

Our Reference: E0200806

11 November 2002

Mr N Laurie
The Clerk of the Parliament (Acting)
Parliament House
tableoffice@parliament.qld.gov.au

Dear Mr Laurie

Thank you for your letter of 25 October 2002 forwarding a copy of the e-petition lodged in the Queensland Legislative Assembly, objecting to Powerlink Queensland's (Powerlink) high voltage powerline proposal from Millmerran to Middle Ridge. The issues contained in the e-petition have been considered and the following response is provided.

The planning needs of Queensland's transmission network are developed by Powerlink on an integrated basis for the south east Queensland region over the next 15 years. The first priority is to augment supply to the Middle Ridge substation, which is the bulk electricity supply point for the entire Darling Downs region before the summer of 2004-05. The second stage, based on medium load growth forecast, is to augment supply to the rapidly growing Logan/Brisbane south/Gold Coast region by 2009.

Powerlink has considered alternative routes to augment power supply to the Darling Downs and Logan/Brisbane south/Gold Coast regions. The two practical solutions considered by Powerlink are:

- Solution A - A new line from Millmerran to Middle Ridge in 2004, followed by a new line from Middle Ridge to Logan by 2009 at an estimated capital cost of \$138 million; and
- Solution B - A new line from Tarong to Murphy's Creek in 2004, followed by a new line from Millmerran to Logan by 2009 at an estimated capital cost of \$165 million.

Powerlink has identified Solution A, which includes the proposed Millmerran to Middle Ridge transmission line, as its preferred solution, as it:

- delivers the lowest cost to electricity consumers – criterion required by the National Electricity Market (NEM);
- delivers the highest net market benefit to participants in the NEM - criterion required by the NEM;
- results in fewer kilometres of new transmission lines in south east Queensland, and thus lower overall community impact; and
- provides a higher level of security and reliability of supply to the Darling Downs by virtue of having two different geographical supply routes into Middle Ridge.

Information has been provided to me and to representatives from the Darling Downs community regarding the above alternatives and costing. Powerlink also informed me and the community representatives of the cost of constructing an underground transmission line using high voltage direct current light technology available from a Swedish company. The cost to underground a transmission line using this technology is four to five times more than an overhead transmission line. A significant contributor to the capital cost of an underground direct current powerline, is the construction of converter stations at each end of the line to convert the current to direct current for the powerline and to alternating current for the high voltage grid.

The Australian Competition and Consumer Commission (ACCC) is the national regulator for regulated transmission entities and is responsible for setting the regulatory test for new transmission developments. The fundamental principle applied by the ACCC in regard to regulated transmission lines, is Powerlink must minimise costs while meeting the technical standards set out in the National Electricity Code.

In addition to satisfying the ACCC regulatory test, Powerlink is also committed to conducting an Environmental Impact Assessment (EIA). The EIA will assess the impact a transmission line may have on environmental, community, cultural and socioeconomic factors. The preparation of the EIA report will involve public consultation with government agencies and non-government bodies. Any comments on the draft documents are considered and included in the final EIA. The final report provides detailed information and recommendations on a preferred transmission line route within the study corridor. The EIA process also investigates how any potential negative impacts can be avoided or minimised.

The final EIA report will also contain an Environmental Management Plan (EMP) which outlines ways to minimise any potential environmental impacts. The EMP will document detailed work plans to be implemented during construction of the proposed transmission line.

Several concerns held by residents affected by the powerline project were listed in the Queensland Parliament e-petition. They include:

a) Previous powerline proposal

Several years ago, the private developers of the Millmerran power station initiated a proposal to acquire a transmission line route between Millmerran and Middle Ridge. The purpose of the proposal was to connect the Millmerran power station to the national electricity grid. The proposal to build the powerline from Millmerran to Middle Ridge did not proceed. Instead, a powerline was constructed to run west from the power station to the Queensland / New South Wales interconnector. Powerlink was not associated with the proposal.

The primary purpose of Powerlink's project is to augment supply to the Middle Ridge substation to meet the energy demands of the Darling Downs region. Without reinforcement, the existing transmission network may not be able to provide a secure and reliable electricity supply to the region from the summer of 2004-05.

b) Affected residents

The 90km study corridor for the proposed powerline directly affects 105 property owners. Although the study corridor is nominally 1km wide, the required easement width will be 60m wide. The 1km wide study corridor allows for flexibility in identifying the best 60m alignment for the easement. Powerlink will consult with affected property owners and communities and complete an EIA before making a final decision about the easement alignment. Property owners have been given the opportunity to comment at each stage of the EIA process.

In 1983, Powerlink acquired a 7km easement running south from the Middle Ridge substation. Part of the proposed transmission line will be constructed on the existing easement.

c) Farm management practices

The majority of farming practices, including most irrigation methods and aerial spraying of crops, can continue on a transmission line easement. The erection of tower structures on properties may have an impact on some farming practices. Powerlink will consult with property owners during all stages of the project to try and achieve minimal impact to farming practices. Where farming practices need to be changed, and that change makes the farming less efficient, a compensation payment will be negotiated between Powerlink and the property owner.

d) Property values

Powerlink acknowledges construction of new transmission lines can impact on property values. To offset this loss in value, Powerlink provides compensation to directly affected property owners at the time of easement acquisition. Powerlink assesses compensation in a consistent and equitable manner.

A number of factors are considered in assessing fair compensation, which include, but are not limited to:

- the market value of the land over which the easement is taken;
- the reduced property value due to restricted use of the land within the easement and possible visual impact on the residential component of the property;
- the number of transmission line structures which could be located on the easement;
- the effect the line may have on farm management practices; and
- any loss of commercial or potentially commercial timber.

e) Health factors

The Queensland Government and Powerlink are aware of concerns within the community regarding the possibility of adverse health effects from exposure to Electromagnetic Fields (EMF). The current body of scientific studies into this issue has produced divergent conclusions. Given these contrasting views, the Government relies on the opinion of expert medical review panels, rather than individual researchers, for its advice on health matters.

The National Health and Medical Research Council (NHMRC) of Australia has published *Interim guidelines on the limits of exposure to 50/60Hz electric and magnetic fields*. These interim guidelines are based on recommendations of the International Commission on Non-Ionising Radiation Protection. Powerlink operates all its facilities within the interim guidelines adopted by the NHMRC.

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is a Federal Government agency charged with the responsibility for protecting the health and safety of people, and the environment, from the harmful effects of radiation. In its April 2002 Information sheet, *The Controversy over Electromagnetic Fields and Possible Adverse Health Effects*, ARPANSA concludes:

“On balance, the scientific evidence does not indicate that exposure to 50Hz EMFs found around the home, the office or near power lines is a hazard to human health.”

Powerlink is a member of the National Electromagnetic Fields Advisory Committee (NEFAC) of the Electricity Supply Association of Australia (ESAA). As a member of NEFAC, Powerlink has access to the latest information published by scientific review panels. Members of the ESAA practice a policy of “prudent avoidance” when designing new transmission and distribution facilities. All transmission and distribution lines in Australia are designed to produce ground level EMFs lower than the levels recommended in the guidelines.

Clearly, the Queensland Government takes any suggestion of a health risk seriously and will continue to monitor developments in the field of EMF research.

f) Notice to residents and affected property owners

Residents were informed in a letter of 21 August 2002 of Powerlink’s proposal to construct a transmission line between Millmerran and Middle Ridge. The Mayors and Chief Executive Officers of local Councils and local Members of Parliament were also informed of the project in August 2002. In the week commencing 26 August 2002, Powerlink began personally contacting property owners directly affected by the study corridor. A series of newsletters, public displays, community meetings and media releases have been undertaken by Powerlink since August 2002 to keep all community members informed about the project.

At the request of community members, the date for comment on the draft terms of reference for the EIA was extended by Powerlink. A draft EIA will be issued for comment in March 2003. Completion of the EIA, which is proposed for May 2003, will allow easement acquisition and line construction during October 2003.

Powerlink will continue to work with affected property owners and the Darling Downs community to reach an outcome that will meet the electricity needs of the area and minimise any impact the proposed infrastructure may have on the community.

Thank you for bringing this matter to my attention and I trust this information is of assistance.

Yours sincerely

(signed)

TERRY MACKENROTH