

Safety standards for High Voltage and Complex electrical installations



Purpose

This document identifies the legal obligations that owners and operators of a High Voltage or Complex electrical installation must comply with when installing, altering, repairing, maintaining or operating a High Voltage Installation.

Introduction

This document details the current legislation for owners and operators of High Voltage and Complex electrical installations as mandated by the Electricity Safety Act and pursuant Regulations in relation to –

- Electrical safety
- Safety standards
- Incident reporting requirements, and
- penalties for non-compliance

Definitions

complex electrical installation means an electrical installation that—

- (a) has an installed generation capacity of equal to or greater than 1000 kVA; or
- (b) is an electric line that is on land that is not owned or leased by the owner or operator of the electric line;

electrical installation means electrical equipment that is fixed or to be fixed in, on, under or over any land but does not include a supply network that is owned or operated by a major electricity company;

high voltage means a voltage exceeding low voltage

References

- Electricity Safety Act 1998*
- Electricity Safety (General) Regulations 2019*
- Electricity Safety (Registration & Licensing) Regulations 2010*
- The Code of Practice on electrical safety for the work on or near high voltage electrical apparatus (The Blue Book)*

* As amended

Links

Legislation - <http://www.legislation.vic.gov.au/>

The Blue Book - <https://www.esv.vic.gov.au/pdfs/the-blue-book/>

VESI Website - <http://www.vesi.com.au/>

Penalty units

Victorian Government departments and agencies charge fees for services and regulatory purposes, including licensing and registering certain activities, and fines for improper conduct and to discourage unlawful behaviour.

The policy and amounts are available on the Victorian Government website -

<http://www.dtf.vic.gov.au/Victorias-Economy/Economic-policy-and-guidelines/Indexation-of-fees-and-penalties>

Electrical Safety

Electricity Safety Act 1998 – Section 43 - Safety of electrical installations

- (1) A person must not install any electrical equipment if the person knows or should reasonably be expected to know that—
- (a) the electrical equipment is unsafe or will be unsafe if connected to an electricity supply; or
 - (b) the installation will make any other electrical equipment unsafe if connected to an electricity supply; or
 - (c) the installation will make a building or structure unsafe if that building or structure is supplied with electricity.

Penalty: 40 penalty units.

- (1A) A person must not carry out electrical equipment work if the person knows or should reasonably be expected to know that—
- (a) the work will make electrical equipment unsafe if connected to an electricity supply; or
 - (b) the work will make a building or structure unsafe if that building or structure is supplied with electricity.

Penalty: 40 penalty units.

- (2) The occupier of any premises in which there is any unsafe electrical equipment must—
- (a) cause the electrical equipment to be removed from the premises or to be made safe; or
 - (b) in the case of electrical equipment forming part of an electrical installation, notify the owner of the premises of the unsafe electrical installation.

Penalty: 40 penalty units.

- (3) An owner of premises who is notified under subsection (2) must cause the electrical installation to be removed from the premises or to be made safe.

Penalty: In the case of a natural person, 40 penalty units;

In the case of a body corporate, 200 penalty units.

- (4) A person carrying out electrical installation work must ensure that—
- (a) all electrical circuits or electrical equipment handled in the course of that work are disconnected from the electricity supply; or
 - (b) adequate precautions are taken to prevent electric shock or other injury in the handling of electrical circuits or electrical equipment in the course of that work.

Penalty: 40 penalty units.

Incident Reporting obligations

Electricity Safety (General) Regulations 2019 – Regulation 401 - Reporting of serious electrical incidents

- (1) The following persons must report a serious electrical incident to Energy Safe Victoria in accordance with this regulation—
 - (a) an operator of a high voltage electrical installation who becomes aware of any serious electrical incident occurring within that electrical installation;
 - (b) an operator of a complex electrical installation who becomes aware of any serious electrical incident occurring within that complex electrical installation;
- (2) As soon as practicable after becoming aware that the serious electrical incident has occurred or is occurring, a person referred to in subregulation (1) must report, by telephone, to Energy Safe Victoria all details of the incident within the person's knowledge.

Penalty: 10 penalty units.
- (3) A person referred to in subregulation (1) must, within 20 business days after reporting the incident, give a written report of the incident to Energy Safe Victoria.

Penalty: 10 penalty units.

Electricity Safety (General) Regulations 2019 – Regulation 501

501 Safety standards—high voltage electrical installations

- 1) An owner or operator of a high voltage electrical installation that is not a complex electrical installation or part of a railway or tramway supply network must ensure that—
 - (a) the high voltage electrical installation or the installed, altered, repaired or maintained portion of the high voltage electrical installation complies with Divisions 1 to 10 of Part 2; and
 - (b) any portion of the high voltage electrical installation using direct current does not leak stray electrical currents into the ground; and
 - (c) the high voltage electrical installation is safe and maintained and operated safely; and
 - (d) an assessment of the owner's or operator's compliance with the requirements of subregulation (2) is carried out by a competent person at least once every 2 years.

Penalty: 20 penalty units.
- (2) An owner or operator of a high voltage electrical installation that is not a complex electrical installation or part of a railway or tramway supply network must ensure that—
 - (a) any person operating the high voltage electrical installation has a standard of qualifications, proficiency and experience that enables that person to safely operate the high voltage electrical installation; and
 - (b) any person operating or maintaining the high voltage electrical installation complies with the owner's or operator's operating and maintenance procedures; and
 - (c) any person operating or maintaining any part of the high voltage electrical installation is trained, authorised and instructed to perform the work on the high voltage electrical installation in accordance with the owner's or operator's operating and maintenance procedures; and
 - (d) any person under the control of the owner or operator who is working on or near the high voltage electrical installation—

- (i) is appropriately trained in accordance with the Blue Book and aware of the requirements of the Blue Book; and
- (ii) complies with the provisions of the Blue Book that apply to the work that the person is carrying out; and
- (iii) uses an Electrical Access Authority for work on or near the high voltage electrical installation, as required by the Blue Book.

Penalty: 20 penalty units.

- (3) An owner or operator of a high voltage electrical installation that is not a complex electrical installation or part of a railway or tramway supply network must prepare written operating and maintenance procedures that describe the methods of operation, maintenance, earthing, isolation, energisation and de-energisation of the high voltage electrical installation.

Penalty: 20 penalty units.

502 Safety standards—complex electrical installations

- (1) An owner or operator of a complex electrical installation that is not part of a railway or tramway supply network must ensure that—
- (a) the complex electrical installation or the installed, altered, repaired or maintained portion of the complex electrical installation complies with Divisions 1 to 10 of Part 2; and
 - (b) any portion of the complex electrical installation using direct current does not leak stray electrical currents into the ground; and
 - (c) an assessment of the owner's or operator's compliance with the requirements of subregulation (2) is carried out by a competent person at least once every 2 years.

Penalty: 20 penalty units.

- (2) An owner or operator of a complex electrical installation that is not part of a railway or tramway supply network must ensure that—
- (a) any person operating the complex electrical installation has a standard of qualifications, proficiency and experience that enables that person to safely operate the complex electrical installation; and
 - (b) any person operating or maintaining the complex electrical installation complies with the owner's or operator's operating and maintenance procedures; and
 - (c) any person operating or maintaining any part of the complex electrical installation is trained, authorised and instructed to perform the work on the complex electrical installation in accordance with the owner's or operator's operating and maintenance procedures; and
 - (d) any person under the control of the owner or operator who is working on or near a part of the complex electrical installation that is operating at high voltage—
 - (i) is appropriately trained in accordance with the Blue Book and aware of the requirements of the Blue Book; and
 - (ii) complies with the provisions of the Blue Book that apply to the work that the person is carrying out; and
 - (iii) uses an Electrical Access Authority for work on or near any parts of the complex electrical installation that is operating at high voltage, as required by the Blue Book.

Penalty: 20 penalty units.

- (3) An owner or operator of a complex electrical installation that is not part of a railway or tramway supply network must prepare written operating and maintenance procedures that describe the methods of operation, maintenance, earthing, isolation, energisation and de-energisation of the complex electrical installation.

Penalty: 20 penalty units.

Contact us

For advice and information about High Voltage or Complex installation requirements, contact our Electrical Installations Safety team in the following ways:

- Fill in our [contact form](#)
- Email: electricalinstallationenquiries@energysafe.vic.gov.au
- Call our EIS team on 03 9203 9700 – select *option 2*.