

Part B Project Justification, Planning Framework

Part B contains two chapters; the first provides justification for the proposal while the second provides a description of the legislative considerations and approval requirements for the proposed development

4 JUSTIFICATION FOR THE PROJECT

4.1 INTRODUCTION

The project presented within this Environmental Assessment has been developed following identification by Country Energy of projected deficiencies in the capacity of the existing network to cater for future growth of the Local Government Areas of Lismore, Ballina and Byron. Consideration of Project alternatives and an extensive line route selection process and stakeholder consultation were undertaken to determine a preferred option. This option is consistent with the strategic direction of the region and the State, whilst minimizing potential land use conflicts with existing and future urban areas.

4.2 OBJECTIVES

This chapter provides an assessment of the Project with regard to the identified strategic direction of New South Wales, the Far North Coast Region and the Local Government Areas of Lismore, Ballina and Byron. This includes a strategic assessment of the proposal in relation to predicted electricity demand, transmission constraints, alternative technologies, and the capacity of the network upgrade to both compliment and influence future land use planning decisions. This has been undertaken having regard to the following documents:

- New South Wales State Infrastructure Strategy 2006-07 to 2015-16 (NSW Treasury 2006):
- Far North Coast Regional Strategy 2006-31 (NSW Department of Planning 2006);
- Lismore Mullumbimby Subtransmission Network Development (Country Energy, 2005);
- Proposed Lismore to Mullumbimby Electricity Network Upgrade Line Route Options Report (ERM March 2008);
- Mullumbimby Settlement Strategy (2003);
- Byron Bay Settlement Strategy (2002);
- Ballina Urban Land Release Strategy (2000);
- · Lismore Urban Strategy (2002); and
- Lismore Village Strategy (1997).

4.3 STRATEGIC PLANNING CONTEXT

4.3.1 Far North Coast Regional Strategy

The Far North Coast Regional Strategy (FNCRS) was developed by the New South Wales Department of Planning (DoP) as a means to provide State level strategic input into the long term development of the region taking in the Local Government Areas of Ballina, Byron, Kyogle, Lismore, Richmond Valley and Tweed. It provides a number of objectives and desired outcomes for a range of matters relating to population growth, settlement and housing characteristics, economic development and employment generation, utilisation of natural resources and protection of the natural environment. A framework is provided aimed to accommodate an additional 60,400 people (an increase of 26%), 51,000 homes and 32,500 jobs between 2006 and 2031. The housing is to be split amongst the LGA's affected by the proposed electricity network upgrade in the following manner:

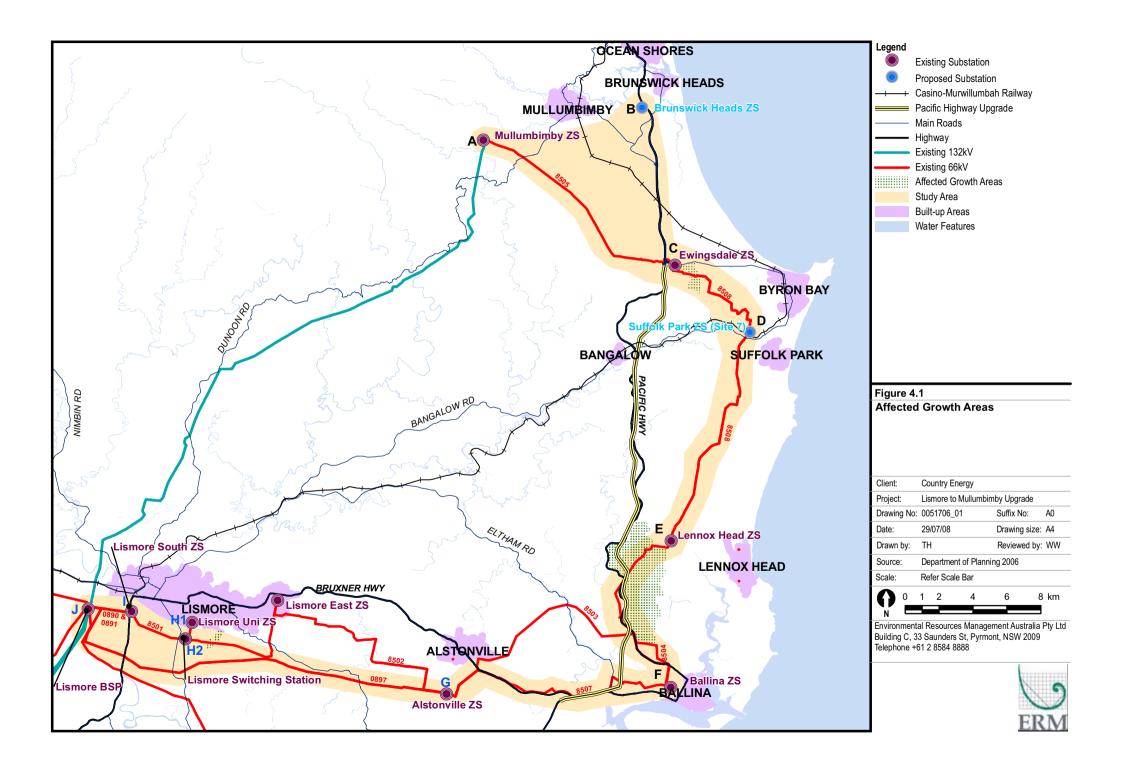
- additional 8,400 dwellings in Ballina Shire;
- additional 2,600 dwellings in Byron Shire; and
- additional 8,000 dwellings in Lismore Shire.

In providing for the projected population increases, the strategy envisages that by 2031 the area will be characterized by a series of contained centres, a coastal area protected from inappropriate development and growing towns and villages across the region. This requires a well connected network of towns and villages. Key elements of this include the provision of a modern, reliable electricity supply network which is able to provide for a growing population, without having the physical infrastructure impact upon the potential growth of urban areas. The Project is a vital element in achieving the objectives and outcomes contained within the FNCRS.

Chapter 10 "Water and Energy Resources" of the FNCRS provides broad strategic outcomes and objectives. These include:

- acknowledgement of the importance of access to energy infrastructure in supporting settlement and employment in the region; and
- Local Environmental Plans to play a key role in securing regional infrastructure such as electricity power lines by reserving identified corridors.

In order to accommodate the projected population increases, a number of potential urban growth areas have been identified. *Figure 4.1* indicates areas where the Project encroaches upon these growth areas. All potential urban growth areas that are not directly impacts upon the Project have not been subject to assessment. The implications of this are discussed within *Section 4.6*.



4.3.2 State Infrastructure Strategy 2006-07 to 2016-17

The New South Wales State Infrastructure Strategy 2006-07 to 2016-17 (SIS) was developed to provide a single document with which to deliver the increased infrastructure spending announced by the State Government in 2006. It separates the State into six broad regions (Sydney, Central Coast, Hunter, Illawarra, South East, North Coast and Inland New South Wales) and identifies key infrastructure requirements for each of them.

It was introduced to aid the timely and economic delivery of this vital infrastructure by:

- · committing the government to record funding of capital expenditure;
- linking planning embedded in the Sydney Metropolitan Strategy and other regional planning strategies within the budget; and
- · delivering on identified infrastructure commitments.

Large components of the Far North Coast electricity network are costed and included within Section 7.4 of the SIS:

- Ballina major upgrade and expansion of the existing Ballina substation;
- construction of new zone substation at Lismore;
- · replacement of three transformers at the Lismore substation; and
- new zone substation to supply Lennox Head area, currently supplied by the Ballina zone substation.

These works have already been undertaken and do not form part of the Project. The Project is designed to supplement these completed works and provide for a reliable electricity network for the Far North Coast region in accordance with the general objectives of the SIS.

4.3.3 Local Planning Framework

In addition to the broader State and Regional planning framework, there are a number of locally developed strategies which are used to guide the development of the three Local Government Areas affected by the proposed electricity network upgrade.

Mullumbimby Settlement Strategy

The Mullumbimby Settlement Strategy (MSS) was adopted by Byron Shire Council on 2 December 2003 and was put in place to determine the extent of growth for up to 10 years within and adjoining the township of Mullumbimby. The strategy plans to limit growth and does not endorse any growth beyond that which is ecologically, physically, economically and socially sustainable. As a 5 to 10 year supply of appropriately zoned land exists (approximately 280 lots), the strategy proposes that no additional areas of land be identified for rezoning until this existing land has been substantially developed.

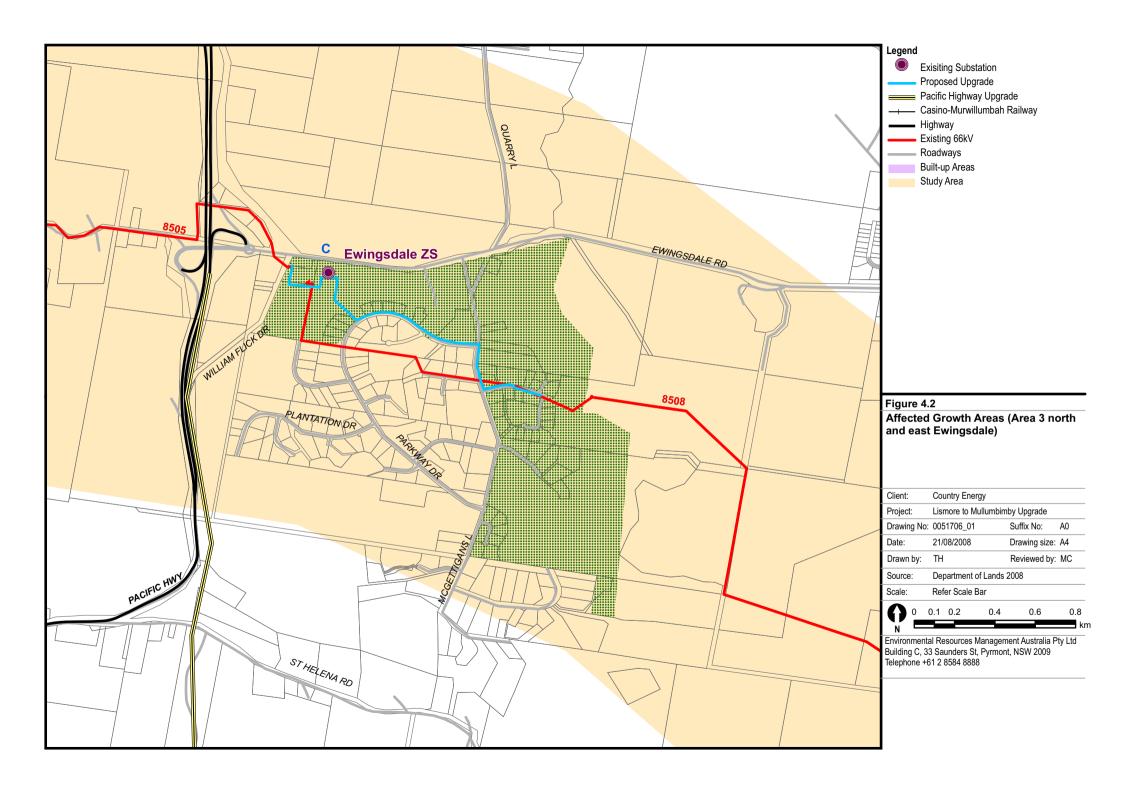
The Project will provide a reliable modern electricity supply to Mullumbimby at a level which is able to accommodate for future growth beyond the time period of the MSS. The limits of the Project area extend only to the Mullumbimby substation, which is located approximately five kilometres to the south west of the township of Mullumbimby and clear of any identified urban growth areas. The Project will therefore not directly impact upon the urban growth plan developed within the Mullumbimby Settlement Strategy.

Byron Bay and Suffolk Park Settlement Strategy

The Byron Bay and Suffolk Park Settlement Strategy (BBSPSS) 2003 was implemented to pave the way for the better planning, management and community ownership of the character, design, density and strategic direction of these settlements. The strategy assesses the physical and social infrastructure capability of the existing 1(d) "Investigation Zone" lands. These lands are to be rezoned to reflect their environmental values and to provide better public and landowner confidence regarding future land uses in these areas. The Project will provide a reliable modern electricity supply to the Byron Bay and Suffolk Park area at a level which is able to accommodate future growth envisaged within the BBSPSS 2003.

The document summarises the development opportunities of localities within Byron Bay and Suffolk Park. *Figure 4.1* indicates that such a site is located within the Project area. This site is known as Area 3 which is located north and east of the village of Ewingsdale.

Figure 4.2 provides a smaller scale view of the Project's relationship to Area 3. The implications of this are discussed in further detail within Section 4.6.



Byron Rural Settlement Strategy 1998

The Byron Rural Settlement Strategy (BRSS) 1998 was developed to provide for rural living developments in a manner that implements principles of sustainability, addresses key aspects of ecological, social and economic considerations and has a strong focus on catchment management planning and environmental repair and enhancement. The strategy provides a 10 year rural land development program which identifies different types of rural settlement types including:

- · small holdings;
- · rural community title; and
- · rural land sharing communities.

It aims to restrict small holdings development and focuses on the identification of sites suitable for community title or rural land sharing community developments. A number of sites are identified as being suitable to be developed for these purposes. As the Project does not encroach upon any of these areas, further consideration of BRSS 1998 is not considered necessary.

Ballina Urban Land Release Strategy

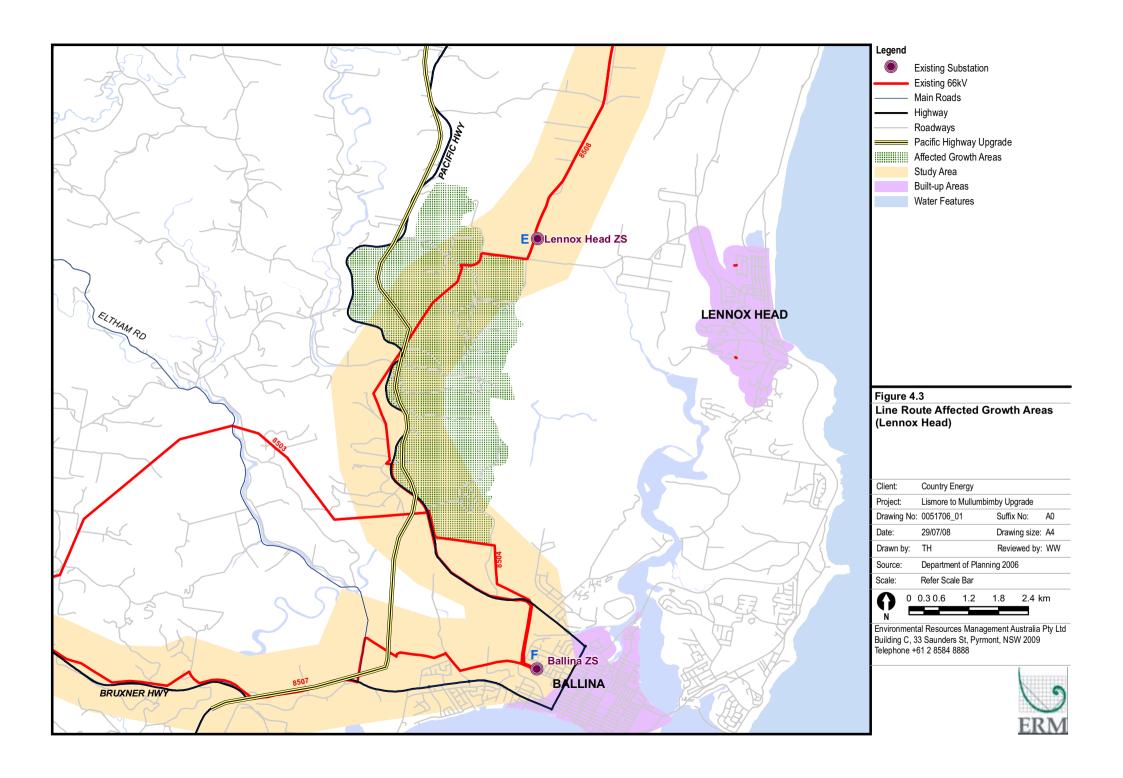
The Ballina Urban Land Release Strategy (BULRS) 2000 was produced to respond to residential growth pressures in the Ballina Shire by providing a comprehensive strategic approach to the release and development of urban land. It sets the parameters for future growth of urban areas by ensuring that decisions regarding the release of urban land are founded on an underlying set of sound planning principles. It provides a 20 year framework. The Project will provide a reliable modern electricity supply to the Ballina LGA at a level which is able to accommodate future growth envisaged within the BULRS 2000.

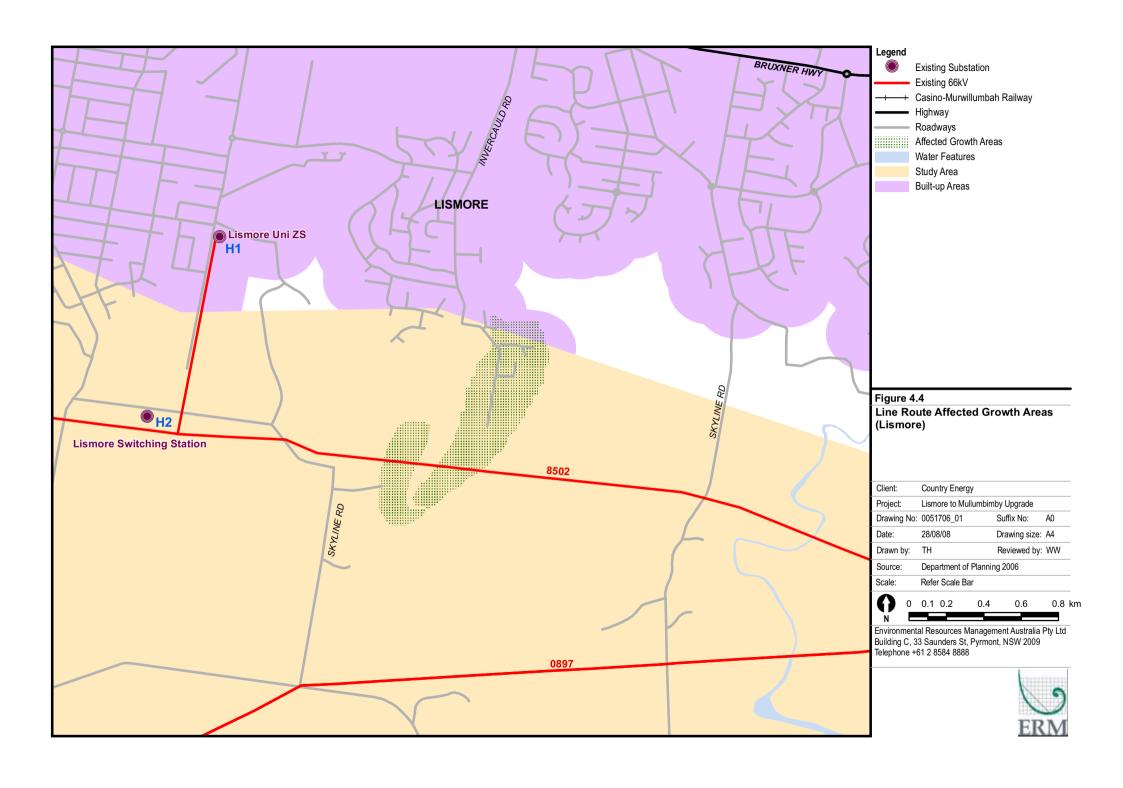
The BULRS 2000 assesses land release areas based on planning precincts, enabling growth to be catered for in a manner that adequately accounts for the distinct market characteristics of different localities. *Figure 4.1* shows the Project area passes through the West Ballina Planning Precinct. *Figure 4.3* provides a smaller scale view of the Project's impacts upon the precinct. The implications of this are discussed in further detail within *Section 4.6*.

Lismore Urban Strategy 2003

The primary aim of the Lismore Urban Strategy (LUS) 2003 is to reinforce Lismore's regional role and status by facilitating the city's growth through the identification of appropriate areas for new residential, commercial and industrial development. The Project will provide a reliable modern electricity supply to the Lismore LGA at a level which is able to accommodate future growth envisaged within the LUS 2003.

In order to identify suitable growth areas a number of greenfield and infill development sites were investigated and assessed for development potential based on capability and suitability criteria. A number of sites were identified as being able to accommodate residential, commercial and industrial development. *Figure 4.4* shows the Project passing through the Invercauld Road Investigation Area. The implications of this are discussed in further detail within *Section 4.6*.





Lismore Village Development Strategy 1997

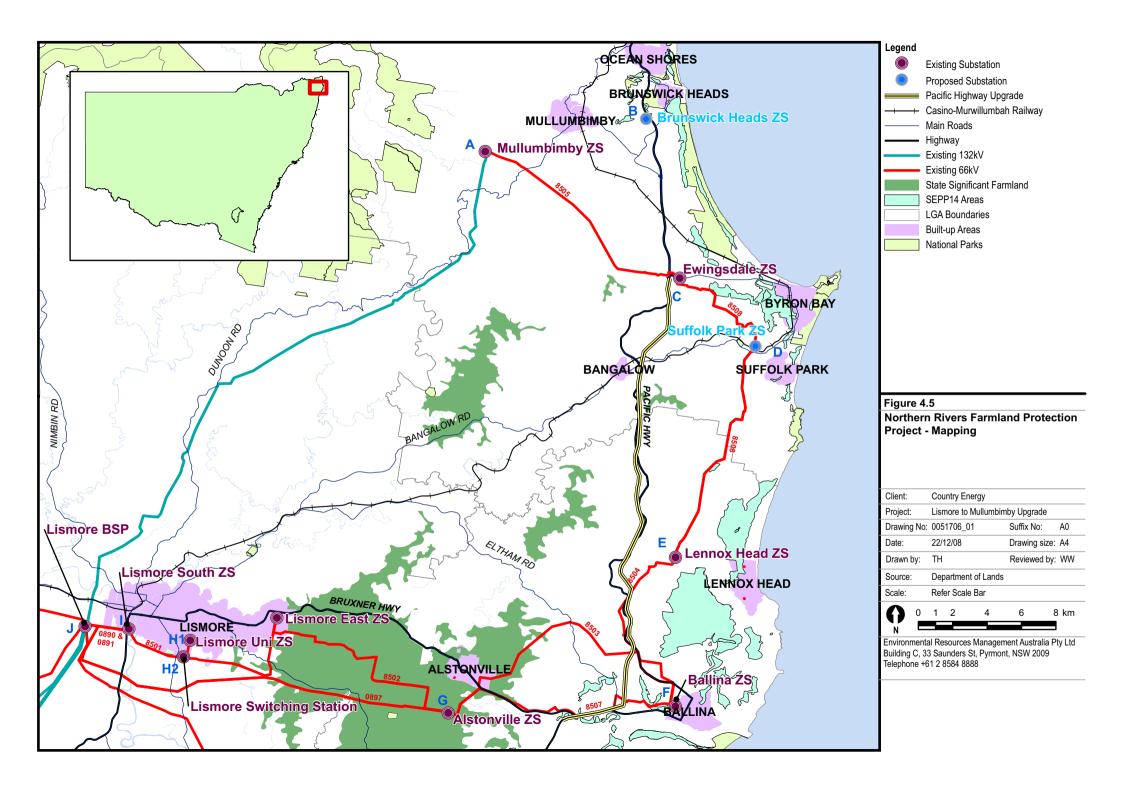
The Lismore Village Development Strategy (LVDS) 1997 was based on investigations into land supply and constraints previously carried out and controlled in development control plans. These investigations concluded that the ultimate growth of each village was constrained either by steep topography, flooding, existence of quality agricultural land or wastewater treatment issues. However, some suitable land was identified within the strategy for additional growth of all major villages. As the Project Area was identified as being substantially removed from these areas, further consideration of the LVDS 1997 is not considered necessary.

Lismore Rural Housing Strategy 2002

The LRHS 2002 was developed to guide rural residential development and rural land sharing communities through to the year 2010. Whilst the settlement of rural land for residential use is not a high priority, the LRHS 2002 recognises that there is a legitimate market for this form of living. This strategy therefore restricts provisions relating to hobby farms, rural retreats and dispersed rural residential subdivision patterns. Locations suitable for rezoning/development of rural residential subdivisions and rural land sharing communities are identified. As the Project Area was identified as being substantially removed from these areas, further consideration of the LRHS 2002 is not considered necessary.

Northern Rivers Farmland Protection Project

The Northern Rivers Farmland Protection Project (NRFPP) recognises that a great deal of good quality agricultural land has been lost to urban and rural residential encroachment. It seeks to protect important farmland from development pressures by identifying those farmlands with the most potential for production. It is intended to aid the preparation of Local Environmental Plan's for the rezoning of agricultural land of regional and State significance for the purposes of urban and rural residential development. *Figure 4.5* shows the Project in relation to these areas. The implications of this are discussed in further detail within *Section 4.6*.



4.4 PROJECT NEED

4.4.1 Network Planning

Prior to the formulation of the FNCRS, Country Energy undertook a strategic investigation of the transmission network from Lismore to Mullumbimby via Ballina and Ewingsdale. The investigation also considered future zone substation location requirements to meet the growing energy demands of the area. The results were presented in the Country Energy planning report 'Lismore – Mullumbimby Subtransmission Network Development' (Country Energy, 2005). This report is referred to as the LMSND report and is provided as Annex P.

The need for network upgrade was based on energy usage patterns, and project population growth figures through to 2025 provided by the former New South Wales Department of Infrastructure, Planning and Natural Resources. The main constraints identified were:

- low voltage on the Ewingsdale distribution network when the 66kV line from Mullumbimby to Ewingsdale trips at times of peak loads;
- the thermal rating of several 66kV lines will be exceeded during normal system operation or under first level contingency outages;
- the thermal rating of several 66/11kV zone substation transformers will be exceeded under first level contingency outages; and
- the distribution network (11kV) is voltage and thermally constrained in numerous areas and will require significant capital expenditure to rectify.

As well as investigating the constraints and demands on the electricity transmission network in the future, information was sourced from Byron Shire Council, Ballina Shire Council and Lismore City Council in relation to their strategic direction for growth in their respective LGA's which was reflected within the LMSND report.

4.4.2 Initially Identified Upgrade Solutions

Three initial options were identified, including the "do nothing" approach, as well as two high level solutions to address these network constraints.

- Option 1 Augment the existing 66kV network
 - four new 66/11kV zone substations;
 - additional 132/66/11kV transformer at Mullumbimby;
 - new 66kV busbar at Mullumbimby with associated bays;
 - building of approximately 65kms of new double circuit 66kV lines;
 - upgrade approximately 16kms of existing 66kV lines to increase capacity; and

- upgrading of transformers and equipment at several zone substations.
- Option 2 132 kV Network Upgrade
 - three new 132/11kV zone substations;
 - one new 66/11kV zone substation;
 - additional 132kV feeder bays at Mullumbimby and Lismore substations;
 - rebuilding/re-insulate approximately 90kms of 66kV line to operate at 132kV;
 - upgrading of Ewingsdale zone substation to 132/11kV;
 - add a 132kV busbar and 132/66kV transformer at Ballina zone substation; and
 - relocating the 132/66/11kV Mullumbimby transformer to Ballina.

Initial constructability assessments, easement requirements and discounted cash flow analysis indicated that whilst the 132kV option was marginally more expensive, it was likely to result in less public resistance (see *Section 4.5.1*) and was therefore the preferred option.

4.4.3 Consideration of Non-Network Alternatives

The various network options investigated provide a medium to long term solution to the Lismore to Mullumbimby Electricity Network.

Network demand growth is driven by population growth particularly along the coastal strips in conjunction with the increase in individual demand due to lifestyle factors. Air conditioning has been a major contributor to an emerging summer peaking trend and this has proven to be difficult to address using conventional non-network options.

It is unlikely that embedded generation or large scale load reductions in locations that are subject to network constraints will be achieved to defer the long-term network solution.

It should be appreciated that overall the proposed network augmentation is a very large project that is an aggregation of a number of smaller projects. To achieve completion of the overall project, the smaller individual projects must be completed within their own timeframes.

These proposed smaller network augmentations may be postponed provided the peak load on the network can be reduced to acceptable levels at the times required. "Load reduction" can be achieved in many ways. Four methods are listed below:

- energy substitution;
- energy curtailment;
- · the use of energy efficient equipment; and
- local generation.

To allow Country Energy to postpone construction of the proposed network upgrades guaranteed levels of "load reduction" must be in place prior to the commencement of the various smaller individual projects.

Country Energy are preparing public consultation papers to consult with the market and engage interested parties on a project by project basis to ensure compliance with the Demand Management Code of Practice (2004) and National Electricity Rules.

4.5 OPTIONS FOR UPGRADE AND LINE ROUTE SELECTION STUDIES

4.5.1 Initial Network Planning Assessment

During higher level network option and line route selection processes the options described within *Section 4.4.2* were considered. Options were assessed with a view to upgrading the network such that predicted electricity demand could be accommodated with minimal augmentation requirements and result in minimal social, economic and environmental impacts.

Option 1 would have resulted in the following:

- the construction of two new additional circuits, in addition to the existing 66kV circuit, between Mullumbimby and Suffolk Park. This would significantly increase the visual impact along the existing 66kV power line alignment; and
- would require major extensions at the Mullumbimby substation site. This would present significant technical difficulties and likely required the demolition of the Heritage listed power station.

Option 2 was preferred as the need to construct new circuits is minimized and the majority of upgrade works are able to be undertaken within the existing 66kV line route corridors.

4.5.2 Line Route Selection Process

A line route selection study was undertaken by ERM (2008) (see *Annex A*). Consideration was given to the upgrade of existing infrastructure so that the need for new corridors would be reduced, as well as potential new routes where it was identified that the existing alignment did not provide the most sustainable outcome. The initial constraints assessment examined the following environmental characteristics:

- planning and land use;
- ecology
- Aboriginal and European heritage;
- acid sulphate soils;
- hydrology; and

· topography.

The detailed scope of the LRS (ERM 2008a) study was limited to the Lismore to Mullumbimby corridor. The Suffolk Park substation site selection process was undertaken by MWH separate from the primary LRS process. Project approval is being sought for Suffolk Park elements of the Project. The Brunswick Heads feeder loop route and Brunswick Heads substation site will be subject to further studies. Concept approval only is being sought for the Brunswick Heads elements of the Project, whilst the detailed environmental assessment of preferred routes and substation site is finalized.

With regards to the ERM (2008a) line route selection assessment, a number of options were developed and divided into line route corridor sections. A comparison of the various options was undertaken to assess the significance of potential impacts (ERM 2008a). The preferred line route and upgrade program minimizes the need for realignment. Some deviations from the existing alignment are proposed and these represent an improvement over the existing alignment particularly in built up areas. In those areas where dual circuit lines within existing corridors are proposed, they are considered likely to represent less overall impact than the construction of new lines in new corridors.

4.6 POTENTIAL LAND USE CONFLICTS

4.6.1 Urban Growth Areas

Urban growth within the Project Area is controlled by agreed growth area maps contained within the FNCRS, and the relevant land release strategies developed by the respective local Councils.

Byron Shire Council

As discussed within *Section 4.3.3* and shown within *Figures 4.1* and *4.2*, the Project passes through Area 3 (north and east of Ewingsdale) of the BBSPSS 2003. The proposed upgraded transmission line will be installed underground principally within road reserves through Ewingsdale.

Where the line crosses an undeveloped portion of Area 3, it will be installed subsurface. This dramatically reduces the corridor requirements (6 to 10 metres as opposed to 30m to 45 metres for overhead lines) which limits the impacts on future planning for the development of the area.

Ballina Shire Council

Figure 4.3 shows that the existing line passes through a substantial town and village growth area as identified by the FNCRS and BULRS 2002. This is included within the West Ballina Planning Precinct (BULRS 2002) and is known as the Cumbalum Land Release Area. It is not proposed to undertake any line route deviations or to widen any corridors where there line passes through the Cumbalum investigation area therefore it will not impact upon any current or future planning for the development of the area. Country Energy should negotiate an easement through Cumbalum to protect against any future encroachment into the line corridor in this area.

Lismore City Council

Figure 4.4 shows that the 66kV line passes through a proposed future urban release area, as identified within the FNCRS and LUS 2003. This area is known as the Invercauld Road Investigation Area. It is not proposed to undertake any line route deviations or to widen any corridors where the line currently passes through the Invercauld Road Investigation Area, therefore it will not change the assessed impact upon any current or future planning for the development of the area.

4.6.2 Rural Land

The Project has potential to impact on rural land in two ways. Firstly, the potential impact upon areas identified for rural residential subdivision and other small agricultural holdings, and secondly, the potential impact of the proposal on access to areas of high agricultural value as identified within the NRFMP.

The line does not pass through any release or special land use type areas (e.g. community title subdivisions) within the Lismore, Ballina or Byron Local Government Areas.

The line passes through areas of regionally significant farmland as mapped within the NRFMP. Given that the lines are an existing element of the rural landscape that do not impede access to these agricultural resources, the proposal is not considered to alter the continued existing use of these valuable agricultural lands.

4.6.3 Pacific Highway Upgrade Projects

There are a number of Pacific Highway upgrade projects being undertaken by the NSW Roads and Traffic Authority (RTA) in the vicinity of the line upgrade, these are:

- Woodburn to Ballina Upgrade;
- Ballina Bypass; and
- Tintenbar to Ewingsdale Upgrade.

The Ballina Bypass upgrade involves deviation of the existing 66kV transmission line. These deviations have already been approved as part of the RTA's Ballina Bypass project approval process and therefore do not form part of this project.

Neither the Woodburn to Ballina upgrade nor the Tintenbar to Ewingsdale upgrade impact on the Project.

5 PLANNING PROVISIONS

5.1 INTRODUCTION

The following chapter assesses the Project against the relevant planning controls.

The Project is not considered to be a controlled action under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) or trigger any other Commonwealth environmental legislation. Therefore the assessment concentrates on State planning controls.

5.2 STATE LEGISLATION

5.2.1 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) and the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) were amended in 2005 by the insertion of Part 3A into the EP&A Act and Part 1A into the EP&A Regulation. These provide a streamlined assessment and approval process for major projects of which the Minister for Planning is the approval authority.

Pursuant to Section 75B of the EP&A Act Part 3A applies to:

"75B Projects to which part applies

(1) General

This part applies to the carrying out of development that is declared under this section to be a project to which this part applies:

- (a) by a State environmental planning policy, or
- (b) by order of the Minister published in the Gazette (including buy an order that amends such a policy).

The carrying out of particular or a class of development, or development for a program of plan of works or activities, may be so declared."

In November 2007 Country Energy submitted a request to the Minster for Planning for a project specific order to be made under Section 75B(1)(b) of the EP&A Act. This order was published in the NSW Government Gazette on 1 February 2008 and enables the Project to be assessed and determined under Part 3A of the EP&A Act. This Environmental Assessment Report has been prepared in accordance with Section 75F of the EP&A Act.

Section 75R outlines the applicability of certain provisions of the EP&A Act to the environmental assessment and approval process under Part 3A as follows:

Section 75R outlines the applicability of certain provisions of the EP&A Act to the environmental assessment and approval process under Part 3A as follows:

Parts 4 and 5 of the EP&A Act do not, except as provided by Part 3A, apply to a
project approved under Part 3A, including the declaration of a project as a project
to which Part 3A applies, and any approval or other requirement under Part 3A for
the project.

- Part 3 of the EP&A Act and SEPPs apply to the declaration of a project as a project to which Part 3A applies and the carrying out of a project to which Part 3A applies.
- Non-SEPP Environmental Planning Instruments (e.g. Local Environmental Plans and Regional Environmental Plans) do not apply to a project approved under Part 3A.
- Divisions 6 (Contributions) and 6A (Affordable Housing Contributions) of Part 4 of the EP&A Act also do not apply to a project to which Part 3A applies.

Notwithstanding the operation of section 75R, sections 75J(3) and 750(3) (in respect of project applications and concept plan applications respectively), are identical provisions which provide:

"(3) In deciding whether or not to approve the carrying out of a project, the Minister may (but is not required to) take into account the provisions of any environmental planning instrument that would not (because of section 75R) apply to the project if approved. However, the regulations may preclude approval for the carrying out of a class of project (other than a critical infrastructure project) that such an instrument would otherwise prohibit. "

Accordingly, the provisions of any environmental planning instruments that would ordinarily apply to the project if it were not to be assessed under Part 3A may be taken into account by the Minister in deciding whether or not to approve the carrying out of the Project and whether or not to approve the concept plan application. The weight to be given to these provisions should be tempered by the fact that, absent the Project being regulated by Part 3A, its approval process would be under Part 5 of the EP&A Act pursuant to the provisions of the State Environmental Planning Policy (Infrastructure) 2007.

Relevant environmental planning instruments are discussed in the following sections.

Pursuant to Clause 75U of the EP&A Act authorisation for a Part 3A approved project is not required under:

- Part 3 of the Coastal Protection Act 1979;
- Part 4, Section 139 of the Heritage Act 1977;
- section 87 or a consent under section 90 of the National Parks and Wildlife Act 1974;
- section 12 of the Native Vegetation Act 2003;
- Part 3A of the River and Foreshores Improvement Act 1948 (now repealed), section 100B of the Rural Fires Act 1997; and
- Sections 89, 90 and 91 of the Water Management Act 2000.

This assessment is therefore confined to applicable State Legislation.

5.2.2 Threatened Species Conservation Act 1995

Section 5A of the NSW *EP&A Act* sets out seven factors that need to be considered in determining whether a proposed action will, or is likely to, have a significant effect on

a threatened species, endangered populations or endangered ecological communities listed under the schedules of the *Threatened Species Conservation Act 1995* (TSC Act) or the *Fisheries Management Act 1994* (FM Act). If a significant effect is considered likely, the proposed action may require consent from the Director General of the NSW DECC and the preparation of a Species Impact Statement (SIS) may be required.

A number of threatened species and ecological communities were considered to have potential habitat within the study area and were considered to have the potential to be impacted by the proposal. A complete list is provided within the Ecological Assessment in *Annex H*.

Assessment under Section 5A of the NSW *EP&A Act* found that the proposal following the incorporation of mitigation measures was unlikely to have a significant effect on those species or ecological communities under consideration owing largely to the absence of particular habitat features and the minimal level of potential disturbance resulting form the proposal.

5.3 STATE ENVIRONMENTAL PLANNING POLICIES

5.3.1 State Environmental Planning Policy 14 – Coastal Wetlands

The aims of *State Environmental Planning Policy 14 – Coastal Wetlands* (SEPP 14) are to ensure that coastal wetlands are preserved in the environmental and economic interests of the State. Within SEPP 14 wetlands, development is declared to be designated development where it involves clearing, filling, the construction of a levy or draining of the land. Clearing includes tree removal, lopping and lower storey native vegetation removal (i.e. under scrubbing).

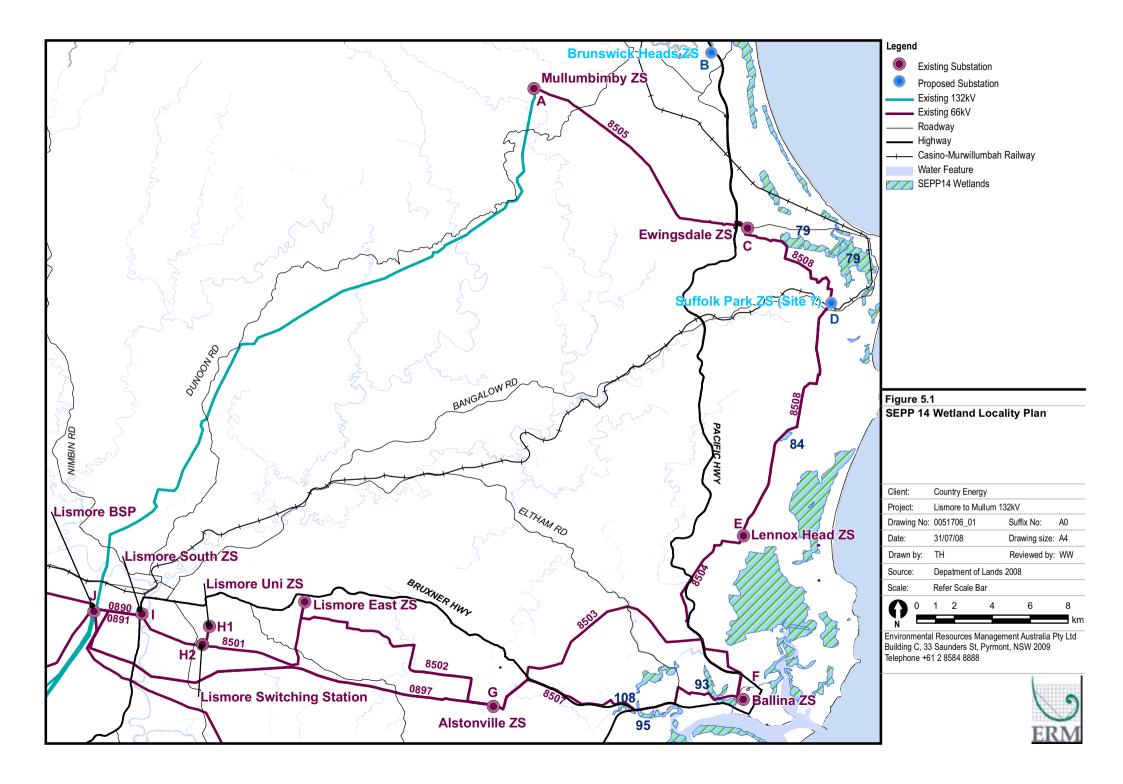
Coastal Wetlands No. 79, 84, 93, 95 and 108 are within 0.5km of the Project Area (refer *Figure 5.1*). The transmission line spans wetland number 93 and the very northern most edge of wetland number 95. In these areas the transmission line will remain within existing corridors and will not require vegetation removal. The existing 66kV transmission line poles are located outside of the SEPP 14 wetland area. Therefore the works required to upgrade the 66kV power line to 132kV is considered likely to be achievable with no impacts to the SEPP 14 wetland during construction. SEPP 14 is therefore not triggered for this component of the works.

Surface upgrade works will be required along Skinners Shoot Road to allow for good quality all weather access to the Suffolk Park substation. Parts of this road are located within Coastal Wetland No. 79. Clause 7 of SEPP 14 provides that's a person shall not:

- (a) clear that land,
- (b) construct a levee on that land,
- (c) drain that land, or
- (d) fill that land,

except with the consent of the council and the concurrence of the Director.

Road works to be undertaken within Skinners Shoot Road Lane include only resurfacing of the existing road from a 3m seal to a 4m seal on the existing formed alignment. As it does not involve any clearing, levee construction, drainage or filling of Wetland No. 79, the Project does not trigger any of the referral and concurrence provisions of SEPP 14. Appropriate mitigation measures have been developed to ensure that the potential for any impacts upon the wetlands are eliminated during construction.



5.3.2 State Environmental Planning Policy 33 – Offensive and Hazardous Industries

State Environmental Planning Policy No 33: Hazardous and Offensive Development (SEPP 33) links the permissibility of an industrial development proposal to its safety and environmental performance. An assessment of potential hazards and risks associated with the Project has been undertaken in accordance with SEPP 33.

SEPP 33 relates to "potentially hazardous" or "potentially offensive" developments, including hazardous materials storages, and requires specified matters to be considered by consent authorities when assessing such applications. SEPP 33 defines 'hazardous materials' as substances falling within the classification of the Australian Code for the Transport of Dangerous Goods by Road or Rail (Federal Office of Road Safety). There is the potential for PCB containing oils to be present in old on-pole transformers within the Project Area has been considered further as follows. Such transformers will be upgraded and removed as part of Project.

There are a number of regulator instruments dealing with PCB waste as follows:

- Product Stewardship (Oil) Amendment Regulations 2003. This regulation confirmed that a review of the ANZECC PCB Management Plan (2003) revised edition found that oils with <2.0 mg/kg could still be classified as PCB free.
- Environmentally Hazardous Chemicals Act 1985.
- Hazardous Waste (Regulation of Exports and Imports) Act 1989.
- PCB Chemical Control Order (CCO) 1997: EPA must be notified in writing of any PCB scheduled material or PCB schedule waste.

County Energy holds a Licence (*No. 41*) under the *Hazardous Chemicals Act 1985* (HC Act) dealing with *permission to keep and convey* PCB materials and wastes. The licence stipulates that PCB waste and materials must be conveyed in accordance with the conditions of the *PCB* Chemical Control Order (CCO) 1997, unless otherwise stated in the licence. Country Energy, under 'Special Condition' of the licence can temporarily convey and store material at a Country Energy Interim Storage Facility for the purpose of laboratory analysis prior to disposal. An Interim Storage Facility is defined in the licence as a secure depot where waste in temporarily kept (for a maximum of 40 days) prior to dispatch to the authorized Storage Facility (i.e. the 'igloo' facility located at the Koolkhan Power Station Complex near Grafton, NSW).

A Country Energy PCB Waste Tracking Form will be completed every time potential PCB waste is disposed off-site. The form requires information on: point of origin; receipt at Koolkhan; final disposal destination; disposal certificate; supervisor responsible for the disposal certificate; and, the quantity of PCB disposed of for annual licence reporting purposes. The form is kept on record for a minimum of 4 years.

There are currently no PCB oils used or stored on the existing substation sites and they are not proposed to be stored on sites that are the subject of the proposed electricity network upgrade Project.

Given there will be no hazardous materials as defined by the Code stored on the Project site and as any remaining PCB oil containing transformers will be managed in accordance with Country Energy's relevant licence requirements, the proposed development is not deemed to be classified as potentially hazardous and is not affected by SEPP 33. Therefore, a Preliminary Hazards Analysis (PHA) was not considered necessary for dealing with PCB oils.

The environmental assessment carried out as part of this EAR and this qualitative assessment of hazards and risks associated with the Project indicate that the proposed electricity network upgrade would not present a significant risk or offence to the environment or public health and is therefore neither potentially hazardous nor offensive as defined by SEPP33.

5.3.3 State Environmental Planning Policy 44 – Koala Habitat Protection

State Environmental Planning Policy 44 – Koala Habitat Protection (SEPP 44) aims to encourage the proper conservation and management of areas of native vegetation that provide habitat for Koalas to ensure a permanent, free living population over their present range and reverse the current trend of Koala population decline.

Three Koala feed tree species listed under Schedule 2 of SEPP 44 are located within the Project Area. These species are Swamp Mahogany (Eucalyptus robusta), Forest Red Gum and Tallowwood. Given the highly modified nature of the environment within the Project Area, these species constitute less than 15% of the total tree cover within the Project Area. Consequently, the Project Area is not defined as 'potential' or 'core' Koala habitat under the provisions of SEPP 44.

A full Ecological Assessment (ERM, 2008) was undertaken as part of this environmental assessment. This assessment is summarized in *Chapter 6* with a complete copy provided as *Annex H*.

5.3.4 State Environmental Planning Policy 71 – Coastal Protection

The aims of State Environmental Planning Policy 71 – Coastal Protection (SEPP 71) relate to the protection and enhancement of the coastal environment to ensure that the type, bulk, scale and size of the development is appropriate for the location and protects and improves the natural scenic qualities of the surrounding environment.

Small sections of the Project Area are contained within the coastal zone near Brunswick Heads and Ballina. Clause 8 of SEPP 71 outlines matters that must be taken into consideration when preparing and assessing development proposals within the coastal zone.

Table 5.1 considers the aims of SEPP 71 in relation to the proposed project. *Table 5.2* addresses the SEPP 71 Clause 8 matters for consideration.

Table 5.1 SEPP 71 Policy Aims **Aims Project** (a) To protect and manage the natural, The proposal protects and manage the cultural, recreational and economic attributes natural, cultural, recreational and economic of the New South Wales coast; attributes of the NSW coast through: • locating as much of the upgraded line on the existing alignment as possible to limit impacts upon the natural environment and possible items of cultural heritage significance. Where potential impacts upon the natural and cultural environment have been identified these have been subject to public consultation and assessment to minimize these impacts as much as possible; • through the provisions of a more reliable power supply to the NSW Far North Coast, the proposal is aiding the economic development of the area; and • there have been no identified impacts upon any recreational attributes of the NSW Far North Coast. (b) to protect and improve existing public access to and along coastal foreshores to the extent that this is compatible with the natural attributes of the coastal foreshore, and (c) to ensure that new opportunities for public access to and along coastal foreshores are identified and realised to the extent that this is compatible with the natural attributes of the coastal foreshore, and (d) to protect and preserve Aboriginal cultural The existing disturbed alignment will be heritage, and Aboriginal places, values, utilised as much as possible for the upgrade customs, beliefs and traditional knowledge, works. Where works are being undertaken in and previously undisturbed areas, an Aboriginal cultural heritage assessment has been provided. The results of this are provided in Chapter 7 with the complete report provided as Annex I. (e) to ensure that the visual amenity of the A visual impact assessment has coast is protected, and undertaken. This is summarised in Chapter 10 with the complete assessment provided as Annex M. (f) to protect and preserve beach environments and beach amenity, and The Project uses the existing alignment as (g) to protect and preserve native coastal vegetation, and much as possible, thus avoiding the need to clear native coastal vegetation. Where it has been identified that realignment is required an ecological assessment has been undertaken.

(h) to protect and preserve the marine

Refer to Chapter 6 and Annex H.

Aims	Project
environment of New South Wales, and	
(i) to protect and preserve rock platforms, and	N/A
(j) to manage the coastal zone in accordance with the principles of ecologically sustainable development (within the meaning of section 6 (2) of the <i>Protection of the Environment Administration Act 1991</i>), and	Ecologically Sustainable Development (ESD) is discussed in <i>Chapter 16</i> .
(k) to ensure that the type, bulk, scale and size of development is appropriate for the location and protects and improves the natural scenic quality of the surrounding area, and	Given that the proposal is essentially an upgrading of existing infrastructure, it is considered to be an appropriate development given its type, bulk, scale and size. Line route and substation site selection was undertaken with a view to choosing an alignment and substation sites which would minimize the potential impacts on the visual landscape. A visual impact assessment has been carried out (see <i>Chapter 11</i>) which concluded that the
	proposed upgrade will have minimal impacts on visual landscape.
(I) to encourage a strategic approach to coastal management.	The proposal provides infrastructure to facilitate development in accordance with adopted regional strategies.

Table 5.2 SEPP 71 Clause 8 – Matters for Consideration

Matter for Consideration	Project
(b) existing public access to and along the coastal foreshore for pedestrians or persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved,	N/A
(c) opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability,	N/A
(d) the suitability of development given its type, location and design and its relationship with the surrounding area,	N/A
(e) any detrimental impact that development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss of views from a public place to the coastal foreshore,	N/A
(f) the scenic qualities of the New South Wales coast, and means to protect and improve these qualities,	The proposed upgrade is essentially keeping to the existing line route and therefore will not have a negative impact on the scenic qualities of the NSW coastline.
(g) measures to conserve animals (within the meaning of the <i>Threatened Species Conservation Act 1995</i>) and plants (within the meaning of that Act), and their habitats,	A threatened species assessment has been undertaken as part of the Ecological Assessment (provided as <i>Annex H</i> and summarised in <i>Chapter 7</i>). It was concluded that the proposed works will not impact on any threatened species, habitats or ecological communities.
(h) measures to conserve fish (within the meaning of Part 7A of the <i>Fisheries Management Act 1994</i>) and marine vegetation (within the meaning of that Part), and their habitats.	N/A
(i) existing wildlife corridors and the impact of development on these corridors,	See (g) above.
 (j) the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards, 	N/A
 (k) measures to reduce the potential for conflict between land-based and water-based coastal activities, 	N/A
(I) measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals,	Refer to item (d) of the aims of SEPP 71 (<i>Table</i> 5.1).
(m) likely impacts of development on the water quality of coastal waterbodies,	The proposed upgrade of the line is not likely to have any impact on the water quality of coastal waterbodies. All work will be undertaken in accordance with Country Energy's CEM 7022 Environmental Operations Manual.
(n) the conservation and preservation of items of heritage, archaeological or historic significance,	Refer to item (d) of the aims of SEPP 71 (<i>Table</i> 5.1).

Matter for Consideration

Project

(o) only in cases in which a council prepares a draft local environmental plan that applies to land to which this Policy applies, the means to encourage compact towns and cities.

N/A

- only in cases in which a development application in relation to proposed development is determined:
- (i) the cumulative impacts of the proposed development on the environment, and
- (ii) measures to ensure that water and energy usage by the proposed development is efficient.

Where works are to be undertaken on the existing alignment, the assessment of individual impacts undertaken have concluded that environmental impacts will be negligible. It is therefore considered that upgrade works along the existing alignment will not cause negative cumulative impacts on the environment.

Where new alignments are proposed, these have been subject to rigorous line route selection studies and impact assessment to ensure that paths are selected that minimize environmental impacts. Given this and the fact that newly aligned areas are relatively short and isolated of one another, it is considered that they will cause minimal negligible impacts on the environment.

5.4 REGIONAL PLANNING INSTRUMENTS

5.4.1 North Coast Regional Environmental Plan

The Project Area is within the Byron, Ballina and Lismore LGA's and therefore the provisions of the *North Coast Regional Environmental Plan 1988* (NCREP) apply. Relevant sections of the NCREP are discussed below.

Agricultural Resources

Clause 6 of the NCREP states:

"The objectives of this plan in relation to agricultural resources are:

- (a) to conserve the productive potential of agricultural land,
- (b) to provide for new forms of agricultural development and changing patterns of existing agricultural development,
- (c) to ensure that commercial agriculture is not affected adversely by incompatible uses which impair its long term sustainability, and
- (d) to ensure that industries and services that support agriculture are not disrupted."

The Project is in accordance with the objectives on the NCREP in terms of agricultural resources as the improved, safer electricity supply will support agricultural activities and will not result in land use conflicts.

Coastal Development

Clause 32B of NCREP introduces development controls which must be taken into account for development within the coastal zone. These state that:

- (2) In determining an application for consent to carry out development on such land, the council must take into account:
- (a) the NSW Coastal Policy 1997,
- (b) the Coastline Management Manual, and
- (c) the North Coast: Design Guidelines.
- (3) The council must not consent to the carrying out of development which would impede public access to the foreshore.

The NSW Coastal Policy 1997 is a broad scale guide to strategic land use decision making within the coastal zone. It does not contain any specific development controls which are considered applicable to the Project. It contains nine broad goals, the implementation of which is considered vital to the sustainable development of the coastal zone. A checklist of the Project against these goals is contained in the Table below:

Table 5.3 NSW Coastal Policy 1997 - Goals

Goal	Project
To protect, rehabilitate and improve the natural environment.	The Project's assessed impacts and proposed mitigation measures will ensure that impacts upon the natural environmental are negligible.
To recognise and accommodate natural processes and climate change.	The matter of natural processes and climate change has been assessed within Chapter 15 and 16 of this report.
To protect and enhance the aesthetic qualities of the coastal zone.	A comprehensive visual impact assessment has been carried out, the outcomes of which are presented within Chapter 10 of this report.
To protect and conserve cultural heritage.	The proposal has the potential to impact upon items of European and Aboriginal cultural heritage. These potential impacts have been assessed within Chapters 7, 8 and 9 and measures proposed to be implemented to ensure that these impacts are fully mitigated against.
To promote ecologically sustainable development and use of resources.	Chapter 16 provides an assessment and discussion of outcomes of the Project against the principles of ecologically sustainable development.
To provide for ecologically sustainable human settlement.	See above.
	A modern, maintained and efficient electricity transmission network will ensure that human settlement strategies are able to be planned for appropriately.
To provide for appropriate public access and use.	N/A
To provide information to enable effective management.	N/A
To provide for integrated planning and management.	N/A

The Coastal Management Guidelines have been put in place to assist in the implementation of the Coastline Hazard Policy. The Coastline Hazard Policy introduces a range of planning and structural measures which provide for:

- the establishment of a statewide management system which requires balanced management of the coastline;
- the control of the potential for losses in new development through the application of effective planning controls designed to ensure that the development is compatible with the hazards;
- a reduction in the impact of hazards on existing development areas through the construction of protective works and/or the voluntary purchase of properties at equitable prices; and

 the construction of beach improvement works to protect or enhance the recreational amenity of the States most heavily used beaches.

As the site is not located in a coastal foreshore setting subject to significant natural coastal processes and hazards, further consideration of these guidelines is not considered necessary.

The Coastal Design Guidelines for NSW (2003) provide a framework for discussion and decision making involving coastal planning, design and development proposals. This relates primarily to the determination of coastal settlement patterns and hierarchies, desired future character of these settlements and controls and guidelines to be implemented to ensure that these development characteristics evolve appropriately. It is not directly applicable to the project, therefore further consideration of these guidelines is not considered necessary.

Heritage

Clause 34 of the NCREP outlines the objectives of the plan in relation to heritage, it states:

- "(a) to conserve the environmental heritage (including the historic, scientific, cultural, social, archaeological, architectural and aesthetic heritage) of the North Coast Region,
- (b) to promote the appreciation and understanding of the North Coast Region's distinctive variety of cultural heritage items and conservation areas including significant buildings, structures, works, relics, towns and precincts, and
- (c) to encourage the conservation of the Region's historic townscapes which contain one or more buildings or places of heritage significance or which have a character and appearance that is desirable to conserve."

The Mullumbimby Power Station is listed on Schedule 2 of the NCREP as a heritage item of State and Regional environmental significance. Initial substation designs indicate that the power station can be retained on-site with the proposed new infrastructure. A detailed Heritage Impact Assessment (ERM, 2008d) has been prepared. This is summarised in *Section 8.1* with the complete report in *Annex J*.

Utility Services

Clause 57 of the NCREP states that the objective of the plan in relation to utility services is to provide the economic and timely provision of utility services to new urban and residential areas.

The Project supports this objective as it will allow a safe and reliable electricity supply to be delivered to existing and new urban and residential areas on the Far North Coast.

5.5 LOCAL PLANNING INSTRUMENTS

The applicable LEP's are the *Byron Local Environmental Plan 1988* (Byron LEP), the *Ballina Local Environmental Plan 1987* (Ballina LEP) and the *Lismore Local Environmental Plan 2000* (Lismore LEP). These LEP's are discussed in the following sections.

Byron Local Environmental Plan 1988 (Byron LEP)

The following zones are located within the Project Area in the Byron LGA:

- 1(a) General Rural Zone
- 1(b1) Agricultural Protection Zone;
- 1(c2) Small Holdings Zone;
- 1(d) Investigation Zone; and
- 7(b) Coastal Habitat Zone.

The Project is defined as a 'public utility undertaking' according to the Byron LEP. Public utility undertakings are permitted with consent in all of the abovementioned zones.

The Byron LEP defines an item of the environmental heritage as a building, work, relic or place of historic, scientific, cultural, social, architectural, archaeological, natural or aesthetic significance for the Shire of Byron, as identified in Schedule 2 or within a heritage precinct.

The Mullumbimby Power Station located on Wilsons Creek Road is listed on Schedule 2 of the Byron LEP. The Project involves the upgrade of the Mullumbimby substation which is located adjacent to the Mullumbimby Power Station.

Clause 18 of the Byron LEP states:

"A person shall not, in respect of a building, work, relic or place that is an item of the environmental heritage:

- (a) demolish, renovate or extend that building or work,
- (b) damage or despoil that relic or place or any part of that relic or place,
- (c) excavate any land for the purposes of exposing or removing that relic,
- (d) erect a building on the land on which that building, work or relic is situated or on the land which comprises that place, or
- (e) subdivide the land on which that building, work or relic is situated or the land which comprises that place,

except with the consent of the council."

A Heritage Impact Assessment has been undertaken in relation to the Project and potential impacts on the Mullumbimby Power Station. This is summarised in *Section 8.1* with the complete report provided as *Annex J*.

Ballina Local Environmental Plan 1987 (Ballina LEP)

The following zones are located within the Project Area in the Ballina LGA:

- 1(a1) Rural (Plateau Lands Agriculture);
- 1(b) Rural (Secondary Agricultural Land);
- 1(e) Rural (Extractive and Mineral Resources);
- 2(a) Residential (Living Area);
- 4 Industrial;
- 7(a) Environment Protection (Wetlands);
- 7(c) Environment Protection (Water Catchment); and
- 7(d) Environment Protection (Scenic Escarpment).

The Project is considered a 'utility installation' according to the Ballina LEP. Utility installations are permissible with consent in all of the abovementioned zones.

Lismore Local Environmental Plan 2000 (Lismore LEP)

The following zones are located within the Project Area in the Lismore LGA:

- 1(a) General Rural;
- 1(b) Agricultural;
- 1(r) Riverlands;
- 3(b) Neighbourhood Business;
- 4(a) Industrial; and
- 5 Special Uses.

The Project is considered to be a 'public utility undertaking' according to the Lismore LEP. Public utility undertakings are permissible with consent in all of the abovementioned zones.

The former Lismore power station located on Lot 1, Section 1, DP 1691, 246 Union Street, South Lismore is identified as an *archaeological site* on Schedule 1 of the Lismore LEP.

Clause 17 of the Lismore LEP relates to known and potential archaeological sites, it states:

- "(1) Before granting consent for development that will be carried out on an archaeological siteof a relic that has non-Aboriginal heritage significance......the consent authority must:
 - (a) consider a heritage impact statement explaining how the proposed development will affect the conservation of the site and any relic known or reasonably likely to be located at the site, and
 - (b) notify the Heritage Council of its intention to do so and take into consideration any comments received in response within 28 days after the notice is sent......"

A Heritage Assessment has been undertaken in relation to the Project and potential impacts on the Lismore Power Station. This is summarised in *Section 8.2* with the complete report provided as *Annex K*.

5.6 OTHER RELEVANT POLICIES

5.6.1 Draft Network Electricity Systems and Facilities – EIA Guidelines, PlanningNSW 2002

The DGR's for the Project require that the *Draft Network Electricity Systems and Facilities – EIA Guidelines* (PlanningNSW, 2002) be considered in the preparation of the EAR. The *Draft Network Electricity Systems and Facilities – EIA Guidelines* (PlanningNSW, 2002) are hereafter referred to as 'the draft guidelines'.

The draft guideline is a reasonably old document that was prepared in 2002, before the introduction of the Part 3A assessment process. The following sections address the general content of the draft guidelines in relation to the Project, however as the guidelines were intended to be used in the preparation of REF's and EIS's they are not directly relevant to this project.

Introduction

The draft guidelines identify how an environmental impact assessment (EIA) may be undertaken and identify potential issues that should be considered when preparing an EIA for an electricity network or facility. The draft guidelines:

- identify factors to be considered;
- discuss consultation with various stakeholders including government authorities, the community and councils;

- outline how the site selection process should be undertaken and potential issues to consider; and
- · detail EIS requirements.

Identification of Factors to be Considered

As detailed in *Section 1.7*, a LRS study was undertaken to identify options for various components of the Project. This LRS study took into consideration the environmental constraints of the area including:

- · acid sulphate soils;
- · planning and land use;
- flooding;
- ecology;
- · Aboriginal heritage;
- non-Aboriginal heritage; and
- · topography.

The LRS report is summarised in *Section 1.7* with the complete report provided as *Annex A*.

It is considered that the methodology used in the LRS report to identify potential constraints within the Project Area is in accordance with the Departments draft guidelines in relation to factor consideration. The abovementioned issues were taken into consideration in the design of the Project.

Consultation

Consultation has been undertaken with:

- · relevant government authorities;
- · Lismore City Council, Ballina Shire Council and Byron Shire Council;
- · the Community;
- · directly affected landholders; and
- the Aboriginal community.

Section 1.8 details the consultation undertaken in relation to the Project. It is considered that this consultation was undertaken in accordance with the draft guidelines.

Site Selection

The draft guidelines provide an outline of issues that should be considered during the site selection process.

The strategic context of the Project is discussed in *Chapter 4* which justifies the need for the project in the Far North Coast region.

A detailed line route selection (LRS) process was undertaken to assess the environmental constraints within the Project Area. This LRS report informed the site selection decision making process. Further technical assessments were undertaken as part of this EAR. The LRS report is provided as *Annex A* with the technical assessments including ecology, Aboriginal heritage, non-Aboriginal heritage, noise, visual and Electric and Magnetic Fields (EMF) summarised in *Chapters 6* to *11* and provided as *Annexes H* to *O*.

Separate LRS and substation site selection processes were undertaken for the Suffolk Park substation, and will also be undertaken for the Brunswick Heads Feeder Loop and the Brunswick Heads substation. The Suffolk Park substation site selection study was undertaken by MWH (*Annex Q*) and includes detailed site specific impact assessments which have been considered within this environmental assessment. The Brunswick Heads assessments are yet to be completed; therefore Concept Approval only is being sought for these works.

Other issues such as hazards, contaminated land, construction impacts, waste, climate change and ecologically sustainable development (ESD) are addressed in *Chapters 12 to 16.* Both the LRS report and this EAR address the relevant issues that the draft guideline outlines.

Requirements for an EIS

The draft guideline identifies what is required in the production of an EIS. As this Project is being assessed under Part 3A of the EP&A Act this section of the draft guidelines is not relevant to the Project. The EAR for the Project has been prepared to address the DGR's issued by the DoP.