Our Vision
Keeping the lights on in Canada by preparing and empowering a world-class workforce for the entire electricity industry.

Our Mission
Working to strengthen the ability of the Canadian electricity industry in meeting current and future needs for their workforce—one that is safety-focused, highly skilled, diverse and productive.

Our Values
We are a values-driven organization, committed to the improvement of our sector, the growth of Canada’s economy, and the stability of our power grid. Our core values are:

Collaboration
Working with all stakeholders in Canada’s electricity sector for our mutual benefit.

Trust
Forging relationships and products built on unwavering integrity.

Innovation
Leading the industry to be future-ready.
**Chart of Competency: Power Protection and Control Technician**

This Chart outlines the competencies (also known as skills and knowledge) that are performed by Power Protection and Control Technicians.

**KEY:** Tasks included in trade national occupational analyses (i.e. Industrial and Construction Electricians) that are also performed by Power Protection and Control Technicians.

<table>
<thead>
<tr>
<th>Category</th>
<th>Competency Area</th>
<th>Competency Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction and Installation</td>
<td>Monitor Installation of Electrical Equipment</td>
<td>Monitor installation of electrical equipment</td>
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<tr>
<td></td>
<td>Install Control Systems</td>
<td>Install discrete input/output (I/O) devices</td>
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<tr>
<td></td>
<td>Complete Installation Process</td>
<td>Troubleshoot installation issues</td>
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<td></td>
<td>Conduct Tests for Commissioning</td>
<td>Conduct electrical tests for commissioning</td>
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<tr>
<td></td>
<td>Commission Equipment and Systems</td>
<td>Verify equipment/system functionality</td>
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<tr>
<td></td>
<td>Prepare to Maintain Equipment and Systems</td>
<td>Organize materials and equipment for maintenance and repair</td>
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<tr>
<td></td>
<td>Conduct Tests for Maintenance</td>
<td>Conduct electrical tests for maintenance</td>
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<tr>
<td></td>
<td>Maintain Generating, Distribution and Service Equipment</td>
<td>Maintain overcurrent protection devices</td>
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<tr>
<td></td>
<td>Maintain Control Systems</td>
<td>Maintain analog input/output (I/O) devices</td>
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<tr>
<td></td>
<td>Maintain Signaling and Communication Systems</td>
<td>Maintain communication systems</td>
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<tr>
<td></td>
<td>Repair Electrical, Hydraulic and Mechanical Equipment and Systems</td>
<td>Diagnose electrical, hydraulic and mechanical equipment and system issues</td>
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<td></td>
<td>Asset Maintenance</td>
<td>Prepare to Maintain Equipment and Systems</td>
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<tr>
<td></td>
<td>Conduct Tests for Maintenance</td>
<td>Troubleshoot installation issues</td>
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<td></td>
<td>Commission Equipment and Systems</td>
<td>Install automated control systems</td>
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<tr>
<td></td>
<td>Maintain Generating, Distribution and Service Equipment</td>
<td>Install operation and identification tags</td>
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<td></td>
<td>Maintain Control Systems</td>
<td>Conduct relay protection and metering tests</td>
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<td></td>
<td>Maintain Signaling and Communication Systems</td>
<td>Document equipment/system performance</td>
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<tr>
<td></td>
<td>Repair Electrical, Hydraulic and Mechanical Equipment and Systems</td>
<td>Configure electrical, hydraulic and mechanical equipment and systems</td>
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<tr>
<td></td>
<td>Engineering</td>
<td>Conduct investigative tasks under direction of engineer</td>
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<tr>
<td></td>
<td>Provide Support for Engineers</td>
<td>Conduct investigative tasks under direction of engineer</td>
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<td></td>
<td>Maintain a Safe Working Environment</td>
<td>Follow safe work practices</td>
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<tr>
<td></td>
<td>Follow Sustainable Work Practices</td>
<td>Use fall arrest equipment</td>
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<td></td>
<td>Respond to Emergencies</td>
<td>Minimize radiation exposure</td>
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<tr>
<td></td>
<td>Security</td>
<td>Participate in incident and accident investigations</td>
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<tr>
<td></td>
<td>Follow Security Practices</td>
<td>Follow security practices for physical work environment</td>
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<td></td>
<td>Follow Organizational Policies and Procedures</td>
<td>Follow cybersecurity procedures</td>
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<td></td>
<td>Information/Record Management</td>
<td>Complete Information/Record Management Tasks</td>
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<td></td>
<td>Use Digital Technology</td>
<td>Use communication applications</td>
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<td></td>
<td>Use Organization’s ICT System</td>
<td>Use common software applications</td>
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<td></td>
<td>Leadership</td>
<td>Facilitate Change</td>
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<tr>
<td></td>
<td>Follow Organizational Policies and Procedures</td>
<td>Implement change</td>
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<tr>
<td></td>
<td>Information and Communication Technology Foundations</td>
<td>Complete Information/Record Management Tasks</td>
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<tr>
<td></td>
<td>Use Digital Technology</td>
<td>Use communication applications</td>
</tr>
<tr>
<td></td>
<td>Use Organization’s ICT System</td>
<td>Use common software applications</td>
</tr>
<tr>
<td></td>
<td>Use Digital Technology</td>
<td>Use navigation and mapping applications</td>
</tr>
<tr>
<td></td>
<td>Use Organization’s ICT System</td>
<td>Use digital mobile radios</td>
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<tr>
<td></td>
<td>Foundational Trades Skills</td>
<td>Demonstrate Professionalism</td>
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<tr>
<td></td>
<td>Perform Routine Trade Tasks</td>
<td>Use hand and power tools</td>
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<tr>
<td></td>
<td>Perform Routine Trade Tasks</td>
<td>Use electrical measuring and testing equipment</td>
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<tr>
<td></td>
<td>Perform Routine Trade Tasks</td>
<td>Operate vehicles and motorized equipment</td>
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<tr>
<td></td>
<td>Personal Competencies</td>
<td>Demonstrate Professionalism</td>
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<tr>
<td></td>
<td>Communicate Effectively</td>
<td>Use active listening skills</td>
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<tr>
<td></td>
<td>Communicate Effectively</td>
<td>Use speaking skills</td>
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<tr>
<td></td>
<td>Communicate Effectively</td>
<td>Use writing skills</td>
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<tr>
<td></td>
<td>Communicate Effectively</td>
<td>Negotiate with internal and external stakeholders</td>
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<tr>
<td></td>
<td>Communicate Effectively</td>
<td>Conduct meetings and presentations</td>
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<tr>
<td></td>
<td>Communicate Effectively</td>
<td>Exchange information with internal and external stakeholders</td>
</tr>
</tbody>
</table>

**Occupational Definition:**

Power Protection and Control Technicians install, commission, maintain, troubleshoot and repair the critical system equipment used for detecting and responding to power system faults, controlling system devices, metering schemes and telecom throughout a region or area. They may also perform design functions under the supervision of Professional Engineers. They are employed by electric power utilities and private electrical contractors. Their range of duties and responsibilities is dependent upon the type of operation for which they are employed.
National Occupational Standards (NOS)

NOS are voluntary guidelines that have been developed to provide businesses, educators, trainers, and job seekers with practical guidance.

How are NOS used?

Employers, employees, and educational institutions can put NOS to a wide variety of uses supporting effective workforce planning.

- Support personnel certification or accreditation programs
- Inform curricula for colleges and apprenticeships.
- Assist recruitment by informing job descriptions and providing a benchmark for employee appraisals.
- Identify career paths in order to promote employee retention.
- Help employers evaluate and determine the competencies of potential employees, including Internationally Trained Workers (ITWs).

Electricity Human Resources Canada has developed National Occupational Standards for a variety of occupations. Visit [electricityhr.ca](http://electricityhr.ca) for more information.