

## **AGL Macarthur**

## Electric Line Clearance Management Plan 2021-2022



Macarthur DMS: ML AL FI 03 (Rev 3.1)



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Plan	Revision	History

Version	Date	Author	Comment	Sections
1.1	12/09/2019	S. Cariss	New document and format	All
1.2	16/10/2019	S. Philippides	Environmental update relating to local vegetation information	All
2.0	09/07/2020	S. Cariss	Annual review AGL Macarthur Alignment with new <i>Electricity Safety (Electric Line Clearance) Regulations</i> 2020	All
2.1	29/08/2020	S. Cariss	Feedback post annual review	All
3.0	1/03/2021	S. Cariss	Annual AGL Macarthur review Alignment with new <i>Electricity Safety (Electric Line Clearance) Regulations</i> 2020	All
3.1	18/06/2021	S. Cariss	General changes to improve the plan following an ESV ELCP systems audit on the AGL Hydro ELCP.	All

## Distribution

Сору	Position
1	AGL Macarthur Wind Farm Reception
Electronic File	Energy Safe Victoria
Electronic File	Head of Wind and Solar
Electronic File	Operations Manager
Electronic File	Asset Manager, Wind (Vic)
Electronic File	AGL Web Site
Electronic File	AGL Macarthur Document Management System

## **1. Regulation Compliance Summary**

Reg 9	Requirement	Reference in this Plan
(1)	This regulation does not apply to a responsible person referred to in section 84A or 84B of the Act.	N/A
(2)	Before 31 March in each year, a responsible person must ensure that a management plan relating to compliance with the Code for the next financial year is prepared.	Electric Line Clearance Plan Objectives (Section 4)
(3)	A responsible person must ensure that a management plan prepared under sub-regulation (2) specifies the following	This document
(4)(a)	the name, position, address and telephone number of the responsible person;	Responsible Persons (Section 2)
(4)(b)	the name, position, address and telephone number of the individual who is responsible for the preparation of the management plan;	Responsible Persons (Section 2)
(4)(c)	the name, position, address and telephone number of the person who is responsible for carrying out the management plan;	Responsible Persons (Section 2)
(4)(d)	the telephone number of a person who can be contacted in an emergency that requires clearance of a tree from an electric line that the responsible person is required to keep clear of trees;	Responsible Persons (Section 2)
(4)(e)	the objectives of the management plan;	Electric Line Clearance Plan Objectives (Section 4)
(4)(f)	the land to which the management plan applies (as indicated on a map);	Geographic Coverage (Section 5.1)
(4)(g)	any hazardous bushfire risk areas and low bushfire risk areas in the land referred to in paragraph (f) (as indicated on the map);	Geographic Coverage (Section 5.1)
(4)(h)	<ul> <li>each area that the responsible person knows contains a tree that the responsible person may need to cut or remove to ensure compliance with the Code and that is –</li> <li>(i) indigenous to Victoria; or</li> <li>(ii) listed in a planning scheme to be of ecological, historical or aesthetic significance; or</li> <li>(iii) a tree of cultural or environmental significance.</li> </ul>	Vegetation Coverage (Section 5.2) (i) Section 5.2.1 (ii) Section 5.2.2 (iii) Section 5.2.3
(4)(i)	the means which the responsible person is required to use to identify a tree specified in paragraph (g)(i), (ii) or (iii);	Vegetation Coverage (Section 5.2) (i) Section 5.2.1 (ii) Section 5.2.2 (iii) Section 5.2.3

Reg 9	Requirement	Reference in this Plan
(4)(j)	the management procedures that the responsible person is required to adopt to ensure compliance with the Code, which must –	Management Procedures (Section 5.3) (i) Section 5.3.1 (ii) Section 5.4.2 and Section 5.4.3
	(i) Include details of the methods proposed to be adopted for managing trees; and maintaining a minimum clearance space as required by the Code; and	
	(ii) Specify the method of determining and additional distance that allows for cable sag and sway for the purposes of determining a minimum clearance space in accordance with Division 1 of Part 3 of the Code.	
(4)(k)	the procedure to be adopted if it is not practicable to comply with the requirements of AS 4373 while cutting a tree in accordance with the Code;	Management Procedures (Section 5.3) Section 5.3.3
(4)(m)	<ul> <li>the details of each approval for an alternative compliance mechanism that;</li> <li>(i) the responsible person holds; and</li> <li>(ii) is in effect;</li> </ul>	Monitoring and Auditing (Section 7)
(3)(n)	a description of measures that must be used to assess the performance of the responsible person under the management plan;	Monitoring and Auditing (Section 7)
(3)(0)	details of the audit processes that must be used to determine the responsible person's compliance with the Code;	Monitoring and Auditing (Section 7)
(3)(p)	The qualifications and experience that the responsible person must require of the persons who are to carry out the inspection, cutting or removal of trees in accordance with the Code;	Responsible Cutting Practices (Section 6)
(3)(q)	notification and consultation procedures, including the form of the notice to be given in accordance with Division 3 of Part 2 of the Code;	Notification (Section 8)
(3)(r)	a procedure for the independent resolution of disputes relating to electric line clearance;	Dispute Resolution (Section 9)

Reg 10	Requirement	Reference in this Plan
(1)	This regulation applies in relation to the management plan that a responsible person is required, under regulation 9, to prepare for a financial year.	This document
(2)	The responsible person must provide a copy of the management plan to Energy Safe Victoria within 14 days after a written request from Energy Safe Victoria or such longer period as specified by Energy Safe Victoria in the written request.	Electric Line Clearance Plan Objectives (Section 4)
(3)	The responsible person, if requested in writing to do so by Energy Safe Victoria, must provide further information or material in respect of the management plan within 14 days after the written request or such longer period as specified by Energy Safe Victoria in the written request.	Electric Line Clearance Plan Objectives (Section 4)

Reg 10	Requirement	Reference in this Plan
(4)	The responsible person must amend the management plan if instructed to do so in writing by Energy Safe Victoria within 14 days after the written instruction or such longer period as specified by Energy Safe Victoria in the written instruction.	Electric Line Clearance Plan Objectives (Section 4)
(5)	The responsible person must not contravene a requirement of the management plan if the management plan is approved by Energy Safe Victoria.	Electric Line Clearance Plan Objectives (Section 4)
(6)	The responsible person must ensure that a copy of the current management plan is published on the responsible person's Internet site.	3(b) Responsible Person - Plan Preparation

# 2. Responsible Persons

Regulation 9	Specification – Contact Details
(3)(a) the name, address and telephone number of the responsible person:	Jo Stone Head of Wind and Solar AGL Energy 699 Bourke St Melbourne 3000 Phone: (03) 86337152 Email: jstone@agl.com.au
(3)(b) the name, position, address and telephone number of the individual who was responsible for the preparation of the management plan;	Stuart Cariss Operations Governance Manager, Renewables AGL Energy Kiewa Valley Hwy Mt Beauty 3699 Phone: (03) 5754 3225 Email: scariss@agl.com.au
(3)(c) the name, position, address and telephone number of the persons who are responsible for carrying out the Plan:	Hoang Nguyen Asset Manager, Wind (Vic) AGL Energy 699 Bourke St Docklands 3008 Phone: 0422 432 398 Email: hnguyen@agl.com.au
(3)(d) the telephone number of a person who can be contacted in an emergency that requires clearance of a tree from an electric line that the responsible person is required to keep clear of trees:	AGL Dispatch Center Duty Generation Dispatcher 699 Bourke St Melbourne 3000 Phone: (03) 5754 3142 Email: agldc@agl.com.au
<ul><li>(9) A responsible person must ensure that a copy of the management plan is</li><li>(a) published on the responsible person's internet site; and</li></ul>	Information, including a copy of the Plan is available to be viewed by ESV. A copy of the Plan is also available on the AGL internet site at: http://agl.com.au

## 3. References

- AGL Macarthur Bushfire Mitigation Plan 2021-2022
- AGL Energy Customer Complaints Policy
- Electricity Safety Act 1998
- Electricity Safety (General) Regulations 2019
- Electricity Safety (Electric Line Clearance) Regulations 2020
- Electricity Safety (Management) Regulations 2019
- Electricity Safety (Bushfire Mitigation) Regulations 2013
- Electrical Safety (Bushfire Mitigation Duties) Regulations 2017
- Australian Standard AS4373 (2007) Pruning of Amenity Trees

## 4. Plan Objectives

This plan has been prepared to comply with the requirements of the Electricity Safety (Electricity Line Clearance) Regulations 2020 and is issued with the authority of the Head of Wind and Solar.

The following objectives are identified as key objectives of this plan in fulfilling AGL Macarthur duties as specified in the Electricity Safety (Electricity Line Clearance) Regulations 2020:

- Public Safety
- Compliance by AGL Macarthur with the Electricity Safety Act 1998 and the Electricity Safety (Electric Line Clearance) Regulations 2020
- Reduce the risk of fire starts due to line vegetation clearance issues on AGL Macarthur assets
- Protection of important vegetation of outstanding aesthetic or ecological significance, and/or the habitat of flora and fauna
- To achieve all vegetation clearance requirements with minimum disturbance to existing vegetation species
- To reduce the risk of vegetation related electricity supply disruptions
- To utilise skilled people and use modern technology to conduct efficient and effective vegetation management and develop an environment that encourages employee participation in improving methods of vegetation management
- Provision of a safe workplace for employees and contractors; and
- Community satisfaction with the way necessary works are carried out.

Commitment to these objectives is provided through:

- Annual inspection of all vegetation in the vicinity of electric lines that are the responsibility of AGL Macarthur
- Training of staff to perform vegetation clearance
- Annual review of AGL Macarthur Safe Access Procedures and the use of Job Safety and Environment Assessments (JSEA) Safe Work Methods Statements (SWMS)
- Contractor Management through AGL contractor management policy and contractor accreditation program and systems (cm3); and
- Pruning is undertaken in accordance with AS4373 (2007).

Compliance with these commitments are determined through regular audits conducted by qualified and experienced arborists and AGL must:

- Provide a copy of the management plan to ESV on request within 14 days or such longer period as specified by ESV
- Provide further information in respect of the management plan on request within 14 days or such longer period as specified by ESV
- Amend the management plan when instructed to do so by ESV within 14 days or such longer period as specified by ESV
- Not contravene a requirement of a management plan approved by ESV; and
- Ensure that a copy of the management plan is available for inspection by the public at the AGL Macarthur administration office during normal business hours

## 5. Responsibilities

### 5.1. Management Structure, Processes and Practices

The AGL Macarthur management structure with respect to this plan is as follows:

Head of Wind and Solar - responsible for:

- Overall management of AGL Macarthur
- Timely completion and actioning of Electric Line Clearance strategies; and
- Ensuring the actions of AGL Macarthur meet legislative requirements.

#### Operations Governance Manager - responsible for:

- Compliance and Verification of the Electric Line Clearance Plan
- Ensure proper liaison with other electric line and land management agencies; and
- Ensure the administration of the Electric Line Clearance Plan meets legislative requirements

#### Asset Manager, Wind (Vic) - responsible for:

- Ensuring all outstanding work is completed in a timely manner and adequate resources are made available for the implementation of the plan
- Ensuring all outstanding compliance issues are addressed and to ensure that matters are communicated to senior management; and
- Ensuring all compliance and Verification outcomes are reported to the Operations Governance Manager in a timely manner

#### Maintenance Services Agreement (MSA) Providers -- responsible for:

- Day to day operation of electric line asset maintenance in accordance with this plan
- Asset inspection, vegetation control program and liaison with other land management agencies in accordance with this plan; and
- Allocation of contracts, with the responsibility of ensuring training and competencies are maintained in accordance with this plan

#### Senior Electrical Engineer — responsible for:

- Providing technical advice as required to ensure that the assets are maintained to the required standard; and
- Assist with contractor evaluation and selection to ensure they are technically competent and can provide the required levels of service

## 6. Plan Coverage

## 6.1. Geographical Coverage

### 6.1.1. Geographical Area Covered Under the Plan

The Macarthur Wind Farm site covers an area in excess of 5,500 hectares (approximately 55 km<sup>2</sup>), with dimensions in the order of 11 km in the north-south direction and 8 km in the east-west direction. The site is contiguous and involves 3 separate host landholders.

The site and surrounding area comprise relatively flat farmland on the Western Volcanic Plains of Victoria. It is characterised by basaltic plains and stony rises with some vegetation in the form of pastures, wind breaks and plantations of Blue Gums. The site is dissected by roads, fence lines and agricultural buildings.

The site is part of the broad landform referred to as the Western Plains or Western District Volcanic Plains. There are hundreds of inactive eruption points across this volcanic plain and they range in age from five million years old to only a few thousand years old.

Areas surrounding the site are generally used for agricultural (grazing) purposes, with the occasional industrial use such as the Iluka mining operation near Hamilton and quarries such as that at the base of Mt Napier.



## 6.2. Native Vegetation

### 5.2.1 General Wind Farm Area

This section describes the flora and native vegetation of the study area based on the review of existing information and the field investigations, as per the 'Native Vegetation Management Plan, Macarthur Wind Farm' (BLA 2009).

### 5.2.1.1 Flora Species

Analysis of the likelihood of presence of flora species listed under the FFG Act and EPBC Act indicates that

- no suitable habitat exists in the development footprint for such species; or
- no such species were recorded during targeted surveys of the development footprint.

It is therefore considered that no flora species listed under the EPBC Act and FFG Act will be affected by the proposal.

Based on the FIS search results, 13 species of rare or threatened plants listed on the DSE advisory list are found in the search region. However, none has been recorded in the development footprint during the targeted survey, nor are they considered likely to be present based on habitat conditions.

### 5.2.1.2 Ecological Vegetation Classes

Evidence on site, including floristic composition and soil characteristics, suggested that the following EVCs were present in the study area:

- Plains Grassy Wetland (EVC 125),
- Basalt Shrubby Woodland (EVC 642),

- Stony Knoll Shrubland (EVC 649), and
- Plains Sedgy Wetland (EVC 647)

A total of 29 remnant patches (referred to herein as habitat zones) comprising the EVCs described above were identified in the overall development footprint.

No scattered trees were recorded in the development footprint and none will be affected by the wind farm.

#### Plains Grassy Wetland (EVC 125)

Plains Grassy Wetland (EVC 125) has an endangered conservation status in the Victorian Volcanic Plain bioregion. The benchmark for this EVC describes it as "usually treeless, but in some instances, it can include sparse River Red-gum (Eucalyptus camaldulensis) or Swamp Gum (Eucalyptus ovata). A sparse shrub component may also be present. The characteristic ground cover is dominated by grasses and small sedges and herbs. The vegetation is typically species-rich on the outer verges but is usually species-poor in the wetter central areas".

#### **Basalt Shrubby Woodland (EVC 642)**

Basalt Shrubby Woodland (EVC 642) has an endangered conservation status in the Victorian Volcanic Plain bioregion. The benchmark for this EVC describes it as "Eucalypt-dominated woodland to fifteen metres tall with an understorey of shrubs and grasses, presumed originally quite species-rich. It occurs on well-drained to seasonally damp fertile soils in higher rainfall areas of volcanic plain".

#### Plains Sedgy Wetland (EVC 647)

Plains Sedgy Wetland (EVC 647) has an endangered conservation status in the Victorian Volcanic Plain bioregion. The benchmark for this EVC describes it as vegetation that "occurs in seasonally wet depressions on volcanic and sedimentary plains, typically associated with fertile, silty, peaty or heavy clay paludal soils. It supports primarily sedgy-herbaceous vegetation, sometimes with scattered or fringing eucalypts or teatree/paperbark shrubs in higher rainfall areas. A range of aquatic herbs can be present, and species-richness is mostly relatively low to moderate, but higher towards drier margins".

#### Stony Knoll Shrubland (EVC 649)

Stony Knoll Shrubland (EVC 649) has an endangered conservation status in the Victorian Volcanic Plain bioregion. The benchmark for this EVC describes it as "a shrubland to three metres tall or low non-eucalypt woodland to eight metres tall with a grassy understorey. It occurs on low stony rises on basalt flows. The soils are fertile and well drained but shallow without cropping rock, causing severe summer dryness.



Map from the 'Native Vegetation Management Plan, Macarthur Wind Farm' (BLA 2009)



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#### 5.2.2 Native Vegetation – Southern Area Near the 132kV Transmission Line

Based on the information in the BLA 2009 Letter and Report: The general area in which the transmission line and terminal station are located comprises largely agricultural land with very little remnant native vegetation.

Based on pre-1750 native vegetation modelling by DSE, the Ecological Vegetation Classes that once dominated the region included a mix of Plains Grassland, Plains Grassy Wetlands, Plains Sedgy Wetland, Stony Knoll Shrubland and Basalt Shrubby Woodland. Small remnants of these EVC's were found in places on or near the proposed transmission line route and terminal station site.

The most extensive area of remnant native vegetation was found along Landers Lane at the southern end of the transmission line alignment. Apart from several hundred metres, this road reserve was almost entirely covered in native vegetation, with the exception of the gravel road about three metres wide. This road reserve supported four of the EVC's mentioned above. Of particular note was an extensive area of Plains Sedgy Wetland in the low-lying northern part of the road reserve.

North of Kangertong Road lies an area of undulating basalt flow country with alternating stony rises and damp swales. The damp swales support small patches of Plains Grassy Wetland.

The terminal station is largely flat, with a small wetland on its western edge adjacent to Landers Lane. A number of low stony rises also occur on the site. The site is largely devoid of remnant native vegetation apart from a small patch of Stony Knoll Shrubland, comprising remnant ground cover greater than 25% without shrubs or trees. This remnant totalled 0.2 hectares in extent with a habitat score of 0.32.

Map of Woolsthorpe Heywood Road Area from Leighton Assessment Letter/Report 2009:



Maps from the BLA 2009 Letter and Report:











# 7. Management Procedures

When pruning vegetation near live overhead lines, arboriculture techniques should be used, where practicable, in accordance with the appropriate Australian Standard.

Vegetation management work shall not be performed near live overhead lines, when another activity that could compromise the safety of the work team is being carried out.

Prior to commencing vegetation management work, a documented Job Safety and Environment Analysis (JSEA) shall be in place to record potential hazards, assess the risk and determine controls associated with work practices, the work environment, the use of materials, plant, tools and equipment.

Contractors undertaking vegetation work shall develop and document approved work procedures to ensure the safety of vegetation management workers and the public.

The following AGL Macarthur vegetation management procedures include and are further described:

- Controlling of Hazardous Situations
- Safe Approach Distances and Vegetation Clearances
- Methodologies and Practices
- Priority Coding

### 7.1. Controlling Hazardous Situations

Vegetation management work which is required to be performed on vegetation which has any part within or likely to come within, the vegetation clearances of live exposed high voltage overhead lines shall be undertaken by approved work methods or under Electrical Access Permit.

Measures shall be taken by contract vegetation workers to control the risks from hazardous situations in accordance with approved procedures. Control measures shall be monitored, and their effectiveness reviewed for the duration of the works.

This may be achieved by, but not limited to one or more of the following methods:

- Utilisation of a Safety Observer
- Taking an electrical access permit
- The use of fully insulated mobile plant, tools, and equipment
- Increase the minimum distances required to safely carry out the vegetation management work including allowance for unexpected conductor movement
- The use of suitable personal protective equipment
- A safe means and method of controlling the movement of limbs being cut
- Positioning the 'mobile plant' and persons such that Safe Approach Distances can be maintained in all circumstances; and
- Ensure that all members of the public are kept clear of the work site while vegetation management work is in progress

### 7.2. Safe Approach Distances and Vegetation Clearances

AGL Macarthur will comply with the Code Clearance of all vegetation in fire prone area as laid down in Electrical Safety (Electric Line Clearance) Regulations 2020.

The Vegetation clearances described in this plan means the minimum separation in air that should be maintained between vegetation and live electrical apparatus when performing vegetation management work.

The Safe Approach Distances and Vegetation Clearances detailed in this plan make no provision for conductor movement due to wind or change in conductor temperature. Unexpected conductor movement may occur under moderate wind or changes in conductor heating or cooling factors.

Appropriate allowance for sag and sway changes must be applied when working adjacent to power lines towards the centre of the span to ensure that appropriate Safe Approach Distances are always maintained.

Any safe system of work employed to undertake vegetation clearing near overhead power lines shall result in the achievement of both the Safe Approach Distances and Vegetation Clearance which includes but is not limited to:

- Cut, pruned, or falling vegetation
- Tools and equipment
- Persons; and
- Mobile plant

To ensure compliance and clarity copies of the following relevant tables and clearance diagrams from Electrical Safety (Electric Line Clearance) Regulations 2020 have been included below:

- Insulated Electric Lines in All Areas
- Uninsulated Line clearances in Hazardous Bushfire Areas
- Uninsulated Line Spans in Hazardous Bushfire Areas

#### 7.2.1. Insulated Electric Lines in All Areas

#### FIGURE 2—INSULATED ELECTRIC LINES IN ALL AREAS

Clause 24, Graph 1



#### 7.2.2. Uninsulated Line clearances in Hazardous Bushfire Areas

## Figure 5—Uninsulated 66 000-volt Electric Line in a Low Bushfire Risk Area and Uninsulated Electric Line in a Hazardous Bushfire Risk Area



Clauses 27, 28 and 29, Graphs 4, 5 and 6

#### 7.2.3. Uninsulated Line Spans in Hazardous Bushfire Areas

#### GRAPH 5—UNINSULATED LOW VOLTAGE AND HIGH VOLTAGE ELECTRIC LINE (OTHER THAN A 66 000 VOLT ELECTRIC LINE) IN HAZARDOUS BUSHFIRE RISK AREA



Clauses 3 and 28

#### **Graph 5 Formula**

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 28 applies is calculated is as follows:

For  $0 < SD \le 45$ , AD = 1500 mm

For  $45 < SD \le 500$ ,  $AD = 1500 + ((SD - 45) \times (500 \div 303))$ 

For 500 < SD, AD = 2250 mm

Where:

SD = Span Distance

AD = Applicable Distance

#### Notes to Graph 5

- (1) The applicable distance must be extended by an additional distance to allow for sag and sway of the cable. This is done by adding that distance to the applicable distance (see clause 28(2)(a)).
- (2) A distribution company, or an owner or operator of a railway supply network or a tramway supply network, must assist a Council, if requested, by determining the additional distance (see clause 21(2)).
- (3) The minimum clearance space for a span of an electric line to which this Graph and clause 28 apply is partially illustrated in Figures 1 and 5.
- (4) The applicable distance for the first and last sixths of a span of an electric line to which clause 28 applies is 1500 millimetres.

## 7.3. Methodologies and Practices

Vegetation management work which is required to be performed on vegetation which has any part within or likely to come within, the vegetation clearances of live exposed high voltage overhead lines shall be undertaken by approved work methods or under Electrical Access Permit.

### 7.3.1. Safety Observer

A safety observer(s) shall be appointed where any, person, mobile plant, EWP, or vegetation is in a position where any part could accidentally come within the Safe Approach Distances or Vegetation Clearances. Depending on the position and complexity of the work, more than one safety observer may be required however at least one safety observer must be always positioned at ground level.

The safety observer(s) shall:

- Be specifically instructed in the workplace hazards applicable
- Ensure that all persons, tools, plant, and equipment remain outside the specified minimum
- Safe Approach Distance unless performing a rescue in accordance with approved procedures
- Be positioned at a suitable location to effectively observe the work being performed
- Not observe more than one vegetation management work activity at any time
- Always maintain effective and immediate communication with the work team
- Not perform any other task while acting as a safety observer, which includes the passing of tools directly to the person performing the work
- Suspend all work in the event of having to leave the site or significantly change position until he / she has returned / reached new location or has been replaced
- Be trained and deemed competent of performing a rescue relevant to the work being undertaken; and
- Be trained and deemed competent of performing the work being undertaken.

The safety observer's role may be rotated between members of the work team ie. to reduce fatigue. When this occurs, it shall be formally handled such that all members of the work party are always aware who is performing the role of the safety observer(s).

### 7.3.2. Method of Maintaining the Clearance Space

In managing trees AGL Macarthur:

- Performs formal inspections by trained competent persons of all AGL Macarthur's electric line assets and associated vegetation clearance areas to identify all works, including vegetation management works, such as pruning and clearing of trees, necessary to maintain fire safety
- Undertakes a programme of weekly patrols by AGL Macarthur staff of electric line assets to check for any issues, including vegetation, requiring immediate attention
- Monitors, reports, and audits the state of preparedness for the declared bushfire season and the effectiveness of line clearing programs
- Maintains a database of line clearance activities required and line clearance activities conducted for each pole and section of electric line owned by AGL Macarthur; and
- Calculate the additional pruning requirements to maintain clearance spaces in anticipation of regrowth in the pruning cycle. AGL Macarthur employs a trained professional to advise of predicted regrowth based upon tree type and species, historical growth patterns for the different areas, and anticipated seasonal rainfall.

### 7.3.3. Method of Maintaining Trees Below Lines

Strategies to manage trees below electric lines to mitigate, as far as practicable, the fire risks associated with the fuel load below the transmission line include:

- The establishment of management processes which ensure the inspection, implementation, surveillance and monitoring of power line clearance and maintenance activities.
- Maintain and improve responsive processes for the dealing with notified locations of noncompliance with the Regulations.
- Maintain a 12-monthly cycle of planned pruning and vegetation clearance prior to the declaration of the bush fire season in all clearance areas to which this plan applies.
- Continue line patrols of clearance spaces to check for damage and risks and schedule non-routine pruning or vegetation clearing activity.
- Building team and management relationships with relevant authorities so that electric line clearance can be achieved using environmentally and economically sustainable solutions.
- Institute systems for the notification of those affected by the proposed works and including mechanisms for consultation and dispute resolution.
- Implementation of audit procedures to insure the effectiveness of all related practices and processes in line with AGL Macarthur's maintenance procedures.
- Implement alternative engineering solutions such as undergrounding of lines where required.

#### 7.3.4. Method of Maintaining Trees Adjacent to Lines

Detail of the methods to be used for the clearance of vegetation under electric lines is contained in the AGL Macarthur Bushfire Mitigation Plan. The following flow chart shows the decision-making process for maintaining line clearance.



An inspection of these areas is conducted annually by a suitably qualified auditor prior to 30 September each year. This inspection will focus on all aspects of tree care, particularly identifying the trees expected to breach the minimum code clearance required over the next twelve months.

Once auditors have completed the annual and scheduled inspections a report clearly outlining the projected needs in relation to statutory tree clearing and asset maintenance conditions are provided to AGL Macarthur's responsible officer who will then undertake random checks to ensure data integrity. The report will include, tree location, species, voltage of powerlines, asset status/condition, removal and pruning requirements and any special comments about the vegetation itself.

For scheduled pruning AGL Macarthur will provide 14 days prior notification to affected landowners. If immediate/emergency pruning is necessary AGL Macarthur will attempt to contact affected landowners prior to the pruning operations commencing. If this cannot be achieved the landowners are notified as soon as possible after emergency pruning occurs.

AGL Macarthur observes a routine cycle between each pruning and clearing of trees of 12 months.

### 7.3.5. Process to Maintain the Clearance Space

In determining the location where work is required to maintain the clearance space AGL Macarthur will;

- Monitor conditions in the area adjacent to the clearance space or the regrowth space to ensure that no trees or parts of trees in those areas could be a hazard to the safety of the electric lines under the range of weather conditions that can prevail in that area.
- Maintain a regime of regular inspections through a computerised maintenance management system (CMMS), particularly during the growing season, with additional consideration given to weather online encroachment. Refer to the scheduled works listed in the appendices of this plan.
- Calculation of the length of time required between each pruning or clearing of trees is dictated by the following factors:
  - Annual regrowth
  - Type of tree
  - Fire vulnerability of species (type of bark, leaf litter etc)
  - Line voltage and type of protection; and
  - Environmental impact on area/catchment

If an easement undergoes abnormal growth patterns due to climate conditions, then a shorter pruning cycle would be considered.

### 7.3.6. Process for Pruning or Urgent Cutting or Removal

The normal pruning cycle is 12 monthly unless abnormal conditions occurred. All works are carried out by the responsible person in compliance with Schedule 1 – Code of Practice Section 10.

AGL Macarthur employs trained and qualified external contractors that must have a minimum of Certificate II in ESI Powerline Vegetation Control, Cert III Horticulture (Arboriculture) and hold appropriate certificates for both themselves and their equipment that legally entitles them to undertake the work. Identification of qualifications is undertaken as part of the contractor prequalification accreditation (cm3) and the AGL authority to work (ATW) processes.

The trained contractors provide advice on predicted growth. Where urgent pruning or clearing to maintain the required clearance, space is identified by inspection then the required work is undertaken as required within 4 weeks. See Priority coding table.

All urgent pruning or clearing must comply with AS4373 as reasonably practicable. As soon as practicable after completing the cutting or removal, notice of that cutting or removal has occurred is to be provided to:

- All affected persons; and
- The occupier of the land on which the tree was cut or removed; and
- If a tree was removed—the owner of the land on which the tree was removed.

After any urgent cutting or removal records of the following details are to be kept for a minimum of 5 years, these details are to be archived and entered in the computerised maintenance management system:

- Where and when the cutting or removal was undertaken
- Why the cutting or removal was required; and
- The last inspection of the section of the electric line where the cutting or removal was required.

Compliance with AS4373 is determined through the post-work audits. Should results be unsatisfactory, this will be indicated, and remedial or corrective works are undertaken as a priority.

Alternative methods of maintaining clearance compliance by pruning must be considered where pruning to the Standards would result in:

- A safety risk to the workers performing vegetation clearance
- Potential safety risk to the public
- Minimal mitigation of fire risk; or
- Unacceptable damage to the amenity and structural integrity of the tree

Alternative methods may include:

- Installation of Aerial bundle cabling
- Alternative cross-arm configuration
- Underground cabling
- Submitting an exemption application for specific locations'
- Increase inspection and pruning cycles
- Tree removal and replacement with a more suitable species
- Tree removal with no replacement

### 7.3.7. Process for Pruning or Cutting Trees of Significance

Strategies to restrict cutting or removal of native trees or trees of cultural or environmental significance to minimum extent necessary to ensure compliance with the Regulations or to make an unsafe situation safe are:

- Together with AGL Macarthur's electric line maintenance provider investigate alternative solutions to protect vegetation from adverse impact by electric lines and electric lines maintenance.
- Continue the close working relationship with AGL Macarthur's electric line maintenance provider and maintain active supervision, and checking, of work done on AGL Macarthur's behalf to ensure the most environmentally sound practices are being employed for vegetation management and electric line
- To prevent excessive pruning or clearing of trees AGL Macarthur will ensure all pruning is undertaken either by thoroughly trained in-house staff, or fully trained professional vegetation management contractors and is conducted according to AS 4373-2007 "Pruning of Amenity Trees".

AGL Macarthur staff training records are kept by the responsible officer, or a delegated officer, and are updated as staff attain specific training standards as well as annually as a matter of routine.

Pruning works are inspected before during and after the job by qualified supervisory Staff to ensure compliance with the Standard and a record kept of these inspections.

## 7.4. Priority Coding

Priority coding is used to identity and prioritise activities resulting from the inspection of all vegetation in the vicinity of electric lines that are the responsibility of AGL Macarthur.

Priority codes are used for both the external audit inspections and for scheduling remediation activities in the AGL Macarthur computerised maintenance management systems based upon the external audit inspection recommendations and assessment of current asset operating conditions.

Priority/Code	Description
P1 (Immediate)	Requires immediate remedial action
P2 (Break Schedule)	Requires high priority remedial action within the current working week
P3 (Next Sched Week)	Requires high priority remedial action within the next working week
P4 (Start 2-4 weeks)	Requires remedial action within 2-4 weeks during fire & non fire season
P5 (Start 4+ weeks)	Requires further assessment or remedial action within a period greater than 4 weeks in normal maintenance timeframes

## 8. Responsible Cutting Practices

This section outlines the process to be employed to ensure that cutting or removal of trees is undertaken in a responsible manner and applies to all persons associated with the vegetation management plan.

AGL Macarthur employs trained and qualified external contractors that must have a minimum of Certificate II in ESI Powerline Vegetation Control, Cert III Horticulture (Arboriculture) and hold appropriate certificates for both themselves and their equipment that legally entitles them to undertake the work.

Workers shall only undertake work for which they have been trained, assessed, and deemed competent to enable them to safely perform work. All relevant contractors must have sufficient knowledge, training, qualifications, and experience to ensure that tree activities under their control are conducted in a safe and environmentally responsible manner.

AGL Macarthur records all contractor training and qualifications in the 'RAPID Global' and 'cm3' contractor management application systems including ensuring routine refresher training in relevant modules are current and work can be undertaken in a safe competent manner.

Identification of qualifications is undertaken as part of the contractor pre-qualified accreditation (cm3) and Authority to Work (ATW) processes.

## 8.1. Training and Competency

The following AGL Macarthur vegetation roles are required to hold the qualification of Certificate II in ESI Powerline Vegetation Control (UET20312):

Vegetation roles	Description
Assessor	Engaged in assessing and scoping vegetation near live electrical apparatus. Determine cutting requirements to confirm compliance for vegetation near live electrical apparatus.
Cutter working from EWP	Engaged in vegetation control work for the Network Operator from an Elevated Work Platform (EWP).
Specialist Plant Operator	Engaged in vegetation control work for the Network Operator from the ground using specialised plant ie. mechanical boom saw.
Tree Climber	Engaged in vegetation control work for the Network Operator from a tree.
Arborist	Arborists may be engaged at AGL Macarthur to assess hazardous trees.

Section 8.2 below outlines the units of competency required to be undertaken for the applicable Vegetation role. All mandatory competencies shall be completed to undertake the role at AGL Macarthur.

Recognised training shall be provided by a Nationally Recognised Trainer following the Australian Qualifications Framework or have recognised equivalent training and/or experience.

When a vegetation worker undertakes a role that requires a qualification, they shall meet the agreed elective requirements. New workers shall have a documented training plan within 3 months of commencing any work at AGL Macarthur which includes reference to the nominated electives in the table below.

Where a person performs multiple roles (ie. Tree Climber, Cutter working from EWP) they shall undertake the mandatory units of competency and refresher training applicable to the roles as stipulated in this plan.

### 8.2. Units of Competency Requirements

The following table outlines the Units of Competency required to be undertaken for the applicable Vegetation role at AGL Macarthur. All Mandatory (M) units of competency shall be completed to undertake the role.

Qualification and Core Competency Standard	Competency Standard Unit	Assessor	Cutter Working from EWP	Specialist Plant Operator	Tree Climber
Qualification					
Certificate II in ESI - Powerline Vegetation Control	UET20312	М	м	м	м
Apply ESI safety rules, codes of practice and procedures for work on or near electrical apparatus (Green Book / Blue book)	UETTDRRF01B	м	м	м	м

Qualification and Core Competency Standard	Competency Standard Unit	Assessor	Cutter Working from EWP	Specialist Plant Operator	Tree Climber
Elective Competency Standard Units	•				
Use climbing techniques to cut vegetation above ground near live electrical apparatus	UETTDRVC21A				М
Assess vegetation and recommend control measures in an ESI environment	UETTDRVC24A	М			
Use elevated platform to cut vegetation above ground level near live electrical apparatus	UETTDRVC25A		м		
Operate specialist equipment at ground level near live electrical apparatus	UETTDRVC31A			А	
Use specialised plant to cut vegetation above ground level near live electrical apparatus	UETTDRVC32A			М	
Apply pruning techniques to vegetation control near live electrical apparatus	UETTDRVC33A		М	М	М
Undertake release and rescue from a tree near live electrical apparatus	UETTDRVC34A				М
Fell small trees	AHCARB202A		А	А	А
Undertake standard climbing techniques	AHCARB204A				М
Apply chemicals under supervision	AHCCHM201A		А	А	А
Operate machinery and equipment	AHCMOM304A		А	М	А
Recognise plants	AHCPCM201A	м	А	А	А
Operate a mobile chipper/mulcher	FPIHAR2206B		A	A	A
Licence to operate a boom-type elevating work platform (boom length 11 metres or more)	TLILIC2005A		М		

#### M – Mandatory

A – Additional (If worker requires for the works being performed)

8.3.	Competency and	Refresher	Requirements	3
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Frequency	Qualification and Core Competency Standard	Competency Standard Unit	Assessor	Cutter Working from EWP	Specialist Plant Operator	Tree Climber
3 Yearly	Apply ESI safety rules, codes of practice and procedures for work on or near electrical apparatus (Blue book)	UETTDRRF01B	Μ	Μ	Μ	Μ
3 Yearly	Apply access procedures to work on or near electrical network infrastructure (Receive Access Permit)	UETTDRRF09B	Μ	Μ	Μ	Μ
1 Year	Cardiopulmonary Resuscitation (CPR)	HLTAID001	М	М	М	М
1 Year	First Aid in an ESI environment	UETTDRRF10B	М	М	М	М
1 Year	EWP Controlled Descent Escape	UETTDRRF08B		М		
1 Year	EWP Rescue	UETTDRRF03B		М		
1 Year	Undertake release and rescue from a tree near live electrical apparatus	UETTDRVC34A				М

M – Mandatory

A – Additional (If worker requires for the works being performed)

# 9. Monitoring and Auditing

## 9.1. Monitoring

Performance procedures relating to keeping vegetation clear of powerlines within the declared area are measured by the following:

- Number of trees in breach of the Regulation at date of audit
- Number of pruning cuts found below standard
- Number of external requests for pruning or external complaints
- Progress against cutting schedule; and
- Number of alternative approaches to normal pruning adopted:
  - o Removal/replacement
  - Powerlines relocated underground
  - Other engineering solutions adopted

## 9.2. Compliance

To gauge the Responsible Person's compliance with the Regulations, AGL Macarthur conduct an annual desktop audit on all aspects of bushfire preparedness including line clearance and bushfire mitigation plans prior to the declaration of the fire danger period each year.

Audit results are forwarded to the Operations Manager for action. The audit team consists of the following officers or appointed delegate:

- Head of Wind and Solar
- Asset Manager, Wind (Vic)
- Operations Manager
- HSE Business Partner

The following criteria are audited:

- Compliance with the Regulations
- Line audit reports
- Line maintenance records
- Pruning reports
- Bushfire mitigation index reports
- Line outage procedures
- Hardware replacement; and
- Bushfire preparedness

### 9.3. Auditing

To assess the implementation of this management plan AGL Macarthur management will undertake as a part of the annual internal review of bushfire preparedness all aspects of this plan.

An audit prior to the declared summer bushfire season will identify trees that:

- Are likely to contact powerlines
- Are encroaching into the clearance space
- Will need re-inspecting within the current year
- May require additional clearances due to changes in bushfire risk classification; and
- May pose other hazards

In addition, the following aspects are reviewed:

- The timely repair of asset damage or vegetation clearance issues raised by contractor or employees via maintenance management system reports
- The timely rectification of noncompliance issues raised by outside agencies
- Accurate reporting and record keeping
- The number of line inspections and reports raised; and
- Timely submission of reports to Energy Safe Victoria.

The results of all audits are documented in audit reports in accordance with documented procedures. The results of each audit including the documented Corrective Action Requests and are brought to the attention of the Leadership Team.

Each audit is conducted by trained personnel, independent from those activities being audited. Copies of all internal audit reports are retained for a minimum of 5 years, these details are archived and entered in the AGL Macarthur computerised maintenance management system.

The Head of Hydro reviews each audit report and co-ordinates follow-up action to verify the implementation of the corrective action and a works management work order is raised and tracked.

## 10. Notification

AGL Macarthur provides a copy of the Electric Line Clearance Management Plan to Energy Safe Victoria for approval as required by the Act.

A copy of the AGL Macarthur Electric Line Clearance Management Plan 2021-2022 is made available for public inspection upon request between 0730 to 1600 hours. This will be at AGL Macarthur's principal office located at Kiewa Valley Highway Mt Beauty.

The following documentation is also available on request:

- Bushfire Mitigation Plan
- Line easement maps
- Asset register reports; and
- Significant vegetation maps

AGL Macarthur electric lines cross private land, and the vegetation management practices affect three separate landowners. There are two private landowners and the Victorian Department of Environment, Land, Water and Planning (DELWP). AGL Macarthur will make notification to DELWP prior to planned works.

AGL Macarthur will, as required by the Regulations, prior to vegetation clearance within the boundary of a private property, consult with the occupier and/or the owner of the property, prior to the cutting or removal of vegetation. This will occur at least 14 days and not more than 60 days before the intended cutting or removal is to occur and will be by means of a notice.

## 11. Dispute Resolution

AGL Macarthur has a dispute resolution policy in place. This was developed to settle conflicts and disputes arising from any aspect of AGL's services or products. The system documents how to deal with disputes that require resolution by an external process.

The dispute resolution policy is also available to be viewed on the AGL public website:

https://www.agl.com.au/-/media/AGL/Residential/Documents/Regulatory/2016/Dispute-Resolution.pdf?la=en

## 12. Appendices



#### 12.1. Location Map – Assets in Hazardous Bushfire Risk Area



AGL Macarthur Electric Line Clearance Management Plan 2021-2022 Release Number: 2 Owner: Process Owner ML AL FT00 Approved By: Jo Stone (A108815) Uncontrolled When Printed

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#### 12.2. Location Map – 33 kV Transmission Line – Line route

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#### 12.3. Location Map – 132 kV Transmission Line – Line route



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### 12.4. Reporting Organisational Structure



## 12.5. Fire Report Form

Date:       Time:       Report         ignificant fire, je: injury or death or damage to stock or property which incleancing, details should be immediately phoned to the Manager of Renewable tenewable Operations Manager.       Incident Details:         Incident Details:	rting Officer: udes tress, pasture and les, Hydro Manager and
ignificant fire, ig: injury or death or damage to stock or property which incleancing, details should be immediately phoned to the Manager of Renewable enewable Operations Manager.  Incident Details: Date and Time of Fire: Fire Source and Locality: Pole Number: Asset Number: Map Reference:  Environmental Details: Weather at time of Fire: Consequences of Fire: (list damage) Injury or Death: Area of Fire: Day of Total Fire Ban: Temperature: Wind Direction:	udes tress, pasture and les, Hydro Manager and
ignificant fire, ig: injury or death or damage to stock or property which inclencing, details should be immediately phoned to the Manager of Renewable operations Manager.  Incident Details: Date and Time of Fire: Fire Source and Locality: Pole Number: Asset Number: Map Reference:  Environmental Details: Weather at time of Fire: (list damage) Injury or Death: Area of Fire: Day of Total Fire Ban: Temperature: Wind Direction:	udes tress, pasture and les, Hydro Manager and
Date and Time of Fire:   Fire Source and Locality:   Pole Number:   Asset Number:   Asset Number:   Map Reference:     Environmental Details:   Weather at time of Fire:   Consequences of Fire: (list damage)   Injury or Death:   Area of Fire:   Day of Total Fire Ban:   Temperature:   Wind Direction:	
Fire Source and Locality:   Fire Source and Locality:   Pole Number:   Asset Number:   Map Reference:     Environmental Details:   Weather at time of Fire:   Consequences of Fire: (list damage)   Injury or Death:   Area of Fire:   Day of Total Fire Ban:   Temperature:   Wind Direction:	
Pole Number:   Asset Number:   Map Reference:     Environmental Details:   Weather at time of Fire:   Consequences of Fire: (list damage)   Injury or Death:   Area of Fire:   Day of Total Fire Ban:   Temperature:   Wind Direction:	
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Injury or Death: Area of Fire: Day of Total Fire Ban: Temperature: Wind Direction:	
Area of Fire:	
Day of Total Fire Ban: Temperature: Wind Direction:	
Temperature: Wind Direction:	
Wind Direction:	
Wind Speed (Kph):	
Humidity (%):	
Dole Information	
Pole Number: Pole Location:	
Nearest Asset: Line Number:	
Last Inspection Date:	
Pole Material: Wood: Yes / No Steel: Yes / No	Concrete: Yes / No
Cross-arm Material: Wood: Yes / No Steel: Yes / No	Concrete: Yes / No
Conductor Material: SC: Yes / No AAC: Yes / No	ACSR: Yes / No



## **FIRE REPORT FORM**

Voltage and Current Information:					
Fault Type:	Three Phase: Yes / No	Phase to Ground: Yes / No			
Voltage (KV):					
Fault Current (A):					

Contributing Factors:					
Assets	Tick	Assets	Tick	Assets	Tick
Conductor		Joint Failure		"D" burn Through	
Clashing		Conductor Failure		Fuse	
Tie Failure		Bridging		EDO operation	
EDO Hang up		BA Failure		Low Voltage	
PFF failure		Transform Failure		Switch Failure	
Insulator	Tick	Surge Diverter	Tick	Cross-Arm	Tick
Mechanical Failure		Earth Leads		Fire	
Electrical Failure		End Cap		Broken Cross-arm	
Pollution		Surge Diverter failure		Termites	
Salt				Age rot	
Other				Other	
Fauna	Tick	Lightning	Tick	Miscellaneous	Tick
Intermediate		Fuse Separation		Service Failure	
Structure		Transformer Fail		U/G Asset Failure	
Complex Structure		Pole Failure		Overload	
Substation Pole		Miscellaneous		Earthing Failure	
Mid Span/Bird/Animal		Vehicle		PEL Failure	
Zone Sub Feeder	Tick	ACR's	Tick	Fuses	Tick
Feeder CB tripped		ACR Tripped		Fuses Operated	
CB Tripped to lockout		ARC Tripped lockout		No of Fuses Operated.	
Auto Reclose Suppressed		Auto Reclose Suppressed		Fuse Type PFF	
No of trips		Miscellaneous		Fuse Type EDO	
Mid Span/Bird/Animal		Vehicle		Fuse Type Acid Boric	
Protection Operation		Protection Operation		Protection Operation	
Other:		Other:		Other:	
Other:		Other:		Other:	

1	r agl	IRE REPORT FORM
Additi	onal Information	
	Comments	Property Owners
Signed:		<u>Date '</u>
	(AGL Responsible Officer)	
Signed:		Date:
	( <u>Operations</u> Manager)	

## 12.6. Works and Audit Schedule

The following images are extracts from the Macarthur overhead line routine works and audit inspection schedule.

## 132kV TRSS to MWSS overhead line inspection

Displayed: Fri Feb 1, 2019 @ 8:00 AM

Deadline: Mon Mar 4, 2019 @ 8:00 AM

Completed: Thu Feb 28, 2019 @ 11:22 AM

- Vestas Australia

Vestas

Item Prompt	Item Result	Completed By	Completed On
Check MWF 1 Tower structure	10 of 10	Hemi Prasad	2/20/19, 7:17 AM
Check MWF 1 Jumper Connectors	10 of 10	Hemi Prasad	2/20/19, 7:17 AM
Check MWF 1 Conductor	10 of 10	Hemi Prasad	2/20/19, 7:17 AM
Check MWF 1 Foundation	10 of 10	Hemi Prasad	2/20/19, 7:17 AM
Check MWF 1 Vibration Dampers	10 of 10	Hemi Prasad	2/20/19, 7:17 AM
Check MWF 1 Hardware	10 of 10	Hemi Prasad	2/20/19, 7:17 AM
Check MWF 1 Post Insulator	10 of 10	Hemi Prasad	2/20/19, 7:17 AM

Check MWF 1 Insulator	10 of 10	Hemi Prasad	2/20/19, 7:17 AM
Check MWF 1 Earth Bond Pole top	10 of 10	Hemi Prasad	2/20/19, 7:18 AM
Check MWF 1 Earth Bond Pole Bottom	10 of 10	Hemi Prasad	2/20/19, 7:18 AM
Check MWF 1 Duplex conductor spacer	10 of 10	Hemi Prasad	2/20/19, 7:18 AM
Check MWF 1 Earth Wire Conductor	10 of 10	Hemi Prasad	2/20/19, 7:18 AM
Check MWF 1 Line Sag	10 of 10	Hemi Prasad	2/20/19, 7:18 AM
Check MWF 1 Trees	10 of 10	Hemi Prasad	2/20/19, 7:18 AM
Check MWF 1 Road Crossing	10 of 10	Hemi Prasad	2/20/19, 7:18 AM
Check MWF 1 I D Tag	10 of 10	Hemi Prasad	2/20/19, 7:18 AM
Check MWF 1 Danger Tag	10 of 10	Hemi Prasad	2/20/19, 7:18 AM
Check MWF 1 Fenced	10 of 10	Hemi Prasad	2/20/19, 7:18 AM

## 13. Referenced Documents / Procedures

Document Number	Document Title			
AP MO AD 032	AGL Controlled Document Update Procedure			
HI AL SF 02	AGL Emergency Management Plan			
ML AL FI 02	AGL Macarthur Bushfire Mitigation Plan			
AGL-HSE-STD-004.1	AGL HSE Risk Management Standard			
AGL-HSE-SDM-004.1	AGL HSE Risk Management Standard Methodologies			
AGL-HSE-TMP-004.1	AGL HSE Risk Management Standard Procedure Template			
AGL-HSE-GUI-012.1	AGL Obligations to Notify Regulatory Authorities - Guideline			
AGL-HSE-PRO-012.1	AGL HSE Incident, Near Miss and Hazard Management Procedure			
AGL-HSE-PRO-012.3	AGL HSE Corporate Reporting Procedure			
AGL-HSE-STD-012	AGL HSE Incident, Near Miss and Hazard Management Standard			
Vestas High Voltage Electricity Safety Procedures				
Vestas Lockout Tagout and Permit to Work Procedures				
Vestas Electricity Safety Management Scheme				
Vestas HSE Induction and Authorisation Procedures				