

## Appendix 8: Fire management guidelines

**The prevention and management of fire is a critical part of the wind farm planning process. In Australia, wind farms are commonly constructed in rural and bushland environments where fire is a significant concern. Despite the low fire risk that wind farms present, the development of an effective fire prevention and emergency response is essential.**

A detailed risk assessment (using ISO 31000 risk management standard or similar) should be conducted for the project across all stages of the development to evaluate the fire risk and to guide mitigation requirements, including emergency response plans. The risk assessment should be iterative and include collaboration with local and regional fire management and prevention authorities. As all sites and project configurations are different, standard approaches need to be avoided. Often the proponent is best placed to respond to an emergency at the wind farm and this should be considered in the preparation of the emergency response plan for the project.

Fire management will be in compliance with relevant state and territory fire protection Acts and should also consider any guidelines issued by the state's country fire service. Well planned and effective fire management aims to ensure that appropriate measures are in place to prevent fire and minimise damage in the unlikely event of an emergency.

Listed below are actions which wind farm proponents should consider during the development, construction, operation and decommissioning of wind farm projects.

### Wind farm planning

Wind farm developments need to comply with all relevant Acts (e.g. VIC Electricity Safety Act) and supporting regulations (e.g. NSW Rural Fires Regulation 2008) and consideration of all guidelines. This is in relation to both wind farms and transmission or distribution lines.

Consult the relevant regional and local fire service to notify them of the project and seek advice regarding fire and emergency response management requirements. Country fire services may also have specific wind farm fire management guidelines available to assist developers in planning for fire management.

**Fire management requirements may include:**

- provision of details of the wind farm site (such as wind farm location, turbine and access track/gate locations and onsite identification) to assist fire service internal strategic and response planning
- development of an emergency response plan, which would include agreed notification protocols, contacts and response actions
- design of internal access tracks to allow emergency vehicle access including consideration of:
  - all weather surface
  - minimum track width (including corners)
  - maximum gradient (including entry and exit of dips)
  - minimum weight bearing for crossovers
- provision of turn around on dead end tracks
- commitment to adhere to fuel load regulations and local fire service requirements regarding fuel loads, around electrical compounds, transmission and distribution lines, buildings and other structures (consideration should be given to native vegetation clearance restrictions and landowner consent prior to clearing)
- identification of water reserves in the local area which could be used for fire fighting, or provision of static water supply tanks and appropriate fittings for fire fighting at agreed locations.

### Pre-construction

Provide the appropriate regional and local fire services with up to date information which may include:

- a construction works schedule
- maps of final turbine layout and identification information for individual turbine sites
- access road plans and locations of access gates
- security information such as location of locked gates and restricted access areas
- location of any additional water supplies installed for construction activities
- location of potential landing pads for fire fighting aircraft or helicopters.

### Construction and decommissioning

During construction and decommissioning phases, proponents should:

- provide the local rural fire services with access keys or cards to locked gates and restricted areas (where appropriate)
- ensure contractors develop an emergency response plan that is consistent with the proponent emergency response plan, and confirm notification and response protocols with the local fire service
- ensure all staff are familiar with fire prevention and emergency response actions (e.g. by including in staff inductions) and that plans developed are available to all staff and local and regional fire services
- provision of basic fire-fighting equipment at each active site, including fire extinguishers, knapsacks, and other equipment suitable for initial response actions
- provision for mobile telephone and UHF radio communications at construction sites
- keep local rural fire services updated about any changes to works schedules or access arrangements
- compliance with state Acts regarding high risk work activities on high fire danger days.

### Operation of a wind farm

During wind farm operations, proponents should ensure the following fire management actions are carried out:

- ensure an up to date emergency response plan or procedure is available on site at all times (note: revisions should be completed in consultation with local and regional fire services)
- ensure operations staff are familiar with emergency response procedures and have access to relevant plans or procedures
- ensure the regional and local rural fire service has up-to-date maps, access gate keys/cards and turbine numbering information
- inform the local rural fire service of the wind farm maintenance schedule (if available) and any planned activities.

### Useful references

NSW Bushfire Coordinating Committee, *Bush Fire Risk Management Policy*, Policy No. 1/2008

NSW Rural Fire Service (RFS), *A guide to Developing a Bushfire Evacuation Plan, Planning & Environment Services* – NSW Rural Fire Service, 2004

VIC - *Emergency Management Guidelines for Wind Farms*, Country Fire Authority (CFA), Version 4, February 2012. [http://www.cfa.vic.gov.au/documents/CFA\\_Guidelines\\_For\\_Wind\\_Energy\\_Facilities.pdf](http://www.cfa.vic.gov.au/documents/CFA_Guidelines_For_Wind_Energy_Facilities.pdf)