



# 2025 Power Line Competition

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## FACT SHEET

### **Project Manager**

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For questions relating to the power line competition contact Daron Hanson at [dhanson@cianbro.com](mailto:dhanson@cianbro.com). For all event questions contact Jarrell Jackson, National Craft Championships director, at (202) 595-1789 or [jackson@abc.org](mailto:jackson@abc.org).

### **Specific Competition Eligibility**

The power line competition requires competitors to climb and perform work on poles. They will also be utilizing tools and industry knowledge to safely complete other tasks during the competition. Competitors must be able to demonstrate that they have acquired these skills in order to safely participate in the competition. Please refer to overall eligibility requirements for all additional requirements.

### **Written Exam**

Competitors will have one (1) hour to complete the 50-question exam. Every competitor should thoroughly understand the craft in which he/she is registered. All exams/tests are based on the standardized craft training process. In addition to the knowledge and skills required for each competition, all competitors should have completed the NCCER Core Curriculum modules. All competitors must sit for the exam or face disqualification from the NCC. The written exam makes up 25% of one's overall competition score. ABC will provide pencils, scratch paper, and a calculator for mathematical problems (if necessary). Scientific/graphing calculators and loose notes are prohibited. No reference materials are permitted. *Please refer to the 2025 NCC Guidebook for more details.*

### **Practical Performance Test Description**

Each competitor will rotate through three workstations. Each competitor will have two hours to complete assigned tasks, utilizing knowledge and skills at each station. Unsafe behavior will disqualify a competitor from completing a task. Each activity will require a competitor to read and interpret drawings and specifications, build as per specs and demonstrate a basic knowledge of distribution systems and equipment.

#### **Task #1: Structure framing on hooks**

Competitors will frame out a 15-foot structure as per standard drawings, which will be issued before the start of competition.

#### **Task #2: Wiring 3-phase transformer banks**

Each competitor will wire a three-phase transformer bank and associated equipment for the configuration assigned per standard drawings. The transformers will be mounted approximately six feet from the ground, work will be done from the ground or small elevated platform.

#### **Task #3: Terminating medium voltage cable and connecting riser to aerial line**

Each competitor will terminate medium voltage cable on bottom end of riser and make up a high-side termination and land and tie into aerial line according to given specifications. The riser will be mounted on a 6-foot pole, all work will be done from the ground or small elevated platform.

## Knowledge and Skills Required

The knowledge and skills for this competition are based on the NCCER Line Curriculum Level One Power Line, Level Two and Three Distribution. Competitors should be in at least the third year of an apprenticeship program and should have experience operating and working out of buckets as well as climbing and working on hooks. Though there will be no actual exposure to live line lines, familiarity with live line techniques will be part of the assessment.

## Knowledge and skills which will be assessed include:

- Pole framing techniques
- Basic components of 15kV distribution line
- Basic knots
- Rigging techniques
- Communication
- Development of STA
- Reading and following standard drawings
- Medium-voltage underground cable terminations
- Use of shotgun stick
- Three-phase transformer wiring diagrams and wiring techniques
- Pole climbing
- Understanding of basic electrical concepts and terms
- Understanding of common tools and equipment used for distribution line work
- Riser

## Tools required to bring:

- Lineman body belts with a positioning strap
- Pole climbers

## Tools provided by the NCC:

- 10" adjustable wrenches
- High-leverage side cutters
- Insulating water pump pliers
- Wire skinning knife
- Tool bag
- Lineman's Double-Face Hammer
- Fiberglass folding rule
- 9/16" and 3/4" ratcheting box wrenches
- Square shank screwdriver

All tools will be inspected before the contest. Any tools deemed to be unsafe will be taken out of service. Additional tools required will be provided by the National Craft Championships committee.

**Competitors must bring their own personal fall protection device for pole climbing as well as a long sleeve shirt.** Fall restraint/protection equipment will be inspected prior to competition; if equipment is not in safe working order it will be removed from service and competitor will use an NCC-provided Buckingham SuperSqueeze for climbing and a standard harness. Hard hats and safety glasses will be provided and must be worn during the competition; competitors must furnish prescription safety glasses or will be required to wear over glasses.

### Sample Score Sheet

The following sample score sheet is provided to give competitors an **example** of the criteria that may be included in the practical performance test. **However, this score sheet is only a sample and not intended to act as a study guide in preparation or to imply specific criteria that will be judged during the actual practical performance test.**

## ABC National Craft Championships Power Line Sample Score Sheet

Judging Criteria	Competitor Identification Numbers				
	Maximum Points				
<b>Task One</b>					
Communication with general manager					
Rigging					
Knots					
Selection of hardware					
Climbing					
Tool use					
Arm installation					
Hardware installation					
Deconstruction					
Use of hand line					
Use of PPE					
Safety					
<b>SUBTOTAL:</b>	<b>50</b>				
<b>Task Two</b>					
Grounding					
Correct configuration					
Wire stripping					
Wire routing					
Connections					
Workmanship					
Completion %					
Safety/housekeeping					
<b>SUB TOTAL:</b>	<b>50</b>				
<b>Task Three</b>					
Cable installation					
Wire stripping					
Grounding					
Top term					
Bottom term					
Crimp connections					
Workmanship					
Safety/housekeeping					
<b>SUB TOTAL:</b>	<b>50</b>				
<b>GRAND TOTAL:</b>	<b>150</b>				

