, Christine T.
Williams, David A.

Second Correlating Revision No. 9-NFPA 70E-2025 [Section No. 330.4]

330.4 Electrical Hazard Thresholds.

Exposure levels shall not exceed those identified in the following list unless ~~appropriate controls are~~ risk control measures from the hierarchy of risk control are selected and implemented:

(1) Alternating current (ac) (1 Hz to 3 kHz): 50 volts and 3 milliamperes (not including 50/60 Hz)

(2) Alternating current (ac) (3 kHz to 100 kHz): 1 x f mA, f in kHz

(3) Alternating current (ac) (100 kHz to 3 MHz): 100 mA

(4) Alternating current (ac) (3 MHz to 30 MHz):100 $(f/3)^{*0.3}$ mA , f in MHz

(5) Alternating current (ac) (30 MHz to 110 MHz): 200 mA

Informational Note No. 1: See IEEE Std C95.1~~-2019~~ , *IEEE Standard for Safety Levels with Respect to Human Exposure to Electrical, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz*, for information regarding hazard thresholds for workers trained in sub RF and RF contact electric shock.

Informational Note No. 2: RF electric shock thresholds depend on current and frequency, not voltage.

Submitter Information Verification

Committee: NEC-AAC
Submittal Date: Wed Dec 17 10:51:48 EST 2025

Committee Statement

Committee Statement: The charging statement is revised for clarity and correlation, where “measures” is used in 360.3(B)(2)(b) list item 1 “additional protective measures”.

Committee Comment No. 109-NFPA 70E-2025 [Section No. 330.4]

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.

Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.

Costello, Paul

Hittinger, David L.

Kendall, David H.
Krueger, Kyle
Manche, Alan
McDaniel, Roger D.
Osborne, Robert D.
Porter, Christine T.
Williams, David A.

Second Correlating Revision No. 10-NFPA 70E-2025 [Section No. 360.3(A)]

(A) ~~Electrical Hazard Thresholds~~ Exposure Levels .

Exposure levels shall not exceed the following unless ~~appropriate controls are~~ risk control measures from the hierarchy of risk control are selected and implemented:

(1) Alternating current (ac): 50 volts and 5 milliamperes

(2) Direct current (dc): 100 volts and 40 milliamperes

(3) ~~Thermal~~ Contact thermal : 1000 watts short-circuit power

Informational Note No. 1: Available short-circuit power is calculated by multiplying the battery's nominal voltage by its available short-circuit current at the battery terminals, then dividing the result by four.

Informational Note 2: See Department of Energy, *DOE Electrical Safety Handbook*, for electrical hazard thresholds.

Submitter Information Verification

Committee: NEC-AAC
Submittal Date: Wed Dec 17 10:52:52 EST 2025

Committee Statement

Committee Statement: The charging statement is revised for clarity and correlation, where "measures" is used in 360.3(B)(2)(b) list item 1 "additional protective measures".

SR-121-NFPA 70E-2025

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.

Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.

Costello, Paul

Hittinger, David L.

Kendall, David H.

Krueger, Kyle

Manche, Alan
McDaniel, Roger D.
Osborne, Robert D.
Porter, Christine T.
Williams, David A.

Second Correlating Revision No. 12-NFPA 70E-2025 [Section No. 370.2]

370.2 Exposure Levels.

Risk control measures shall be selected and applied from the hierarchy of risk control where any of the hazard thresholds identified in 310.2 are exceeded.

Informational Note: The theoretical maximum power for EDLCs is calculated as V*V/(4*R), where V is the initial voltage across the string of capacitors and R is the equivalent series resistance of the string of capacitors, including all connection resistances.

Submitter Information Verification

Committee: NEC-AAC
Submittal Date: Wed Dec 17 10:57:40 EST 2025

Committee Statement

Committee Statement: The charging statement is revised for clarity and correlation by adding “measures” for consistency of terminology in Chapter 3.

Committee Comment No. 140-NFPA 70E-2025 [Section No. 380.1]

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.
Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.
Costello, Paul
Hittinger, David L.
Kendall, David H.
Krueger, Kyle
Manche, Alan
McDaniel, Roger D.
Osborne, Robert D.
Porter, Christine T.
Williams, David A.

Second Correlating Revision No. 13-NFPA 70E-2025 [Sections 380.1, 380.2, 380.3, 380.4, 380.5, 380.6]

380.1 Scope.

This article covers electrical safety requirements for the practical safeguarding of employees while working on ~~dc~~ photovoltaic (PV) arrays that present an electrical hazard .

Informational Note: See other articles in Chapter 3 for hazards associated with the other components of PV systems, such as combiner boxes and inverters.

Detail SCR-14

380.2 ~~Energy Hazard Thresholds~~ Exposure Levels.

~~Appropriate controls shall be applied where~~ Risk control measures shall be selected and implemented from the hierarchy of risk control if any of the following thresholds are exceeded:

(1) Direct-current (dc) contact thermal hazard: 1000 watts

(2) Direct-current (dc) electric shock hazard: 100 volts and 40 milliamperes

(3) Direct-current (dc) arc flash hazard: 150 volts and 1.2 cal/cm^2

380.3 Electrical Safety Training.

(A) Application of Training Requirements.

The training requirements shall apply to employees exposed to electrical hazards associated with work on or near PV arrays, including the interconnected photovoltaic equipment, and collection systems.

(B) Qualified Person Training.

Employees who install, operate, maintain, or repair PV installations and equipment shall be trained to do the following:

(1) Understand the operating characteristics of the PV modules and equipment with which they will work.

(2) Recognize the continuously energized nature of PV panels.

(3) Perform a risk assessment for energized electrical work.

(4) Develop and follow procedures that minimize exposure.

(5) Use control measures, including PPE, to prevent injury.

380.4 Qualified Person.

Only qualified persons shall work on PV installations and equipment.

380.5 PV Risk Assessment.

Prior to any work on an energized PV array, a risk assessment shall be performed to identify the contact thermal, ~~electrical~~ electric shock, and arc flash hazards and assess the risks associated with the type of tasks to be performed.

380.6 Specific Work Procedures.

(A) ~~Hazard Thresholds~~ Job Safety Plan .

~~No~~ If work ~~shall be~~ is performed on an exposed PV ~~terminals~~ terminal greater than the contact thermal, electric shock, or arc flash thresholds, a risk assessment shall be documented in the written job safety plan .

(B) Conductor Manipulation.

Before manipulating any connectors on an energized system ~~(plugging or unplugging)~~ , a risk assessment shall be performed to determine the maximum open circuit voltage that would be generated and the maximum current to be interrupted.

Informational Note: This risk assessment will determine if the action can be performed safely and what PPE would be required.

(C) Plugging and Unplugging Connectors.

~~Robust procedures~~ Procedures for plugging and unplugging connectors on an energized PV system shall be developed that ~~consider the possibility of making wrong connections and creating a short circuit and the controls necessary to prevent such a situation.~~ include the following:

(1) Prevention of connections that create a short circuit and the controls necessary to prevent such a situation~~.~~

(2) Verification of no load current prior to disconnecting

Submitter Information Verification

Committee: NEC-AAC
Submittal Date: Wed Dec 17 11:06:23 EST 2025

Committee Statement

Committee Statement: The scope statement 380.1 is revised to correlate with 360.1 and 370.1.

Committee Comment No. 144-NFPA 70E-2025 [Sections 390.1, 390.2, 390.3, 390.4]

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.
Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.
Costello, Paul
Hittinger, David L.
Kendall, David H.
Krueger, Kyle
Manche, Alan
McDaniel, Roger D.
Osborne, Robert D.
Porter, Christine T.
Williams, David A.

Second Correlating Revision No. 11-NFPA 70E-2025 [Section No. 390.7(B)]

(B) Tools, Training, and Maintenance.

~~Documentation shall be provided if special tools, unusual PPE, or other equipment is necessary for proper maintenance and operation of equipment. The ESA shall make the determination of appropriate training and qualifications required to perform specific tasks.~~

(1) Documentation.

Documentation shall be provided if special tools, unusual PPE, or other equipment is necessary for ~~proper~~ maintenance and operation of equipment.

(2) Training and Qualifications.

The ESA shall make the determination of ~~appropriate~~ training and qualifications required to perform specific tasks.

Submitter Information Verification

Committee: NEC-AAC
Submittal Date: Wed Dec 17 10:55:44 EST 2025

Committee Statement

Committee Statement: The title is revised to align with how the terms are expressed in the requirement.

SR-138-NFPA 70E-2025

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters
2 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Holub, Richard A.
Jackson, Peter D.

Affirmative All

Bowmer, Trevor N.
Costello, Paul
Hittinger, David L.
Kendall, David H.
Krueger, Kyle
Manche, Alan
McDaniel, Roger D.

Osborne, Robert D.

Porter, Christine T.

Williams, David A.

NFPA 70E Second Draft Ballot to Forward Final Results
Election:70E_A2026_NEC_AAC_SDFWD_Ballot
Results by Revision

I am in agreement with forwarding NFPA 70E through the Development Process, which includes the posting of the Second Draft Report and opening of the standard to receive NITMAMs. Note: A negative vote will signal your intent to return the whole report to the appropriate Technical Committee(s) for further study.

Eligible to Vote: 12
Not Returned : 2
Richard A. Holub, Peter D. Jackson

Vote Selection	Votes	Comments
Affirmative	10	
Affirmative with Comment	0	
Negative	0	
Abstain	0	