

# High Voltage Switching Systems Operations Refresher Course



## College of Electrical Training (CET)

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*Connect Your Mind*

## Course Overview

This course is designed for persons who have completed prior high voltage training, have an understanding of or who operate high voltage equipment. The course re-emphasises the key principles of high voltage switching operations and should be undertaken every two years after completion of initial High Voltage Switching Operations training.

## Course Requirements

It is mandatory that course participants should hold either an 'A' Grade Electrical Licence, Marine Engineers Certificate or have a Certificate III in Electrotechnology.

**\*Evidence of any of the above must be presented in order to confirm your enrolment on this course\***

## Course Learning Outcomes

On course completion participants will be able to meet the following learning outcomes:

### Legislation, Regulations & Australian Standards

- Demonstrate an understanding of the Electricity Act and Regulations with respect to high voltage equipment.
- Demonstrate an understanding of AS/NZS 3000:2000 requirements for high voltage installations.
- Demonstrate an understanding of the requirements of the WA Electrical Requirements and the guidelines for electricity transmission and distribution.

### Equipment Ratings & Fault Current

- Demonstrate knowledge of the large fault currents that can be present when a fault occurs.
- Describe what switching equipment is rated for and why it is rated.
- Demonstrate knowledge of the consequences of faults on under rated equipment.
- Demonstrate knowledge of fault levels and the large amounts of current available during a fault.
- Demonstrate knowledge of the large mechanical forces that may occur during a fault

### Electrical Safety

- Describe the additional hazards associated with high voltages.
- Describe what has to be done before access to high voltage equipment is allowed.
- Demonstrate knowledge of the need for standard terminology with high voltage procedures.

- Demonstrate knowledge of how a power system can be energised from other than the main source of supply.
- Demonstrate knowledge of how to earth conductors in a safe manner.
- Explain the difference between programmed and working earths.

### Permits

- Identify and select the correct permit for access to work on or in the vicinity of high voltage conductors.
- Demonstrate ability to correctly fill out an electrical access permit by identifying isolation points, earthing points and necessary precautions.
- Demonstrate knowledge of the importance of using a permit system.

### Transformers

- Demonstrate an understanding of the two groups of transformers and their uses.
- Demonstrate an understanding of the levels of protection for the different types.
- Demonstrate an understanding of the characteristics of transformers.

### Ring Main Units

- Demonstrate an understanding of the uses of ring main systems.
- Demonstrate an understanding of the switching and interlock features of ring main units.
- Demonstrate an understanding of the additional hazards when switching ring main units.

### Switching Programs Theory

- Describe why switching programs are required to safely isolate high voltage equipment.
- Apply the principles for writing switching procedures.

### Switching Programs Practical

- Demonstrate the ability to write a switching program so that access can be safely gained to high voltage equipment.

### Practical Switching

- Demonstrate the ability to remove and replace a drop out fuse.
- Demonstrate the ability to isolate and apply earths to an outdoor aerial system.
- Demonstrate the ability to operate three different types of indoor metal clad switchgear for isolation and earthing.

## Course Duration

2 Days - full time

## Skills Recognition

Our Skills recognition process benefits students, who have achieved prior training skills or knowledge and applies to Skills Recognition, Recognition of Prior Learning (RPL), Credit Transfer, Advanced Study or Exemption.

If you believe you are entitled to any of the abovementioned we encourage you to fill out the Application Form for Skills Recognition, which is available from our administration team. Your application will be assessed on an individual basis.

## Course Fees

Subsidised course fees may be available to persons currently working in the building and construction industry or unemployed persons who have worked in that trade in the previous 6 months. Please refer to the course registration form for current subsidised and non-subsidised course fees.

**The fee subsidy does not apply to persons working in the security and mining industries and Government employees.**

Both the Work History Form and a Credit Card Authority Form for payment can be downloaded from our website.

## How to Enrol

Simply complete the course registration form and return to the CET together with your payment.

## Cancellation Policy

8 working days or more prior to course commencement 100% fee refund

2 to 7 working days prior to course commencement 90% fee refund

1 working day or less prior to course commencement Nil fee refund

Should you have any queries please do not hesitate to contact:

### Balcatta Campus

Phone: (08) 9240 7700 Email: admin4@cet.asn.au

## Registration Form - High Voltage Switching Systems Operations Refresher Course

Balcatta Campus  Jandakot Campus

Where did you find out about the CET?

Surname \_\_\_\_\_

First Name \_\_\_\_\_

Date of Birth \_\_\_\_/\_\_\_\_/\_\_\_\_

Private Address \_\_\_\_\_

Suburb \_\_\_\_\_ Postcode \_\_\_\_\_

Telephone \_\_\_\_\_

Mobile \_\_\_\_\_

E-mail \_\_\_\_\_

Facsimile \_\_\_\_\_

Company \_\_\_\_\_

Please register me to attend the following:

Course Date \_\_\_\_\_

Company Address \_\_\_\_\_

Company Ph No. \_\_\_\_\_

## Course Fees—Fees are subject to change

Please find enclosed my cheque / money order / credit card authority / company purchase order payable to the CET for (please tick):

**NonSubsidised Fee**

\$250.00

**Subsidised Fee**

\$75.00

**\*Work History Form MUST be submitted if paying the Subsidised Fee\***

Total Payment Enclosed: \$ \_\_\_\_\_

Paid by (if other than student, please provide name and address details)

\_\_\_\_\_  
\_\_\_\_\_

**In order to guarantee your booking for any course your payment and registration must be completed. Under no circumstances will registration without payment entitle you to a position.**

## Fee Subsidy Declaration - High Voltage Switching Systems Operations Refresher Course

I \_\_\_\_\_ (full name)

(please tick)

- Am currently working in the building & construction industry
- Am currently unemployed and have worked in the building & construction industry in the past 6 months

Please note: If the CTF declines this subsidy application you will be required to pay the full (non subsidised) fee immediately.

Name of Employer

\_\_\_\_\_  
**(required to claim the fee subsidy)**

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

**NOTE: The CTF subsidy reduces the student fee by up to 80%.**



The Supplementary Skills Program is subsidised by the Construction Training Fund Board and we would like to acknowledge the Board's continued support of skills development in the building and construction industry.

**The College of Electrical Training (CET) is the major private training provider for the Western Australian electrical and telecommunications industries.**

**Excellence in customer service is our priority and you will find that in comparison with other colleges the CET is outstanding. We offer modern 'state of the art' facilities and quality training by industry for industry.**

Please forward this form with your payment to:  
See address details on front page



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Training**