

Annex C

Community Consultation Materials

Public Notice

Proposed upgrade of electricity network

Country Energy is proposing a seven year, \$70 million upgrade of its electricity network on the Far North Coast. The proposed upgrade covers the local government areas of Ballina Shire, Byron Shire and Lismore City.

Why is the electricity network upgrade needed?

Parts of the New South Wales Far North Coast (FNC), particularly the coastal areas between Ocean Shores and Ballina, have experienced continued population growth and increased demand on the electricity supply network.

Ballina and Lismore, in particular, are earmarked for growth as residential, employment and service centres.

Electricity demand in this area grew by almost 25 per cent between 1995 and 2005, and is predicted to grow by more than 50 per cent over the next two decades.

Country Energy's proposed upgrade aims to ensure that the electricity network is capable of meeting the needs of a growing population and secure long term electricity supply to the region for future generations.

What are the benefits of the upgrade?

The upgrade would complete a network ring connecting Mullumbimby, Ewingsdale, Ballina, Alstonville, East Lismore and South Lismore. Key benefits include:

- Improved reliability and capacity to meet projected electricity demand in a region marked for major residential and commercial growth.
- Improved energy efficiency in reducing line losses (energy lost in transmitting power along the powerline) by 5,200 megawatt hours per annum – equivalent to taking 1,000 cars off the road.

What is happening now?

Country Energy has engaged an environmental consultant – Environmental Resources Management Australia (ERM) – to investigate options for the upgrade. These include:

- Duplicating existing 66,000 volt (66 kV) powerlines in existing corridors
- Modifying existing powerlines to operate at a higher voltage – 132,000 volt (132kV).
- Constructing additional new powerlines in new corridors.

The upgrade will also require the improvement of existing zone substations and the establishment of new zone substations near Brunswick Heads, Ewingsdale and in the Suffolk Park area.

Consultation with the community on these options will take place over the coming months and investigation of options will involve consideration of community interests, environmental issues and engineering constraints.

What are the next steps?

Country Energy will use the feedback from the consultation process, along with the preliminary environmental studies, to select preferred options for the electricity network upgrade. A detailed Environmental Assessment will then be undertaken by ERM to evaluate any potential environmental and social impacts. This process will help Country Energy to ensure that all concerns are addressed and the effects of any impacts minimised.

How can I find out more?

Members of the community can keep up to date on the proposed project by -

- Accessing the dedicated project site on Country Energy's website at www.countryenergy.com.au/upgrades then follow links to the Far North Coast
- Contacting Country Energy on **1800 651 704** for queries or issues of interest relating to the overall proposal
- Visiting our Customer Service Centre at Lismore
- Providing a written response outlining queries or issues relating to the overall project. Written responses should be addressed to:

Lismore Project
Country Energy
PO Box 718
Queanbeyan NSW 2620

We look forward to receiving your feedback during this consultation process.



Brian Clawson
**Regional General Manager,
Far North Coast**

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We live here too.

Get Involved and Have Your Say

You can get involved by:

- Accessing the dedicated project site on Country Energy's website at www.countryenergy.com.au/upgrades then follow links to Far North coast.
- Contacting Country Energy on 1800 651 704 for queries or issues of interest relating to the overall proposal
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PO Box 718
Queanbeyan NSW 2620

Country Energy values community input into this important project and look forward to your feedback and suggestions.



Existing 66kV infrastructure near Ewingsdale

Proposed Lismore to Mullumbimby Electricity Network Upgrade

June 2007

Newsletter One: June 2007

Country Energy plans to upgrade its electricity network in Ballina Shire, Byron Shire and Lismore City local government areas to meet the growing demand for electricity in the region and to secure a reliable power supply into the future.

The proposal aims to ensure that the electricity network is capable of meeting customer requirements for at least the next 20 years and will contribute to the region's growth.

Why is the network upgrade needed?

Parts of the New South Wales Far North Coast (FNC), particularly the coastal areas between Ocean Shores and Ballina, have experienced continued population growth and increased demand on the electricity supply network.

Ballina and Lismore, in particular, are earmarked for growth as residential, employment and service centres.

Electricity demand in this area grew by almost 25 per cent between 1995 and 2005, and is predicted to grow by more than 50 per cent over the next two decades.

Country Energy's proposed upgrade aims to ensure that the electricity network is capable of meeting the needs of a growing population and secure long term electricity supply to the region for future generations.

Benefits of the upgrade include:

- Improved reliability and capacity to meet projected electricity demand in a region marked for growth as major residential, employment and service centres.
- Improved energy efficiency in reducing line losses (energy lost in transmitting power along the powerline) by 5,200 megawatt hours per annum equivalent to taking 1,000 cars off the road.



Existing 66kV corridor near Byron Bay

What is happening now?

Country Energy has commissioned Environmental Resources Management Australia (ERM) – an environmental and social consultancy – to undertake the necessary studies that will contribute to the identification of the final options for the electricity network upgrade.

ERM is currently undertaking an options study for the electricity network upgrade and community consultation on these options will occur over the coming months.

The options currently under investigation by ERM include:

- Duplicating existing 66,000 volt (66kV) power lines in existing corridors
- Modifying existing powerlines to operate at a higher voltage - 132,000 volt (132kV)
- Constructing additional powerlines in new corridors.

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Proposed Lismore to Mullumbimby Electricity Network Upgrade

What is happening now? cont...



Existing Infrastructure

132kV concrete pole

Duplicated 66kV circuit

Consultation

The proposal will also include upgrades to existing zone substations and the establishment of new zone substations near Brunswick Heads, Ewingsdale and in the Suffolk Park area.

The proposed electricity network upgrade will be staged over a period of seven years.

How will potential environmental impacts be addressed?

There will be a comprehensive Environmental Assessment process, during which Country Energy will examine in detail any environmental or social constraints identified by the preliminary analysis. This process will help Country Energy to ensure that all concerns are addressed.

Country Energy recognises the importance of consulting with the community and ensuring all stakeholders have access to information about the proposed upgrade.

Consultation will be undertaken with relevant Local, State and Federal Government stakeholders, community organisations, residents and the broader community. Consultation will occur throughout the identification of the upgrade options and the Environmental Assessment process.

A public notice has been placed in local print media and this newsletter has been distributed to provide preliminary information on the overall project, processes and timeframes for the community consultation and the Environmental Assessment process. See the back page of this newsletter for details on how to have your say during the consultation process.

Proposed Lismore to Mullumbimby Electricity Network Upgrade

The Study Area

The preliminary environmental analysis considered a broad study area (see map). The extent of the study area to be considered for detailed environmental assessment will be confirmed following the selection of the preferred network upgrade option.

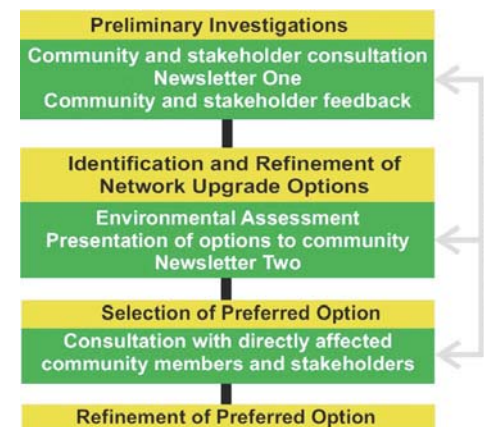
What are the next steps ?

Country Energy will use the feedback from the consultation process, along with the preliminary environmental studies, to select a preferred option for the upgrade of the electricity network. A detailed Environmental Assessment will then be undertaken by ERM to evaluate any potential environmental and social impacts specific to the selected option.



The Study Area - Proposed Lismore to Mullumbimby Electricity Network Upgrade

The Options Selection Process



The community and stakeholder feedback and the findings of the Environmental Assessment will be used by Country Energy to evaluate the preferred network upgrade option.

A second newsletter is expected to be distributed in September 2007, following the completion of the Environmental Assessment Report (EAR). This newsletter will:

- explain how any issues that arose from the consultation process were addressed in the EAR
- present the preferred route options and rationale for their selection
- provide information, including venues, for the public exhibition of the EAR
- provide information on the process for lodging comments on the EAR to the NSW Department of Planning, the consent authority for the proposal.

Lismore to Mullumbimby Electricity Network Upgrade

October 2007

Newsletter Two

This is the second newsletter informing the community of Country Energy's proposed seven year, \$70 million upgrade of its electricity network in Ballina Shire, Byron Shire and Lismore City local government areas to meet the growing demand for electricity in the region and to secure a reliable power supply into the future.

Country Energy has received a strong response to its request for community feedback since publicly announcing the project and distributing Newsletter One. Country Energy values the community's input into the project, as it is an important part of the options selection process.

The purpose of this newsletter is to provide further information to the community following completion of the independently conducted options study for the proposed network upgrade.

What has happened?

Country Energy commissioned Environmental Resources Management Australia (ERM) – an environmental and social consultancy – to undertake the necessary studies as part of the identification of final options for the proposed network upgrade.

The options that were investigated by ERM included:

- Duplicating existing 66,000 volt (66kV) powerlines in existing corridors
- Modifying existing powerlines to operate at a higher voltage - 132,000 volt (132kV)
- Constructing additional 66kV powerlines in new corridors.

The proposal also includes upgrades to existing zone substations and the establishment of new zone substations near Brunswick Heads, Ewingsdale and in the Suffolk Park area.

In order to assess the feasibility of the proposed options, ERM looked at possible constraints then carried out an 'on-ground' investigation within the defined study area.



Lismore to Mullumbimby Electricity Network Upgrade – Study Area

The purpose of this investigation was to confirm the environmental conditions identified in the initial study of possible constraints, and to consider the potential environmental and social impacts of constructing new electricity infrastructure or upgrading existing powerlines.

Preliminary options assessment

Preliminary environmental and social assessment studies of the options have been conducted by ERM with the following findings:

- The option to duplicate existing 66kV powerlines in new corridors would require Country Energy to take a significant number of new easements over private land. This is not a preferred option due to the considerable environmental and social impacts.
- Duplicating 66kV powerlines within the existing corridor would greatly increase the visual impact as well as present significant

construction difficulties in some areas. This option would also require major extensions to the space-constrained Mullumbimby Zone Substation.

- Upgrading existing 66kV powerlines to 132kV will have minimal environmental impact as it can be mainly achieved within the existing 66kV powerline corridor. This option also has significantly less visual impact than the duplication of powerlines.

As a result, Country Energy's preferred option for the broader network project is to upgrade existing 66kV powerlines to 132kV. In addition, a dual circuit 66kV/132kV option between Alstonville Zone Substation and Lismore Zone Substation is preferred to reduce the need for additional new powerline easements.

The options assessment process and feedback received from the community has helped Country Energy identify a number of specific areas that will require more detailed investigation prior to the selection of preferred options to achieve environmentally and socially acceptable outcomes for the community. These areas include:

- Lavertys Gap, Mullumbimby
- Ewingsdale residential area
- Skinners Shoot
- Alstonville residential area and route to Ballina either via Teven or the Bruxner Highway
- Dual circuit powerline from Alstonville to Lismore.

What are the next steps?

Country Energy understands the importance of keeping the community informed and welcomes feedback as the project progresses. Country Energy will commence detailed on-the-ground powerline route selection in the coming months, during which time further consultation will be held with landholders, particularly in the locations identified above. Please refer to the enclosed insert which contains additional information relevant to your area.

To ensure the best environmental and social outcomes are achieved, a detailed environmental assessment of the preferred powerline routes will be carried out. A report will then be prepared for submission to the New South Wales Department of Planning, which will consider the overall project and confirm the routes suitability as part of the approval process.

How can I find out more or provide feedback?

You can find out more or provide feedback on this important project by:

- Visiting Country Energy's website at www.countryenergy.com.au/upgrades then follow the links to the Far North Coast
- Contacting Country Energy on 1800 651 704 for more information on the overall proposal
- Visiting our Lismore Customer Service Centre
- You can also write to the project team at:

Lismore Project
Country Energy
PO Box 718
Queanbeyan NSW 2620



Example of 132kV powerline

Country Energy values community input into this important project and looks forward to your feedback and suggestions.

Country Energy will be contacting directly affected landholders in the near future.

Lismore to Mullumbimby Electricity Network Upgrade

October 2007

Newsletter Two - Additional Information for Ewingsdale

Country Energy has received a strong response to its request for community feedback since publicly announcing the proposed Lismore to Mullumbimby Electricity Network Upgrade project and distributing Newsletter One. Country Energy values community input into the project, as it is an important part of the options selection process.

What is happening now?

During its initial community consultation, Country Energy has received feedback regarding the Ewingsdale section of the proposed electricity network upgrade.

Country Energy acknowledges that residents living along the existing 66kV powerline corridor have expressed some concerns about the upgrading of this line to 132kV. Therefore, a range of options to address these concerns will be investigated and may include some diversion from existing line routes and undergrounding sections of the powerline in this area.

The proposed electricity network upgrade in the Ewingsdale area also includes the relocation of the existing Ewingsdale zone substation and improved screening to enhance visual amenity of the area.



Aerial view of Ewingsdale with existing 66kV powerline (red) and proposed new site for zone substation



Perspective view of proposed new substation

What are the next steps?

A detailed independent environmental assessment of the proposed option will be undertaken by Environmental Resources Management Australia (ERM) and a report submitted to the New South Wales Department of Planning, which is responsible for providing approval for the overall project.



Country Energy will continue to keep the Ewingsdale community informed as the preferred option in this area is refined.

Country Energy values community input into this important project and looks forward to your feedback and suggestions.

Country Energy will be contacting directly affected landholders in the near future.

Suffolk Park Electricity Project at Skinners Shoot

October 2007

Newsletter One

The population in the Ballina, Byron Bay and Lismore areas, including the Suffolk Park community, has grown in recent years, creating increased demand for reliable electricity to support residential and jobs' growth. Demand for electricity is increasing by three to four per cent each year.

Population growth and increased demand for electricity require that the network be upgraded to ensure the long-term quality and reliability of supply into the future. Country Energy is planning to strengthen the infrastructure supplying electricity to the area as part of the seven year, \$70 million Lismore to Mullumbimby upgrade of its electricity network in Ballina Shire, Byron Shire and Lismore City local government areas.

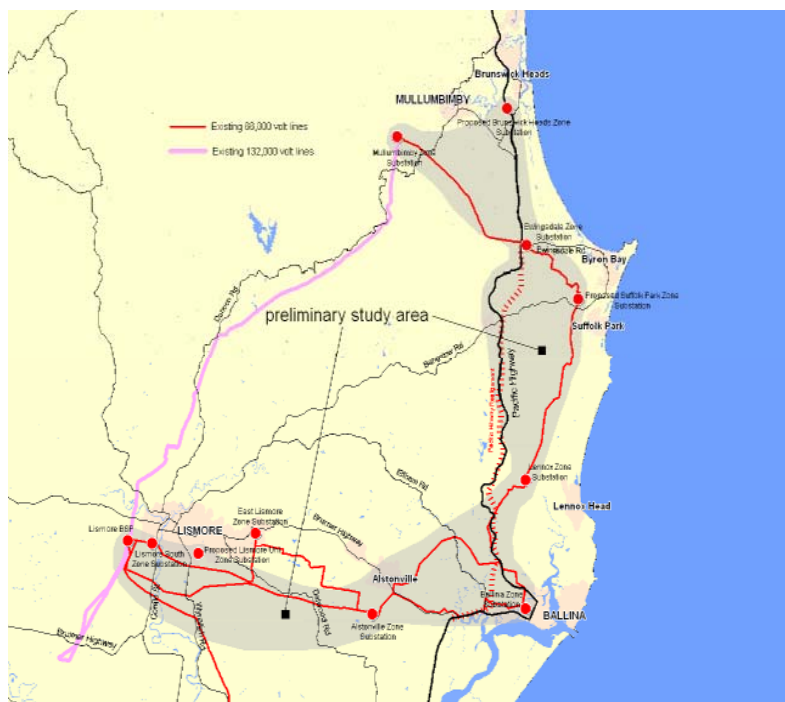
A substation in the Suffolk Park area is an essential component of the greater Lismore to Mullumbimby project, to meet the growing demand for electricity and to secure a reliable power supply. It will directly support the current and future electricity needs of residents, businesses and visitors to the community.

Preliminary investigations by Country Energy have identified an area near Yagers Lane at Skinners Shoot as meeting the requirements for an electricity substation.



Why locate the substation at Skinners Shoot?

The choices for the location of a substation site are governed by technical, environmental and social considerations. Preliminary investigations of potential



The study area – Lismore to Mullumbimby upgrade

locations have demonstrated that the Skinners Shoot site provides the best engineering solution with the least environmental impact for construction of a substation.

Technically

A zone substation 'steps down' high voltage power that is carried by power lines and converts it into a lower voltage suitable for safe and practical electricity distribution to local communities. The substation must be strategically located where it can best achieve this result in the design of the whole network. In addition, the substation must be located close to existing powerlines.

The Skinners Shoot site is well located in the network to achieve the optimum required results and is adjacent to a number of existing powerlines.

Environmentally

The proposed location of the substation has been chosen to minimise the environmental impacts. The proposed site at Skinners Shoot is located outside of flood zones, is already cleared and is close to existing powerlines.

Its location in a valley will reduce the visual impacts on the environmental landscape and Country Energy is able to access the site through existing roads.

Socially

There are very few residences near the proposed site. Investigations have determined that those residences in the area that look over the valley will not have their views to the coast and hinterland impeded.

Where in Skinners Shoot is the proposed site?

The study area for the proposed substation site is marked on the map to the right. Potential sites for further in depth analysis are at the end of Yagers Lane.

What are the requirements for a substation?

An area of approximately 150 metres by 100 metres is required to ensure sufficient land for a vegetated buffer around the facility. The substation infrastructure will be approximately five metres in height and suitable trees and shrubs will be planted to improve the visual amenity of the site.

How will access to the site be gained?

Access to the Skinners Shoot substation site will be along Skinners Shoot Road. Minor upgrading of Skinners Shoot Road and Yagers Lane such as widening, will be required to enable larger vehicles to travel over road surfaces during preparation of the substation site and construction.

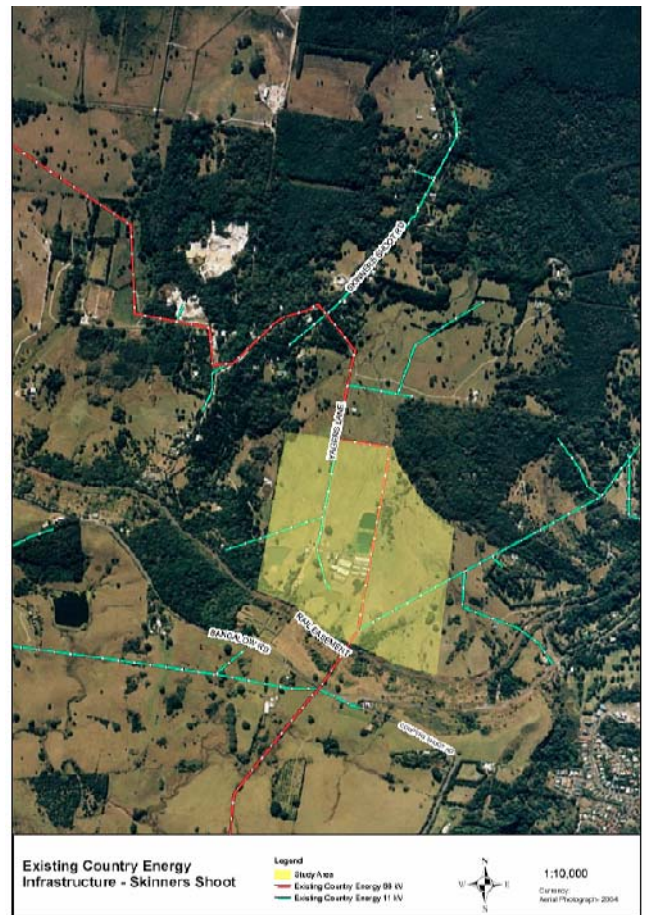
Where will powerlines coming into and going out of the substation be located? Will they be underground?

The substation will need to have powerlines connecting the facility to the existing lines. The majority of the new powerlines from the substation will be placed underground until they connect with the existing overhead network. The two main supply powerlines to the substation will be constructed above ground.

When and where will these lines be constructed?

There is currently a 66 kilovolt (66kV) overhead powerline running north to south through the investigation area. This extends from Old Bangalow Road in the south, runs adjacent to the former Yagers Piggery before joining Yagers Lane and following it to Skinners Shoot Road. The powerline follows Skinners Shoot Road to the southwest before heading northwest and outside of the investigation area.

The precise location of any new powerlines will not be known until the site has been acquired and design plans completed.



What will happen next?

These works are an essential component in providing a reliable electricity supply to the community of Suffolk Park and the broader region. Country Energy will work with the community and adjacent landholders throughout the project, inviting feedback and providing regular updates.

Development application processes for construction must be pursued through the normal channels, including meeting necessary statutory planning requirements.

Following acquisition of the site, Country Energy plans to begin construction in 2008.

Who is Right Of Way Services?

Right of Way Services has been employed by Country Energy to assist with community liaison and site acquisition. They are authorised to liaise with landholders and stakeholders on Country Energy's behalf to ensure any concerns regarding the proposal are addressed quickly and efficiently.

For further information, please contact:

Ian Brooks, Right of Way Services on 0428 379 130
For general enquiries call Country Energy's Hotline:
1800 651 704 or visit
www.countryenergy.com.au/upgrades

Lismore to Mullumbimby Electricity Network Upgrade

October 2007

Newsletter Two - Additional Information for Ballina to Alstonville

Country Energy has received a strong response to its request for community feedback since publicly announcing the proposed Lismore to Mullumbimby Electricity Network Upgrade project and distributing Newsletter One. Country Energy values community input into the project, as it is an important part of the options selection process.

What is happening now?

During its initial community consultation for the proposed electricity network upgrade project, Country Energy has received feedback regarding the section through the Cumbalum, Teven and Alstonville areas.

Country Energy acknowledges that residents living in the vicinity of the existing 66kV powerline (feeder 8503) have expressed concerns about the upgrading of this line to 132kV, particularly in regard to visual amenity.

A range of options to address these concerns will be investigated, including a second option to upgrade the existing 66kV powerline (feeder 8507) between Ballina and Alstonville via the Pacific Highway and the Bruxner Highway. This powerline is currently located within predominantly rural land and near some environmentally sensitive areas, and so requires further environmental assessment.



Aerial view of proposed powerline options

Options may include some diverting from the existing powerline routes to move the line further away from residences and enhance the visual amenity of the area.



Existing 66kV powerline along the Bruxner Highway

What are the next steps?

A detailed independent environmental assessment of the proposed additional option will be undertaken by Environmental Resources Management Australia (ERM) and a report submitted to the New South Wales Department of Planning, which is responsible for providing approval for the overall project.



Country Energy will continue to keep the community informed as the preferred option for this area is refined.

Country Energy values community input into this important project and looks forward to your feedback and suggestions.

Country Energy will be contacting directly affected landholders in the near future.

Lismore to Mullumbimby Electricity Network Upgrade

October 2007

Newsletter Two - Additional Information for Alstonville

Country Energy has received a strong response to its request for community feedback since publicly announcing the proposed Lismore to Mullumbimby Electricity Network Upgrade project and distributing Newsletter One. Country Energy values community input into the project, as it is an important part of the options selection process.

What is happening now?

During its initial community consultation for the proposed electricity network upgrade project, Country Energy has received feedback regarding the section through residential areas of Alstonville.

Country Energy appreciates that residents living in the vicinity of the existing 66kV powerline have expressed concerns about the upgrading of this line to 132kV. These concerns mainly focused on interference to electrical/electronic equipment, noise generation, visual amenity and the need for ongoing consultation.

Another concern focussed on the affects of electric and magnetic fields (EMFs) which are found wherever there is electricity. Numerous studies have been carried out to determine if there are any human health problems caused by exposure to EMFs. No conclusive links between EMFs and their impact on human health have been established.



Existing 66kV infrastructure in Alstonville

A range of potential options are to be investigated to address community concerns. These may include diverting powerlines from their existing routes to move them further away from residences and/or constructing sections of powerline underground in these areas. This would also enhance the visual amenity of the area.

In response to community feedback received so far, Country Energy has also decided to investigate a second option to upgrade the existing 66kV line (feeder 8507) between Ballina and Alstonville via the Pacific Highway and Bruxner Highway. This powerline is currently located within predominantly rural land and near some environmentally sensitive areas, and so requires further environmental assessment.



Aerial view of proposed main powerline route options

What are the next steps?



A detailed environmental assessment of the options will be undertaken by Environmental Resources Management Australia (ERM) and a report submitted to the New South Wales Department of Planning, which is responsible for providing approval for the overall project.

Country Energy will continue to keep the community informed as the preferred option in this area is refined.

Country Energy values community input into this important project and looks forward to your feedback and suggestions.

Country Energy will be contacting directly affected landholders in the near future.

Lismore to Mullumbimby Electricity Network Upgrade

October 2007

Newsletter Two - Additional Information for Alstonville to Lismore

Country Energy has received a strong response to its request for community feedback since publicly announcing the proposed Lismore to Mullumbimby Electricity Network Upgrade project and distributing Newsletter One. Country Energy values community input into the project, as it is an important part of the options selection process.

What is happening now?

Country Energy has received specific feedback during its initial community consultation regarding the portion of the proposed electricity network upgrade between Alstonville and Lismore.

Country Energy's preferred option is to upgrade the existing 66kV powerline to a dual circuit 66kV /132kV powerline. This option will minimise the need for new easements and the subsequent environmental and social impacts.

Country Energy acknowledges that residents living in the vicinity of the existing 66kV powerline have expressed some concerns with regard to upgrading this line to 132kV. Therefore, a range of potential options are to be investigated, including slight diversions from the existing powerline route. This would aim to move the line further away from residences and enhance visual amenity in the area.



Example of a dual circuit powerline

What are the next steps?

A detailed environmental assessment of this proposed option will be undertaken by Environmental Resources Management Australia (ERM) and a report submitted to the New South Wales Department of Planning, which is responsible for providing approval for the overall project.



Aerial view of proposed 132kV powerline route

Country Energy will continue to keep the community informed as the preferred option in this area is refined

Country Energy values community input into this important project and looks forward to your feedback and suggestions.

Country Energy will be contacting directly affected landholders in the near future.

Lismore to Mullumbimby Electricity Network Upgrade

October 2007

Newsletter Two - Additional Information for Lavertys Gap

Country Energy has received a strong response to its request for community feedback since publicly announcing the proposed Lismore to Mullumbimby Electricity Network Upgrade project and distributing Newsletter One. Country Energy values community input into the project, as it is an important part of the options selection process.

What is happening now?

Country Energy has received a range of feedback from its initial community consultation regarding the Lavertys Gap section of the proposed electricity network upgrade.



Aerial view of Lavertys Gap and Mullumbimby Zone Substation

Feedback included concerns regarding the potential noise generated as a result of the upgrade of Mullumbimby Zone Substation. In particular, residents commented that they did not want noise levels to rise above existing conditions.

Country Energy will take into account residents' concerns during the design of any new infrastructure and will ensure ambient sound levels do not increase. This will be achieved through design, layout and enhanced screening, which will also improve the visual amenity of the area.

The proposed option to upgrade the existing 66kV powerline to 132kV will require the replacement of two existing transformers with two smaller transformers at the Mullumbimby Zone Substation, which will reduce noise output from the substation.

The proposed work will not require additional powerlines to be built as the existing 66kV powerline will be upgraded to 132kV. This also presents an opportunity to alter the existing powerline suspension structure at Lavertys Gap to improve its appearance.

The demolition of the old power station building located at the Mullumbimby Zone Substation will be necessary to ensure sufficient space is available for the proposed network upgrade works. Country Energy will find an alternate suitable location to preserve and display the equipment currently housed in the building.



Mullumbimby Zone Substation and old power station

What are the next steps?

A detailed independent environmental assessment of the proposed option will be undertaken by Environmental Resources Management Australia (ERM) and a report submitted to the New South Wales Department of Planning, which is responsible for providing approval for the overall project.

Country Energy will continue to keep the Lavertys Gap community informed as the preferred option in this area is refined.

Country Energy values community input into this important project and looks forward to your feedback and suggestions.

Country Energy will be contacting directly affected landholders in the near future.



PROPOSED LISMORE TO MULLUMBIMBY NETWORK UPGRADE

Country Energy is planning a seven year, \$70 million upgrade of its electricity network in Ballina Shire, Byron Shire and Lismore City local government areas to meet the growing demand for electricity in the region and to secure reliable power supply into the future. The proposal aims to ensure that the electricity network is capable of meeting Country Energy's customer requirements until at least 2030.

Demand Management

Parts of the New South Wales Far North Coast (FNC), particularly the coastal areas between Ocean Shores and Ballina, have experienced continued population growth and increased demand on the electricity supply network.

Ballina and Lismore, in particular, are marked for growth as residential, employment and service centres. The need for the proposed electricity network upgrade has been driven by an increasing demand for electricity and the need to secure long-term electricity supply to the region to meet future demand. Electricity demand in this area grew by almost 25 per cent between 1995 and 2005, and is predicted to grow by more than 50 per cent over the next two decades.

The energy supplied from the Lismore bulk supply point (BSP) to the zone substations of South Lismore, East Lismore, Ballina, Lennox Heads and Ewingsdale is primarily the result of coastal urban residential and commercial demand.

Typically, the area has a winter evening peak, principally due to space heating, cooking and hot water demand. While a fuel substitution program such as LPG or natural gas could reduce the evening peak in the area, the maximum demand that needs to be reduced is significant, in the order of 5 – 8 mega volt amperes (MVA) per year, and is distributed over a large and geographically diverse region.

The Far North Coast region has a high percentage of air-conditioning and tourism/commercial demand driven by temperature variations. As more people install inexpensive domestic air-conditioners, the extent of the summer peak, which generally occurs during the hotter parts of the day, is expected to exceed the winter peak within five years.

Given the extent of summer air-conditioner use in the urban residential and tourism/commercial sectors, effective demand management strategies are difficult to achieve, limiting the value of this approach.

Local Distributed Generation

Small scale distributed generation, in the order of a few hundred kilowatts, will not provide sufficient reduction in the maximum demand to delay or eliminate the need for the proposed network upgrade. Modelling shows the upgrade is essential to meet future maximum demand and to comply with electricity network security and supply reliability standards.

Larger embedded generation, in the order of 10 to 30 megawatts, can provide adequate reduction in maximum demand in the short-term, but due to above average growth in maximum demand, the embedded generation capacity is likely to be fully utilised in five to eight years and by then the network upgrade would still be required.

The Proposed Network Upgrade

Country Energy is considering a range of options to achieve the necessary network upgrade, including improvements to existing zone substations and the establishment of new zone substations near Brunswick Heads, Ewingsdale and in the Suffolk Park area.

In order to achieve the necessary transmission carrying capacity, Country Energy is considering the following transmission line network options:

- **Duplicating** - the existing 66,000 volt (66kV) transmission network between Mullumbimby and Lismore via Ballina, with the addition of new 66kV lines in existing corridors
- **Modifying** - the existing 66,000 volt transmission line network between Mullumbimby and Lismore via Ballina to 132,000 volts (132kV), or
- **Constructing** additional new powerlines in new corridors



The upgrade of the zone substations will involve either the installation of new transformers or the replacement of existing transformers, capacitor banks and busbars and other relevant switching infrastructure. The construction of new zone substations would consist generally of the following:

- site preparation, including earthworks and fencing.
- construction of a sealed access driveway and on-site vehicle manoeuvring areas
- construction of buildings to contain a control room and switchroom
- installation of water connections and connection to the council sewer and stormwater system
- installation of associated electrical infrastructure such as transformers, capacitor banks, busbars and other necessary switching equipment
- 66,000 or 132,000 volt powerlines from the existing, upgraded or new lines and 11,000 volt powerlines connecting to the distribution network
- security fencing and landscaping works

The upgrade would complete a network ring connecting Mullumbimby, Ewingsdale, Ballina, Alstonville, East Lismore and South Lismore.

The proposed electricity network upgrade will be staged over a period of seven years.

How can I find out more?

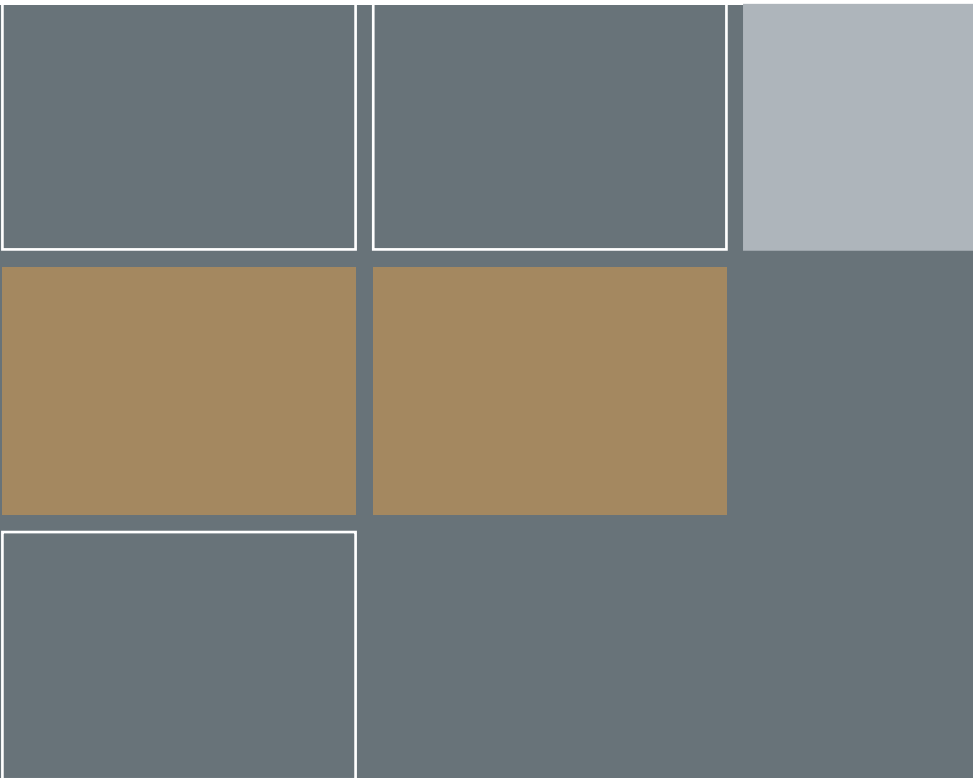
Members of the community can keep up to date on the proposed project by:

- Accessing the dedicated project site on Country Energy's website at www.countryenergy.com.au/upgrades then follow links to the Far North Coast
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www.countryenergy.com.au/upgrades

countryenergy

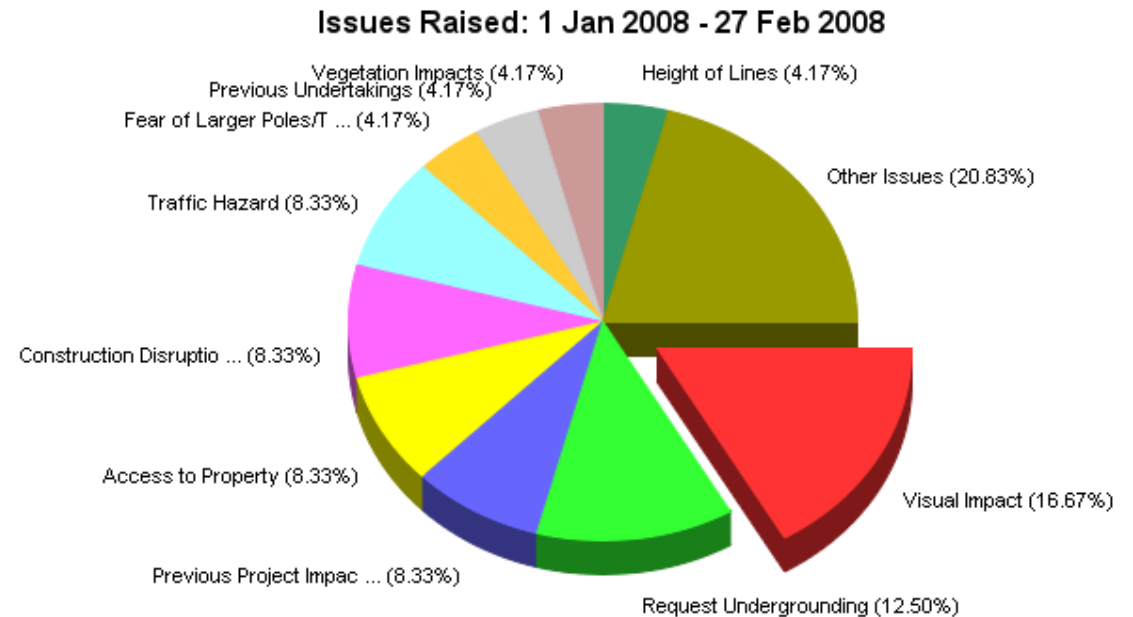


Annex D
*Consultation Summary -
Right of Way Services*

Lismore to Mullumbimby 132kv Line Route Selection Stakeholder Statistics Report: Total Events

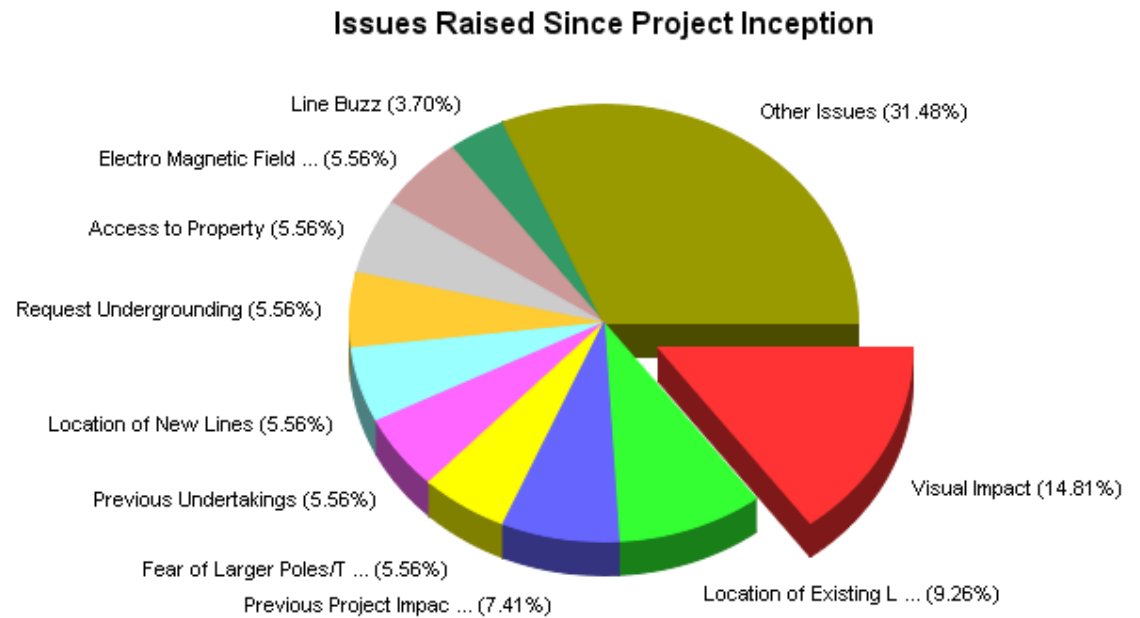
Stakeholder Group: 8507 F-G

Issues Raised: 1 Jan 2008 - 27 Feb 2008			
Issue	Events	Stakeholders	
		distinct	total
Amenity: Visual Impact	4	3	4
Location of Infrastructure: Request Undergrounding	3	2	3
Country Energy Relnship: Previous Project Impacts	2	2	2
Property: Access to Property	2	2	2
Property: Construction Disruption	2	2	2
Safety and Health: Traffic Hazard	2	1	2
Additional Electricity Infrastructure: Fear of Larger Poles/Towers	1	1	1
Country Energy Relnship: Previous Undertakings	1	1	1
Environment: Vegetation Impacts	1	1	1
Location of Infrastructure: Height of Lines	1	1	1
Events Matching Search	60	42	60



Lismore to Mullumbimby 132kv Line Route Selection Stakeholder Statistics Report: Total Events

Issues Raised Since Project Inception			
Issue	Events	Stakeholders	
		distinct	total
Amenity: Visual Impact	8	7	8
Location of Infrastructure: Location of Existing Lines	5	5	5
Country Energy Relnship: Previous Project Impacts	4	4	4
Additional Electricity Infrastructure: Fear of Larger Poles/Towers	3	3	3
Country Energy Relnship: Previous Undertakings	3	3	3
Location of Infrastructure: Location of New Lines	3	3	3
Location of Infrastructure: Request Undergrounding	3	2	3
Property: Access to Property	3	3	3
Safety and Health: Electro Magnetic Fields	3	3	3
Amenity: Line Buzz	2	2	2
Events Matching Search	80	46	80



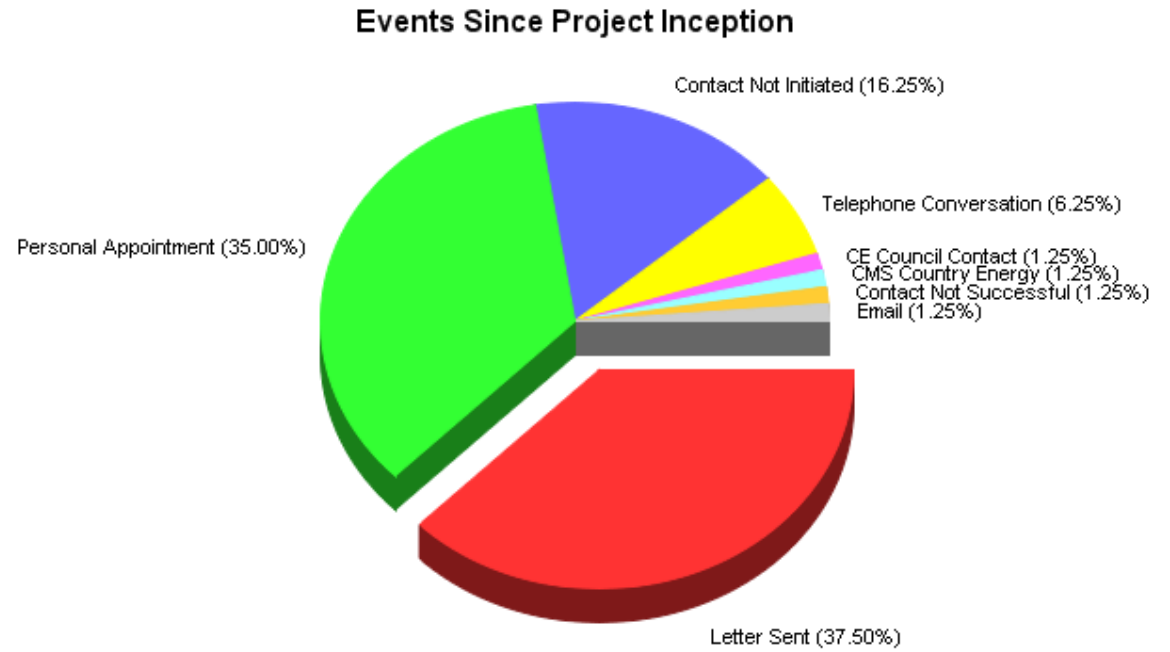
Lismore to Mullumbimby 132kv Line Route Selection Stakeholder Statistics Report: Total Events

Events: 1 Jan 2008 - 27 Feb 2008			
Event Type	Events	Stakeholders distinct total	
Letter Sent	25	25	25
Personal Appointment	15	15	15
Contact Not Initiated	13	13	13
Telephone Conversation	4	4	4
CE Council Contact	1	1	1
CMS Country Energy	1	1	1
Contact Not Successful	1	1	1
Events Matching Search	60	42	60



Lismore to Mullumbimby 132kv Line Route Selection Stakeholder Statistics Report: Total Events

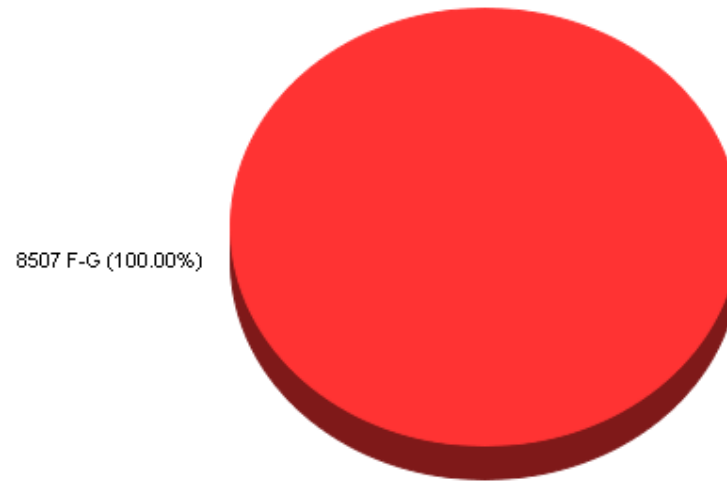
Events Since Project Inception			
Event Type	Events	Stakeholders distinct total	
Letter Sent	30	30	30
Personal Appointment	28	27	28
Contact Not Initiated	13	13	13
Telephone Conversation	5	5	5
CE Council Contact	1	1	1
CMS Country Energy	1	1	1
Contact Not Successful	1	1	1
Email	1	1	1
Events Matching Search	80	46	80



Lismore to Mullumbimby 132kv Line Route Selection Stakeholder Statistics Report: Total Events

Stakeholders Consulted: 1 Jan 2008 - 27 Feb 2008			
Stakeholder Group	Events	Stakeholders distinct total	
Line Section: 8507 F-G	60	42	60
Events Matching Search	60	42	60

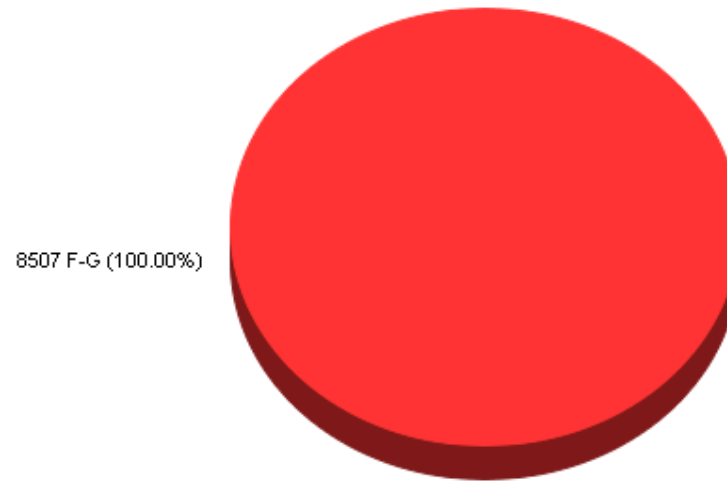
Stakeholders Consulted: 1 Jan 2008 - 27 Feb 2008



Lismore to Mullumbimby 132kv Line Route Selection Stakeholder Statistics Report: Total Events

Stakeholders Consulted Since Project Inception			
Stakeholder Group	Events	Stakeholders distinct total	
Line Section: 8507 F-G	80	46	80
Events Matching Search	80	46	80

Stakeholders Consulted Since Project Inception





EASEMENT, SERVICE CORRIDOR & RIGHT OF WAY SPECIALISTS

Lismore-Mullumbimby: Stakeholder Contact

Summary of Contact to Date (25th June 2008)

8505 A-C

70 property holders in this section. Seven property holders have not been able to be contacted as contact details are unavailable and letters have been sent seeking their input. One was deemed to be at a distance from the line and unlikely to be impacted. All others have been contacted with initial information with the exception of Telstra.

Events Since Project Inception			
Event Type	Events	Stakeholders distinct total	
Personal Appointment	48	46	48
Letter Sent	31	63	64
Telephone Conversation	17	16	17
Contact Not Successful	7	7	7
BACKGROUND	6	4	6
CMS Country Energy	1	1	1
Contact Not Initiated	1	1	1
Email Recd	1	1	1
Letter Received	1	1	1
Events Matching Search	113	69	146

8508 C-D

There are 76 Property Holders in this section with some further affected by sub-options. Eight were not contacted because they are at some distance from the line. A further nine were unable to be contacted – letters were sent requesting their input. Two responded to this request. All others have been contacted with initial information.

Events Since Project Inception			
Event Type	Events	Stakeholders distinct total	
Letter Sent	65	59	65
Telephone Conversation	56	38	56
Personal Appointment	49	40	49
Email Recd	11	8	11
Contact Not Successful	10	9	10
Contact Not Initiated	8	8	8
Email Sent	6	3	6
Letter Received	6	4	6
BACKGROUND	3	3	3
Site Visit	3	3	3
Events Matching Search	218	78	218

8505 D-E

There are 40 property holders in this section.

Five were not contacted because they are at a distance from the line. Ten were not contacted because no phone numbers were available (company owned) and they were sent correspondence seeking their input. None responded.

Events Since Project Inception			
Event Type	Events	Stakeholders distinct total	
Telephone Conversation	36	25	37
Letter Sent	29	29	29
Personal Appointment	17	12	17
Contact Not Successful	10	10	10
Contact Not Initiated	5	5	5
BACKGROUND	2	2	2
CE Council Contact	1	1	1
CMS Country Energy	1	1	1
Email Sent	1	1	1
Letter Received	1	1	1
Events Matching Search	103	40	104

8504 E-F

This section has thirty five property holders.

Twenty-eight property holders have been contacted. Three have requested follow-up appointments. A number have been unable to date to be contacted in person (messages have been left on their telephones and early evening calls may be more effective).

There is a high rate of property sales in this area. It is of interest to developers who see potential associated with the relocation of the Pacific Highway and related growth.

Events Since Project Inception			
Event Type	Events	Stakeholders distinct total	
Telephone Conversation	27	20	27
Letter Sent	18	18	19
Personal Appointment	11	11	11
Contact Not Successful	2	2	2
BACKGROUND	1	1	1
Email Recd	1	1	1
Email Sent	1	1	1
Letter Received	1	1	1
Site Visit	1	1	1
Events Matching Search	63	28	64

8507F-G

There are 50 property holders in this section of line.

Fourteen were not contacted because they are at some distance from the line and not deemed to be impacted. A number of these are companies or community organisations.

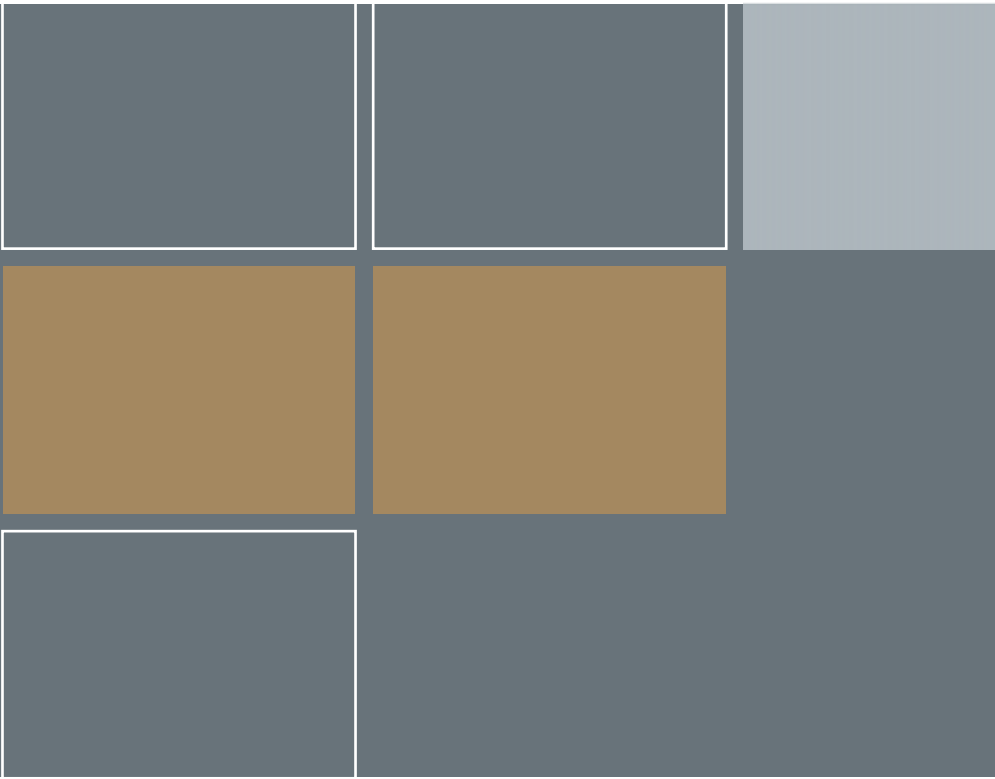
Contact has not been made with Allstonville Cemetery.

Events Since Project Inception			
Event Type	Events	Stakeholders	
		distinct	total
Letter Sent	31	31	31
Personal Appointment	31	29	32
Contact Not Initiated	16	16	16
Telephone Conversation	8	7	8
CMS Country Energy	1	1	1
Contact Not Successful	1	1	1
Email Recd	1	1	1
Site Visit	1	1	1
Events Matching Search	90	49	91

8503

There are approximately 154 property holders in this section. 18% have been contacted to date.

Saleena Ham

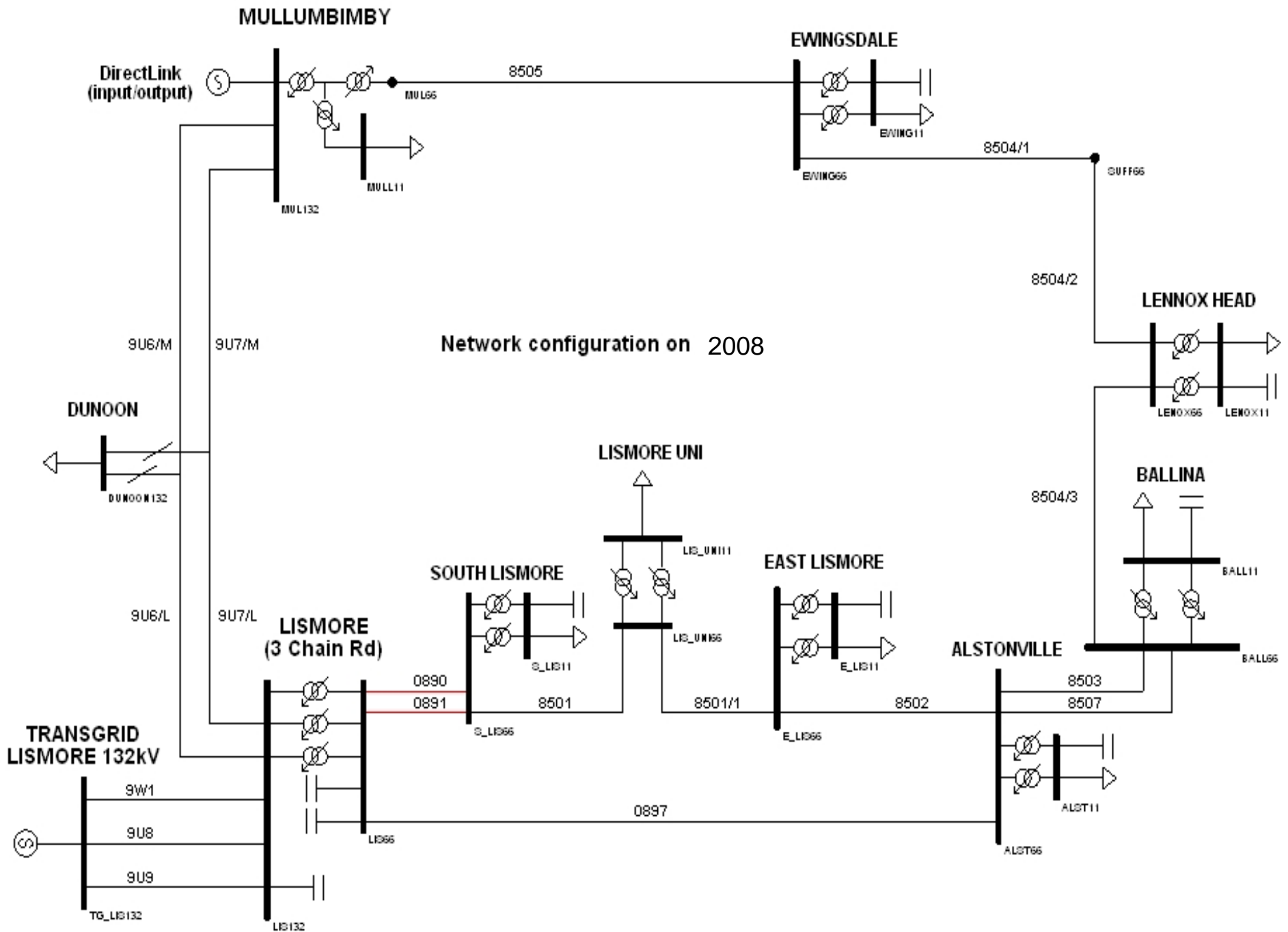


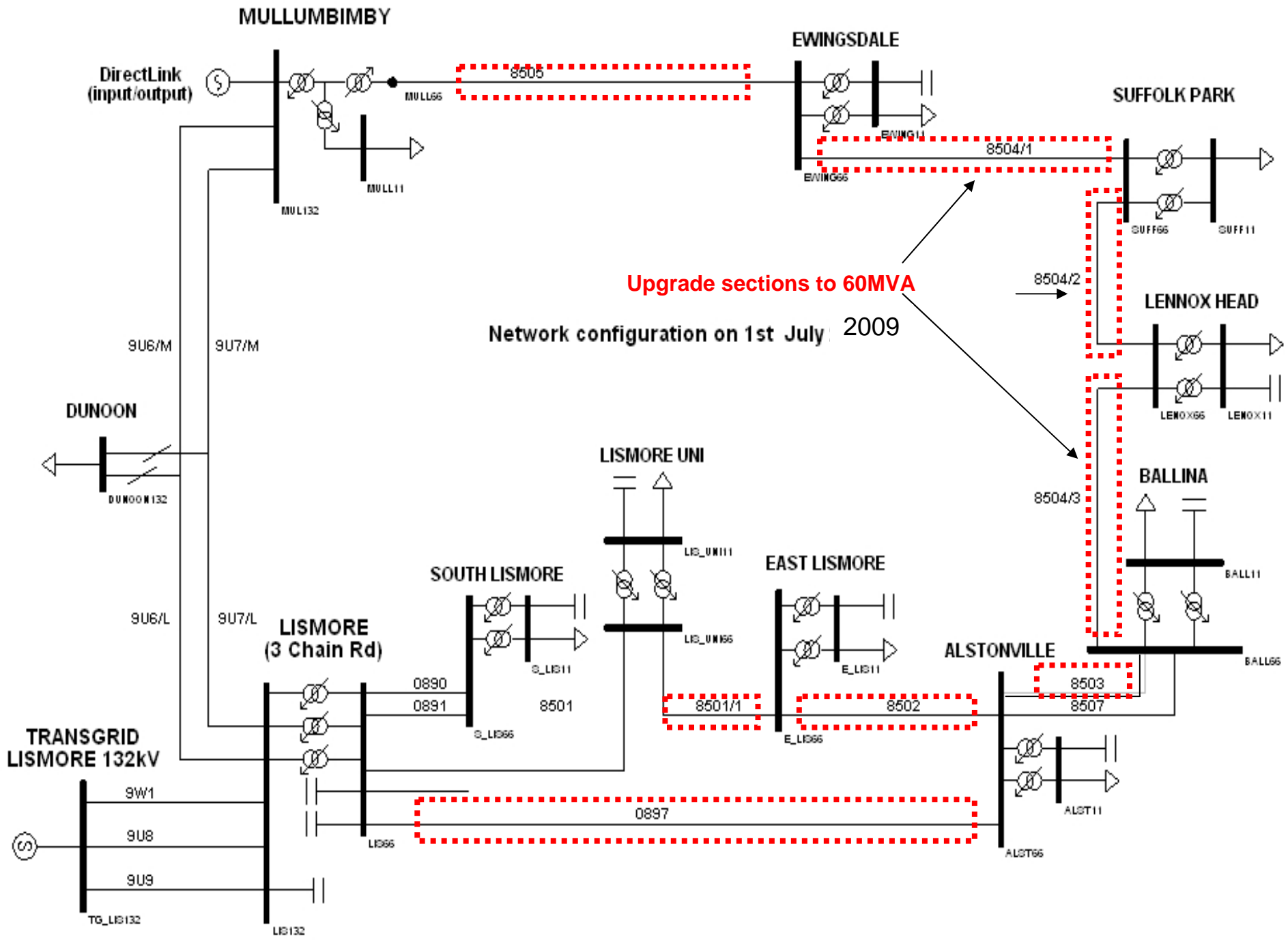
Annex E

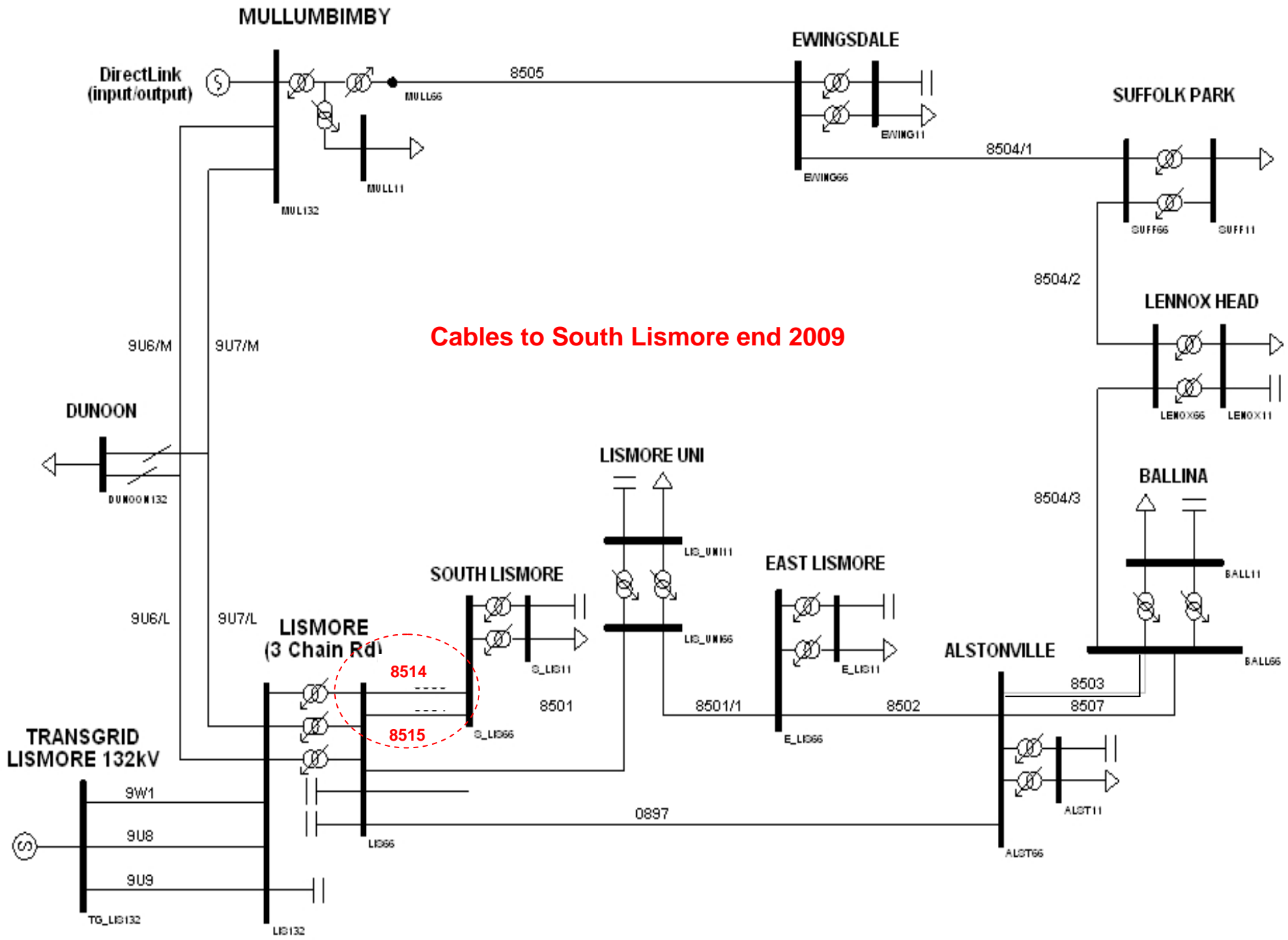
Schematic Showing Project Staging

LISMORE MULLUMBIMBY 132kV UPGRADE

Summary of project stages



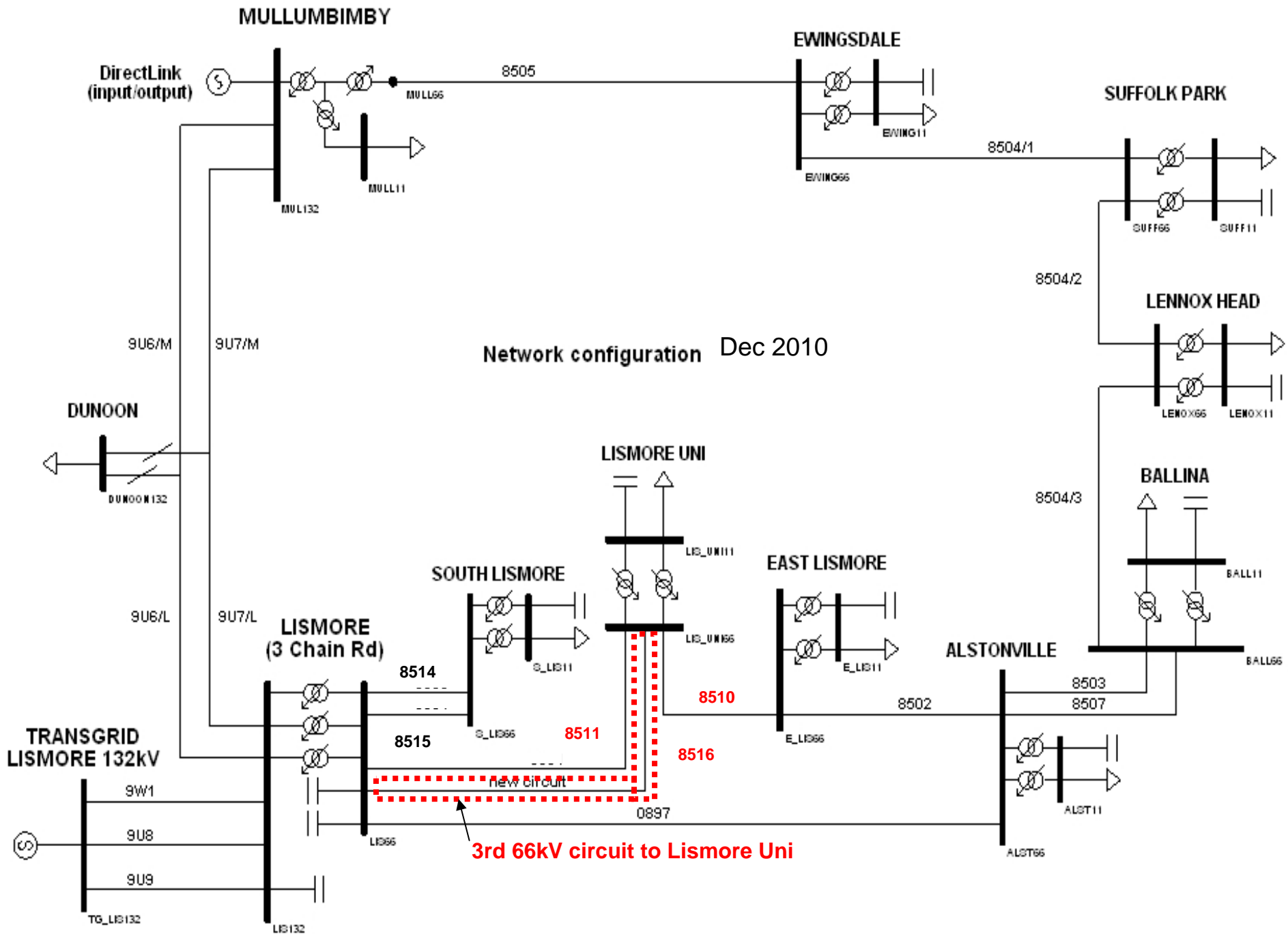


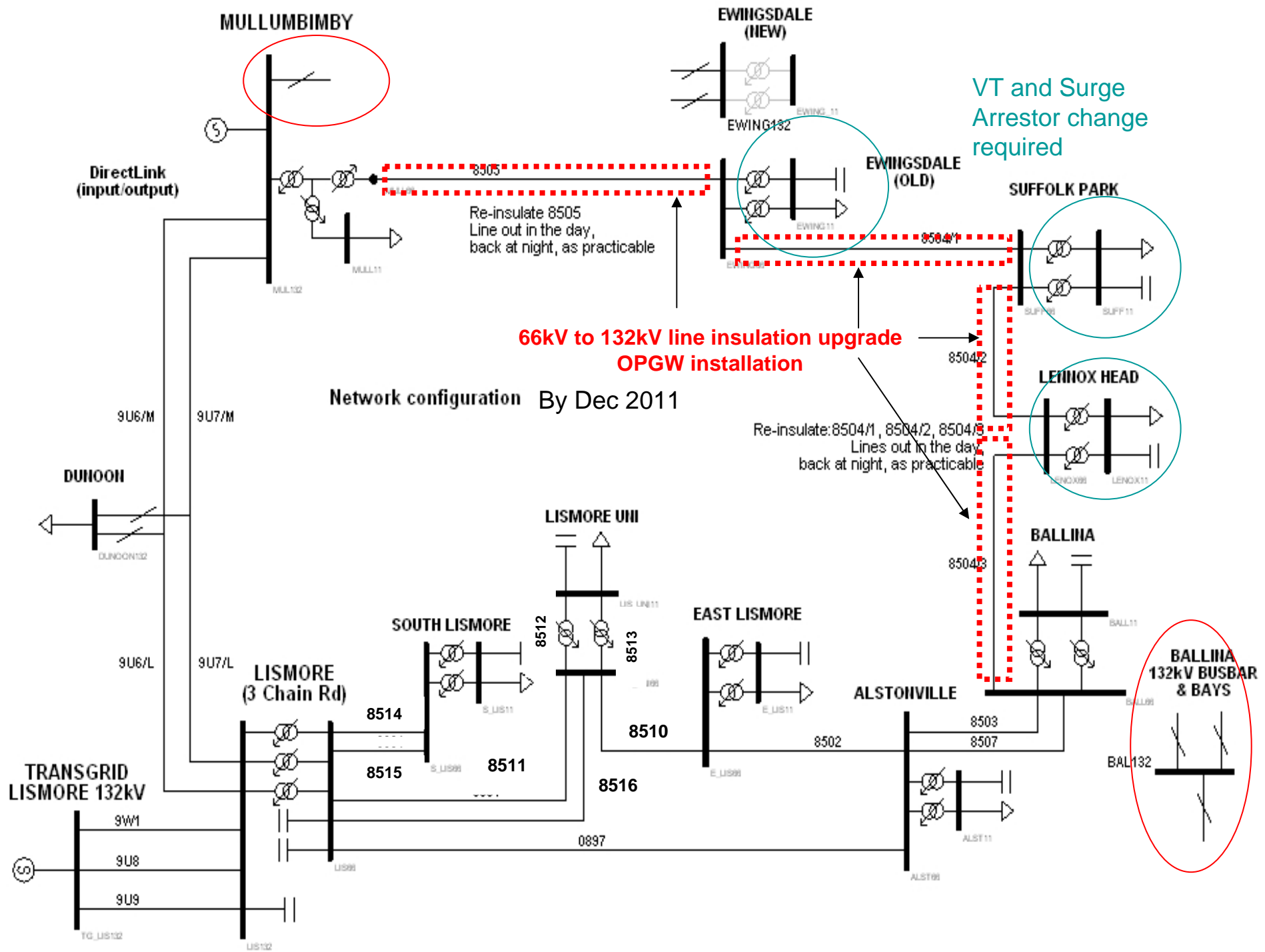


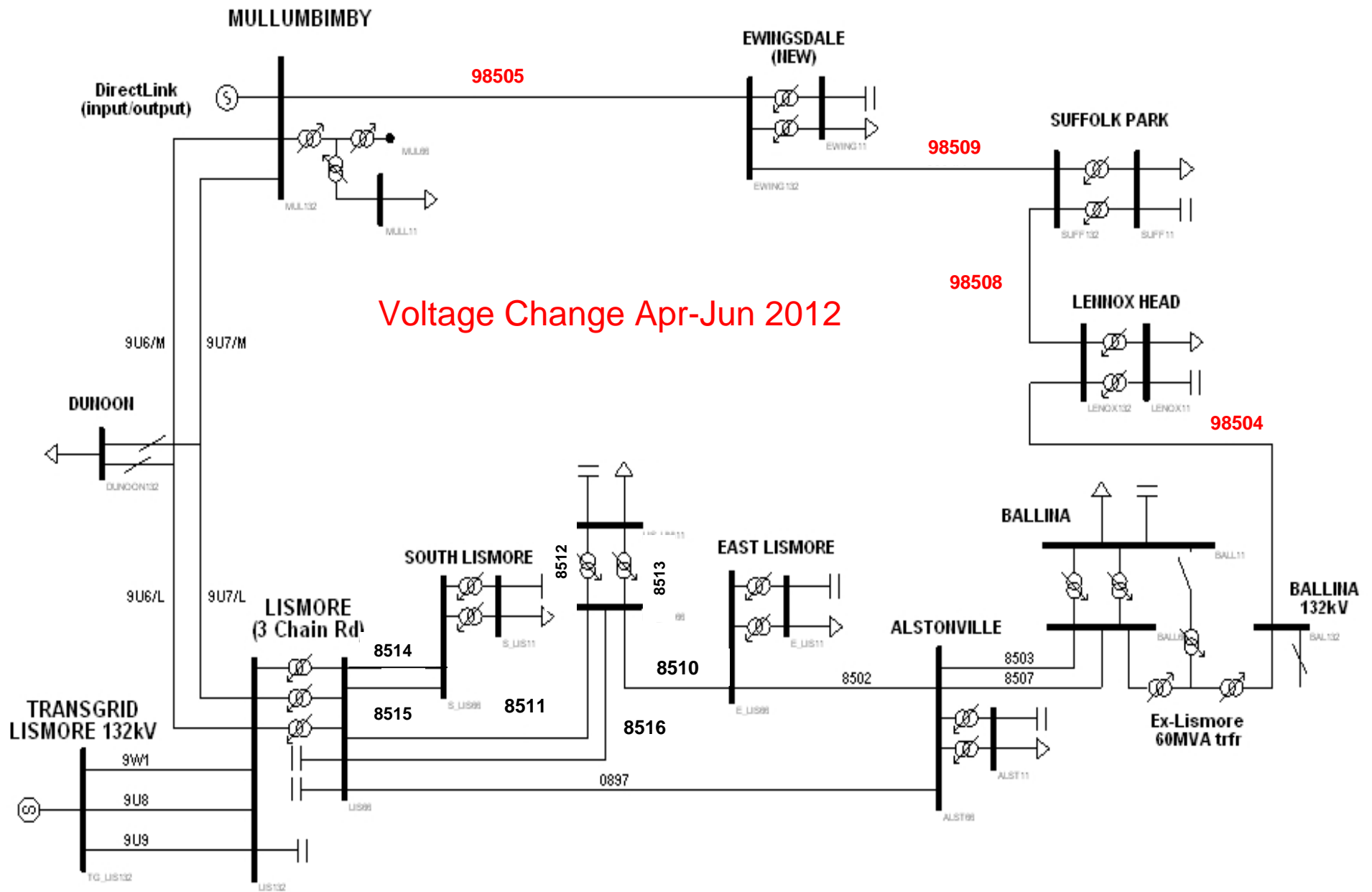
Cables to South Lismore end 2009

8514

8515







MULLUMBIMBY

EWINGSDALE (NEW)

SUFFOLK PARK

LENNOX HEAD

SOUTH LISMORE

EAST LISMORE

BALLINA

BALLINA 132kV

ALSTONVILLE

LISMORE (3 Chain Rd)

Ex-Lismore 60MVA trfr

DirectLink (input/output)

DUHOON

TRANSGRID LISMORE 132kV

98505

98509

98508

98504

Voltage Change Apr-Jun 2012

9U6/M

9U7/M

9U6/L

9U7/L

TG_US12

LIS12

MULL12

MULL11

MULL12

EWING12

EWING11

SUFF12

SUFF11

LENOX12

LENOX11

8512

8513

8510

8516

S_US11

8514

8515

S_US99

8511

E_US11

E_US99

0897

8503

8507

ALST11

ALST99

BALL11

BALL12

MULL12

MULL11

EWING12

EWING11

SUFF12

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E_US99

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8503

8507

ALST11

ALST99

BALL11

BALL12

