

## **Baldivis substation Frequently Asked Questions**

Common questions regarding the Baldivis substation raised at the substation action group meeting on 25 February 2009 and received from other residents and stakeholders.

### **What are the legislative requirements for the consultation around the establishment of substation?**

Western Power is committed to engaging with the community to maintain a safe and reliable power supply. Western Power operates under the powers conferred by the Energy Operators (Powers) Act 1979. Whilst it is not a mandated requirement for Western Power to actively consult with the community, it is part of Western Power's commitment and strategic direction to work with the community to provide and achieve sustainable energy solutions. By increasing the breadth of community participation and awareness, it is intended that our decision making processes will become more transparent.

As every project is unique, the community consultation process differs each time we go to the community. In the instance of Baldivis substation, the 'Proposed substation' signs erected on the site in 1997 was intended to act as a form of public notification. Further community engagement has and will continue to take place to finalise the overall appearance of the substation, when viewed from the surrounding area.

### **What (Electromagnetic Fields) EMF standards does Western Power comply with?**

Western Power designs and operates all of its plant and facilities to comply with the guideline for human exposure to power frequency EMF as recommended by the Australian National Health & Medical Research Council (NH&MRC). This guideline is currently administered by the Australian Radiation Protection and Nuclear Safety Agency, an agency of the Commonwealth Department of Health charged with the responsibility for developing safety standards associated with electromagnetic radiation, and electric and magnetic fields.

Western Power takes all concerns about the potential health effects from exposure to power frequency EMF extremely seriously. It will continue to support independent, high quality research into the issue, and is committed to following the NH&MRC recommended safe limits of exposure for both workers and the public.

Western Power is also committed to the concept of *prudent avoidance* and it designs, constructs and operates all its plants and facilities prudently within the guidelines recommended by the NH&MRC.

Such actions include:

- monitoring research;
- continually reviewing policies in the light of the most up to date research findings;
- informing the public; and
- adopting *prudent avoidance* when designing and installing new equipment and facilities.

Western Power will continue to closely monitor overseas research and support such research here in Australia through its membership of the Energy Networks Association. It will also continue to take advice from the Australian Radiation Protection & Nuclear Safety Agency and other Australian health authorities on the issue.

Further information on the current EMF standards and research can be obtained by visiting the following links. The information provided by the following organisations is independent of Western Power.

<http://www.arpansa.gov.au>

<http://www.ena.asn.au>

<http://www.who.int>

**Baldivis substation's proximity to a proposed school: Has there been any discussion with the Department of Education and Training regarding the location of the substation?**

The Department of Education and Training have advised the only additional school planned for the Baldivis area will be located on the corner of the Eighty and Nairn Road extension. This is approximately 5-6 km from the substation site. The Baldivis substation construction will cause no appreciable interruption to the operations of the school. The operation of the substation will have no impact on the school.

**What other sites have been investigated for the Baldivis substation (Tamworth Hill)?**

Other sites were investigated at the time, including a site known as Tamworth Hill, located to the north of Safety Bay Road. Tamworth Hill is part of the Conservation Estate, System 6 Reserve and designated as 'Bush Forever' land. It was classed as Bush Forever in 1998. Prior to this it was considered to have high environmental conservation value as a System 6 Reserve. This option was not favoured as Western Power have an obligation to minimise environmental impact of their infrastructure in that area. It is also more difficult to obtain approvals and would not balance the sustainability principles of social, environmental, technical and economic.

Even if it were available for use as a substation, the site is less suitable than the site acquired because it is too far from the required service area.

A number of other sites were also considered on Pike Road and Eighty Road however those that were available were found unsuitable due to environmental factors. Other sites simply were not available for land purchase.

The current site provided a suitable sized block, located in close proximity to both the distribution and transmission network, and zoned appropriately for public purpose infrastructure. There were very few houses in the near vicinity which would allow the majority of the planned housing in the surrounding area to be informed of the substation site prior to the purchase or building of homes.

### **Is this an inappropriate development in residential area?**

It is common practice to build zone substations as close as possible to the load centre of the area they service, as this ensures they work efficiently from both a technical and economic point of view. It is therefore common for substations to be located in residential areas, and this occurs throughout the metropolitan area.

It is also important that the site is reasonably close to existing transmission lines in the area that will connect the substation to the transmission network as well as the distribution feeders that will supply the area that it is required to service.

The site in Eighty Road is only 500 metres from such a transmission line, is central to the area it will service and, being 1.58 hectares in area, will provide an adequate area on which to construct the substation and provide additional space for visual mitigation buffering.

Western Power has established substations all over the metropolitan area and in many instances they exist in much closer proximity to residential addresses than those in the vicinity of the Baldivis substation.

### **Will there be any interference to television reception, mobile phone reception or broadband mobile?**

The Australian Communications and Media Authority (ACMA) provides standards and information regarding electrical interference. There are a number of sources of electrical interference to television and radio. More information can be found on the ACMA website [www.acma.gov.au](http://www.acma.gov.au).

There are a number of self tests through the ACMA and if it is found there is interference to television or radio as a result of a powerline, Western Power will investigate the matter further. Below is an excerpt derived from information provided by ACMA which explains electrical interference caused by powerlines.

*The most likely interference occurs during dry, hot and windy weather when sparking between insulators and metal locating brackets causes two or more horizontal, speckled bands which can drift up and down the screen, usually on channels 0 to 3. A similar problem can also occur in the evenings when a dust forms on the built up dust, salt or industrial pollution that has collected on the insulators. In both instances, the interference generally clears after rainfall, however if it does not the powerline may be physically fault and should be investigated.*

No interference has ever been reported in regards to mobile and mobile broadband usage. Western Power employees working within the substation often use mobile phones for communication and have not experienced any problems. As this question has never

been raised in the past, Western Power plans to discuss the matter with Telstra to ensure the relevant information and data is obtained.

**When will the landscaping plan be ready for comment?**

The landscaping simulation and photomontages are due to be completed in April 2009. Western Power will present the landscape plan to the residents in an information session to be held shortly after the photomontages have been received. All residents will be invited to attend in order to provide feedback and suggestions about the substation. Residents will be able to provide suggestions for the appearance of the fencing, landscaping and other possible screening options.

**Will there be any pre-inspection of the buildings located near the site?**

Western Power will be engaging contractors to undertake the site works. Pre-inspections of buildings will be included as specifications in the tender document to the contractor who will be responsible for any prior investigations and choice of equipment to reduce the likelihood of any damage.

Western Power will ensure that this part of the tender specifications is upheld by the contractor.

**When was the site zoned for the use as a substation and was community consultation undertaken at that stage?**

In 1997 the zoning of the site was changed from "Government Requirements" to "Substation" under the Planning Scheme. This was carried out by the Department of Land and Administration and included consultation with the Ministry of Planning and the City of Rockingham. No objections were received from either party. In 1998 the site was rezoned "State Energy Commission of Western Australia" from "Public Purposes" under the Metropolitan Regional Scheme.

The rezoning represented a significant change in the scheme and as such a three month advertisement period was initiated between 1998 and 1999 to notify the community of the change. It was advertised in the *West Australian*, *Sunday Times*, *Government Gazette*, local papers and at various government offices asking for public comment. No objections were received. The advertising constituted the required public notification for the acquisition and rezoning of the land.

**Will Western Power move the site?**

Western Power has already gone through due process to have the Crown Land site vested for its use by the State Government in 1997 and signs were erected on the site to inform the general public and the local community of its planned usage since that time.

Western Power has identified Lot 780 Eighty Road as the best site for the Baldvis substation on the balance of environmental, technical, economic and social factors.

**What are the increases in energy demand in area that have resulted in the need for the Baldvis substation?**

Due to the significant growth in the Baldvis area an additional zone substation is required. This substation will offload the existing Meadows Springs, Rockingham and Medina substations which through the interconnected distribution network have been

supplying electricity to Baldivis and its surrounding areas. The Baldivis substation will ensure a reliable source of electricity for the area and for its future growth.

**Will Western Power offer residents compensation for building the substation?**

With regards to compensation payments, Western Power is legally bound to work within the current State legislations. This includes the Land Administration Act 1997, which fixes the items under which compensation can be claimed, and the Energy Operators (Powers) Act 1979.

The latter Act states that compensation is only payable for the acquisition of an easement for a transmission line above 200 kV. With regards to substation developments, pecuniary realisation is made only in situations where land is purchased from the landowners. The legislation does not allow Western Power to pay compensation for residents close to substations.