

Course: Underground Power Cable – 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

In the Central Learning session the student will cover theoretical knowledge based components, perform core skill tasks and be assessed on performance. Course topics and objectives will include: safety basics, job planning, basic electrical theory, basic rigging, components of the Underground Distribution System, entry into confined spaces, handling compressed gases, hot compounds and metals.

In the introduction to work procedures on low voltage XLPE and PILC cables the following topics are covered: safety regulations, job planning, types of cables, cable theory and construction, types of tapes, cable pulling and bending radius when being installed. Students work individually splicing secondary and primary cables, building a taped stress cone installing pre-moulded cones and load break elbows.

Working in pairs on PILC cables, students will prepare lead sleeves, dead-end cables, install pulling eyes, learn the techniques of tinning and soldering, install split sleeves, tape, learn the art of wiping lead sleeves and grounding the lead sheath to the system neutral.

Date(s):	May 3 – 14	Cost:	\$5751.00 + GST
Course Length:	9 ½ days	Location:	Kleinburg Training Ctr.
Prerequisites & Pre-course requirements:	N/A		
Accommodation/Meals:	Accommodation (Pg.6) is the responsibility of employer. Lunch will be provided by Training Agency.		



Course: Underground Power Cable – Level 2

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

During the course students will perform core skill tasks and be assessed on performance. Course topics and objectives will include a review of low voltage cables (up to 50 kV) of XLPE (Cross Link Poly Ethylene) and PILC (Paper Insulated Lead). In addition to the above topics the student will also cover the following theoretical knowledge based components:

1. First day Core Utility Work Protection Code
2. A.C. fundamentals
3. Elements of the Municipal Distribution System
4. Transmission and distribution of electric power
5. Single phase transformer operation and loading
6. Transformer protector operation
7. Street light and water heater controls
8. Stability and operation of insulated aerial device and boom truck
9. Protective fuse co-ordination
10. Utility work protection code
11. Review of Distribution Underground System
12. Cable locating and hi-potting of cables

Working in pairs, the student will perform switching and grounding on energized equipment in order to isolate cable or apparatus, install porcelain and heat shrink termination on XLPE cable, complete transition splice lead to XLPE cable and install a pothead on PILC cable.

Date(s):	April 19 – 30	Cost:	\$5751.00 + GST
Course Length:	9 ½ days	Location:	Kleinburg Training Ctr.
Prerequisites & Pre-course requirements:	Successful completion of Level I		
Accommodation/Meals:	Accommodation (Pg.6) is the responsibility of employer. Lunch will be provided by Training Agency.		



Course: Underground Power Cable – Level 3

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

During the course, students will perform core skill tasks and be assessed on performance. Course topics and objectives will include: cable splicing techniques involving heat shrink and pre-moulded splices and high K stress relief principles. Cable fault location is covered in classroom and field sessions using pre-fault location methods, TDR (radar) and surge pulse (thumper) and audio frequency receivers.

Other topics covered include:

1. Second day Utility Work Protection code and Final Exam
2. Wye and Delta systems
3. Three phase transformers
4. Voltage regulation
5. Isolation and switching/grounding
6. Cable spiking
7. Single and three phase cable identification
8. Confined space rescue
9. Underground system troubleshooting

Date(s):	Not scheduled	Cost:	\$5751.00 + GST
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Course Length:	9 ½ days	Location:	Kleinburg Training Ctr.
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Prerequisites & Pre-course requirements:	Successful completion of Level II
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Accommodation/Meals:	Accommodation (Pg.6) is the responsibility of employer. Lunch will be provided by Training Agency.
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Certification:



The successful completion of the session combined with appropriate experience entitles the participant to The MEARIE Group's Certificate for registration as a Underground Power Cable Journeyman.

