**Electricity Safety (Bushfire Mitigation) Further Amendment Regulations**

**Exposure Draft**

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**Victoria**

**Electricity Safety (Bushfire Mitigation) Further Amendment Regulations**

**Exposure Draft**

1 Objective

The objective of these Regulations is to amend the Electricity Safety (Bushfire Mitigation) Regulations 2013 to make provision for requirements for major electricity companies to increase safety standards on specific components of their networks in order to reduce bushfire risk.

2 Authorising provisions

These Regulations are made under sections 151, 151A and 157 of the **Electricity Safety Act 1998**.

3 Commencement

These Regulations come into operation on {TBC} 2016.

4 Principal Regulations

In these Regulations, the Electricity Safety (Bushfire Mitigation) Regulations 2013[[1]](#endnote-1) are called the Principal Regulations.

5 Definitions

In regulation 5 of the Principal Regulations **insert**—

"***Automatic Circuit Recloser*** means a device in relation to a SWER line that—

(a) may be remotely controlled; and

(b) is able automatically to interrupt and reclose an electric circuit by means of a programmed sequence that involves—

(i) opening and reclosing the electric circuit; and

(ii) resetting the electric circuit; and

(iii) holding the electric circuit closed; and

(iv) permanent interruption of the electric circuit;

***electric line construction declared area*** means an area of land declared by the Emergency Management Commissioner under regulation 5A;

***Emergency Management Commissioner*** has the same meaning as in the **Emergency Management Act 2013**;

***high impedance faults*** means a resistance value in ohms that is equal to twice the nominal phase-to-ground network voltage in volts;

***I2t*** means a measure of the thermal energy associated with the current flow, where **I** is the current flow in amps and **t** is the duration of current flow in seconds;

***low impedance faults*** means a resistance value in ohms that is equal to the nominal phase‑to-ground network voltage in volts divided by 31·75;

***polyphase electric line*** means an electric line comprised of more than one phase of electricity with a nominal voltage between 1 kV and 22 kV;

***required capacity*** means, in the event of a phase‑to-ground fault on a polyphase electric line, the ability—

(a) to reduce the voltage on the faulted conductor in relation to the station earth when measured at the corresponding zone substation for high impedance faults to 250 volts within 2 seconds; and

(b) to reduce the voltage on the faulted conductor in relation to the station earth when measured at the corresponding zone substation for low impedance faults to—

(i) 1900 volts within 85 milliseconds; and

(ii) 750 volts within 500 milliseconds; and

(iii) 250 volts within 2 seconds; and

(c) during diagnostic tests for high impedance faults, to limit—

(i) fault current to 0·5 amps or less; and

(ii) the thermal energy on the electric line to a maximum I2t value of 0·10;

***SWER line*** means a single wire earth return electric line;

***wholly or substantially replaced*** means the planned replacement or relocation of an electric line that involves—

(a) the relocation of a least 4 consecutive spans of the electric line; or

(b) the replacement of conductors on at least 4 consecutive spans of the electric line.".

6 Electric line construction declared area

After regulation 5 of the Principal Regulations **insert**—

"5A Electric line construction declared area

(1) For the purposes of regulation 7(1)(hc), the Emergency Management Commissioner may, by notice published in the Government Gazette, declare an area of land to be an electric line construction declared area.

(2) A notice under subsection (1) must contain a description sufficient to identify the area of land that is the subject of the declaration.

(3) In declaring an area of land for the purposes of regulation 7(1)(hc), the Emergency Management Commissioner must have regard to—

(a) the house losses reasonably expected to arise as a result of a bushfire starting from a given ignition point; and

(b) the structure of the supply network (including any zone substation distribution area) within the area of land that is the subject of the proposed declaration; and

(c) any other matter specified by the Minister or the Director.".

7 Prescribed particulars for bushfire mitigation plans—major electricity companies

(1) After regulation 7(1)(h) of the Principal Regulations **insert**—

"(ha) details of the preventative strategies and programs referred to in paragraph (h) (including details in relation to timing and location) by which the major electricity company will ensure that—

(i) in its supply network, each polyphase electric line originating from a selected zone substation has the required capacity; and

(ii) on and from 1 January 2023, in its supply network, each polyphase electric line originating from every zone substation specified in Schedule 2 has the required capacity;

(hb) details of testing that will be undertaken before the specified bushfire risk period each year by which the major electricity company will ensure that its supply network can operate to meet the required capacity in relation to each polyphase electric line in accordance with paragraph (ha);

(hc) details of the preventative strategies and programs referred to in paragraph (h) (including details in relation to timing and location) by which the major electricity company will ensure that, on and from {TBC}, within an electric line construction declared area, each electric line with a nominal voltage of between 1 kV and 22 kV that is constructed, or is wholly or substantially replaced, in its supply network is a covered or underground electric line;

(hd) details of the processes and procedures by which the major electricity company will ensure that, on and from 1 January 2023, the major electricity company has installed an Automatic Circuit Recloser in relation to each SWER line in its supply network;".

(2) In regulation 7(1)(n)(vi) of the Principal Regulations, after "plan;" **insert** "and".

(3) After regulation 7(1)(n)(vi) of the Principal Regulations **insert**—

"(vii) before the specified bushfire risk period each year, report to Energy Safe Victoria the results of testing undertaken in that year in accordance with regulation 7(1)(hb);".

(4) After regulation 7(2) of the Principal Regulations **insert**—

"(3) For the purposes of subregulation (1)(ha)(i)—

(a) the major electricity company must select a sufficient number of zone substations so that—

(i) at 1 January 2019, the points set out in column 6 of the Table in Schedule 2 in relation to each zone substation selected, when totalled, are not less than 30; and

(ii) at 1 January 2021 the points set out in column 6 of the Table in Schedule 2 in relation to each zone substation selected, when totalled, are not less than 55; or

(b) if there is an insufficient number of zone substations (specified in Schedule 2) in a major electricity company's supply network for the major electricity company to comply with paragraph (a)(i) or (ii), the major electricity company must ensure that each polyphase electric line originating from every zone substation that is specified in Schedule 2 and is in its supply network has the required capacity.".

8 Prescribed information about bushfire mitigation plans to be made publicly available by major electricity companies

After regulation 7A(f) **insert**—

"(fa) the company's plan for testing to ensure that its supply network can operate to meet the required capacity in relation to each polyphase electric line originating from a zone substation specified in Schedule 2;

(fb) the details of the processes and procedures for installing an Automatic Circuit Recloser in relation to each SWER line in its supply network;".

9 New Schedule 2 inserted

After the Schedule to the Principal Regulations **insert**—

"Schedule 2—Zone substations

Regulation 7(1)(ha) and (3)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *Column 1* | | *Column 2* | | *Column 3* | *Column 4* | *Column 5* | *Column 6* |
| *Item* | | *Name* | | *Code* | *Latitude* | *Longitude* | *Points* |
| 1 | | Winchelsea | | WIN | -38·23644 | 144·00102 | 5 |
| 2 | | Colac | | CLC | -38·34092 | 143·60619 | 5 |
| 3 | | Eaglehawk | | EHK | -36·71772 | 144·25089 | 5 |
| 4 | | Woori Yallock | | WYK | -37·77634 | 145·52933 | 5 |
| 5 | | Maryborough | MRO | -37·04909 | 143·73727 | 5 |
| 6 | | Seymour | SMR | -37·02548 | 145·14068 | 5 |
| 7 | | Ballarat South | BAS | -37·59450 | 143·79908 | 5 |
| 8 | | Bendigo TS | BET | -36·78289 | 144·25296 | 5 |
| 9 | | Wangaratta | WN | -36·35744 | 146·31022 | 5 |
| 10 | | Castlemaine | CMN | -37·07182 | 144·20637 | 4 |
| 11 | | Camperdown | CDN | -38·22599 | 143·15655 | 4 |
| 12 | | Woodend | WND | -37·33385 | 144·51729 | 4 |
| 13 | | Kinglake | KLK | -37·51440 | 145·31615 | 4 |
| 14 | | Rubicon A | ALA, MVE | -37·29287 | 145·81850 | 4 |
| 15 | | Bairnsdale | BDL | -37·82537 | 147·61261 | 4 |
| 16 | | Geelong | GL | -38·13477 | 144·33741 | 4 |
| 17 | | Ballarat | BAN | -37·50088 | 143·85096 | 4 |
| 18 | | Waurn Ponds | WPD | -38·21082 | 144·30380 | 4 |
| 19 | | Lilydale | LDL | -37·76339 | 145·35840 | 3 |
|  | |  |  |  |  |  |
| *Column 1* | | *Column 2* | | *Column 3* | *Column 4* | *Column 5* | *Column 6* |
| *Item* | | *Name* | | *Code* | *Latitude* | *Longitude* | *Points* |
| 20 | | Wodonga and Tallangatta | WOTS | -36·15439 | 146·94682 | 3 |
| 21 | | Myrtleford | MYT | -36·55745 | 146·72525 | 3 |
| 22 | | Barnawartha | BWA | -36·10556 | 146·67345 | 3 |
| 23 | | Kilmore South | KMS | -37·31798 | 144·97174 | 3 |
| 24 | | Kalkallo | KLO | -37·53833 | 144·94140 | 3 |
| 25 | | Gisborne | GSB | -37·45352 | 144·57625 | 3 |
| 26 | | Belgrave | BGE | -37·93056 | 145·36096 | 3 |
| 27 | | Moe | MOE | -38·18424 | 146·25908 | 3 |
| 28 | | Mansfield | MSD | -37·05458 | 146·08802 | 2 |
| 29 | | Ferntree Gully | FGY | -37·89304 | 145·29167 | 2 |
| 30 | | Eltham | ELM | -37·71675 | 145·13881 | 2 |
| 31 | | Ringwood North | RWN | -37·79260 | 145·23449 | 2 |
| 32 | | Charlton | CTN | -36·26562 | 143·35478 | 2 |
| 33 | | Benalla | BN | -36·55160 | 145·98000 | 2 |
| 34 | | Koroit | KRT | -38·31541 | 142·43245 | 2 |
| 35 | | Hamilton | HTN | -37·73876 | 142·02283 | 2 |
| 36 | | Terang | TRG | -38·23860 | 142·91531 | 2 |
| 37 | | Merbein | MBN | -34·16805 | 142·05807 | 1 |
| 38 | | Stawell | STL | -37·05833 | 142·77839 | 1 |
| 39 | | Bendigo | BGO | -36·76102 | 144·27897 | 1 |
| 40 | | Ararat | ART | -37·28308 | 142·93030 | 1 |
| 41 | | Coolaroo | COO | -37·64207 | 144·93391 | 1 |
| 42 | | Corio | CRO | -38·07445 | 144·35898 | 1 |
| 43 | | Lang Lang | LLG | -38·26605 | 145·56266 | 1 |
|  | |  |  |  |  |  |
|  | |  |  |  |  |  |
| *Column 1* | | *Column 2* | | *Column 3* | *Column 4* | *Column 5* | *Column 6* |
| *Item* | | *Name* | | *Code* | *Latitude* | *Longitude* | *Points* |
| 44 | | Wonthaggi | WGI | -38·60885 | 145·58860 | 1 |
| 45 | | Sale | SLE | -38·10364 | 147·06972 | 1 |

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Endnotes

1. Reg. 4: S.R. No. 62/2013 as amended by S.R. Nos 67/2015 and 68/2015. [↑](#endnote-ref-1)