

Executive Summary

ES-1 Description of the Proposal

The demand for electricity in the central west of New South Wales has been increasing steadily. In order to maintain an adequate level of supply reliability, TransGrid proposes to reinforce the existing electricity network to the region with the construction of a new 330 kV, 3 phase, alternating current, transmission line from Wollar to Wellington. The proposed transmission line will be approximately 117 km long and will pass through the Midwestern Regional Council and Wellington Council areas.

The transmission line will comprise standard self supporting 330 kV single circuit, steel lattice towers, twin conductors strung at high tension for each phase and two overhead earthwires. The towers will be supported on reinforced concrete footings.

Extensive investigations and consultation were undertaken during the corridor selection phase to identify the most environmentally sound and socially acceptable route alignment for the proposed transmission line. Three alignments, referred to as the Southern Corridor, Central Corridor and Northern Corridor were identified as potential routes before the Northern Corridor was selected as the preferred corridor.

Further environmental and engineering investigations were undertaken in order to define a centre line for the 60 m wide easement and associated access tracks needed for construction. This Environmental Impact Statement (EIS) has been prepared on the actual proposed route and required access tracks.

ES-2 Project Justification

TransGrid's electricity supply network in the central west of NSW has a number of limitations that will prevent a reliable and consistent supply of electricity to the region in the near future, as populations grow and industry expands.

Based on forecast loads, there is a risk that the service standard will not be satisfied during any year from 2003 onwards. This indicates that there is a need for an augmentation of the network such that the expected system minutes not supplied is to be reduced to less than 10 for any year within the planning horizon (to 2013) for the worst single element contingency an outage of the Mt Piper to Wellington 330 kV transmission line. The only 330 kV line supplying the central west of NSW.

ES-3 Consultation and Approval Process

TransGrid has undertaken extensive consultation with the community, government agencies and other relevant organisations throughout the project design. Valuable

input has been received through the consultation regarding the selection of a preferred corridor, and has allowed TransGrid to confidently select the Northern Corridor with the Wollar and Cadonia Estate variations as the preferred corridor.

Further consultation with affected landowners has enabled a detailed centre line to be determined and surveyed. This consultation also enabled the majority of structures to be pegged and access tracks determined. TransGrid formally and gratefully acknowledges the cooperation of these landowners who have enabled this EIS to be a full and complete assessment of the actual impacts of the development.

ES-4 Environmental Impacts of the Proposed Transmission Line

Detailed studies have been conducted along the length of the proposed easement to assess the likely impact of the transmission line on the environment. With a few exceptions, every tower and access track has been inspected by the specialist consultants. This is the first time that such a level of assessment has been possible for a transmission line project.

ES-4.1 Flora and Fauna

The proposed route for the transmission line has been selected to avoid impacts to high conservation vegetation and to minimise impacts upon threatened species. With the main mitigation strategy being avoidance, the majority of the route has been located on cleared agricultural land. However, the construction of the transmission line will entail clearing approximately 97 ha of native vegetation and within the transmission line easement there are occurrences of woodland communities that have been listed as Endangered Ecological Communities (EECs) under both the State *Threatened Species Conservation Act 1995* (TSC Act) and Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Some woodland areas also form habitat for threatened and regionally significant flora and fauna species.

TransGrid undertakes a range of environmental initiatives on a State wide basis and in addition, will develop a package of specific conservation activities for this project. The long term outcome of this approach is to achieve a net increase in woodland on a State wide basis. The ultimate aim is to provide a balance between conservation objectives and achieving a reliable and cost effective transmission network.

Due to the potential impacts on EEC's a Species Impact Statement (SIS) has been prepared for the project to assess the impact on threatened species. TransGrid's decision to prepare an SIS was based on the specific circumstances of this project and the need to more fully address the issues surrounding the occurrence of EEC's within the study area.

The SIS forms part of the EIS, and is included as Appendix A of Volume 2. The SIS addresses the Director Generals requirements under the Threatened Species

Conservation Act 1995, matters arising from the Native Vegetation Conservation Act 1997 and also the requirements of the Commonwealth under the Environmental Protection and Biodiversity Act 1999.

A range of mitigation measures has been developed to address the predicted impacts to native flora and fauna and to provide for no net loss of biodiversity as a result of the project. The proposed transmission line will result in some disturbance of habitat of threatened fauna species and endangered ecological communities that are listed on both the NSW TSC Act and the Commonwealth EPBC Act. However, woodland habitat will remain extensive within the locality and the proposed mitigation measures have been formulated to provide for no net loss of such habitats from the locality in the long term.

ES-4.2 Cultural Heritage

The Indigenous heritage component of the current study recorded 28 Indigenous sites. Nineteen of these were open sites, 9 with Potential Archaeological Deposit (PAD); 7 isolated finds and 2 PAD's where no relics were observed on the surface.

Of the 28 recorded sites along the proposed easement, following design adjustments where practicable, 11 will be directly impacted by the proposed works, while a further 6 require mitigative measures to ensure they are not impacted. Mitigation measures will involve fencing off of sites, while other sites will be monitored or approval sought to carry out test excavation and collection of artefacts.

The most significant site found in the surveys undertaken for the project was CR-OS4 at Tower 198 of the transmission line. In response to a request from representatives of the indigenous community, and subject to approval of the property owner, TransGrid will undertake additional archaeological field work during the construction phase. It is proposed to survey the full geographical extent of the surface deposit at the site and to record artefacts.

As a result of close consultation with the Indigenous community and the implementation of a range of mitigation strategies involving a combination of avoidance, protection and additional research initiatives, the residual impacts on cultural heritage as a result of the construction and operation of the transmission line is considered acceptable.

ES-4.3 Soils

Soil distribution in the region is largely based on the geology of the bedrock materials. There are no extensive areas of Quaternary alluvium or Aeolian materials, however the colluvial materials from bedrock materials can extend away from the bedrock areas. Six different soil types were identified along the route, each with differing constraints and limitations to the development. Mitigation measures to deal with issues such as soil erosion have been developed and will form an integral part of the project design.

ES-4.4 Hydrology and Water Quality

A number of river systems exist in the area of the proposed transmission line. At the Wellington end of the line the main river is the Cudgegong River, which flows into Lake Burrendong, a water supply reserve for the area. Overflow from Lake Burrendong enters the Macquarie River, which flows in a north-west direction into the Barwon River, then into the Darling River system.

At the Wollar end of the proposed line the main river system is the Goulburn River, fed by many smaller creeks and tributaries along its course before flowing into the Hunter River and out to the ocean near Newcastle.

The proposed transmission line will not alter local drainage patterns or flood regimes and has been designed to ensure that this essential service is reliable during significant flood events. Access tracks which cross drainage lines have been designed to include erosion protection to reduce the potential for sedimentation impacts.

ES-4.5 Air Quality

Air quality concerns during the construction phase of the development include dust through the excavation for structure erection, and exhaust emissions from machinery and equipment.

Principal air quality impacts during operation and maintenance of the transmission line will be limited to dust and vehicle emissions during the periodic maintenance checks or emergency repairs. Small quantities of ozone may be generated under wet conditions due to electrical corona forming on water droplets. Such low level ozone is not a contributor to the greenhouse effect.

Dust controls will include minimising activities that can cause nuisance dust, particularly in windy conditions when working near residences or land owner work areas. Management practices involve reducing vehicle or equipment speed in windy conditions when traversing dirt tracks or open paddocks.

ES-4.6 Noise

The main sources of construction noise and vibration are associated with the development of access tracks, vegetation clearing, structure foundations, structure erection and conductor/earthwire stringing. Noise controls will typically involve orientation of equipment, staging of activities, shielding and minimisation of simultaneous operations. Noise goals may be exceeded to a minor or moderate extent on a few days at individual receptors during foundation construction and some access track construction activities within 600 m and for some clearing activities at up to 800 m. By appropriate liaison with affected owners no significant effect is to be expected.

ES-4.7 Land Use

The principal existing land uses in the region are agricultural activities including grazing and horticulture, tourism, residential development including towns,

villages and rural residential areas, recreational uses including National Parks and Nature Reserves, forestry, and extractive industries.

The proposed transmission line will not alter or impact upon any of these land uses.

ES-4.8 Visual Amenity

To reduce the visual impacts of the transmission line on the landscape, a number of techniques were employed. The primary technique was maximising the distance between the line and residents along the route.

The greatest potential for visual impact will occur where the line passes within 500 m of residences such as at Mount Molly, along Slate Gully Road and at Ulan. A total of six options were considered in the Slate Gully Road area and the final alignment places the line as close as possible to the existing treed hillside on the western side of the valley. It is also proposed to paint the towers green in this section.

ES-4.9 Electric and Magnetic Fields

Based on scientific investigations, it has not been established that power frequency electric and magnetic fields in general have any adverse health effects, although the possibility of there being some adverse effect cannot be ruled out.

Several review panels and public inquiries have recommended prudent avoidance as an appropriate response to the present state of scientific uncertainty. In designing and siting the new Wollar to Wellington transmission line, TransGrid has implemented measures consistent with the concept of prudent avoidance. The electric and magnetic fields of the new line will be very low. As a result of the route selection process, the number of dwellings close to the new line has been kept to a minimum. Furthermore, at the separation distances achieved, the transmission line will not add to the electric or magnetic field levels normally found at residences.

Based on the low levels of field exposure and the findings of the scientific reviews, it may be concluded that the new transmission line can proceed without any significant impact due to power frequency electric or magnetic fields.

ES-4.10 Environmental Management

Since the transmission line has been physically surveyed on the ground, it has been possible to develop a Project Environmental Management Plan (PEMP) for the project. The plan is included in the EIS and forms part of the information to be assessed during the approval process. The PEMP contains information on how the project will be managed during construction and operation and covers matters such as organisational responsibilities, erosion and sedimentation control, management of vegetation clearing, weed strategy, heritage, noise, dust, waste and landowner issues. A series of protocols has been provided based on current TransGrid

standards. The Construction EMP, which forms part of the Project EMP will be updated and submitted to the Department of Infrastructure, Planning and Natural Resources once final consent conditions have been obtained.

ES-5 Conclusion

The proposed 330 kV transmission line from Wollar to Wellington provides the best option for meeting the growing demand for electricity by people of the western region of NSW. Its construction will be beneficial for the existing and future populations in the region.

On the basis of the assessments detailed in the various sections of this document, the project proposed provides the option for the lowest impact on the region when compared with the other route options assessed in the early stages of the project development.

The impacts of the transmission line will be both positive and negative. Negative impacts will be mitigated wherever possible by appropriate measures to reduce their impacts on the environment. With the implementation of TransGrid's environmental management systems and sustainability package, the impacts on ecologically endangered woodland communities, threatened flora, fauna or fauna habitats as a result of the proposed development are considered acceptable. Impacts on the community and land use will be low and compensation will be paid to affected landholders.

The balance between environmental impacts and benefits resulting from the proposal clearly favours the development proceeding.

ES-6 How to Make a Response to the EIS

Copies of the EIS documentation will be available for inspection at the following locations:

- ☐ Mid Western Regional Council
(86 Market Street, Mudgee);
- ☐ Wellington Council;
(Nanima Crescent, Wellington)
- ☐ Wollar Service Centre;
(Mudgee – Wollar Road/Barnett Street, Wollar)
- ☐ Department of Infrastructure Planning and Natural Resources
(23-33 Bridge Street, Sydney);
- ☐ NSW Government Information Service
(8 - 12 Chifley Square Sydney); and

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- ❑ NSW Environment Centre, Nature Conservation Council
(Level 5, 362 Kent St, Sydney).

Submissions on the project should be forwarded to:

TransGrid
Wollar to Wellington Project
PO Box A1000
SYDNEY SOUTH NSW 1235
Attention: Mr Graham Buckley

Further information can also be obtained from TransGrid by contacting 1800 222 537 or by visiting the project web site at www.wollar-wellington.com

ES-7 Legislative Changes

- ❑ Subsequent to the finalisation of this EIS, the NSW planning regime for the project has changed.
- ❑ On 1 August 2005, Part 3A (Major Projects) of the Environmental Planning and Assessment Act 1979 commenced.
- ❑ The Wollar to Wellington 330kV Transmission Line project will now be assessed in accordance with the requirements of Part 3A of the EP&A Act.
- ❑ Sections of the EIS that refer to Part 5 Division 4 of the EP&A Act should now be taken as referring to Part 3A of the same Act.
- ❑ The details of the necessary transitional arrangements to apply have been agreed between TransGrid and the Department of Infrastructure, Planning and Natural Resources.
- ❑ These transitional arrangements are primarily administrative, and are to ensure that the environmental assessment and the consultation undertaken on the project to date can be accepted under the new regime.
- ❑ The new process still invites submissions from members of the public on the exhibited environmental assessment documentation, and still requires the proponent to respond to all issues raised in submissions.
- ❑ The final approval authority remains the Planning Minister.