

**Electrical and Power Transmission Installers, Other  
CIP 46.0399  
Task Grid**

**Proficiency Level  
Achieved:  
(X) Indicates  
Competency  
Achieved to Industry  
Proficiency Level**

Unit/Standard Number		
	<b>Secondary Competency Task List</b>	
<b>100</b>	<b>BASIC SAFETY</b>	
101	Inspect and use personal protective equipment	
102	Identify causes of job site accidents.	
103	RESERVED	
104	RESERVED	
105	Properly don fall protection	
106	Identify four classes of fire extinguishers	
107	Confirm circuits are de-energized before working on them.	
108	Perform lockout/tagout.	
109	Inspect and use ladders	
110	Complete jobsite hazard analysis form	
111	Identify Arc-flash hazards and protection	
<b>200</b>	<b>HAND TOOLS</b>	
201	Use screwdrivers.	
202	Use pliers.	
203	Use keyhole/drywall saw.	
204	Use hydraulic knockout/punch tool.	
205	Use a tape measure.	
206	Use wire strippers.	
207	Use wire cutters.	
208	Use utility knife.	
209	Use torpedo level.	
210	Use a hammer.	
211	Use a conduit reamer.	
212	Use a hacksaw.	
213	Use a roto-split.	
214	Use adjustable or non adjustable wrenches.	
215	Use ratchet and sockets.	
216	Use nut drivers.	
<b>300</b>	<b>POWER TOOLS</b>	
301	RESERVED	
302	Use electric hammer drill.	
303	Use reciprocating saw.	

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304	Use portable hand-held band saw.	
305	RESERVED	
306	Use a drill.	
307	RESERVED	
308	RESERVED	
309	RESERVED	
310	Use oscillating multi purpose tool.	
311	Use impact driver.	
<b>400</b>	<b>BLUEPRINT READING</b>	
401	Identify types of blueprint plans.	
402	Identify blueprint symbols.	
403	Interpret blueprint plans.	
404	RESERVED	
405	Develop electrical details on a residential blueprint.	
406	Use a measuring tool to scale.	
<b>500</b>	<b>ANCHORS AND SUPPORTS</b>	
501	Identify, select and install various types of anchors and supports.	
<b>600</b>	<b>RESIDENTIAL CABLING TECHNOLOGY</b>	
601	Install non-metallic (NM) Cable for connection to an electrical device.	
602	Install metal-clad cable (MC).	
603	RESERVED	
604	RESERVED	
605	Terminate a coaxial cable.	
606	RESERVED	
607	RESERVED	
608	RESERVED	
609	Identify telecommunications cable types.	
610	Terminate an RJ45 connector.	
611	Install SE cable.	
<b>700</b>	<b>SWITCHES AND RECEPTACLES CIRCUITS</b>	
701	Install a duplex receptacle.	
702	Install a single pole switch.	
703	Install a 3-way switch.	

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704	Install a 4-way switch.	
705	Install a split-wired duplex receptacle.	
706	Install a Ground Fault Circuit Interrupter (GFCI) Receptacle.	
707	Install an Arc-Fault Circuit Interrupter (AFCI).	
708	Install a time control switch.	
709	Install a range receptacle.	
710	Install a dryer receptacle.	
<b>800</b>	<b>FIXTURES</b>	
801	Install surface-mounted lighting fixture.	
802	Install recessed lighting fixtures.	
803	Install a ceiling fan.	
804	Install LED lighting.	
805	Identify IC and non-IC recessed lighting fixtures.	
<b>900</b>	<b>RACEWAYS</b>	
901	Install Electrical Metallic Tubing (EMT).	
902	Install Poly-Vinyl Chloride conduit (PVC).	
903	Identify surface metal and non-metal raceways (Wiremold).	
904	Identify flexible raceway.	
905	RESERVED	
906	RESERVED	
907	RESERVED	
908	Bend a stub 90°.	
909	Bend an offset.	
910	Bend a back to back 90°.	
911	Cut, ream and deburr raceway systems.	
912	Install conductors in a raceway system.	
<b>1000</b>	<b>WIRED DEVICES</b>	
1001	Install a hard wired smoke detector.	
1002	Install door-bell system.	
1003	Trim out electrical devices.	
1004	Install an occupancy sensor.	
1005	Install a photocell.	
<b>1100</b>	<b>TESTING EQUIPMENT</b>	

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1101	Use a multimeter.	
1102	Use a continuity tester.	
1103	Use a plug-in circuit tester.	
1104	Use a clamp-on ammeter.	
1105	RESERVED	
1106	Use a circuit tracer.	
1107	Use a network cable tester.	
1108	Apply Ohm's/Watt's Law calculations to electrical applications.	
<b>1200</b>	<b>ELECTRICAL SERVICE</b>	
1201	Install an overhead service.	
1202	Identify parts of an underground service.	
1203	RESERVED	
1204	RESERVED	
1205	RESERVED	
1206	RESERVED	
1207	RESERVED	
1208	RESERVED	
1209	Identify types of safety disconnect switches.	
1210	Terminate a service panel/load center.	
<b>1300</b>	<b>NATIONAL ELECTRICAL CODE</b>	
1301	Identify the purpose of the National Electrical Code (NEC).	
1302	Use Chapter 9 Tables.	
1303	Use the NEC as a reference to questions and competencies that students perform for all electrical installations.	
1304	Identify the publisher of the National Electrical Code (NEC).	
1305	Identify the code cycle of the National Electrical Code (NEC).	
1306	Identify NFPA70E (Arc Flash).	
<b>1400</b>	<b>GREEN TECHNOLOGY</b>	
1401	Identify renewable energy sources.	
1402	Identify procedures for installing a wind turbine system.	
1403	RESERVED	
1404	Identify procedures for installing a solar energy source system.	
1405	RESERVED	
1406	RESERVED	
1407	Evaluate the demand and consumption of electrical energy.	