

1. Introduction

This chapter provides a brief overview of the project and introduces the main stakeholders, their requirements for this EIS and its structure.

1.1 Project Overview

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.

TransGrid and Country Energy (the state government authorities responsible for bulk supply and distribution to the area) investigated different ways of reinforcing the network, as described in Chapter 3 of this document, and concluded that the most effective option would be to construct a new 330 kV switching station in the general area of Wollar and connect the switching station to the existing Wellington substation by a new 330 kV single circuit transmission line. The proposed transmission line will be approximately 117 km long and will pass through the Midwestern Regional Council and Wellington Council areas.

Extensive investigations and consultation were undertaken by TransGrid and Environmental Resources Management Australia (ERM) 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 and were detailed in a Corridor Selection Report which was placed on public display in September 2003. The criteria for selecting the corridors included land use constraints, avoidance of woodland vegetation and residences, engineering and construction considerations.

Numerous submissions were made in response to the Corridor Selection Report, providing valuable input into the selection of a preferred corridor for the transmission line. All of the issues raised by the community, government authorities and other interested parties were evaluated in conjunction with environmental issues, technical factors and economic considerations. The Northern Corridor with the Wollar Variation was selected as the preferred corridor. Although the longest option, the Northern Corridor proved superior since it provided the least impact on woodland vegetation, the least number of residences affected, did not pass through ecologically sensitive land uses such as National Parks and allowed the opportunity to reduce visual impacts by paralleling existing transmission lines.

As a result of additional community consultation, the Northern Corridor was further refined including the deviation around the Cadonia Residential Estate. Despite increasing the length of the line again, the option was chosen to further reduce the impacts on residences in the local area.

Further environmental and engineering investigations of the preferred corridor have enabled the proposed alignment within the corridor and the actual 60 m wide easement to be defined.

This Environmental Impact Statement (EIS) has been prepared to assess the impacts of the construction and operation of the 330 kV transmission line along the nominated alignment within the Northern Corridor, to invite community representations, and to allow approval of the project by the Minister for Infrastructure, Planning and Natural Resources under Part 5 Division 4 of the *Environmental Planning and Assessment Act 1979*.

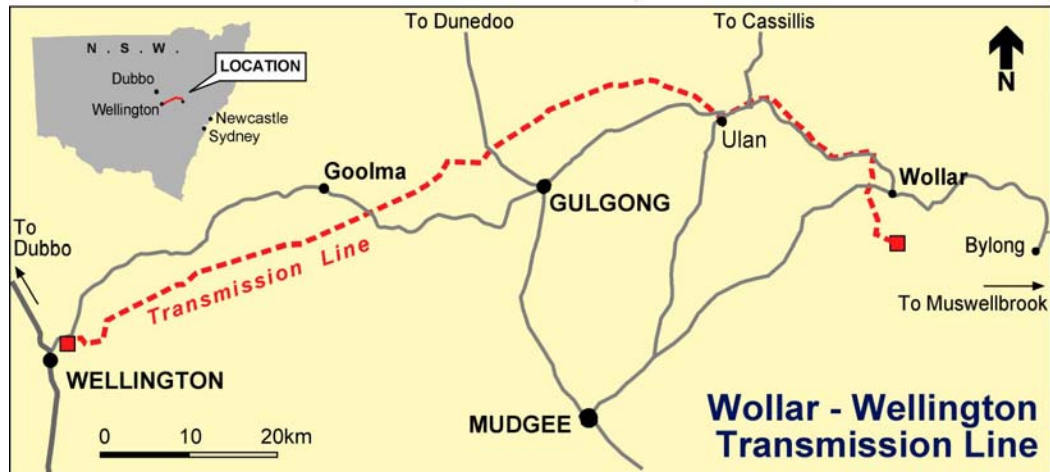
Proposing a specific alignment rather than a broad preferred corridor has enabled a far greater level of environmental assessment to be undertaken in this EIS than in previous EIS documents for transmission lines. The usual practice in assessing environmental impacts for transmission lines has been to assess in general terms the development of a transmission line within a preferred corridor at the EIS stage. The alignment is then refined by further environmental and engineering studies once development approval is obtained. These further studies are often required as part of conditions of the development approval.

In this case however, the detailed studies have been undertaken as part of the EIS, which provides a more robust assessment and limits the uncertainty previously placed on land owners during the post approval stage. It has also enabled many of the management plans and recommendations to be incorporated into the design for the Wollar to Wellington 330 kV project from the outset.

This EIS includes the results of detailed field surveys covering all components of the project including actual tower locations and access tracks. The EIS includes a Project Environmental Management Plan which encompasses the Construction Environmental Management Plan and the Operations Environmental Management Plan. These plans are complete with the exception of incorporating any specific conditions of consent.

As a result of initial ecological studies it was also determined that a Species Impact Statement (SIS) would be necessary to adequately assess the potential impacts on identified Endangered Ecological Communities and identified rare species. The accuracy of the SIS assessment and relevancy of mitigation strategies has also been enhanced by the fact that critical tower sites were pegged during the ecological investigations.

This iterative process between the engineering design, location of the easement and environmental studies has been an important and beneficial feature of this project.



1.2 The Proponent (TransGrid)

The proponent of the proposed 330 kV transmission line from Wollar to Wellington is TransGrid.

TransGrid is the State Owned Corporation responsible for the development, management, operation, control and maintenance of the high voltage electricity transmission system in NSW.

1.3 Key Stakeholders

Key stakeholders consist of all organisations, groups and individuals who will be potentially impacted by the proposed development. Key stakeholders can be generally grouped into three categories, each of which is described below.

1.3.1 TransGrid

While TransGrid is committed to maintaining a high environmental standard in all of its operations, as a State Owned Corporation it is expected to ensure a reliable and secure electricity supply to NSW in a cost effective manner.

The construction of the proposed 330 kV Transmission Line from Wollar to Wellington will be vital to meet the electricity needs of the community in the region, as described in detail in Chapter 3. Satisfying both existing and future electricity supply is the primary objective vested in TransGrid by the State of NSW.

1.3.2 Government

The responsibility for ensuring that infrastructure developments are carried out in an environmentally acceptable manner rests with a number of government authorities. Principal agencies involved in this process include the Department of Infrastructure, Planning and Natural Resources (DIPNR), the Department of Environment and Conservation (DEC), Environment Australia (EA – Commonwealth), Department of Primary Industries (DPI), and local government.

These agencies are responsible for enforcing various pieces of legislation with the aim of protecting the environment.

TransGrid has consulted with all relevant government departments (refer to Section 1.4) during the planning stages and design of the project to ensure that the proposal presented in this EIS addresses the policies, legislation and objectives of each agency.

The government is also the owner of TransGrid through its Ministerial shareholders.

1.3.3 Community

Essentially, the community can be categorised into three groups: those that will benefit from the project through the provision of a more reliable electricity supply, those families, groups and individuals who live and work in the areas traversed by the proposed line with its associated site impacts, and the owners of properties directly affected by the development activity. Each of these groups has demonstrated a keen interest in the proposed development during the course of the project development and assessment.

1.4 Consultation

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.

The consultation process has been a vehicle whereby:

- ☐ Information and data has been exchanged between the key stakeholders;
- ☐ Issues, concerns and aspirations relating to the transmission line corridor have been brought to the attention of TransGrid and government authorities;
- ☐ The relative importance of issues to the key stakeholders has been ascertained; and
- ☐ The planning, design and assessment phases of the project have been transparent and presented publicly, to allow confidence in the approval of the project.

1.4.1 Community and Stakeholder Consultation During Corridor Selection Process

Consultation with the community was undertaken by TransGrid and ERM throughout the corridor selection process, between May and October 2003, when the Corridor Selection Report was placed on public display.

Community consultation was undertaken through the following mechanisms:

- ☐ Contact via 1800 number telephone, email, facsimile, and post;
- ☐ Newsletter 1 and 2 distributed to all residents in the study area;
- ☐ Information Session 1 (Wellington and Gulgong) and Information Session 2 (Wellington, Wollar, Cooks Gap and Gulgong);
- ☐ Project Questionnaire;
- ☐ Project Website;
- ☐ Newspaper spread (Mudgee Guardian and Wellington Times);
- ☐ Newspaper advertisement (Mudgee Guardian and Wellington Times);
- ☐ Static display at Mudgee and Wellington Council;
- ☐ Radio advertisements (ABC Central West and Radio 2MG); and
- ☐ Summary of Corridor Selection Report distributed to all residents in the study area.

As a result of the community consultation during this phase, it was found that the most common issues raised by the community were:

- ☐ impacts to agricultural land and viticulture;
- ☐ property size, particularly the impact to small land holdings less than 10 ha and between 10-50 ha; and
- ☐ visual impact.

However, the issues that were found to be of most importance to the community were:

- ☐ adequate property owner compensation;
- ☐ distance of the transmission line to dwellings;
- ☐ Electromagnetic Field (EMF) impacts;
- ☐ use of existing easements;

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- ☐ the use of agricultural land;
 - ☐ use of public land; and
 - ☐ visual impact.

Overall, the input received by the community was extremely valuable to the project, and provided information on how the overall study area community ranked the constraint issues. The issues raised throughout the community consultation process were taken into account in developing the viable corridor options, as presented in the Corridor Selection Report.

1.4.2 Community and Stakeholder Consultation During EIS Preparation

Following selection of the preferred corridor, further community consultation was carried out with the landholders along this route.

Community consultation during this stage involved:

- ☐ Distribution of Newsletter 3 announcing the preferred route to all residents in the study area;
- ☐ Distribution of Newsletter 4 to all landholders, agencies and interest groups along the proposed route announcing the EIS preparation stage;
- ☐ Continuation of the 1800 number providing the community with an avenue for raising additional issues and concerns;
- ☐ Direct contact with individual landowners along the preferred corridor for the purposes of identifying the exact location of the easement, towers and required access tracks for both construction and ongoing maintenance; and
- ☐ Identification of further constraints along the nominated easement following direct contact with land owners and key stakeholders.

Other than around the Ulan and Wollar area on the eastern side of the project area there are few biophysical environmental constraints affecting the location of the line. The constraints along the remaining line were predominantly property owner related and were identified as a direct result of the consultation process with individual landowners.

Landowner issues raised during the location of the line and access tracks included:

- ☐ Interaction with normal agricultural activities;
- ☐ Location of existing fences, gates, tracks and other existing and proposed improvements;

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- ☐ Existing trees including stock shade trees, landowner initiated regeneration areas and other native and exotic trees considered important to the land owner;
 - ☐ Access to existing dams;
 - ☐ Views from dwellings;
 - ☐ Usefulness of any proposed tracks to the ongoing farming enterprise.

Since these issues are not governed by environmental constraints, TransGrid has made an undertaking to landowners that the location of the line and access tracks, as agreed with landowners, will not be varied as a result of the environmental approval process without further discussions with the affected landowner.

There were also a range of other related land management issues agreed with some landowners such as weed control, erosion controls, access protocols, standard of roads and creek crossings, location of any new fencing and gates and ongoing communication. These issues have been incorporated into the management plans contained in the EIS and will form part of the final project's Environmental Management Plan.

Although these matters form part of the development proposal, they also will not be subject of variation as a result of the approval process, any conditions of approval nor subsequent environmental investigations required by the approval without prior discussions with landowners.

Landowner issues have played a key role, and in many circumstances, a dominating role in the development of the project. However, identification of the exact location of the line and associated tracks at this early stage of the process has enabled detailed environmental investigations to be undertaken as part of the EIS process. This work has been done without the benefit of an easement being registered on property titles and has therefore relied solely on negotiated access.

TransGrid formally and gratefully acknowledges the landowner support it has received during the development of the easement, tower locations and ancillary activities and works.

1.4.3 Government Authorities

Extensive consultation has been carried out with government authorities to ensure that the environmental assessment and approval process is comprehensive and addresses the objectives of relevant authorities.

The involvement of government authorities in the early development stages of the project is essential and has aided TransGrid in formulating a development proposal that balances social, economic, environmental and technical considerations. Requirements and input were sought from government authorities during each stage of the project development, described below.

Route Selection Consultation

The initial phase of the project was to determine the power line route that would result in the least impact on the environment, both physical and social. Input was sought from government departments at this stage to aid TransGrid in selecting a preferred corridor to undergo intensive environmental assessment.

Environmental Impact Statement Consultation

Following determination of the Northern Corridor with the Wollar and Cadonia Estate variations as the preferred transmission line route, input was again sought from relevant government departments specifically on this preferred corridor. Authorities were requested to put forward issues that they required addressing in the Environmental Impact Statement to allow a thorough assessment of the project.

Transparency

TransGrid's high level of commitment to the physical and social environment in which it operates has necessitated a transparent project development and approval process, which has been facilitated by extensive consultation.

The issues raised by government authorities for inclusion in the EIS are summarised in Table 1.1.

Table 1.1 – Government Authority Development Requirements

Department	Issue Presented	TransGrid Response
<i>Corridor Selection</i>		
Planning NSW *	Advised of the planning process, relevant legislation and necessary approvals.	Relevant legislation described in Chapter 2 of this EIS.
Department of Primary Industries †	Northern Corridor would preserve the integrity of the immediate coal and industrial mineral resources.	Duly considered in the corridor selection process.
Roads and Traffic Authority	Main interest would be in State Highway 18 between Mudgee and Dunedoo. Any activity that may affect traffic volumes, highway access or road safety, particularly during construction must be assessed by RTA.	Potential traffic related issues are assessed fully in Section 6.5 of this EIS.
Mudgee Shire Council ‡	No additional requirements beyond the standard EIS issues.	Comprehensive assessment of issues in this EIS.
NSW Rural Fire Service	Consider the vertical separation of vegetation and transmission lines, and the possibility of marking lines in areas where aircraft may be utilized in fire suppression activities. Other issues to be tabled at local bushfire management committee meetings.	Fire management is addressed in Section 6.6 of this EIS.
Mine Subsidence Board	The proposed corridors are not within a proclaimed Mine Subsidence District and not subject to any building restrictions imposed by the MSB. Recommend liaising with Ulan Mine and DMR#.	Ulan Mine consulted throughout the project.

Table 1.1 – Government Authority Development Requirements

Department	Issue Presented	TransGrid Response
State Forests	Within nominated corridors are highly fragmented forests critical to populations of flora and fauna.	Specialist flora and fauna surveys and assessment contained in Volume 2 Appendix A of this EIS.
NSW Agriculture	Consider potential impacts on agricultural land and its use.	Section 7.2 this EIS.
Environmental Impact Statement		
DIPNR	Specific Issues <i>Project Justification</i> - the need for the proposal - relationship of the proposal within broader energy demand management and alternative energy opportunities. - implementation of any measures to manage demand and greenhouse gas emissions. - relationship of the proposal with the existing transmission line network and with any anticipated or planned future expansion. - comprehensive assessment of feasible options for the transmission line and reasons for choosing the preferred option. <i>Environmental Planning Instruments and Policies</i> - consistency with relevant State and Commonwealth policies. - consideration of relevant provision of the Merriwa LEP(1992), Mudgee LEP(1998), Wellington LEP (1995), Hunter Regional Environmental Plan (1989), SEPP 44, SEPP 55 and draft Mudgee Shire Sustainable Development Strategy 2003. - Consideration of the “Siding Spring Observatory Dark Skies Region”. - Consideration of the Central West Catchment Blueprint, Rivers and Foreshores Improvement Act, 1948/Water Management Act 2000, NSW River and Estuaries Policy and Native Vegetation Conservation Act, 1997/Native Vegetation Act 2003 and “Soil and Landscape Issues in Environmental Impact Assessment”, DLWC Technical Report No 34. <i>Project Description</i> - Detailed description of the existing environment along the proposed route including topography, drainage, geology, vegetation, soils, and existing and proposed land uses. - detailed description of the proposed scheme including associated switchstations, access tracks and maintenance requirements, transmission lines in the vicinity of the proposed route, and urban and rural residential development located in the	Chapter 3 Section 3.1 Section 3.2.4 and 6.4 Section 3.1 Section 3.4 Chapter 2 Section 2.10, 2.11 Not applicable Chapter 2 Chapter 4, 5 and 6 Chapter 4

Table 1.1 – Government Authority Development Requirements

Department	Issue Presented	TransGrid Response
	vicinity. - construction timing, methods and impacts eg noise, air quality, drainage and surface flow, erosion and sediment control, waste soil and rock disposal, groundwater, water quality, flooding, vegetation clearing and management, fauna and flora habitat, weeds and pests, fire risk, and cultural heritage. -outline of an EMP. <i>Ecological Impacts</i> - means of ensuring sound riparian outcomes for any works within 40m of any watercourse. - if vegetation clearance is required, the means of ensuring sound native vegetation management outcomes and rehabilitation of disturbed sites. - assessment of soil erosion, sedimentation and land degradation issues, mitigation measures. - assessment of any soil and groundwater salinity issues, and need for any special measures to ensure no exacerbation of salinity. - an assessment of the impact on flora and fauna, particularly critical habitats, threatened species, populations, ecological communities, and their habitats. - Identification of sections of the route susceptible to natural hazards eg wind, erosion, bushfire or flooding. Description of appropriate design features and/or management procedures to minimise hazard impacts. - Quantified description of the expected greenhouse gas impacts, including construction. <i>Social and Economic Impacts</i> - Consideration of EMF, potential impacts on human, stock, flora and fauna and the means of minimising such impacts. A demonstration of compliance with “prudent avoidance principles” should be provided. - Assessment of the visual impact, including views from residential development and Goulburn River NP and Munghorn Gap NR. - Identification and assessment of direct and indirect property impacts. Details should be provided for any land which may require acquisition or establishment of an easement. -consideration of the proposal’s impact on current and future development, eg Cadonia Estate. - identification of other utilities that might be impacted.	Chapter 4, 5 and 6 Contained in the back of this document Section 4.10.3 Section 4.9.3 Section 4.12 Section 4.10 Not applicable Section 5.4 Section 4.16 Section 6.4 Section 6.1 Section 7.3 Section 7.9 Considered in route options phase. Section 3.2

Table 1.1 – Government Authority Development Requirements

Department	Issue Presented	TransGrid Response
	- identification of any airfields and flight paths. - outline of any impacts on land uses. - outline of any likely impacts on mineral resources/mining activity. - outline likely impacts on the proposal from mine subsidence. - consideration of operational noise impacts including corona noise. - description of appropriate mitigation measures for all identified impacts and assessment of their likely effectiveness. <i>General</i> - DIPNR's "Network Electricity Systems and Related Facilities" should be consulted. - Consult with Merriwa Shire Council, Mudgee Shire Council, Wellington Council, Ulan Coal Mine, rail authorities, DMR, RTA, DEC (EPA and NPWS), Catchment Management Authority, NSW Agriculture, NSW Fisheries, NSW Heritage Office, LALCs, Country Energy and other utility operators, NSW Dept Health. - address relevant EPBC Act issues.	Section 4.4.4 Section 7.2 Section 7.2.1 Section 7.2.1 Section 6.2 Contained in relevant sections, compilation in Section 8.2 Noted Section 1.4 Section 2.2
Matters to be considered in the EIS Under Schedule 2 EP&A Regulation 2000		
	A summary of the environmental impact statement. A statement of the objectives of the development or activity. An analysis of any feasible alternatives to the carrying out of the development or activity, having regard to its objectives, including the consequences of not carrying out the development or activity. An analysis of the development or activity, including: (a) a full description of the development or activity; and (b) a general description of the environment likely to be affected by the development or activity, together with a detailed description of those aspects of the environment that are likely to be significantly affected; and (c) the likely impact on the environment of the development or activity; and (d) a full description of the measures proposed to mitigate any adverse effects of the development or activity on the environment; and (e) a list of any approvals that must be obtained under any other Act or law before the development or activity may lawfully be carried out.	Executive Summary Chapter of this EIS Section 1.1 and 3.1 Chapter 3 Chapter 4 Chapter 4, 5, 6, 7 Chapter 5, 6, 7 Contained in relevant sections, compilation in Section 8.2 Chapter 2

Table 1.1 – Government Authority Development Requirements

Department	Issue Presented	TransGrid Response
	A compilation (in a single section of the environmental impact statement) of the measures referred to in item (d). The reasons justifying the carrying out of the development or activity in the manner proposed, having regard to biophysical, economic and social considerations, including the following principles of ecologically sustainable development: (a) The precautionary principle, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by: careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and an assessment of the risk-weighted consequences of various options. (b) Inter-generational equity - namely, that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations. (c) Conservation of biological diversity and ecological integrity, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration. (d) Improved valuation, pricing and incentive mechanisms, namely, that environmental factors should be included in the valuation of assets and services, such as: polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement, the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste, environmental goals, having	compilation in Section 8.2 Chapter 3 Section 3.11.1 Section 3.11.2 Section 3.11.3 Section 3.11.4

Table 1.1 – Government Authority Development Requirements

Department	Issue Presented	TransGrid Response
	been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.	
DPI [†]	Wollar Variation to the Northern Corridor would create problems with an identified coal resource in the area: • Shallow depth of underground coal resources and potential sterilisation. • Safety of the underground workforce and equipment	Correspondence to, and meetings with the DMR and Excel Mining (exploration licence holders) have resolved these issues. The Wollar variation will result in minimal sterilisation of coal beneath tower structures.
NSW Fisheries	Of interest are places where the line would cross waterways. Specific issues: • Tributaries of the Cudgegong River and Goulburn River systems during flow or flood would be frequented by aquatic species endemic to these catchments and should be assessed in the EIS. • Need to include an “8 part test” for aquatic species, eg Silver Perch <i>Bidyanus bidyanus</i> (vulnerable), and Olive Perchlet <i>Ambassis agassizii</i> (endangered). • NSW Fisheries has a “no net loss” habitat policy for riparian vegetation and encourages a 2:1 replacement scheme, which may be of relevance during construction and rehabilitation. • Water management and erosion control structures must be employed during construction and rehabilitation. • Any areas requiring bank stabilisation should be reported. • Popular fishing locations should be avoided. • 1:25000 topo map be included. • Recent aerial photo to be included. • All waterbodies and waterways within the proposed area are to be identified. • description of aquatic vegetation, snags, gravel beds and any other protected, threatened or dominant habitats should be presented. • area, density and species composition should be included and mapped.	Section 5.3 Determined not to be necessary following confirmation of centre line Noted, sustainability package provided which includes habitat compensation Section 4.10 Noted Noted Figures in Volume 3 Section 5.3 Not applicable Not applicable Not applicable

Table 1.1 – Government Authority Development Requirements

Department	Issue Presented	TransGrid Response
	• identification of recognised recreational and commercial fishing grounds, aquaculture farms and / or other waterway users. • description of proposal and study area. • Size of the area affected. • Aspects of the management of the proposal, both during construction and after completion eg EMPs. • Locations and types of landuses present. • Land tenure details for all land parcels. • For each freshwater body identified, the plan should include hydrological and stream morphology information eg flow characteristics, bed substrate, bank height and bed width. • Details of any dredging and reclamation activities, activities that block fish passage, threatened species. • An assessment of likely impacts. • Describe ameliorative measures.	Chapter 4,5,6,7 Section 4.1 EMP included in this document Section 7.2 Contained in Route plans Not applicable Not applicable Not applicable
Department of Education and Training	The DET has a policy of avoiding high voltage transmission lines in the vicinity of government schools and TAFE colleges. Request investigation of the Ulan Public School and Nanima Public School.	Undertaken during the Corridor Selection Process.
Merriwa Shire Council	- EIS should confirm presence or otherwise of “heritage” items likely to be impacted. - Primary concern is negligible, if any, impact on residents as a result of the construction.	Forms part of Heritage Assessment contained in Appendix B, Volume 2
NSW Agriculture	• Consider potential impacts on agricultural land and its use. • Construction impacts such as access, dust, noise, fire, rubbish management, soil disturbance, emergency incident management, visual factors must be considered. • Weed and pest management. • Animal disease management • Rehabilitation • Consultation with landholders	Section 7.2.2 Chapter 4 Chapter 6 of the EMP Not applicable Section 1.4
NPWS ^{††}	Flora, Fauna and Aquatic Ecology	
	Identify known and expected flora and fauna assemblages.	Section 5.4
	In addition to identifying potential listed flora and fauna species and ecological communities, assessment of the conservation significance of vegetation communities present on the site should be carried out.	Section 5.4
	The fauna habitat attributes of the site should be identified.	Section 5.4.3.1

Table 1.1 – Government Authority Development Requirements

Department	Issue Presented	TransGrid Response
	Targeted surveys should be carried out for species recorded or expected to occur following initial surveys.	Section 5.4
	The direct and indirect impacts of the proposal and relevant mitigation measures should also be addressed.	Section 5.4.5
	The cumulative impacts of the proposed development in relation to mining activity in the locality and region should also be assessed.	Section 5.4.5
	Measures to avoid or mitigate impacts eg compensatory habitat.	Section 5.4.6
	Aboriginal Heritage	
	In addition to the “Aboriginal Cultural Heritage and the Integrated Development Assessment Process” Guidelines supplied, the following points are to be considered:	
	☐ A comprehensive assessment, including archaeological surveys be undertaken.	Appendix B, Volume 2
	☐ Relevant Aboriginal groups should be consulted.	Appendix B, Volume 2
Waterways Authority	No issues relevant to the proposal.	No action required.
Australian Communications Authority	Locations of lines, cables and infrastructure should be obtained from the carriers.	Not applicable

* DIPNR formerly known as Planning NSW

† DPI section formerly known as the Department of Mineral Resources

‡ Mid Western Regional Council is an amalgamation of the former Mudgee Shire Council, and parts of Merriwa and Rylstone Shires.

†† DEC comprises the former NSW NPWS, EPA, Botanic Gardens Trust and Resource NSW.

DMR or Department of Mineral Resources now known as Mineral Resources Division (MRD) of the Department of Primary Industries (DPI).

1.5 EIS Structure

This EIS is the culmination of the studies undertaken in the assessment of the development proposal. The EIS is structured to provide an initial summary of the EIS findings and development description followed by several chapters assessing potential impacts of the project. The impact assessment chapters have been grouped into key issues relevant to the transmission line. An expanded structure of the EIS is as follows:

Executive Summary: briefly outlines the development proposal, the environmental safeguards to be implemented and the resulting impacts likely to arise due to the transmission line.

Chapter 1 - Introduction: - provides an overview of the main aspects of the development proposal, and gives details of the project consultation.

Chapter 2 – Legislation and Planning: - This chapter outlines relevant legislation and planning issues governing the assessment and approval of the proposed 330 kV Transmission Line.

Chapter 3 – Project Justification and Alternatives: - This chapter provides an outline of the justification for the proposed 330 kV Transmission Line as well as feasible alternatives to the development. The mechanism used by TransGrid to determine the need for strengthening the State's transmission grid is provided as well as a description of how the project fits into the overall electricity supply network.

Chapter 4 – Description of the Proposed Development: - This chapter describes the proposed development which is the subject of this EIS. The essential elements are described in sufficient detail to allow effective assessment of potential environmental effects. Unique to this project is that the assessment has been undertaken on a nominated easement which was pegged prior to undertaking detailed field investigations. This allows for very accurate assessment and detailed mitigation strategies.

Chapter 5 – Land Systems and Environmental Effects: - This chapter describes the existing environment that will be potentially impacted by the proposed transmission line. Detailed impact assessments and mitigation strategies are also described.

Chapter 6 –Emissions and Environmental Effects: - This chapter deals specifically with the issues of electromagnetic fields, air, water and noise emissions from the proposed transmission line. The existing environmental parameters relevant to the assessment are also discussed, together with any proposed mitigation measures.

Chapter 7 – Social and Economic Considerations: - This chapter assesses the impacts of the proposed transmission line on the quality of life along the corridor, visual impacts of the line, and the benefits associated with increased employment and expenditure in the region.

Chapter 8 – Environmental Management and Conclusions: - This chapter provides a summary of the environmental management provisions for the project.

Also included as part of the EIS Volume 1 is the Project Environmental Management Plan. This forms part of the EIS management commitments.

The EIS also includes a Species Impact Statement, Archaeological and Heritage Study and Noise Impact Assessment which are contained in Volume 2. The supporting figures and Project Route Plans are provided in Volume 3.

1.6 Project Team

This EIS has been prepared and managed by International Environmental Consultants Pty Ltd. The project team is listed below.

Robert Byrnes (IEC)	Project Manager, IEC
Margot Jamieson (IEC)	Senior Environmental Planner, IEC
Julie Gander (IEC)	Environmental Scientist, IEC
Dennis Zines	EIS Technical Review and Evaluation
Dean Oliver	Mapping and Figure Preparation
Modon Graphics	Photo Montages and Graphic Design
OzArk	Archaeology and Heritage
Cumberland Ecology	Flora and Fauna and Species Impact Statement
Atkins Acoustics	Noise Evaluation

TransGrid personnel and consultants involved in the project include:

John Diesendorf	Manager/Environment and Business Systems
Michael de Rome	Senior Project Manager
Graham Buckley	Project Manager
Murray Williams	Project Manager and Environmental Officer
Bruce Jackson	TransGrid Property and Environmental Officer
Jim Morris	TransGrid Property and Environmental Officer
John Gleeson	Manager Property
Robert Markham	Co-ordinating Surveyor
John Taylor	Senior Land Economist
Mark Hopcraft	Property Consultant – Creer/Benchmark
Andrew Aylward	Property Consultant – Creer/Benchmark
David Hall	Property Consultant – Creer/Benchmark