Electricity Network Safety Management System



Transgrid's Electrical Network Safety Management System (ENSMS) is in place to meet the expectations and requirements of stakeholders, including:

- The safety of the public, and persons near or working on electricity transmission network assets
- The protection of property and network assets
- Safety aspects arising from the protection of the environment, including protection from ignition of fires by network assets
- Safety aspects arising from the loss of electricity supply.

Our Health and Safety, Environment, and Asset Management Policies guides a systematic and robust approach to the consideration of safety across the planning, design, construction, commissioning, operation, maintenance and decommissioning of the electricity transmission network assets, and demonstrates our commitment towards electricity network safety.

Transgrid plans for the safe operation of its electricity transmission network assets through a number of mechanisms, including:

- Consistent risk management approach of proactive hazard identification, risk assessment taking into
 consideration likelihood and consequence, and mitigation/control measures to reduce the risk to an
 acceptable level across the lifecycle of the electricity transmission network assets
- Compliance with market, jurisdictional, and other legislative requirements
- Robust transmission network planning process that takes into consideration customer, market, jurisdictional and other stakeholder requirements and minimise customer interruptions due to constraints
- Strategically manage the assets through well-developed and documented asset management principles and practices to balance risk, cost and performance, and deliver safety
- Manuals and plans to guide a robust approach to safety at a project and work site level
- Procedures that guide the safe operation of the network
- Rules that govern work on the electricity transmission network assets
- Well-developed and documented health, safety and environment management systems and practices
- Processes to ensure effective electricity network safety management through monitoring and review, corrective action, continual improvement and audit and assurance.

Transgrid plans and prepares for foreseeable abnormal operation of its electricity transmission network assets through a number of mechanisms, including:

- Manuals and plans that guide the response to incidents of varying levels of severity, from loss of an asset through to terrorism events
- Emergency response procedures that cover a variety of scenarios, from staff injury to fires, for every Transgrid site
- Procedures that guide restoration of information communication and technology services in the event of a disruption.





Transgrid's Bush Fire Risk Management Plan outlines how Transgrid responsibly manages the bush fire risk associated with its electricity transmission network assets. The plan identifies a number of hazardous events the organisation is concerned about, and describes how the risk associated with these is managed.

The hazardous events identified are:

- Fire under and/or in proximity to assets
- Fire start due to Transgrid activities and/or assets.

The process to manage the risk associated with these hazardous events is:

- Identify bushfire prone areas and network assets capable of initiating a bush fire
- Adopt safety in design principles to manage bush fire risks
- Establish special procedures for the safe operation of the network in periods of high fire danger
- Effectively maintain the network assets, including transmission line easements
- Promote public awareness in relation to bushfire risks
- Communicate with customers regarding bush fire risks
- Communicate with relevant NSW government agencies regarding bush fire matters
- Respond to bush fire emergencies
- Establish a system to deal with enquiries and complaints from the public in relation to bush fire risk management
- · Management monitoring, control and overview
- Key performance indicators, reporting and monitoring systems
- · Process of continuous improvement
- · Incident investigation, reporting and communication protocols and processes
- System and work activity audit processes.

Transgrid's public safety commitment is the promotion of awareness of the risks associated with electricity transmission network assets through the Public Electrical Safety Awareness Plan. The plan identifies a number of key hazardous events relating to safety that the organisation is concerned about, and describes how we communicate these.

The hazardous events identified are:

- For ground based assets:
- Unauthorised access to substations (including vandalism, theft, adventurous children, unauthorised emergency services, etc.)
- Potentially hazardous electrical conditions in proximity to Transgrid transmission lines and substations, including publicly frequented and or accessible areas
- Unauthorised climbing of transmission and communication towers
- Excavators and earth moving machinery operating in vicinity of high voltage cables
- Fires under or in proximity to assets
- · Use of pesticides and herbicides
- Fire start due to Transgrid activities or infrastructure.



For aerial assets:

- Tall vessels using navigable waterways under transmission lines
- Clearance of power lines to ground
- High machinery and extendable plant operating under transmission lines
- Vegetation clearing or forestry works in the vicinity of transmission lines
- Crop dusting and any low flying aerial activities in proximity to transmission lines
- Kite and model planes flying in proximity to transmission lines.

The mechanisms to communicate and raise awareness about these are:

- Community consultation
- Electricity safety awareness and education programs for students
- Communication with property owners who have Transgrid's electricity transmission network infrastructure on their land
- Communication with emergency services
- Dial before you dig service
- · Safety awareness and warning signage
- Infrastructure security
- Safe work practices.