Western Sydney Supply Project

Holroyd Substation

REVIEW OF ENVIRONMENTAL FACTORS – SUMMARY DOCUMENT

TransGrid

The Western Sydney Supply Project is an investment to secure Sydney's power supply for the future. This project is just one part of a five year, $2.4 billion plan by TransGrid to build new or upgrade existing substations and transmission lines across New South Wales.

Holroyd substation

As part of the Western Sydney Supply Project, a new 330/132 kV substation will be built at Hyland Road, Greystanes. The new substation is critical in supplying electricity to Integral Energy who then distribute to your homes and businesses. The substation will be purpose built and contain state of the art equipment and transformers. The substation will be built to the highest environmental standards.

Who is TransGrid?

TransGrid is the owner, operator and manager of the New South Wales high voltage transmission network. It is TransGrid's job to ensure the safe and reliable delivery of electricity around New South Wales.

Why is it needed?

Sydney's population is expected to increase by 1.1 million in the next 25 years. This means another 640,000 new homes and over 6.8 million square metres of new commercial space will place increasing demands on the electricity supply.

Planning approval and legislation

Environmental assessment for the project must be carried out in accordance with the *Environmental Planning and Assessment Act 1979* (The Act). A *Review of Environmental Factors* (REF) has been prepared as required under Part 5 of The Act, to assess the potential environmental impacts this project may have.

Impact assessment and environmental management

Identified impacts such as noise, traffic and air quality are limited to the construction phase and will be short term. A *Construction Environmental Management Plan* (CEMP) will be developed to manage and minimise these impacts.

An *Environmental Management Representative* will be appointed to regularly monitor and inspect the environmental performance of construction activities.

A summary of potential impacts is provided below. A full copy of the REF is available on TransGrid's website or on CD by request.

Land use

A 3.5 hectare site has been purchased on Hyland Road, Greystanes for the new substation. The Hyland Road Rifle Range and Pigeon Club share facilities will be relocated to the northern section of the Hyland Road Regional Park by Holroyd City Council.

Flora and Fauna

A flora and fauna assessment has been undertaken in accordance with the relevant legislation. The majority of the site has already been modified and disturbed. No threatened flora or fauna species or potential high quality habitat have been identified on the site.

Visual amenity and landscaping

A *Visual Impact Assessment and Landscaping Plan* have been prepared. The substation will generally have a low visual impact. Artist impressions of the proposed substation from various viewpoints have been developed and used as the basis for this assessment.

Screening vegetation will be planted around the substation to screen it from sensitive viewpoints.

Visualisation of Holroyd Substation from the southwest.

Visualisation of Holroyd Substation from the north.

Traffic and access

During construction, there will be two access points to the construction site from Hyland Road, one major access at the western end and one further north. The north-south portion of Hyland Road may need to be widened to accommodate transformer deliveries. Two *Traffic Management Plans* (TMPs) will be prepared, one for delivery of the transformers and one for the construction phase. The TMPs will detail access arrangements and measures to minimise any impacts to local traffic.

Major deliveries will be in consultation with the RTA and Holroyd City Council to ensure minimal impact on the local road network.

During operation, access to the substation will be from Hyland Road. As the substation, will be unmanned and remotely monitored by TransGrid, day-to-day traffic to the site will be minimal. On-site parking will be provided for staff and contractors.

Indigenous heritage

An indigenous heritage assessment has been undertaken, which included consultation with the local Aboriginal Land Council. The assessment found the site has a low potential for intact archaeological deposits. If a potential Indigenous heritage item is uncovered during construction, work will stop immediately and the Department of Environment, Climate Change and Water (DECCW) will be notified.

Non-indigenous heritage

There are two heritage items in the vicinity of the site. These include the Hyland Road Farm Group (which includes the former Hyland Road Inn, now operating as a Youth Centre) and Sydney Water's twin water pipelines linking Prospect Reservoir to Pipehead in Guildford. The substation will not have a direct impact on these items.

During construction, if any archaeological material is discovered, work will stop immediately and the NSW Heritage Office notified.

Topography, geology and soils

Prior to the REF, a number of contamination assessments were undertaken on the site and found elevated concentrations of lead and cemented asbestos fragments. These were found in the Hyland Road Rifle Range and Pigeon Club share facilities embankment and the former Holroyd City Council landfill along the eastern site boundary. As a result, a *Remediation Action Plan* has been prepared to identify options to remediate the contamination. Remediation works will be undertaken by a contractor selected by TransGrid and will be supervised by an appropriately qualified Environmental Consultant.

Water quality and hydrology

The substation has the potential to affect existing local water quality due to the generation of additional pollutants, directly attributable to the hardstand areas such as roads, roofs and other impervious areas.

To minimise potential local water quality impacts from the operation of the proposed substation, erosion and sediment controls will be installed. Such controls will include a stormwater detention basin at the down slope end of the site. The substation will also be designed to protect sensitive equipment from flooding while maintaining floodplain volumes.

A *Soil and Water Management Plan* will be prepared to manage potential water quality impacts during the construction phase.

Air quality

Impacts on air quality are expected to be minor. The main source will be vehicle emissions (although these are minimal) and dust during excavation and construction. Mitigation measures to reduce potential impacts on air quality will form part of the CEMP.

Noise and hours of work

During construction, noise mitigation measures will be implemented as part of the CEMP to ensure compliance with the DECCW *Interim Construction Noise Guidelines*. Construction work will be done in standard day time hours, Monday to Friday, 7am to 6pm and Saturdays, 8am to 1pm.

During operation, night-time noise criteria would not be met at the residential receivers on Hyland Road and future residential receivers to the north of the site within the Boral Greystanes Estate Precinct without additional noise mitigation. As a result appropriate noise mitigation measures (i.e. noise barriers) would be incorporated into the design of the proposed substation to mitigate noise impacts during the operation of the substation.

Electric and magnetic fields (EMF)

Electric and magnetic fields (EMFs) are associated with a wide range of sources, not just transmission lines and substations. They occur both naturally and are man-made. Most of the EMF's that people experience in their daily lives come from work and household electrical goods. As EMF levels reduce rapidly with distance from the source, it is distance that reduces exposure to EMFs.

The possibility of adverse health effects from EMFs has been under detailed study around the world for over 30 years and no detrimental health effects have yet been established. TransGrid recognises there is continuing scientific debate about this issue and is aware of community concern with possible health effects of exposure to EMFs.

The EMFs at the perimeter of the substation are expected to be similar to those produced by some typical household electrical appliances that are used on a daily basis. The substation would be designed in line with guidelines and principles for equivalent facilities to further minimise the risk of EMF for staff and members of the public and appropriate security will be placed around EMF emitting structures.

Waste Management

A *Waste Management Plan* will be prepared prior to construction as part of the CEMP. Waste and hazardous materials will be appropriately stored and handled to minimise the risk to both human health and the environment, during the construction and operation phases of the project.

Public display

The *Review of Environmental Factors* (REF) is now on public display. TransGrid invites you to review and comment on the REF. A full version of the REF can be downloaded from www.transgrid.com.au/westernsydneysupply or provided on CD by request. TransGrid will also display the REF at Holroyd City Council.

Have your say

Submissions on the REF will be accepted until 5pm 2nd July 2010. All submissions will be considered before TransGrid makes a determination on the project. Please send your submission to the address below or download a feedback form from the website.

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