

HumeLink: Bushfire Management Q&A

Planning for bushfire management

How is bushfire risk considered as part of the transmission route selection process and infrastructure design?

Transgrid takes the risk of bushfire seriously. We have met with communities impacted by bushfire and we have listened and understood the trauma and damage bushfires have caused to people, their communities, and the environment in locations along our transmission route.

When assessing possible route options for HumeLink, we carried out a natural hazards assessment for the broader HumeLink study area which included modelling potential bushfire risks. The aim of the assessment was to understand how bushfires could impact the potential placement of Transgrid's assets and the surrounding land area. One of the outputs of this assessment was spatial mapping of different classes of bushfire risk, from very high to low. This mapping was used to inform the route selection process and sought to avoid higher risk bushfire areas.

Bushfire risk is identified as a constraint in the route selection process, and wherever possible, we seek to avoid placing our infrastructure in areas classed as moderate to high risk as part of the route selection process.

Transgrid will publish the *Environmental Impact Statement (EIS)* and will attach an *Options Assessment Report* that will outline the route selection process in detail, explaining how the placement of infrastructure minimises, wherever possible, the potential impact of bushfires. This is planned to go on public display in mid 2023.

What is the Australian Standard for electricity infrastructure design when it comes to bushfire risk?

The principle network safety obligation is the *NSW Electricity Supply Act and Electricity Supply (Safety and Network Management Regulation)*. Under the regulation, Transgrid must operate, design, construct and decommission its electricity network in a way that supports safety of the:

- Public
- Property
- Environment
- Network Workers
- Reliability of Supply

Bushfire hazard reduction is included in the [NSW Electricity Supply Act and Electricity Supply](#) (Safety and Network Management Regulation). We ensure that we fulfil these regulations through implementing our [Electricity Network Safety Management System](#) (ENSMS), which is compliant with the Australian Standard (AS5577). This includes formally assessing risks to the public and implementing controls to mitigate these. Our ENSMS is audited annually by the Independent Pricing and Regulatory Tribunal (IPART).

How does putting the transmission lines above ground comply with NSW Rural Fire Service bushfire planning and operations?

There are two types of powerlines:

1. Transmission lines – these are large scale lines that connect power, in bulk, from where it is generated to central distribution points.
2. Distribution lines – these are smaller scale lines that connect the power from central distribution points to where it is consumed, in homes, offices and factories.

Transgrid is responsible for transmission line construction and maintenance as part of the National Energy Market (NEM).

The NSW Rural Fire Service (RFS) makes different recommendations for transmission and distribution lines. The RFS recommends that distribution lines (that service houses, subdivisions and commercial business), are installed underground. However, they make no recommendations for transmission lines, which carry power to substations across long distances, to be installed underground.

Transgrid is continuing to build relationships with critical organisations, and we have been working with the NSW Rural Fire Service to develop a collaborative approach to risk assessment and management along the HumeLink route. We are investigating a number of initiatives to support bushfire management, including how the access tracks required for the construction of the HumeLink project can be located to benefit fire management efforts and maintained for NSW RFS vehicle access.

Transgrid and HumeLink representatives recently met with the NSW Rural Fire Service Commissioner to discuss how we can best work together to support the local communities and rural fire services along the HumeLink route, and we will continue to develop a partnership that benefits the community and local fire management efforts.

Will historical climate data and climate change predictions be included in the EIS Bushfire Risk Assessment Report?

Yes, climate change and historical climate data will be discussed in the Environmental Impact Statement (EIS).

During bushfires

What resources, both financial and human, will Transgrid supply during a bushfire? Considering that most landholders fight the fire on their own land.

Transgrid's role in bushfire management is preventative first. We focus on operating and maintaining our network to minimise risk through proactive and regular vegetation management, regular reviews and inspections of our assets to ensure they are fit for purpose, and inspection and management of the easement that supports the infrastructure. The NSW RFS is the lead agency that is responsible for emergency response in bushfires as outlined in the [Rural Fires Act 1997](#). In this role, NSW RFS is the Incident Controller and their Incident Management Team determine priorities for the protection of people, properties and land as they work through the bushfire response.

Transgrid is part of the response, along with other agencies, and provides information and specialist response services to NSW RFS' incident management team as they lead firefighting operations.

In addition, during and in the lead up to bushfires we assist by:

- providing machinery such as heavy plant dozers and forest mulchers to the NSW RFS and to create fire breaks (including on easements)
- preparing for line disconnections, where required

How many times has Transgrid de-energised their transmission lines during fire events? Under what conditions do Transgrid de-energise the lines?

Our response to any risk from bushfire is managed through incident management processes and involves engagement with stakeholders ranging from the maintenance team on the ground for local intelligence, through to provision of information to the Australian Energy Market Operator (AEMO) for the management of power system security.

Because de-energising lines on our transmission network can result in blackouts across a wide geographical area or generation shortages in the National Electricity Market the decision to de-energise a transmission line rarely occurs and follows a detailed process.

As the lead agency in a bushfire emergency NSW RFS has the power to direct de-energisation of our transmission lines. In most cases the RFS will work with our operations team through the local fire control liaison officers to consider the situation on the ground and potential impacts of de-energisation on the wider community.

Property and easements

Can landowners be reimbursed for maintenance they have undertaken within Transgrid easements?

Easements enable us to manage and maintain our infrastructure, and manage vegetation that poses a risk to the network. Landowners are not required to maintain vegetation or the infrastructure within an easement.

We conduct asset inspection activities throughout the year. These include:

- Annual visual inspection of all assets prior to the bushfire season
- Thermographic inspections to identify “hot spots”
- Detailed structure condition assessments through climbing and measurements
- Earthing system testing
- Underground (wood pole) and foundation (steel tower) inspections and condition assessments

However, if maintenance is required, the landowner will be provided with contact details for a Transgrid team who will organise for maintenance to be undertaken.

How will the transmission line impact landowner asset insurance? If compensated, will this be an upfront payment or in perpetuity? (Including directly impacted and adjacent landowners)

If an insurance premium increases directly as a result of the transmission line, this can be taken into account as part of easement compensation calculations. Transgrid is liable for any directly attributable damage caused to land and property during the construction and operation of the transmission line.

Transgrid holds insurance policies with reputable insurers to cover any risks to workers, contractors and landowner property as a result of constructing and/or operating the transmission network.

How is Transgrid carrying out easement inspections in line with property specific requirements such as livestock and biosecurity requirements?

We consider biosecurity requirements and the individual needs of a landowner when completing all work on a property. We do this by:

- Appointing Land Access Officers who liaise directly with landowners to understand property specific requirements
- Having vehicles that carry hygiene and decontamination kits
- Ensure that all work complies with the requirements of the contractor’s Biosecurity Management Plan (BMP), which is aligned with TransGrid’s [‘Come Clean - Go Clean’](#) mandatory hygiene and biosecurity protocols.

A copy of the contractors BMP can be provided to the landowner prior to the commencement of construction. Specific mitigation measures that go beyond the minimum requirements will be established in consultation with the landowner, including compliance with an existing property BMP.

Can landowners be notified prior to aerial inspections? Helicopters disrupt livestock.

Landowners are notified well in advance for all maintenance and events pertaining to the infrastructure inspections. Yes, impacted landowners will be notified prior to planned aerial inspections and given time to move their livestock, this will be done via phone call.

Once transmission lines are constructed, there are some instances where unplanned aerial inspections will take place, for example in the event of a fire or other emergency.

Network

How many kilometres of the Transgrid network was affected by the Dunns Road fire?

335km of our existing transmission network was exposed to the Dunns Road fire. This resulted in conductor, insulator and structural damage to a number of transmission lines within the area of the fire. The majority of this damage did not result in the immediate failure of the lines, but rather reduced the remaining life of the asset and increased the risk of future failures.

We are currently completing refurbishment work to restore the line where our condition assessment has determined this is necessary for the asset to meet its required lifespan and performance.

What is the life span of Transgrid transmission lines?

Different lines have different lifespans depending on their design and location, as well as maintenance and renewals schedules. For example, transmission lines in high corrosion areas such as coastal zones have shorter lives whereas inland lines in low corrosion zone have longer lives.

Transmission lines associated with HumeLink will have an initial design life of 50 years, however upon assessment this could be extend to 80 years.

What is the difference in biodiversity impacts for overground vs. underground infrastructure options? How does this compare in terms of total project cost?

Biodiversity impacts vary project to project and solution to solution. Common factors that influence impact include, terrain, local ecology, scope of the project and earth materials. Once operational, there is no substantial difference to bushfire risk between overground and underground transmission lines and no significant difference to operational costs.

If you would like to learn more, independent consultants GHD and Stantec have finalised [The HumeLink Project – Underground report](#). We have also received a [response to the report](#) from the community members of the Steering Committee. These documents and our response are available on [our website](#).