

**Community Issues Matrix – Supplementary Information**  
**Submission on the draft Environmental Impact Statement for: Proposed Woolooga to Eerwah Vale Transmission Line**

<b>Name:</b>	Graham Smith	<b>Organisation:</b> (if applicable)	Powerlines Action Group Eumundi
<b>Address:</b>	PO BOX 950, COOROY	<b>Contact Details:</b>	contact@saveeumundi.org

Ref	Section	Describe the Issue	Your Response and alternative (if applicable)																		
C-6.1s	6.1.8  Page E-123	<p><b>KOALA – <i>Phascolarctos cinereus</i></b> – The Koala is listed as vulnerable in south-east Queensland under the NC Act. Important koala habitat is located along the length of the proposed easement. The impact of development along this easement on local koala populations should be given far greater consideration.</p> <p>The greatest concentration of koala numbers are found in south-east Queensland bioregion based on the availability of food trees. There is an abundance of food trees along much of the distance of the proposed easement. The food trees are:</p> <table border="0"> <tr> <td>E. camaldulensis</td> <td>Red River gum</td> </tr> <tr> <td>E. melliodora</td> <td>Yellow Box</td> </tr> <tr> <td>E. microcorys</td> <td>Tallowwood</td> </tr> <tr> <td>E. nicholii</td> <td>Small-leafed peppermint</td> </tr> <tr> <td>E. parramattensis</td> <td>Drooping Red gum</td> </tr> <tr> <td>E. populnea</td> <td>Poplar Box</td> </tr> <tr> <td>E. propinqua</td> <td>Small fruited grey gum</td> </tr> <tr> <td>E. punctata</td> <td>Grey gum</td> </tr> <tr> <td>E. robusta</td> <td>Swamp Mahogany</td> </tr> </table>	E. camaldulensis	Red River gum	E. melliodora	Yellow Box	E. microcorys	Tallowwood	E. nicholii	Small-leafed peppermint	E. parramattensis	Drooping Red gum	E. populnea	Poplar Box	E. propinqua	Small fruited grey gum	E. punctata	Grey gum	E. robusta	Swamp Mahogany	<p>The koala is listed as vulnerable in south-east Queensland under the Nature Conservation Act 1992. Under the Queensland Government Koala Plan, this area as indicated to fall within Koala District B. The EPA website states: "This district covers 7 local governments in the South East Queensland Bioregion where koalas are listed as vulnerable under the Nature Conservation Act. Koala population densities in this district are lower than in District A and the threat to koalas here is considered to be moderate to high."</p> <p><b>Under the Nature Conservation Act 1992</b> "Protected wildlife is to be managed to—</p> <p>(a) conserve the wildlife and its values and, in particular to—</p> <p>(i) ensure the survival and natural development of the wildlife in the wild; and</p> <p>(ii) conserve the biological diversity of the wildlife to the greatest possible extent; and</p> <p>(iii) identify, and reduce or remove, the effects of threatening processes relating to the wildlife; and</p> <p>(iv) identify the wildlife's critical habitat and conserve it to the greatest possible extent".</p> <p>Under the Nature Conservation Act, where there is a development that impacts on species listed under the Nature Conservation Act the project must 'conserve the biological diversity of the wildlife to the greatest possible extent'. It is not considered that the current development adequately addresses this legislated requirement. Alternative routes through less environmentally sensitive habitats must be considered.</p> <p>We would consider that, under the Koala Plan, impacted high quality koala habitat in Koala District B should be considered analogous to Koala Habitat Areas. The SEQ Koala Plan states that (within Koala District A):</p>
E. camaldulensis	Red River gum																				
E. melliodora	Yellow Box																				
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		E. tereticornis Forest Red gum	<p>"The following do not establish an overriding need in the public interest:</p> <p>...</p> <p>(b) interests in or options over the site; or (c) the site's ownership or availability."</p> <p>And that:</p> <p>"To determine an overriding need in the public interest an applicant must established:</p> <p>(a) that there is no suitable alternative location outside of a Koala Conservation Area or Koala Sustainability Area; (b) the overall social, economic and environmental benefits of the development outweigh:</p> <p>(i) any detrimental impact upon the natural values of the site; (ii) conflicts with the desired outcomes of the SEQ Regional Plan; (iii) conflicts with the Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006– 2016; and (c) whether the community would experience significant adverse economic, social or environmental impacts if the development proposal were not to proceed."</p> <p>Development of the proposed easement would impact significantly on existing koala habitat, due to the removal of koala habitat trees, and the potential for fragmentation of the landscape through clearing and development. Existing reserved easements should not therefore be developed as this would disturb local koala populations. There are a number of other options available, and under QLD legislation, these options should be given due consideration irrespective of potential costs and the availability of existing reserves.</p> <p>The Australian Koala Foundation has nominated the Southeast Queensland koala population as vulnerable/endangered under the</p>
		E. viminalis Manna gum	
		E. racemosa Scribbly gum	
		E.resinifera Red Mahogany	
		E. bancroftii Bancroft's Red gum	
		E. siderophloia Grey Ironbark	
		E. tereticornis x E. robusta Naturally occurring hybrid	
		E. agglomerata Blue-leafed Stringybark	
		E. cypellocarpa Monkey gum	
		E. longifolia Woolybutt	
		E. muelleriana Yellow Stringybark	
		E. globoidea White Stringybark	
		SHELTER TREES:	
		Callitris glaucophylla White Cypress Pine	
		E. oblique Messmate Stringybark	



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		<p>The size of the home range varies according to habitat quality, the availability of preferred trees and also the sex of the animal. Males are larger and usually require a larger range. The males are polygynous (breeding with a number of females).</p> <p>Koalas can occupy the same home range for many years if they are left undisturbed. However, dispersing koalas of both sexes have been known to cover a distance of 40-50 kms over a few weeks to several months to set up a home range of their own. The movements and survivorship of these animals is crucial to maintaining recruitment levels and genetic vigour and their need to be together which attracts dispersing animals from other families. (www.AustralianKoala Foundation).</p>	
	Section	<b>Describe the Issue ATTACHMENT E – STATE LISTED FAUNA AND FLORA - BIRDWING VINE AND RICHMOND BIRDWING BUTTERFLY</b>	
C-6.2s	Attachment E – Volume 3 4.1.2 Page E-67	<p><b>Pararistolochia praevenosa (Richmond birdwing butterfly vine)</b> is listed as rare under the NC Regulation.</p> <p>It is described as a large woody climber producing somewhat flattened stems bearing widely spaced nodes with alternate leaves. The bark of a mature vine has a dark brown distinctive reticulated pattern easily recognisable under the rainforest canopy. Vines produce growth throughout the year particularly after rain during autumn and winter. They may ascend 15m into the canopy. The alternate, mature dark green leaves are very tough with a prominent network of veins beneath the leaf blade. The sub-basal vein is long and often almost parallel to the leaf margin and nearly half as long as the leaf. The petiole is prominently twisted but without obvious swelling at either end. Young paler green leaves have fine short hairs, becoming much firmer and smoother about 2 months after emergence. Mature leaves vary in texture and size according to</p>	<p>SPECIFIC PROJECT MITIGATION list other locations where there were no vines found and the structure heights were raised such as STR 18-19 on Widgee Creek, STR 124-125 on Skyring Creek and STR 129 on North Mount Road. This mitigation is carried out in highly sensitive areas but has not been proposed for STR 150 to STR 153 the area where the vines and Richmond Birdwing Colony have been found. The extensive proposed clearing of this area will effectively kill (both) the habitat, the larvae, and pupae of birdwing butterfly (living/ surviving/ breeding) in the vegetation that is proposed to be cleared.</p> <p>Describe in detail exactly what PL propose to do in relation to habitat clearing and/ or modification of habitat and/or offsets to replace this significant habitat.</p> <p>Describe in detail exactly how PL propose to capture pupae and move the butterfly colony without causing the decline of the species.</p>

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		<p>shade, soil, nutrients and moisture. Leaves are usually 12-18cm long and 3-7cm wide, but occasionally reach 25cm or more in length. with a covering of brown hairs and petioles with a base that extends <math>\frac{3}{4}</math> of the way around the stem. Flowering occurs September to December. The length of each flower is about 2.5cm, tubular and purple veined externally. Flowers do not secrete nectar but are pollinated by a species of midge. The vine mostly occurs in patches of lowland subtropical rainforest (&lt;600m), near riverbanks and streams but also on basaltic slopes. It prefers permanently moist, well-drained volcanic soils or basaltic slopes, creek banks with alluvial volcanic floaters.</p> <p>The vines were found near STR 153 and listed as one plant.</p> <p><b>IMPACTS :</b></p> <p>This project will directly impact on this NC Listed species as it is proposed that .6 ha of habitat be cleared during construction and operation also further degradation through edge effects and the establishment of feral weeds and animals.</p>	<p>Describe in detail where the proposed extraction of a butterfly colony has been successful in the past.</p> <p>Paul Grimshaw a well known ecologist/botanist has found populations of <i>Wilkiea macrophylla</i> and <i>Wilkiea huegeliana</i> in the same vicinity. Paul said that it was the largest population of these plants that he had ever observed and they are significant as the food plant for the <i>Euschemon rafflesia</i> Regent Skipper butterfly. Other invertebrates have been found in the same locality. A Bordered Rustic butterfly was also observed and the <i>Scolopia braunii</i> – Flintwood food plant was observed. A Green Emperor – <i>Anax gibbosulus</i> dragonfly was observed. Another bird species of note was the fairy gerygone which has only been recorded once further south at Buderim and once just south of Eumundi. Attached is a copy of his reports – Supplementary Appendix A, B and C</p> <p>This is further proof that this habitat is significant and PL needs to include all species in its mitigation management and conduct proper surveys to determine population densities.</p>
C-6.3s	6.2.3 Page E-131	<p>The <b>Ornithoptera richmondia Richmond birdwing butterfly</b> is listed as vulnerable in Queensland under the NC Act. Dr Don Sands of the Richmond Birdwing Butterfly Recovery Network has stated that this colony represents the most northern edge of the known range and is crucial for the recovery of the species. He has said that the species is endangered in this area. The butterfly has been recorded and observed in large numbers within the easement area.</p>	<p>MAP 16 Figure 3-8p shows extensive proposed clearing of vegetation from STR 150 to STR 153. This is the known breeding site of the Richmond Birdwing butterfly and the recorded sightings of the <i>Pararistolochia Praevenosa</i> vines confirm that the butterfly does rely on this area. It has also been recorded on the database of the Richmond Birdwing Recovery Network as the most north western health intact colony and any disturbance of the habitat will most certainly cause the extinction of the birdwing as happened recently at Coolum Beach where a <i>Pararistolochia</i> Vine was transplanted and</p>

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		<p>The female butterflies deposit their eggs on the rare Pararistolochia praevenosa vines which are found in the proposed easement. The first instar hatch and devour the new leaves of the vine. The larvae have five instars and occasionally 6 if the nutrition of the leaves is low. The larvae can grow up to 7 cm in length and the colour can be grey, brown or black. Larvae usually leave the food plant to pupate on the under surface of a leaf in the canopy of a tree growing nearby to stop being cannibalised by other larvae. They spin a broad silken pad beneath a leaf and strengthen it with silk to avoid dislodgement. The pupae are bright green. If pupation occurs in late summer or autumn the pupae remain throughout the winter in diapause. This overwintering mechanism prevents the emergence of adults when the temperature is too low for feeding, flight and reproduction.</p>	<p>subsequently died, which caused loss of habitat, food and loss of food and the collapse of the whole colony. The butterfly is now extinct in that area.</p> <p>Describe in detail exactly what PL propose to do in relation to habitat clearing and/ or modification of habitat and/or offsets to replace this significant habitat.</p> <p>Describe in detail exactly how PL propose to capture pupae and move the butterfly colony without causing the decline of the species.</p> <p>Describe in detail where the proposed extraction of a butterfly colony has been successful in the past.</p>
C-02-05	Chapter 2 – General	<p><b>Growth Rates</b></p> <p>Projected Growth Rates of 4.1% for Gympie and NSC are incorrect. Based on historic data provided by Energex, it appears the peak demand energy paradigm has changed since the project inception (2005/06 – 2007/08).</p> <p><b>1. Gympie and North Sunshine Coast Area</b></p> <p>Changes to peak demand usage for this area have either been ignored, or not presented in the dEIS thereby leading to a false and incorrect picture of actual peak usage.</p> <p>Within all sections of the dEIS (chapter 2 and Appendix G) that relate to the project's justification, there is no analysis or data on historic peak</p>	<p>Action:</p> <ol style="list-style-type: none"> <li>1. Present PB/PL's analysis of historic peak demand usage in dEIS if already undertaken.</li> <li>2. Undertake analysis of historic peak demand usage and present findings in dEIS</li> <li>3. Amend project driver date of 2014/15</li> <li>4. Stop the project as the justification is not valid</li> </ol>

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		<p>demand usage. Energex have provided PAGE with actual peak demand usage data for the Gympie and Northern Sunshine Coast from 2001/02 to 2007/08 – see PAGE Appendix E.</p> <p>This data clearly shows that peak demand growth has fallen considerably during the last 3 years (1.1%, 1.1% and 1.6% for 2005/06, 2006/07 and 2007/08 respectively) for this area. It appears that the energy usage paradigm has changed considerably since the project inception back in 2006.</p> <p>This also impacts on one of the main drivers for this project – the initial network limitation occurring in this area in 2014/15. If growth as represented by the Energex figures are around 1.1% – 1.6% they fall considerably short of the projected figures being used by PB/PL of 4.1%.</p> <p>The initial network limitation as identified by PB/PL occurs in 2014/15 with projected peak demand use of 246MW (Appendix G, Table 2, Pg 6). Therefore, if projections are based on actual historic figures as provided by Energex, and a more realistic projected figure is used of say 2% (conservatively above the actual figures of 1.1% – 1.6%), and based on actual usage in 2007/2008 of 185MW not 188MW as provided in dEIS by PB/PL, then the limitation will occur in 2021/22 – some 7 years later than 2014/15.</p> <p>Therefore, justification that is being used by PL/PB is not relevant, the initial limitation is not there and valid alternatives can be progressed in the intervening 11 years before the actual limitation eventuates.</p> <p>Furthermore, a further 16MW (or 4 more years) can be provided to the Gympie and Northern Sunshine Coast areas by supplying the Nambour substation with 100% of supply from Palmwoods, and not using the 25% from Woolooga-Gympie circuit.</p>	
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C-02-05	Chapter 2 – General	<p><b>Growth Rates</b></p> <p><b>2. Gympie and Sunshine Coast</b>  The dEIS presents “Table 3 - Maximum Summer Demand MW forecast for the Gympie and Sunshine Coast” (Appendix G – pg 7) area which is the basis for the 40 year demand projections for the entire Sunshine Coast and Gympie area.</p> <p>No historic data or analysis has been provided in the dEIS, nor has any been provided by Energex or PL despite requests. (Refer to email of 15 May 2009 by Powerlink Project Manager - “I also understand that he (Energex) answered your question about your request for information about the remainder of the Sunshine Coast by explaining that it was outside of the Study Area, and therefore irrelevant to the Project.”  For PL to suggest this data is irrelevant, and for PL to request an explanation is unacceptable.</p> <p>As outlined in section 2.1.2 of Chapter 2 PL have clearly made an argument for the project justification based on the Gympie and Sunshine Coast areas and have applied a growth rate of 5.3% yet it appears that no analysis has been undertaken or data provided on the historic load figures. As outlined above, growth of peak demand in the last 3 years is 1.1%, 1.1%, and 1.6%, so what has occurred on the rest of the Sunshine Coast?</p> <p>Further, PAGE received a letter from the Department on Mines and Energy (PAGE Appendix F – Letter dated 19 February) stating “To this end, it is important that any proposal meet the longer term energy needs of the region. In particular, the technical information paper provided to PAGE advised that the proposed alternative solution would need to start in the summer of 2014 -15, and progressively increase to 75 megawatts (MW) over the 10-year period to 2024-25. It will then need to increase to 140 MW by 2034-35, 240 MW by 2044-45</p>	<p><b>Action:</b></p> <ol style="list-style-type: none"> <li>1. Amend dEIS to include historic data as provided by Energex so as to provide the reader with an accurate and actual picture of peak energy usage on the Sunshine Coast.</li> <li>2. If PL believe that data is irrelevant, then amend the dEIS to exclude all references to the entire Sunshine Coast and only focus the justification for the project on the initial network limitation in the Gympie and Northern Sunshine Coast area.</li> </ol>
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		<p>and continue to increase to an estimated 425 MW by the end of the 40 year study period. ”</p> <p>This rationale, is also presented in the dEIS, has been used to dismiss the Sanctuary Energy proposal because it does not meet the future needs to the Sunshine Coast. Yet, if the projections are incorrect, and it appears that they could be based on the Gympie and Northern Sunshine Coast analysis, the entire project’s justification is called into question.</p> <p>A further example of how these projected figures have been used is in dEIS Chapter 2 - Embedded generation options. PB/PL have dismissed Sanctuary Energy’s proposal because it does not meet the projected energy forecast of 140MW, 240MW and 425MW by 2035, 2045, 2055 respectively which is based purely on projected figures that have been called into doubt as per 1. above.</p>	
C-02-05	Chapter 2 – General	<p><b>Growth Rates</b></p> <p><b>3. Population Numbers</b>          No analysis is shown in the dEIS that correlates population growth with peak demand usage in the Gympie and Northern Sunshine Coast. Population numbers are just provided and it is left to the reader to make their own assumptions.</p> <p>Nor has any analysis been undertaken for the rest of the Sunshine Coast, and again the figures have been provided without any correlation.</p> <p>The general conclusion the reader is left to believe is that just by having population growth there will be a significant increase in peak demand.</p> <p>Yet, based on data provided by Energex, that is not included in dEIS, peak demand has increased in Gympie from 58MW in 2000/01 to</p>	<p><b>Action:</b></p> <p>PL-PB to demonstrate the linkage between population growth and increased energy usage on the N. Sunshine Coast and Gympie area to prove their assertion that peak demand will grow at over 4% pa</p> <p><b>Action:</b>          PL-PB to request Energex to re-assess the demand projections as originally presented in the light of significantly lower peak growth figures and the significantly changed circumstances (lower peak demand growth than projected, reduction in economic growth rates, demand management and education initiatives etc) since the inception of the project 4 years ago and represent the analysis. A re-evaluation of the need for the project or whether the project should be deferred in the light of this new information.</p>

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		<p>64MW in 2007/08 – an increase of 6MW over a 7 year period. At the same time, population has increased from 33,651 in 2001 to 43,945 in 2006 – an increase of 10,294 or 23.42%. In Gympie it appears there is no correlation between population growth and peak demand usage.</p> <p>A consistent approach is required to usage, presentation and conclusions to the data presented. The basic justification for the project is increased peak energy demand driven by population growth and increased air conditioning usage. As demonstrated above the growth in peak energy demand has been significantly overstated, no analysis has been presented to confirm that the assumptions upon which the project have been predicated i.e. that population growth and energy intensity are driving peak energy demand at over 4%. The reader is left with no ability upon which to judge the project need or justification, other than being left to rely upon Powerlink to trust their judgement that they know best, rather than presenting a logical argument supported by the data leading to a rational conclusion.</p>	
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Signature: \_\_\_\_\_

Submissions can be e-mailed, posted to the address below:  
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