

13 March 2003

Mr. Sebastian Roberts  
Acting General Manager  
Regulatory Affairs – Electricity  
ACCC  
PO Box 1199  
Dickson ACT 2602

page 1.

Dear Sir,

**APPLICATION BY MURRAYLINK FOR REGULATED STATUS**

We wish to thank you for the opportunity to lodge our submission and the time extension granted to do so. We have been in the process of formulating a letter to the ACCC re issues we strongly believed to be serious and justifiable. These issues merit investigation with the aim of achieving a more rational decision making process by allowing all available alternatives to be fairly and equably investigated along with their real benefits for society and our Australian environment and their futures.

Because we have no time to recompose our letter and because we deem it relevant, as written, we now present it as the first part of our submission to you as Appendix A.

**APPENDIX A**

10<sup>th</sup> February 2003

Dear Sir/Madam,

We are writing to inform you of our very grave concerns about the misinformation being provided to the public and the Government by power companies in relation to the REAL costs associated with constructing new high voltage transmission lines underground.

Our first reference is The Environmental Impact Assessment Review for the Greenbank To Molendinar 275kv transmission line, which was provided by Powerlink QLD September 2001. The executive summary states “Underground Transmission Lines: Undergrounding was also considered. It was rejected for a number of reasons, including cost (it is approximately 10-16 times the cost of normal overhead construction).” ([www.powerlink.com.au](http://www.powerlink.com.au)) This is Powerlink’s current public statement and we have available many newspaper articles and

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television news reports in which their company representatives restate this as Fact to the public.

Secondly, we refer to a letter to us dated 23<sup>rd</sup> July 2002 from Powerlink which states.. “Powerlink confirms its verbal advice that the additional cost to place the transmission line underground between Abbot Court and the edge of the Nerang forest, a distance of 2km, is estimated as a budget figure of \$8.1M. This additional cost is in excess of that estimated for the same section of the route constructed as an overhead transmission line. This additional cost excludes allowance for any form of river crossing of the Coomera River...”

After this letter a meeting was organized between Powerlink’s representatives and their Solicitors and representatives of the community and their Solicitors. At this meeting it was determined that the community was prepared to pay \$4M towards the cost of undergrounding the power across the Coomera Valley. Powerlink’s major concern appeared to be that this would set precedence. Surely though this would be a fantastic precedence where the community was privately funding what we see as an investment for the future. Powerlink did not proceed any further with this offer and refused to provide any real costing as requested, instead they have continued with their plans to establish the Maudsland to Molendinar Transmission Line aboveground as speedily as possible, even though (as we have now determined) this offer could possibly have created a profit of \$2.5M.

We now refer to a report (see attachment)(to be forwarded separately) commissioned by us (paid for by our community at a cost of \$18,500) from TransEnergie Australia Pty Ltd (A subsidiary of Hydro-Quebec) dated 24 January 2003. TEA is a subsidiary of the world’s leading underground power company and is responsible for Murraylink and Directlink that are Australia’s two most major underground power projects. Please read chap 5.1 which states that to underground cable connection for the 12km route between Maudsland and Molendinar “The total NVP for option 2A (replacing the overhead transmission line cost in Powerlink’s Option 2 with an underground cable) was determined to be \$33.79M. As opposed to Option 2 (aboveground) \$25.65M.

This difference of \$8.14M for 12km is approximately an extra \$680,000 per kilometer. This cost difference is so verily in contradiction with Powerlink’s information through their EIAS reports (not only the Greenbank to Molendinar Line but with every report submitted to every community from Tully and Cairns in the North to Texas in the South;{ copies available} ) , their correspondence, their public information leaflets,

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their statements to the media and their representations to the Government ; as to be arguably misrepresentation in the extreme.

Now that we have brought this to your attention we ask for clarification as to which Government agency this misrepresentation should be investigated by? The Hon. Terry Mackenroth wrote in a letter to us dated 25<sup>th</sup> July 2002, “ The obligation to implement the least-cost solution is a requirement of the Australian Competition and Consumer

Commission's (ACCC) Regulatory Test. The ACCC is the body responsible for the regulation of Powerlink's transmission pricing."

We understand that the ACCC is responsible for monitoring compliance with the Code, but does this only relate to anti-competitive detriment issues and compliance with technical standards or does it also have responsibility for the safe supply of electricity and protection for very concerned communities through out Australia?. We note that the ACCC in its Determination dated 27<sup>th</sup> November 2002, "Applications for Authorisation; Amendments to the National Electricity Code; Queensland Technical Derogations" in Chap 4,'The Commission's assessment' page 8, states "Therefore, the Commission recognizes the concerns regarding adverse health effects as raised by RAGAT and the Bensons." For this recognition we thank you. Further "The Commission also notes that the matter of undergrounding power lines is not relevant for the Commission's authorization of this application." As the application was for the extension of existing technical derogations this is not disputed, however we would point out that a power utility which is forward thinking and wants to invest in the future on behalf of the citizens and the environment by undergrounding new transmission lines, would in fact suffer anti-competitive detriment due to the slightly higher costs such a decision would incur. This would be offset over time due to the lower ongoing maintenance costs incurred by underground lines as opposed to above ground. However please consider the point that the ACCC's own focus on anti-competitive behavior is acting against the best interests of the community and public benefit by failing to promote the proper consideration of the underground alternative. In fact power utilities rely upon this when rejecting the underground alternative.

We refer to Powerlink's EIAR Sept 2001, [www.powerlink.com.au](http://www.powerlink.com.au), Greenbank to Molendinar Transmission Line Project, page34, "In deciding on reinforcement options, Powerlink as a regulated monopoly, is bound by the rules of the national electricity market. This requires Powerlink to select the option that delivers the lowest cost to electricity consumers while meeting reliability requirements and environmental standards and regulations. The overhead option proposed by Powerlink is

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the only option that meets all these criteria." This is based on their assertion that undergrounding is 10 to 16 times more expensive (some \$18+M extra per km) This claim is disputed therefore their decision making process is biased and flawed! Further it does not allow for the assessment of the environmental benefits of the underground alternative nor does it promote the wisest investment for the future. For every New Transmission Line built above ground now is one, which will have to be dismantled and undergrounded in the near future. This situation is an abuse of the taxpayer's money.

It is our information that the public has relatively few objections to high voltage transmission of power through their properties and communities if such transmission was to be undergrounded. This is based on discussion with community groups throughout Australia who are so very justifiably concerned about the real health risks and

environmental concerns associated (and proven) in relation to high voltage above ground transmission lines. With the current situation in Australia where the National Electricity Market is being established for our countries future, the climate is one of misrepresentation of up to date underground pricing and technology information. Powerlink's reference opposing underground power is a Report dated May 30<sup>th</sup> 1988 to Hon. R Fordham, Minister for Energy, Government of Victoria titled "Electromagnetic Fields from Overhead Transmission Lines and Underground Cables" is outdated. It is 15 years old and Underground power technology has progressed a long way in the ensuing years. This current information on the development of cable technology is not readily available to the public.

Furthermore it is of great concern that the establishment of new transmission lines and the formation of the NEM (National Electricity Market) throughout Australia is currently happening and being planned for at a time when there exists NO regulations in Australia in relation to human exposure and emfs. ARPANSA (Australian Radiation Protection and Nuclear Safety Agency) the Federal Government agency charged with responsibility of protecting the health and safety of people and the environment from the harmful effects of radiation have NO guidelines or standards regulating exposure to electromagnetic fields and defer to the NHMRC's (National Health and Research Council) Interim Guidelines.([www.arpansa.gov.au/is\\_emf.htm](http://www.arpansa.gov.au/is_emf.htm)) These guidelines only ever related to the thermal effects on the body and had no consideration for the athermal effects of electromagnetic radiation on the body. Please refer to the attachment "Re response to questions" which are several emails from the NHMRC, which make a clear statement that the NHMRC has NO current guidelines or indeed interim guidelines in relation to emf exposure. We ask Who is protecting the health and safety of the public

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when the NEM is being established aboveground close to families? The fact that new aboveground transmission lines are being built whilst there exists no regulations/guidelines is VERY WRONG.

Such Government spending is a big waste of the taxpayer's money when these lines are being built, only to be pulled down and undergrounded in the next few years. The planning should be happening now so that for a little extra money these new lines are undergrounded in the first instance. The decision making process is flawed if it relies upon misrepresented facts. It is time now for all planning of aboveground lines to be stopped while the REAL costs for undergrounding are properly investigated and assessed as to the future benefits for communities and the environment.

In relation to the proposed Maudsland to Molindinar Line, Powerlink now claims it is out of time to correctly assess and plan for undergrounding the line, as the Gold Coast is approaching critical power shortage supply problems. We refer you again to the attached report from Transenergie Australia (TEA) page 24, which states that "Directlink has the potential to supply a portion of the Gold Coast/Tweed Heads area load (to a maximum of 180 MW) with power transfers from the New South Wales region". A connection to Directlink would allow Gold Coast power supplies to be maintained whilst the planning and execution of undergrounding the new Maudsland to Molindinar power supply line

was established. We are not saying don't bring your power through we are saying bring it through as safely as possible (i.e. underground) and plan and invest in the future.

The Coomera Valley which will be traversed by this high voltage power line is promoted as "the Green behind the Gold" and supports three hot air balloon companies (contacts available) who will be unable to operate when an aboveground line is established as they land meters to the north of the proposed line after flying in from the south several days a week. The new development "Tuxedo Junction" which has Local Government building approval (and is currently being marketed) is also traversed by this line, and is one of many new park residential subdivisions in close proximity to this line and will see 100 new families in this estate alone. None of which were considered by the EIS. The development's approvals have the transmission easement, under this 275KV line, designated as children's playground and park. As EMF's are now proven to cause increased incidence of leukemia in children (International Agency for Research into Cancer [IARC] June 2001 category 2B possible carcinogenic) this planning is deplorable. Councils cannot make the correct decisions in relation to planning if no guidelines

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exist, further they too are being misinformed as to the true costs of undergrounding.

This Transmission Line travels through the Nerang State Forest (which is the only State Forest in close proximity to the Gold Coast) .We would like to bring to your attention the fact that when numerous species of endangered bugs were identified in the Forrest the Department of Environment Qld demanded that the line was relocated away from the bugs and in fact to within much closer proximity to residential families instead. May we beseech you that our children's lives be so valued and alternative solutions, specifically that of undergrounding , be facilitated and not remain unassessed by genuine cost/benefit analysis.

We now refer to the Senate Enquiry of 2001: 'Enquiry into Electromagnetic Radiation- Report of the Senate Environment Communication Information Technology and the Arts Reference Committee. May 2001' and ask you to note their Recommendation 2.2. Which was, **The committee chair recommends that precautionary measures for the placement of power lines be upgraded to include wide buffer zones and undergrounding and shielding cables where practicable.** We ask that the ACCC address this recommendation and promote these precautionary measures in the public interest. In its planning of construction of the Greenbank to Molendinar Line, Powerlink have taken none of these measures and there are many residences which will be 50 to 60 meters from this **new** line and many more that are under one hundred meters from it. This is not safe planning and places many families at great health risk. Where is our protection? We cannot protect our children from assault by EMF's . We do indeed feel helpless while we watch the incidence of leukemia and cancer, associated with proximity to high voltage powerlines, escalate. What value is one human life? Perhaps the most recent world recognized review, which has attempted to answer this question, was the California Department of Health Services. Electric and Magnetic Field Risk Evaluation, which commenced in 1993 and was formally transmitted to the California Public Utilities

Commission in November 2002. The report's attached Policy Option Document states, "judging by other protective measures taken, economists have determined that society seems willing to pay five million dollars per death avoided."([www.dhs.ca.gov/ehib/emf](http://www.dhs.ca.gov/ehib/emf)).

We thank you for your time in reading this letter and ask that you study the attached report by TEA, please address our concerns and inform us as to who should investigate Powerlink's misrepresentations as to the costs of undergrounding and their discrepancies in their evaluation of alternatives .We urge you halt construction of the Maudsland to

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Molendinar aboveground line and prevent further misuse of government money. It should be the Government and its Agencies that protect the health and safety of families throughout Australia. It appears this is not so and the only explanation we can find relates to utilities/ governments protecting their profit margins and generating new profit at great risk to human health in a climate of no regulation and misinformation.

**It is no longer possible to say a risk to health does not exist, as there is International Agreement that risks do exist.**

If you can't address ALL our concerns could you please direct us to the Government Department/Agency that really can. We need help!!!, no one wants to address these matters with the gravity they deserve. It has to begin NOW as it is Powerlink's intention for construction to commence Mid March on the Maudsland to Molendinar Line and these works need to be halted whilst a review of the alternatives is conducted and costed.

To spend \$33.79M to underground this 12km line through residential areas, environmentally unique State Forrest, eco-tourism promoted hinterland, new park residential estates and our beautiful Coomera Valley cannot be denied evaluation.

To spend \$25.65M to aboveground this 12km line on 43m to 50m towers with 12 wires spreading electromagnetic radiation hazards for kilometers and being a monolithic monster visible to the entire Gold Coast (for all time??) needs to be reevaluated.

To not do this, it is the communities opinion, identifies a defective decision making process which is ***not rational in principle*** because it fails to formally evaluate the best alternative.

Several years ago Sir Harry Gibbs a former Chief Justice of the High Court of Australia suggested electric utilities building new high voltage power lines "**do whatever can be done without undue inconvenience and at modest expense to avert the possible risk.**" ..... What value is one human life saved? .....

## APPENDIX B

14 MARCH 2003

Dear Mr. Roberts,

### APPLICATION FOR REGULATED STATUS-MURRAYLINK

#### The ACCC Issues Paper ;

We note page 2 :

**the code does not set out specific criteria for conversion and the determination is at the Commission's discretion.**

Page 3:

**the regulatory test is essentially an economic cost/benefit analysis**

and further

**The Commission will consider any applications to convert from market to prescribed status on a case by case basis.**

Murraylink is the first underground line to seek regulated status. All other Transmission Projects have been; and are currently being denied undergrounding be considered/evaluated as an alternative. Therefore there is no other real economic cost/benefit analysis available for comparison. If the regulatory test, in its current form, is denying undergrounding alternatives be evaluated by any form of economic cost/benefit analysis then it is failing in its **proper public administration**. Power Utilities are using the regulatory test to prevent any cost/benefit underground alternative analysis be available to the public, communities, environmental groups and indeed the people's elected government representatives including Ministers and Local Councilors. Case example; Powerlink Qld in September 2001 in their Executive Summary for their Environmental Impact Assessment Review for the Maudsland to Molendinar 275kv Line stated **Undergrounding was also considered. It was rejected for a number of reasons, including cost (it is approximately 10-16 times the cost of normal**

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**overhead construction**). Based on what information?? The Line has never been costed by Powerlink for undergrounding, the benefits have never been assessed. This has been despite endless community requests to Powerlink and the Queensland Government that this alternative was in the best interests of the public and the environment and should be assessed as a viable alternative. Finally the community privately funded underground

costings and alternative power supply source analysis to facilitate the extended time frame required to implement such planning. But under the Regulatory Test, Powerlink is able to proceed poste haste with its above ground construction planning whilst still maintaining that as a regulated monopoly it can rely on **highly** inflated underground costs to meet its obligation to implement the least-cost solution. The costings acquired by the community indicate that undergrounding the 12km line would cost approximately one third as much again as aboveground. See Separate Attachment; TransEnergie Australia Pty Ltd“**Capability of the Gold Coast Transmission Network : Technical Review of Proposed Powerlink Augmentation**”

The benefits of under grounding the Maudsland to Molindinar Line have never been considered and yet the community is united in their belief that they far outweigh the adverse health and environmental harm caused by the overhead alternative.

**Page 4; interested parties may wish to comment on whether considerations other than those currently contained in the regulatory test would be appropriate in assessing MTC’s application.**

What value is one human death avoided? As referred to in **Appendix A**; American economists have determined that society seems willing to pay 5M dollars (American) per human death avoided.

How do you place a value on the fact that with underground lines birds can fly through a valley without their navigational abilities being compromised whereas with an aboveground line they will avoid the entire region? I was truly amazed to hear a Powerlink representative whilst visiting our beautiful valley laugh that once they turned the power on through the line we wouldn’t have to worry about any cockatoos inhabiting our valley as they avoid the lines for kilometers. I think he saw this as a cost benefit. As our valley is a recognized breeding area for the endangered black cockatoo we are truly devastated at this impending eventuality.

What value do you place on the loss of eco-tourism businesses, which can no longer promote environmentally friendly activities because

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valleys, forests and rural environments are being traversed by unsightly and harmful transmission lines?

What value is one miscarriage, which does not occur?

What value is it worth that one mother does not get breast cancer?

What value is placed on power transmission not being disrupted every time we get one of these increasingly frequent and violent storms when above ground lines and indeed towers come down?



What detrimental value is placed on the fact that the air around a line spreading positive ions?

What value do you place on the fact that, with under grounding as opposed to aboveground lines, our bio-molecular cellular systems are not interrupted and their signaling and communication mechanisms altered/impaired? Hormone balances not disrupted and our immune system not compromised?

What value to our families for their child not to develop leukemia?

What value for one suicide not to occur, brain cancer or tumor to not develop?

The answers to these questions are determined by societies values. Generally individuals and society can be seen to highly value the avoidance of risk to health or loss of life. The public and environmental benefits of under grounding transmission lines must be included in the regulatory tests cost/benefit assessment. To only include assessment of 'market benefits' is to deny the public their right of correct government representation. Government representatives and decision makers are accountable to the people not to power utilities.

We note the Hon. Mr. Kim Yeadon Minister for Energy N.S.W states 'For Murraylink to now seek, and be allowed, regulated status would set an undesirable precedent.' We ask does he mean undesirable to the people, or does he mean undesirable to power utilities? We would remind Hon Minister that he is the elected representative of the people, not of the power utilities. The Minister is accountable to the people. He further argues that 'to ensure a consistent approach, the ACCC should reject the conversion application on the basis that it is net detrimental to the market in light of the purported benefits of MNSPs the Commission has espoused in the past'... This position denies facilitation of new

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technological advancements and leaves us entrenched in the mistakes of the past. The regulatory test must be able to accommodate beneficial developments and advancement in technology or else we are not progressing towards a better future. It is the stated intention of the regulatory test that as many alternatives as possible have the range of costs and benefits associated with each and their likely impact on future market outcomes estimated and included in the analysis.

Therefore to not include and cost evaluate new technological alternatives, especially on the premise of consistency, is not truly representative. To exclude the undergrounding alternative its rightful assessment is to make an exception to the rule, not the other way round. One could identify this as 'underground prejudice' in the same manner as has been identified 'racial prejudice'. The Minister sees that these issues 'raise policy issues of the highest order.' These policy issues are nothing new, it is just that they are denied assessment, but it is time now that they are fairly addressed with valid consideration to our health and our Nation's Future. Policy needs to protect the public not exclude their interests whilst facilitating those of utilities and profit.

Murray link is a prudent investment and it is our belief, which is consistent with those of the public community, that it is the most prudent investment made in recent times and it is in the best interests of our Nation's Future that similar such investments are both facilitated and encouraged. Most emphatically it cannot be continued that the underground alternative is not encompassed within the determination of the Regulatory Test.

### **P.B ASSOCIATES: Transfer Capability Review.**

We note that on page 25 it was stated that *“provided the fast run back schemes are technically and economically feasible, PB Associates considers them sufficient to achieve the transfer capabilities indicated by TEA.”* And also (page 28) *“P.B Associates have not attempted to determine whether the additional augmentations are technically and economically achievable ..... however, based on the additional augmentation proposed and possible alternatives, we consider that it is reasonable to assume they are achievable.”*

Finally we note that *“particular non-thermal network conditions or load and generation profiles may impose more onerous constraints”* which are *“not considered relevant for this assessment.”*

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### **Saha Energy International Ltd- Review Of Murraylink's Application of the Regulatory Test.**

It is stated (p44) that *“it is difficult to comment directly on the findings produced by TEUS as there are no directly observable benchmarks in which to base such analysis.”* By the ACCC determining that Murraylink be granted Regulated Status such an “observable benchmark” will be available for future analysis when under grounding is incorporated as one of the alternatives.

Saha Energy (p59) observes, *“most of the sources of the costs of laying underground cable appear to be confidential.”* Why is this so? There appears to be a historical development, which promotes resistance towards accepting this technological advance adopted by Power Utilities in general. This suppression of current information makes it impossible for Government to ensure that they are correctly assessing all planning and decision making in the best interests of their constituents and the population in total. Whether this is at a Local Council level, State or Federal. Whenever the question is asked, “What about under grounding”? The answer is we can't consider it, its too expensive; it costs 10 to 16 times more than overhead. (Ref Appendix 1 the Maudsland to Molendinar Line Qld as case study). This in fact is **exaggeration in the extreme** as we have independently ascertained it to be approximately one third extra cost and this figure

is reducing daily. Refer to Parelli for even more recent cable developments, which facilitate even lower laying costs than that achieved by Murraylink.

It is further noted (p60) that *“there is an absence of Commission guidelines that indicate how the Commission intends to allow for estimated degrees of undergrounding..”* The Commission needs to embrace the beneficial technological advancements in keeping with promoting Australia as a ‘greener’ Nation, which is a world leader in development. Further Saha Energy note that they *“consider that a more robust case should be presented for the extent of undergrounding assumed to calculate the alternative costs.”* Again there are no ‘benchmarks’ for facilitating the justifications without a true cost/benefit analysis approach existing within the guidelines of the regulatory test. A ‘robust case’ could certainly be determined if ALL of the benefits of under grounding were assessed against ALL of the hazards of overhead transmission.

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We note in closing that Powerlink Qld have submitted to the ACCC their considerations that the determination will set material precedents. Mr Gordon Jardine CEO states *“Powerlink signals its intention to rely upon such precedence as are in Powerlink’s interests...”* The public would trust that Powerlink, as a regulated monopoly, would also accept such precedence which was **not** in Powerlink’s interest but in the greater benefit of society and the environment.

Powerlink further state (p3) *“Thirdly,we have a number of active line projects which have generated actual (rather than possible) community agitation for undergrounding.”* The communities concerned strongly object to being so called agitators. We are mothers and fathers [justifiably concerned for the health and safety of our loved little ones] who have repeatedly requested, through proper public consultation, that Powerlink provide us with true costs of undergrounding. To state in their EIS Reports that undergrounding costs 10 to 16 times as much is ‘gross misrepresentation’. The Community only wants to be truthfully informed and witness that correct decision-making has been facilitated and executed. Powerlink further states that *“an ACCC decision in favour of tactical undergrounding would change our approach to those projects, which is presently based on overhead lines only.”* The fact that Powerlink has steadfastly refused to conduct proper investigation of the underground option in relation to these projects and proceed with overhead lines only has been against the expressed interests of the communities concerned. Indeed one of these communities met with Powerlink Officers and their legal representation and offered to contribute \$4M toward the tactical undergrounding for 2km across the Coomera Valley in the Gold Coast Hinterland. They refused to pursue negotiations because they were concerned it would set precedence. What a wonderful precedence it would have been for the community to have paid the utility for the right to incorporate tactical undergrounding in the alternative.

Murraylink being granted regulated status IS justified by a complete analysis of the economic and social cost/benefit analysis. It appears to largely meet all other important criteria identified by the regulatory test.

Yours Sincerely,  
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