Part D

Environmental Management and Draft Statement of Commitments

Part D provides an outline of the environmental management procedures and summarises the environmental mitigation measures to be adopted as a part of the proposal. A draft statement of commitments is also included

17 ENVIRONMENTAL RISK ANALYSIS

Table 17.1 details the environmental risk analysis undertaken for the Project, the proposed mitigation measures and where the environmental issues are discussed within this EAR.

Table 17.1 Environmental Risk Analysis

Environmental Issue	Potential Impacts	Actions/ Proposed Mitigation Measures	Residual Environmental Impacts Remaining After Application of Mitigation Measures	EAR Reference
Strategic Planning	Electricity upgrades where it is not required	Country Energy has undertaken a study titled *Lismore – Mullumbimby Sub-transmission Network Development* (Country Energy, 2005) which investigated the current and future requirements on terms of electricity supply on the Far North Coast. This document identified a need to upgrade the network in the area to meet future demands.	Nil.	Section 4.4
	Land use conflicts	• Upgraded line route generally keeping within existing corridors; and • Undergrounding of the line within Ewingsdale, reducing corridor width requirements	Minimal as most of the Project involves upgrading existing infrastructure.	Section 4.6
	Development not in accordance with State, Regional and Local planning policies	As part of the background planning of the Project the direction of the region in terms of growth areas identified in strategic planning documents was considered.	Nil.	Section 4.3
Flora and Fauna	Removal of habitat or direct disturbance during construction activities	• Conduct pre-clearance fauna surveys in areas where potential fauna habitat is identified and where removal is required; and • Stage works to avoid disturbance to threatened fauna that may potentially inhabit the area during their breeding season (e.g. Koala). • utilization of compensatory plantings for vegetation removed during new cleared easement and substation construction works; and • development of a site specific construction environmental management plan for upgrade works within the Skinners Shoot Road reserve such that impacts upon the SEPP 14 wetland are avoided.	Minimal as vegetation removal proposed is minor.	Section 6.3

	Impacts to aquatic habitats downstream	• Implement erosion and sediment control measures during any clearing in accordance with Country Energy's *CEM 7022 Environmental Operations Manual*; • All oils, fuels, lubricants and chemicals associated with plant operation in the easement should not be stored for extended periods; • All refuelling and hardstanding areas, if required, should also be bunded to reduce water contamination from runoff; and • Where possible, all machinery should avoid streambed areas at all times, ensuring natural buffer areas are present to waterways.	Nil – mitigation measures will prevent impacts from erosion and sedimentation and potential chemical or petrochemical pollution.	Section 6.4 & Section 13.2.4
	Impacts to the surrounding environment	• Responsible management of weeds in accordance with Country Energy's *CEM 7022 Environmental Operations Manual, CEM7022.06: Waste* and the requirements of the *Noxious Weeds Act 1993*; • Minimise disturbance / removal of existing native vegetation and potential fauna habitat where possible; • Construct protection barriers around areas of vegetation near the existing route to prevent potential damage; and • Obtain professional advice from an Arborist in areas where there is potential for root damage to native trees.	Minimal as vegetation removal proposed is minor.	Sections 6.3 and 6.4
Heritage: Aboriginal	Disturbance or destruction of heritage or cultural resources	• A Cultural Heritage Induction of the construction crew supervisors should take place prior to construction. This is to explain the nature of the monitoring and the requirements for when an archaeologist is to be notified. Handouts showing Aboriginal sites will be circulated and the procedure to follow in the case of Aboriginal burials being uncovered explained. The induction can be carried out by an archaeologist. In addition, a Site Contractors Heritage Handbook can be provided if required. This summarises all the key heritage issues and recommendations, provides contact details of archaeologists	Moderate – The Project has the potential to involve relocation of items at the Brunswick Heads Substation site. Also, the Suffolk Park Substation is proposed in areas where burials are possible and may be disturbed as a result of the Project.	Chapter 7

		and LALCs, provides maps indicating areas that require monitoring and has information sheets showing archaeological sites sand areas to be fenced off and avoided. • If ground disturbance or vegetation removal is proposed outside existing power line corridors in any sensitive areas identified in *Section 6.1.2* and illustrated in on *Figures 6.1 to 6.3* of the Aboriginal Heritage Assessment (*Annex I*), archaeological surveys and further assessment should be completed. • Any works that result in the disturbance of the ground surface, such as excavation for new transmission line poles, removal of vegetation or trenching, should be monitored by LALC representatives and other interested parties between the Lismore BSP substation south to the existing Alstonville power line. • A Burial Management Plan and monitoring of all clearance and earth works is to occur at the proposed Suffolk Park substation site (Site 7) due to the sensitive nature of the area. Monitoring by LALC representatives and other interested parties should also be carried out when clearing or excavation works are being undertaken for transmission line connection of the new substation to the existing network. • Further archaeological investigation is recommended at the Brunswick Heads Substation site prior to the construction commencing. As this is a Part 3A Project a S87 permit will not be required, but the investigation should be undertaken to the usual standards for a S87 permit. The investigation should be conducted in the manner discussed in Section 7.5.2 of the Aboriginal Heritage Assessment (Annex I).		
Heritage: Non-Aboriginal	Disturbance or destruction of heritage or cultural resources	• Preparation of an archival recording in accordance with NSW Heritage Branch guidelines of the Mullumbimby Power Station building and its associated machinery and equipment will be undertaken. Copies of the archival recording will be lodged with	Minimal – the Mullumbimby Power Station will not be impacted, however its context may be changed slightly as a result of works in the vicinity for new substations.	Chapter 8

		the Brunswick Valley Historical Society, State Library of NSW and the NSW Heritage Branch.		
Noise Impacts	Potential noise impacts of new and upgraded substations	Ballina Substation: • The final noise mitigation options included in the detailed design phase will be modelled by a suitably qualified acoustical consultant to confirm the substation once operational is predicted to meet relevant DECC noise criteria. • Post construction noise monitoring will be undertaken by a suitably qualified acoustic consultant confirming noise levels actually generated by the upgraded substation. The consultants report will recommend any necessary additional amelioration measures to be carried out. • Once commissioned a noise compliance monitoring report will be prepared by a suitably qualified acoustic consultant confirming noise levels generated by the upgraded substation comply with DECC's *Industrial Noise Policy* (2000).	Minimal – all substations will meet the criteria specified in the DECC's *Industrial Noise Policy* (2000).	Chapter 9

	Noise impacts resulting from operation of transmission lines (including maintenance activities)	• All work will be restricted to the hours of 7:00am and 6:00pm Monday to Friday, 8:00am to 1:00pm Saturdays and at no time on Sundays or Public Holidays except:
		• Any works which do not cause emissions to be audible at any nearby residential property;
		  • the delivery of materials which is required outside these hours as requested by police or other authorities for safety reasons;
		  • emergency work to avoid the loss of lives, property and/or to prevent environmental harm; and
		  • any other work as agreed through negotiations between Country Energy and potentially affected noise receivers.
		• All work to be completed in as short a timeframe as possible.
		• Residents potentially affected by noise are to be informed in advance that work is to take place and is likely to generate some
			Minor – Transmission lines, once operational produce very little noise. Any maintenance activities that are likely to be noisy will be short-term and consultation with affected landholders will be undertaken.	Chapter 9

		noise, with residents being kept informed of progress at regular intervals.		
Visual Amenity	Potential impacts to the visual catchment	• Transmission line upgrade works to generally be kept to the existing disturbed corridor. • New transmission line corridors have been selected with a view to reducing existing visual impacts and minimising any new visual impacts. • Mitigation measures such as use of green coloured transmission poles and undergrounding of transmission line to be used in some visually sensitive areas. • Landscaping options are to be considered (i.e. detailed Landscape Plan) to reduce the visual impact from the proposed upgrade of the Ballina zone substation. • New communications towers to be installed at Mullumbimby zone substation and Lismore BSP will be installed within the existing substation boundaries at these remotely located sites. A green pole will be used at Mullumbimby to blend in with the vegetation backdrop.	Minimal – minor variations to poles will occur in the Project Area but no significant visual impacts will result. Substation upgrades will generally not involve significant additional visual impacts. Landscaping will be undertaken to visually screen the proposed upgrade works at Ballina zone substation, which is expected to improve the visual amenity in this area. The proposed communication towers to be installed at Mullumbimby zone substation and Lismore BSP will not add significantly to the visual landscape at these sites that is already dominated by existing electrical infrastructure.	Chapter 10

Construction Impacts	Noise impacts during construction	• Residents potentially affected by construction noise to be informed in advance that work to take place and is likely to generate some noise, with residents being kept informed of progress at regular intervals;
		• All construction activities will be restricted to the hours of 7:00am and 6:00pm Monday to Friday, 8:00am to 1:00pm Saturdays and at no time on Sundays or Public Holidays except:
		  • any works which do not cause emissions to be audible at any nearby residential property;
		  • the delivery of materials which is required outside these hours as requested by police or other authorities for safety reasons;
		  • emergency work to avoid the loss of lives, property and/or
			Moderate – Possible exceedences of DECC's construction noise criteria are possible however these will be short-term and consultation with potentially affected landholders will be undertaken.	Chapter 9

to prevent environmental harm; and
- any other work as agreed through negotiations between Country Energy and potentially affected noise receivers.

- Construction in close proximity to residences be completed in as short a time frame as possible;
- Where practical, pushing topsoil or fill to form earth mounds between the construction site and residences;
- Where possible barriers should be placed nearest to plant equipment to maximise barrier attenuation;
- Maximise the offset distance between noisy plant items and nearby noise sensitive receivers;
- Avoiding any coincidence of noisy plant working together in close proximity simultaneously adjacent to sensitive receivers;
- Minimising the occurrence of consecutive or ongoing out of hours works in the same locality;
- Orienting noisy plant or equipment away from sensitive areas;
- Carrying out loading and unloading away from noise sensitive areas, if loading near sensitive receiver's acoustic enclosures or barriers of a suitable height is constructed to minimise the noise impacts;
- Should blasting be required, specific assessment should be undertaken regarding impacts to any nearby residences
- Monitor construction noise levels throughout the varying stages of the project to quantify potential impact at most sensitive residences; and
- The contractor must take reasonable steps to manage and control noise from all plant and equipment. Examples of appropriate noise management and control may include installation of acoustic silencers, low noise mufflers and alternatives to reversing alarms.

	Traffic Impacts	• Minimal clearance heights above road surface to be adhered to in all line upgrade and construction; • Utilise construction techniques that allow for the erection and ongoing maintenance of the lines to be carried out with minimal disruption to traffic; • A Traffic Management Plan is to be prepared in the event of unavoidable traffic impacts, including any relevant requirements in the RTA's *Traffic Control at Worksites* (2008); • Any impacts to traffic will be scheduled for less busy periods to minimise delays; • Consultation to occur with landholders regarding preferred access routes for works to be undertaken on private property; and • Before construction activities commence, Council and RTA to be notified of heavy vehicle movements to sites and details of traffic control measures.	Minimal – Most work will be undertaken within the existing transmission line corridor and substation compounds. Impacts to traffic should only occur during the delivery of equipment. Significant additional amounts of traffic will not be generated as a result of the Project.	Section 13.2.1
	Water Quality Impacts	• Disturbance of soils to be kept to minimum; • Sediment fencing to be constructed around stockpiled soil; • Exposed areas susceptible to dust generation are to be revegetated with fast growing grasses or sealed; • Dust generating activities will be limited during unfavourable conditions and dust suppression measures (i.e. water cart) will be used as required; • All trucks containing soil/gravel material are to be kept damp and covered during transportation; • Where possible, all machinery should avoid streambed areas at all times, ensuring natural buffer areas are present to waterways; • All works will be carried out in accordance with Country Energy's CEM7022 *Environmental Operations Manual: Handbook;* • All oils, fuels, lubricants and chemicals associated with plant operation in the easement should not be stored for	Nil – mitigation measures will prevent impacts from erosion and sedimentation and potential chemical or petrochemical pollution.	Section 13.2.4

		extended periods; and • All refuelling hardstand areas, if required, should also be bunded to reduce the potential for water contamination from site runoff.		
	Disturbance of Soils leading to Erosion and Sedimentation	• Disturbance of soils to be kept to minimum; • Sediment fencing to be constructed around stockpiled soil; • Exposed areas susceptible to dust generation are to be revegetated with fast growing grasses or sealed; • Dust generating activities will be limited during unfavourable conditions and dust suppression measures (i.e. water cart) will be used as required; • All trucks containing soil/gravel material are to be kept damp and covered during transportation; • Where possible, all machinery should avoid streambed areas at all times, ensuring natural buffer areas are present to waterways; and • All works will be carried out in accordance with Country Energy's CEM7022 *Environmental Operations Manual: Handbook*.	Nil – mitigation measures will prevent impacts from erosion and sedimentation.	Section 13.2.4
	Air Quality Impacts	• All trucks containing soil/gravel material are to be kept damp and covered during transportation; • Dust generating activities will be limited during unfavourable conditions and dust suppression measures (i.e. water cart) will be used where deemed necessary; • All equipment will be maintained and operated in accordance with manufacturer specifications; and • Areas susceptible to dust generation are to be revegetated or sealed.	Minimal – mitigation measures will prevent impacts from dust generation.	Section 13.2.2
Human Health Impacts	Impacts to health as a result of EMF exposure.	• Adopt a 'prudent avoidance' approach.	Nil	Chapter 11

Waste Production and Management	Environmental impacts as a result of inappropriate handling of waste.	• The management of all general and construction waste will be undertaken in accordance with Country Energy CEM7022 *Environmental Operations Manual: Handbook.* • All wastes will be classified, stored and disposed in accordance with the NSW DECC (2008) *Waste Classification Guidelines*. • Opportunities for waste reduction and the beneficial reuse of materials will be identified in accordance with Country Energy's obligations with regard to the *Waste Avoidance and Resource Recovery Act 2001*; • Where possible grass and topsoil will be set aside and reused to establish groundcover to reduce the potential for erosion; • Vegetation removal would be undertaken in accordance with Country Energy's CEM7022 *Environmental Operations Manual: Handbook.* Where possible removed vegetation will be mulched and reuse for site stabilisation and/or landscaping purposes; • Concrete and timber (i.e. pole butts) will be assessed in accordance with the above guidelines and where suitable for reuse returned to the excavation in accordance with industry practice and CEM7022 *Environmental Operations Manual: Handbook*. • Materials deemed unsuitable for in-situ reuse would be appropriately stored, disposed or recycled off-site; • If contaminated materials are encountered during construction (i.e. potential PCB containing transformers) work will stop until such time as the material can be classified and/or appropriate waste management measures put in place; • No on-site maintenance of construction equipment unless disposal of any wastes generated is undertaken; • Any construction staff amenities at substation sites would be serviced by a licensed liquid waste contractor as required; • Skip bins or other containers will be used on-site for the collection of general waste. An appropriately licensed waste contractor will collect such general waste;	Minimal – the proposed mitigation measures will ensure that impacts to the environment from wastes are avoided.	Chapter 14

		• Any asbestos waste will be managed in accordance with Country Energy's policy and procedural guidelines which meet the relevant regulatory requirements; • In the event of any oil waste occurring on-site, this would be collected and transported to the nearest oil recycling facility; and • If contaminated materials are encountered during construction (i.e. potential PCB containing transformers) work will stop until such time as the material can be classified and appropriate waste management measures put in place.		
Contaminated Land	Contamination of land as a result of the Project.	• Country Energy will consider site specific options for disposal and soil remediation in relation to power poles; • Any proposed excavation works within the existing and new transmission line corridors will be assessed during construction using the using the DPI register and available mapping, and through direct consultation with relevant landholders. If it is considered possible that a dip site could potentially be impacted by the development, an alternative route deviation will be considered; and • Asbestos materials will be appropriated managed in accordance with Country Energy's policy and procedural guidelines which meet the requirements of the relevant regulatory authorities.	Minimal – the proposed mitigation measures will ensure that contamination impacts are avoided.	Chapter 12

18 DRAFT STATEMENT OF COMMITMENTS

The Environmental Assessment for the Project has identified a range of environmental outcomes and management measures that are required to avoid or reduce its environmental impacts. These have been converted into specific commitments which are outlined in *Table 18.1*.

Table 18.1 Statement of Commitments

Item Number	Item	Commitment	Responsibility	Timing
		Overall Project Commitments		
1	Scope of Development	The development will be carried out in accordance with Environmental Assessment Report (EAR), prepared by ERM, September 2008 and supporting reports, except where amended by other items of this Statement of Commitments.	Country Energy	For the duration of the Project.
2	Community Consultation	• Prior to the commencement of construction, Country Energy must institute, publicise and list with a telephone company a 24 hour toll free complaints contact telephone number, which would enable any member of the general public to reach a person who can arrange an appropriate response action to the complaint. • All directly affected landowners and occupiers must be consulted regarding the Project. Consultation must address, but not be limited to, final pole locations, construction activities and mitigation measures that may affect workings of properties and timing of such activities to minimise disruption; proposed site accesses; landscaping measures; and the nature and timing of maintenance activities. All reasonable and feasible requests from directly affected landowners must be taken into consideration and records of consultation must be maintained, and these records must be made available to the Director-General on request.	Country Energy	Prior to commencement of construction & ongoing during the duration of the Project.

3	Environmental Management Plan - Construction	• Prior to the commencement of construction a Construction Environmental Management Plan (CEMP) will be prepared.
		• The CEMP document must, but is not limited to:
		  • Address construction activities associated with all key construction sites, including staging and timing of the proposed works.
		  • Describe management measures to be implemented in respect of key environmental elements.
		  • Cover specific environmental management objectives and strategies for environmental system elements including, but not limited to: water quality; noise and vibration; air quality; erosion and sedimentation; access roads; construction access and traffic; heritage and archaeology; acid sulphate soils; contamination; waste management; flora and fauna; weed control; rehabilitation; refuelling and fuel storage areas; energy use, resource use and recycling; and utilities.
		  • address, but not be limited to:
		  ○ Identification of the statutory and other obligations which Country Energy is required to fulfil during project construction, including all
			Country Energy	Prior to commencement of construction & ongoing during the duration of the Project.

Item Number	Item	Commitment	Responsibility	Timing
		approvals and consultations/agreements required from other authorities and stakeholders, and key legislation and policies which control Country Energy's construction of the project. ○ Definition of the role, responsibility, authority, accountability and reporting of personnel relevant to compliance with the EMP. ○ Measures to avoid and/or control the occurrence of environmental impacts. ○ Measures (where practicable and cost-effective) to provide positive environmental offsets to unavoidable environmental impacts. ○ Strategies (where reasonable and feasible) for reducing exposure of residences or sensitive receivers to electric and magnetic fields. ○ Environmental management procedures for all construction processes which are important for the quality of the environment in respect of permanent and/or temporary works. ○ Environmental management instructions for all complex environmental control processes which do not follow common practice or where the absence of such instructions could be potentially detrimental to the environment. ○ Monitoring, inspection and test plans for all activities and environmental qualities which are important to the environmental management of the project. ○ Consultation requirements with relevant government agencies. ○ Community consultation and notification strategy (including local community, Local Aboriginal Land Councils, relevant government agencies, and Council), and complaint handling procedures. The CEMP will incorporate the management measures identified elsewhere within this Statement of Commitments.		
4	Ecology	• No additional vegetation removal or land disturbance is to be undertaken within the SEPP 14 wetland areas, including the existing transmission line corridor and the road corridor at Skinner Shoot. • Disturbance/removal of existing native vegetation and potential fauna habitat will be minimised where possible. • Pre-clearance fauna surveys will be undertaken in areas where potential fauna habitat is identified and where removal is required. • A detailed ecological assessment of the proposed new 66kV line 8516 between Lismore South and Lismore Switching Station will be undertaken including assessment under SEPP 44. Prior to construction commencing a Construction Environmental Management Plan	Country Energy	Prior to commencement of construction & ongoing during the duration of the Project.

Item Number	Item	Commitment	Responsibility	Timing
		(CEMP) will be prepared which will include the following: • Erosion and sediment control measures in accordance with Country Energy's *CEM 7022 Environmental Operations Manual* will be put in place whilst tree clearing is being undertaken. • The spread of weeds will be prevented in accordance with Country Energy's *CEM 7022 Environmental Operations Manual, CEM7022.07: Land Use and Animal Diseases* and the requirements of the *Noxious Weeds Act 1993.* • Protection barriers will be constructed around areas of vegetation near the existing route to prevent potential damage. • Professional advice from an Arborist will be sought in instances where there is potential for root damage to native trees. • Works will be staged to avoid disturbance to threatened fauna that may potentially inhabit the area during their breeding season (e.g. Koala).		
5	Aboriginal Heritage	• If ground disturbance or vegetation removal is proposed outside existing power line corridors in any sensitive areas identified in *Section 6.1.2* and illustrated in on *Figures 6.1 to 6.3* of the Aboriginal Heritage Assessment (*Annex I*), archaeological surveys and further assessment should be completed. • Any works that result in the disturbance of the ground surface, such as excavation for new transmission line poles, removal of vegetation or trenching, should be monitored by LALC representatives and other interested parties between the Lismore BSP substation south to the existing Alstonville zone substation. Prior to construction commencing a Construction Environmental Management Plan (CEMP) will be prepared which will include the following: Cultural Heritage Induction which will be carried out for site supervisors prior to construction which explains procedures to be followed in the event that Aboriginal archaeological sites are uncovered. A Site Contractors Heritage Handbook summarising key heritage issues and recommendations and providing contact details for archaeologists and LALC's may be issued during the Cultural Heritage Induction.	Country Energy	Prior to commencement of construction & ongoing during the duration of the Project.
6	Noise	Prior to construction commencing a Construction Environmental Management Plan (CEMP) will be prepared which will include the following: • Residents in the vicinity of noisy construction works are to be informed that work is to take place and is likely to generate some noise. • All construction activities will be restricted to the hours of 7:00am and 6:00pm Monday to Friday, 8:00am to 1:00pm Saturdays and at no time on Sundays or Public Holidays except:	Country Energy	Prior to commencement of construction & ongoing during the duration of the Project.

Item Number	Item	Commitment	Responsibility	Timing
		• any works which do not cause emissions to be audible at any nearby residential property; • the delivery of materials which is required outside these hours as requested by police or other authorities for safety reasons; • emergency work to avoid the loss of lives, property and/or to prevent environmental harm; and • any other work as agreed through negotiations between Country Energy and potentially affected noise receivers. • Construction in close proximity to residences be completed in as short a time frame as possible; • Where practical, pushing topsoil or fill to form earth mounds between the construction site and residences; • Where possible barriers should be placed nearest to plant equipment to maximise barrier attenuation; • Maximise the offset distance between noisy plant items and nearby noise sensitive receivers; • Avoiding any coincidence of noisy plant working together in close proximity simultaneously adjacent to sensitive receivers; • Minimising the occurrence of consecutive or ongoing out of hours works in the same locality; • Orienting noisy plant or equipment away from sensitive areas; • Carrying out loading and unloading away from noise sensitive areas, if loading near sensitive receiver's acoustic enclosures or barriers of a suitable height is constructed to minimise the noise impacts; • Should blasting be required, specific assessment should be undertaken regarding impacts to any nearby residences • Monitor construction noise levels throughout the varying stages of the project to quantify potential impact at most sensitive residences; and • The contractor must take reasonable steps to manage and control noise from all plant and equipment. Examples of appropriate noise management and control may include installation of acoustic silencers, low noise mufflers and alternatives to reversing alarms.		
7	Visual Amenity	• Green transmission poles and communication tower poles will be installed in visually sensitive areas where a vegetation backdrop is present.	Country Energy	Prior to commencement of construction &

Item Number	Item	Commitment	Responsibility	Timing
		• The visual impacts of the new substation at Brunswick Heads will be fully assessed and mitigation measures, as deemed necessary, will be included in the final designs. • A detailed Landscape Plan will be developed for the Ballina zone substation upon finalisation of the substation upgrade design.		ongoing during the duration of the Project.
8	Electric and Magnetic Fields (EMF)	• The Project will be undertaken in accordance with the Energy Networks Association *Policy Statement on Electric and Magnetic Fields (EMFs)* (2006) which is adopted by Country Energy.	Country Energy	Prior to commencement of construction & ongoing during the duration of the Project.
9	Waste	Prior to construction commencing a Construction Environmental Management Plan (CEMP) will be prepared which will include the following: • The management of all general and construction waste will be undertaken in accordance with Country Energy *CEM 7022 Environmental Operations Manual.* • All wastes will be classified, stored and disposed in accordance with the NSW DECC (2008) *Waste Classification Guidelines*. • Opportunities for waste reduction and the beneficial reuse of materials will be identified in accordance with Country Energy's obligations with regard to the *Waste Avoidance and Resource Recovery Act 2001*. This will also include the appropriate segregation of materials for recycling to divert such material from the general waste stream. • Where possible, grass and topsoil will be set aside and reused to establish groundcover to reduce the potential for erosion. • Vegetation removal will be undertaken in accordance with Country Energy's *CEM 7022 Environmental Operations Manual.* Where possible removed vegetation will be mulched and reuse for site stabilisation and/or landscaping purposes. • Materials deemed unsuitable for in-situ reuse will be appropriately stored, disposed or recycled off-site. • If contaminated materials are encountered during construction work will stop until such time as the material can be classified and/or appropriate waste management measures put in place. • No on-site maintenance of construction equipment will be done unless disposal of any wastes generated is undertaken. • Staff amenities will be serviced by a licensed liquid waste contractor as required. • At substations, skip bins or other containers will be used on-site for the collection of general waste. An appropriately licensed waste contractor will collect the waste.	Country Energy	Prior to commencement of construction & ongoing during the duration of the Project.

Item Number	Item	Commitment	Responsibility	Timing
		• In the event of any oil waste occurring on-site, this will be collected and transported to the nearest oil recycling facility. Prior to commencement of construction of the Suffolk Park zone substation an on-site waste water treatment system will be designed and implemented in accordance with AS 1547-2000 and any requirements of Byron Shire Council.		
10	Climate Change	Prior to construction commencing a Construction Environmental Management Plan (CEMP) will be prepared which will include the following: • Vehicles and machinery will be maintained in accordance with manufacturer's requirements and regularly serviced to ensure optimal performance. • All machinery noted to be producing excessive emissions will be stood down for maintenance. Where practical, vehicles and machinery not in use will be turned off.	Country Energy	Prior to commencement of construction & ongoing during the duration of the Project.
11	Traffic Management	• Prior to construction commencing a Construction Environmental Management Plan (CEMP) will be prepared which will identify all accesses required to undertake the Project and the key safety and traffic control and mitigation measures that will be applied to minimise disruption and ensure that public safety and adequate access are maintained. Country Energy will be responsible for minimising any disruption to services resulting from the Project and will be responsible for advising local residents and businesses on disruption to services.	Country Energy	Prior to commencement of construction & ongoing during the duration of the Project.
		Site Specific Commitments		
12	Brunswick Heads Substation	Further archaeological investigation will be undertaken at the Brunswick Heads Substation site prior to construction commencing. While a Section 87 permit is not required for a Part 3A Project, the investigation will be undertaken to the usual standards required for a Section 87 permit. All clearing and earthworks will be monitored by LALC representatives at this site.	Country Energy	Prior to construction commencing.
13	Mullumbimby Power Station	• Upgrade works will not directly impact on the heritage listed power station. • Preparation of an archival recording in accordance with NSW Heritage Branch guidelines of the power station building and its associated machinery and equipment will be undertaken. Copies of the archival recording will be lodged with the Brunswick Valley Historical Society, State Library of NSW and the NSW Heritage Branch. A green coloured pole will be used for new transmission poles and the proposed	Country Energy	Ongoing during the duration of the Project.

Item Number	Item	Commitment	Responsibility	Timing
		communications tower to minimise the visual impact against the vegetated backdrop.		
14	Suffolk Park Substation	• An Aboriginal heritage Burial Management Plan will be prepared and implemented prior to the commencement of works at the Suffolk Park Substation site and all clearing and earth works will be monitored by LALC representatives at this site.	Country Energy	Prior to commencement of construction & ongoing during the duration of the Project.
15	Ballina Substation	• The final noise mitigation options included in the detailed design phase will be modelled by a suitably qualified acoustical consultant to confirm the substation once operational is predicted to meet relevant DECC noise criteria. • Post construction noise monitoring will be undertaken by a suitably qualified acoustic consultant confirming noise levels actually generated by the upgraded substation. The consultants report will recommend any necessary additional amelioration measures to be carried out. Once commissioned a noise compliance monitoring report will be prepared by a suitably qualified acoustic consultant confirming noise levels generated by the upgraded substation comply with DECC's *Industrial Noise Policy* (2000).	Country Energy	Prior to commencement of construction.

19 CONCLUSION

The proposed Lismore to Mullumbimby electricity network upgrade will ensure the delivery of safe and reliable electricity supply to the NSW Far North Coast Region in the future. The upgrade will support the growth and development outlined for the area by Byron Shire, Ballina Shire and Lismore City Councils and the State Government.

As the Project generally keeps within the existing disturbed corridor the impacts associated with the Project are able to be mitigated effectively, resulting in minimal impacts to the environment and the community.

Consideration has been given to the principles of ecologically sustainable development during the design and line route selection phases of the Project. The 'prudent avoidance' principle has been applied during the planning and line route options assessment.

The implementation of the Project will result in the region continuing to be sustainable and economically competitive through the delivery of reliable electricity supply with minimal environmental impacts which will allow future growth, development and employment in the region.