

Sydney West

200 Old Wallgrove Road

PO Box 87 Horsley Park

NSW 2175 Australia

T (02) 9620 0777**F** (02) 9620 0384

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Territory Plan Comments
ACT Planning and Land Authority
Attention: [REDACTED]

By email : terrplan@act.gov.au

Dear [REDACTED]

Draft Variation to the Territory Plan No. 351 - West Belconnen Urban Development, Belconnen District

Please find enclosed TransGrid's comments to the Draft Variation to the Territory Plan No. 351.

As you are aware TransGrid's Canberra Substation, and a number of high voltage transmission lines are located in the subject area. TransGrid's high voltage electricity network provides bulk power that supplies the people of NSW and the ACT. It is essential that reliability of supply is ensured along with the safety of the community and security of the network.

As such it is essential that any redevelopment take into account this essential public infrastructure and TransGrid's statutory requirements to maintain its network infrastructure. Specifically the following comments apply:

The proposed rezoning the TransGrid Canberra Substation land

TransGrid opposes the proposed rezoning of its Canberra Substation to a Transport and Services zoning as this would have implications that have the potential to detrimentally impact the ability for TransGrid to operate its substation in a manner required to meet the reliability standards set for Canberra.

Any future development on land proximate to the TransGrid substation should include consideration of the existing noise environment which comprises the substation in the state that it presently stands. Any required mitigations associated with future development meeting the relevant noise criteria must be the responsibility of the proponent and not TransGrid. The rezoning should not in any way limit TransGrid's ability to operate the substation site as required to meet TransGrid's standards.

Specifically the noise standard for the current zoning of the TransGrid substation as Zone E (Broadacre) is daytime 50 dB(A) and night time 40 dB(A). The proposed rezoning to Zone F (TSZ2 – Services) would result in a more stringent noise standard at the site to daytime 45 dB(A) and night time 35 dB(A).

Surrounding lands:

The land immediately surrounding the TransGrid substation is also currently zoned as Zone E (Broadacre) or Parks and Recreation (PRZ1/PRZ2), which have similar noise criteria to Zone E. Rezoning the area immediately to the south and southwest of the TransGrid substation to RZ3-Urban Residential would have similar issues to that outlined above.

TransGrid notes that the Belconnen landfill site, green waste and Parkwood Egg Farm which were considered to be incompatible with residential development had clearance/ buffer zones created; it is suggested that a similar approach should be taken with the TransGrid substation.

Transmission Lines:

TransGrid requires access to all its transmission lines and structures along the route of the line for operation and maintenance purposes. To ensure the safety of the public and security of the transmission line it is essential that no permanent structures are located within a TransGrid easement (either registered or prescribed) area, and that safe vertical and horizontal clearances must be maintained at all times.

TransGrid's existing transmission line network should be shown on the plans and excluded from development area where it is inconsistent or does not correspond with TransGrid easement guidelines. Adherence to TransGrid's requirements in this regard is essential to maintain public safety in proximity to high voltage infrastructure.

Structure Plan – West Belconnen Land located west of Macgregor and Holt in the district of Belconnen report.

- Page 10 – Pt 83 – TransGrid will not be responsible for any noise abatement measures.
- Page 14 – Pt117 – The easement should also be to the satisfaction of the electrical infrastructure asset owner.
- Page 14 – Pt119 – TransGrid will not be responsible for any interface treatments.

Preliminary Noise Impact Assessment relating to Existing Industrial Land Uses, prepared by SLR, 13 June 2014

Specifically in relation to the Preliminary Noise Impact Assessment TransGrid provides the comments tabled below:

Executive Summary	<p>Canberra Substation – Using a computer noise prediction model based on preliminary noise measurements at the site and no mitigation, an indicative setback distance of approximately 200 to 250 m from the substation boundary was determined to comply with the residential noise limits. Noise control measures proposed to reduce this setback distance include the construction of a noise wall at the substation boundary. From the initial study, it appears that a barrier formed of a combination of earth bund and wall would be required to provide a useful increase to the area of land that is suitable for residential development (i.e. that meets the relevant ACT Zone Noise Limits) in this vicinity.</p> <p>These distances and indicative mitigation should be confirmed in a detailed assessment of noise sources at the substation, in particular the operation of transformers and circuit breakers.</p>	<p>A detailed noise assessment will be required to ensure that appropriate setbacks from the substation boundary are in place. Any mitigation associated with future development meeting the relevant noise criteria proximate to the substation is the responsibility of the proponent and not TransGrid.</p> <p>A number of restrictions apply to activities and developments within TransGrid easements to ensure the efficient and safe operations of the network. All proposed developments within an easement area (be the easement registered on title or assumed given the existing infrastructure) require written approval from TransGrid.</p> <p>Easement constraints must be adequately considered with regards to potential noise mitigation measures and other development within the area subject to the zoning variation. Of particular note, is the proposed installation of a barrier comprising a combination of earth bund and wall proximate to the substation site boundary as a noise mitigation. The noise contours provided in Appendix D of the noise report do not appear to take into consideration any development limitations within the easements and therefore do not currently represent a realistic model for noise levels surrounding the TransGrid substation.</p> <p>This noise mitigation proposal may not be compatible with TransGrid's requirements and would require consultation and approval by TransGrid and other</p>
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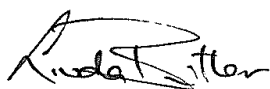
		relevant parties. The TransGrid website provides further information: www.transgrid.com.au
3.2.1 (Pg 14)	The noise assessment notes that ' <i>a number of existing residences to the east of the substation (on Slight Place and Allen Place, Holt) are closer than the predicted 35 dBA contour, by around 50 to 65m. This means that based on our current understanding of these noise sources, these residences may currently experience higher noise than the ACT zone noise standard. This in turn means that there could be a precedent for accepting marginal exceedances of the noise limits due to the operation of this facility.</i> '	TransGrid does not consider the noise report statement to adequately justify a precedent for accepting marginal exceedances of the noise limits proximate to the substation facility. Any such approach has the potential to detrimentally impact on the ability for TransGrid to operate the substation in a manner required to meet the reliability standards set for Canberra into the future. It is the onus of the proponent to meet relevant ACT zone noise standards, including the implementation of any mitigation measures.
3.2.1 (Pg 14)	The report states that ' <i>the computer noise predictions have been repeated assuming the introduction of the most likely noise mitigation control; the construction of a solid noise wall at the substation perimeter. Such a measure would be expected to provide a reduction in noise of 5 dB to 8 dB to single storey receivers. Provided in Appendix D are figures that indicate predicted noise levels following the introduction of a 5m, 8m and 10m barrier wall.</i> '	Refer to above response regarding development limitations within easements. The implications of these limitations need to be appropriately considered in the detailed noise assessment.
3.2.2 (Pg14)	With regards to corona noise, the noise report states that ' <i>On a note of precedent, in nearby locations (such as Macgregor and Dunlop to the north), large numbers of existing residences are located at 30m from electrical transmission line. This noise source would therefore appear to be a low risk, but it is recommended that a study on corona noise is undertaken during the detailed assessment of noise related to the substation, such that this risk is better understood.</i> '	TransGrid does not consider this statement as providing any relevant precedence, as the transmission lines which are referred to are of a significantly lower voltage to the 330kV transmission lines located within the area to which Draft Variation No 351 applies. As per the response to Comment 1, a number of development limitations apply within TransGrid easements.
3.3 (pg15)	Further work identified in the report includes ' <i>Where possible, provide a second indicative residential development setback distance assuming that the most typical form of noise mitigation for each source (e.g. noise barriers, acoustic attenuators, operating time limits) will be implemented. Mitigation information would include barrier heights, locations and typical selections as suitable for costing purposes.</i> '	Refer to Comment 1 response regarding development limitations within easements. Operating time limits for the substation are not acceptable or feasible under any circumstances. The future development must consider that the substation is a 24 hour/365 day site. Additionally there are technical limitations which will affect what is feasible with regard to noise barriers around any specific items of plant. The implications of the above must be appropriately considered in the detailed noise assessment. Any mitigations associated with future development meeting the relevant noise criteria proximate to the substation are the responsibility of and at the cost of the proponent, not TransGrid.

Appropriate planning and consultation are required to ensure the best outcome is achieved for the community while ensuring the safety and reliability of the high voltage network. TransGrid will continue to liaise and work with the ACT and its partners to ensure that future development can proceed in the area that is compatible with its high voltage electricity infrastructure.

TransGrid appreciates the opportunity to provide comments to the *Draft Variation to the Territory Plan No. 351 - West Belconnen Urban Development, Belconnen District* and looks forward to ongoing liaison to ensure an appropriate and mutually agreeable outcome.

Should you wish to discuss this submission or require any further information please contact Ms Linda Butler on (02) 9284 3167.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Linda Butler', with a stylized flourish above the name.

Linda Butler
Senior Land Development Officer