

Course: Substation Electrician – Level 1

For registration, please contact Angela Graham, Hydro One Work Methods & Training at 1-877-647-2872 ext. 2003, or email at angela.graham@hydroone.com

This course is based on a new format which is a 3-year program. The course includes: industrial wiring, relay control circuits, wiring diagrams, troubleshooting, single and three phase theory plus theory related to magnetism.

The course will also cover three phase transformer connections, AC and DC motors and generators, motor starter testing and troubleshooting.

Date(s): (3 Weeks)
April 26 – May 14
Nov 15 – Dec 3*
* if required

Cost: \$5613.00 + GST

Course Length: 3 weeks **Location:** Orangeville Training Ctr.

Prerequisites & Pre-course requirements: Approximately four days of pre-course study and a Theory Qualifying Test covering the following: atomic structure, basic electrical quantities and their relations, series and parallel circuits, series - parallel circuits, magnetism and electromagnetism, sine wave generation and components, semiconductor diodes, electrical meters, inductance, inductive reactance, impedance, capacitance, capacitive reactance, RCL series circuit solving and phasors, RCL parallel circuit solving with phasors, transformers, basic three-phase theory.

Prerequisite: Successful completion of the Theory Qualifying Test conducted at the employer site and pre-course material. The Theory Qualifying Test is not required for entry if the candidate has a two or three year Community College Certificate in a related field.

Field Assignments: Practice Level I skills, including EUSA Work Protection Code, station battery maintenance, ESA and safety in Substations.

Text: Level I manual Electric Circuits and Machines - by Lister

Accommodation/ Meals: Accommodation (Pg.6) is the responsibility of employer. Lunch will be provided by Training Agency.



Course: Substation Electrician – Level 2

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Building on the skills learned in Level I, Level II will cover the following topics:

1. Circuit breakers and reclosers
2. Construction and operation
3. Electrical and mechanical troubleshooting

Date(s):	March 1 – 12	Cost:	\$3741.00 + GST
Course Length:	9 ½ days	Location:	Orangeville Training Ctr.
Prerequisites & Pre-course requirements:	Successful completion of Level I or equivalent		
Field Assignments:	Practice Level II skills		
Text:	Level II manual		
Accommodation/Meals:	Accommodation (Pg.6) is the responsibility of employer. Lunch will be provided by Training Agency.		



Course: Substation Electrician – Level 3

The final course, Substation Electrician Level III will include the following: **Week 1 (Orangeville Centre)** Transformers - maintenance, testing, and troubleshooting, protective distribution devices and station buses. **Week 2 (Kleinburg Centre)** Protective Relay Systems, operation, maintenance, calibration of overcurrent, overvoltage undervoltage relays

Date(s): April 19 – 30 or Oct 25 – Nov 5 or Nov 29 – Dec 10 **Cost:** \$3741.00 + GST

Course Length: 9 ½ days **Location:** Orangeville/Kleinburg

Prerequisites & Pre-course requirements: Successful completion of Level II or equivalent and one day of pre-course study.

Text: Level III manual
Field Assignments: Practice Level III skills

Accommodation/Meals: Accommodation (Pg.6) is the responsibility of employer.
Lunch will be provided by Training Agency.

Certification:



The successful completion of the session combined with appropriate experience entitles the participant to The MEARIE Group's Certificate for registration as a Substation Electrician.

Course: Substation Electrician Proficiency

For registration, please contact Angela Graham, Hydro One Work Methods & Training at 1-877-647-2872 ext. 2003, or email at angela.graham@hydroone.com

This course is to be delivered to Journeyperson Substation Electricians. It will review topics delivered in the apprenticeship program. These topics will include various types of breakers, transformers and their installations, AC and DC motors and generators, protection systems, safety topics and new technologies.

Date(s): November 15 – 18 **Cost:** \$1632.00 + GST

Course Length: 4 days – starting noon
Monday
ending noon
Friday **Location:** Orangeville Training Ctr.

Prerequisites & Pre-course requirements: Completion of the Substation Electrician Apprenticeship program

Accommodation/Meals: Accommodation (Pg.6) is the responsibility of employer.
Lunch will be provided by Training Agency.

