



TransGrid

Addendum Submissions Report

**Coppabella Wind Farm – Rebuild of
Transmission Line 99M**

Installation of an Additional Transformer at Yass Substation

October 2020

Executive Summary

A Review of Environmental Factors (REF) was prepared by TransGrid for the Coppabella Wind Farm - Rebuild of Transmission Line 99M and was determined in March 2020.

As a result of the connection of other renewable generators in the Yass region which has imposed constraints on the network, there is now a requirement to install an additional transformer at Yass 330 kV substation to support the grid connection of Coppabella Wind Farm (CWF) (the proposed modified activity). The proposed modified activity would include:

- > Construction of a new switchbay and transformer compound on the former switchyard bench, located to the immediate east of the existing Yass switchyard;
- > Installation and connection of a new 132/330 kV transformer; and
- > Minor realignment of Line 99M external to Yass substation to facilitate the entry of the rebuilt Line 99M into the new switchbay.

The assessment of the proposed modified activity is documented in the *Coppabella Wind Farm – Rebuild of Transmission Line 99M Addendum Review of Environmental Factors* (the Addendum REF) prepared by TransGrid (July 2020). The Addendum REF was placed on public display from 3 August to 7 September 2020, so that the public and stakeholders could understand the proposed activity and provide their feedback. The REF was displayed on TransGrid's website.

There were six submissions from the public and one submission from a Government agency. This report provides a summary of the issues raised in the submissions received and provides a response for each issue.

Issues Raised by the Public and Government Stakeholders

The main issues raised in the submissions received during the public exhibition period were generally related to the already approved portion of the project (Line 99M rebuild) and not specifically to the proposed modified activity (installation of a new transformer at Yass substation). This included issues such as biosecurity, planning approval process, impacts on agriculture and land use, ownership and property and access. The key issues raised which are specific to the proposed modified activity include:

- > Ownership and cost;
- > Disturbance to contaminated soil;
- > The need for the proposed modified activity;
- > Lack of transparency and consultation surrounding the need for the additional transformer; and
- > Construction noise.

Changes to the Proposed Modified Activity

Since the display of the Addendum REF and with consideration to the submissions received, TransGrid has not made any changes to the proposed modified activity, however one additional mitigation measures has been included (GS5, Appendix A).

Conclusion

Considering the information in the Addendum REF and this Submissions Report, it is concluded:

- > That the activity is not likely to significantly impact on the environment, therefore an Environmental Impact Statement under section 5.7 of the EP&A Act is not required, as Division 5.2 of Part 5 of the Act is not triggered.
- > That the activity is not (as per the Addendum REF) likely to significantly affect threatened species, populations, ecological communities or their habitats and will not be carried out in declared areas of outstanding biodiversity value and therefore a Species Impact Statement is not required.

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Document Preparation History

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RevC_FINAL	Chris Page	-	22/10/20

1. Introduction and Background

1.1 Proposed Modified Activity

A Review of Environmental Factors (REF) was prepared by TransGrid for the Coppabella Wind Farm - Rebuild of Transmission Line 99M activity and was determined in March 2020.

The approved activity described in the original REF included the rebuild of TransGrid's Transmission Line 99M (Line 99M) from the Coppabella Wind Farm (CWF) to Yass 330 kilovolt (kV) substation as a double circuit line to support the connection of the wind farm to the National Electricity Market (NEM). Line 99M forms a 132 kilovolt (kV) connection between Yass and Murrumburrah.

As a result of the connection of other renewable generation assets in the Yass region, there is now limited transfer capacity in the 132 kV network. As such, there is a requirement to connect the CWF to TransGrid's 330 kV network, which would require the installation of an additional 132/330 kV transformer at Yass substation (the proposed modified activity). Without the additional transformer, the CWF would not be able to connect into the 330 kV network.

The proposed modified activity would include (and shown in Figure 1-1):

- > Construction of a new switchbay (including new footings and supports for new high voltage equipment) and transformer compound on an approximate 8,500 m² area on the former switchyard bench, located to the immediate east of the existing Yass switchyard;
- > Installation of a new 132/330 kV transformer and auxiliary transformer within the new compound.
- > Connection of the new transformer compound and switchbay to the existing spill oil and stormwater drainage network;
- > Installation of new secondary systems for the control and protection of the new equipment including new outdoor panels in existing equipment kiosk, and associated footings and supports as required within the switchyard. Secondary systems equipment installation and upgrade works would also be carried out within the auxiliary services building;
- > Installation of cables within new cable conduits / trenches within the switchyard as required to complete the necessary connections; and
- > Overhead line crossing of the CWF transmission connection into the new switchbay through the construction of three additional concrete three-pole transmission structures. The new structures would be approximately 40 m high. Two indicative options have been proposed as shown in Figure 1-1.

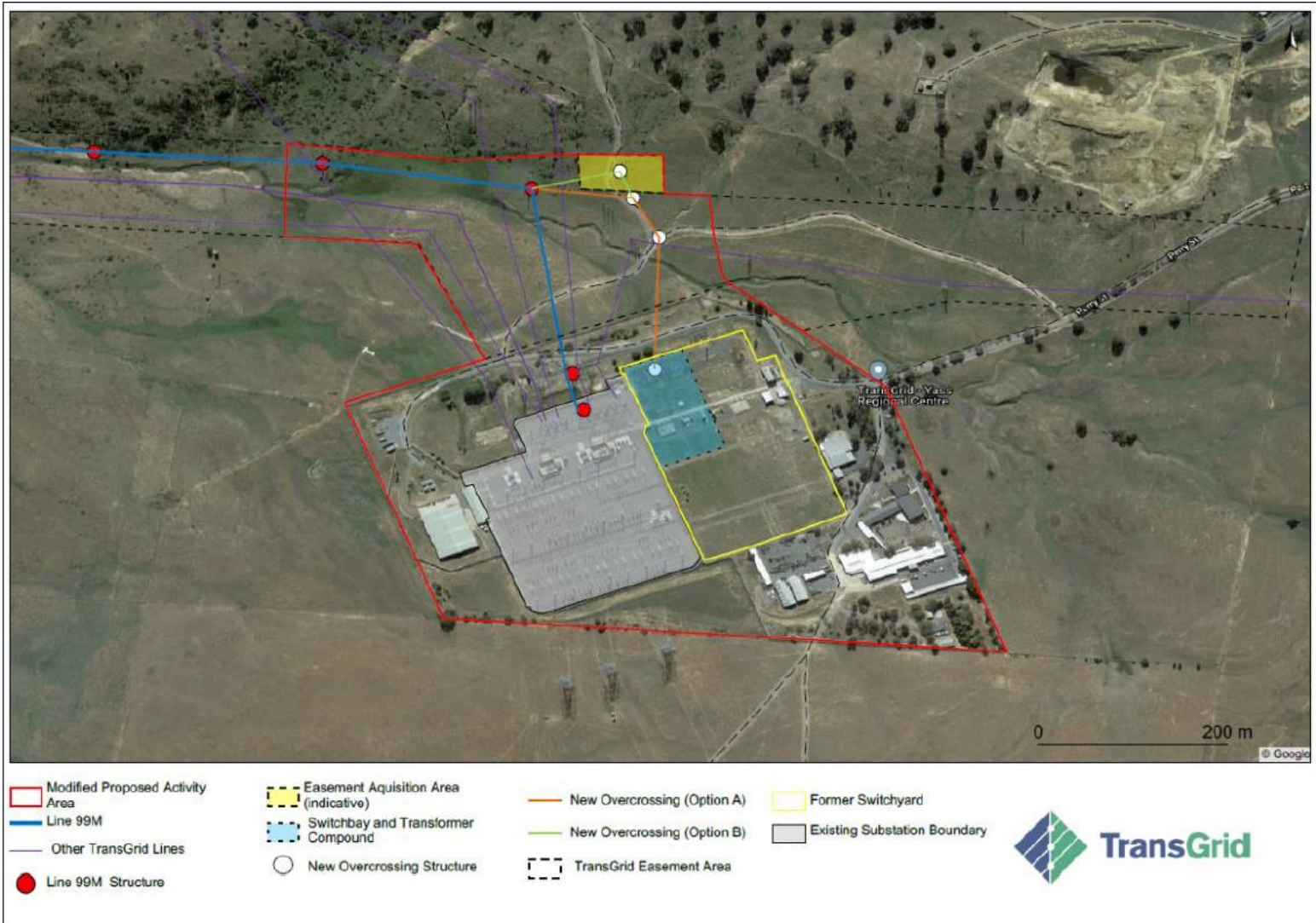


Figure 1-1: Scope of Works

1.2 Addendum REF display

TransGrid prepared the Addendum REF to assess the environmental impacts of the proposed modified activity. Consultation has been undertaken in accordance with *TransGrid Consultation Protocol for Review of Environmental Factors (REFs) for Class 4 and 5 Activities* (TransGrid, 2016). The Addendum REF was publically displayed for 26 business days between 3 August and 7 September 2020 on TransGrid's website (<https://www.transgrid.com.au/what-we-do/projects/current-projects/yass-murrumburrah-project>).

Letters were sent to key stakeholders between 29 July and 2 August 2020 advising them of the display of the REF and how they could make a submission. The key stakeholders included affected landholders adjoining the Yass substation, potentially affected landholders along the heavy vehicle transport route through Yass township, relevant Government agencies and all landholders previously consulted as part of the original REF. A phone number and email address was also provided in the letter and on the website to enable all stakeholders to contact TransGrid to find out more information.

1.3 Purpose of this report

This Submissions Report relates to the Addendum REF and should be read in conjunction with that document. The Addendum REF was placed on public display and submissions relating to the proposed modified activity and the Addendum REF were received by TransGrid.

This report summarises the issues raised in the submissions and provides responses to each issue (Section 2).

This report also fulfils the requirements as outlined in the *NSW Code of Practice for Authorised Network Operators* to document the consideration of submissions from a member of the public or a Government agency.

2. Response to Issues

2.1 Overview of Responses

TransGrid received submissions from seven respondents. A total of five submissions were from individuals, one submission from the Yass Landscape Guardians group and one submission from Hilltops Council.

The submission from Hilltops Council advised they had no objection towards the project.

The main issues raised by the community were generally related to the already approved portion of the project (Line 99M rebuild) and not specifically to the proposed modified activity. This included issues such as biosecurity, planning approval process, impacts on agriculture and land use, ownership and property and access. These issues were addressed in the Submissions Report for the original REF and are not re-examined here.

The key issues raised which are specific to the proposed modified activity include:

- > Ownership and cost;
- > Disturbance to contaminated soil;
- > The need for the proposed modified activity;
- > Lack of transparency and consultation surrounding the need for the additional transformer; and
- > Construction noise.

All six submissions lodged by the community were not supportive of the approved project and the proposed modified activity.

Each submission has been examined individually to understand the issues being raised. The issues raised in each submission have been extracted and collated, and responses to corresponding issues have been provided.

Where similar issues have been raised in different submissions from individuals, only one response has been provided.

A summary of the issues raised by the community and TransGrid's response is provided in Table 1. This also includes a summary of the issues raised that were associated with the approved project and associated responses.

Table 1 Issues Raised and Responses

Issue Category	Issue Description	Submitter Number	Response
Ownership and Cost	Who will be financing the approved activity and the proposed modified activity?	1, 2, 5	The approved project and proposed modified activity is being funded by Goldwind, the owner and operator the Coppabella Wind Farm. However, TransGrid would own, operate and maintain the transmission connection infrastructure once it is in operation. The cost of the modified activity will not be borne by electricity consumers.
	Concerns that the proposed modified activity would be borne by electricity consumers.	1, 2, 5	
Timing of Construction	The rebuild of Line 99M and the installation of the additional transformer and switchbay at Yass substation would be completed prior to the practical completion of the CWF.	1	Construction of the proposed modified activity is scheduled to commence in early 2021 and would be carried out in conjunction with the rebuild of Line 99M, which is scheduled to take approximately 18 months to complete. Construction is expected to coincide with the construction of the CWF in order to have all transmission connection infrastructure ready to connect the CWF prior to its construction completion.
Disturbance of contaminated land	The proposed modified activity would disturb land contaminated with polychlorinated biphenyls (PCBs), asbestos and chemical dumps. How much of this contamination will be correctly identified and treated accordingly?	2, 5	<p>Disturbance of contaminated land was assessed in Section 5.2 and 5.3 of the Addendum REF with the outcomes summarised below.</p> <p><i>Soil Contamination</i></p> <p>The proposed modified activity has the potential to disturb approximately 10,000 m³ of heavy metal, hydrocarbon and Polychlorinated biphenyls (PCBs) impacted soil as part of the construction of the new switchbay and transformer compound within the former switchyard area at Yass substation. A Contaminated Site Investigation (CSI) carried out by Jacobs (2017) determined that the concentration of contaminants is generally within limits that would not adversely affect human health or terrestrial/aquatic ecosystems. Notwithstanding this, any excess spoil from the switchyard would be stored, sampled and analysed by a NATA Registered laboratory and managed in accordance with the <i>Waste Classification Guidelines</i> (EPA, 2014). It would then need to be transported and disposed of at a suitably licenced facility in accordance with its waste classification. These requirement are outlined in the additional mitigation measure GS5 below.</p> <p>Per- and polyfluoroalkyl substances (PFAS) were also identified in soil samples collected across the former switchyard area at Yass substation, however the concentration of PFAS across the samples collected is within the adopted screening level limits.</p>

Issue Category	Issue Description	Submitter Number	Response
			<p>As part of the CSI, no potential asbestos containing materials (ACM) were observed in any of the soils. Notwithstanding this, any excess soil would be tested for the presence of asbestos as part of the waste classification process outlined above.</p> <ul style="list-style-type: none"> > GS5: All excess spoil generated as part of excavation works within the switchyard is to be appropriately managed, stored and disposed of in accordance with its waste classification as per the Waste Classification Guidelines (EPA, 2014). This would require the material to be tested for the presence of elevated levels of the following: heavy metals; total recoverable hydrocarbons (TRH), polycyclic aromatic hydrocarbons (PAH); benzene, toluene, ethylbenzene and xylene (BTEX), PFAS; PCBs and asbestos. <p><i>Groundwater Contamination</i></p> <p>The proposed modified activity has the potential to encounter PFAS contaminated groundwater as part of the excavation/boring for the three new transmission structures, replacement of Structure 1 to Structure 3 on Line 99M (as detailed in the original REF) and all excavation works within Yass substation. Groundwater containing PFAS, if not appropriately handled and managed, has the potential to:</p> <ul style="list-style-type: none"> > Contaminate the surrounding agricultural grazing land, terrestrial ecology and affect livestock; and > Further impact the aquatic ecology in surrounding watercourses including riparian vegetation and fish stocks. <p>To manage impacts associated with PFAS contaminated groundwater, mitigation measures (HW4 and HW5) were included in the REF Addendum which are:</p> <ul style="list-style-type: none"> > HW4: If minor dewatering is required outside the modified proposed activity area, the management of discharge water shall be documented in the CEMP. Discharge water should be limited to vegetated, grassed areas, away from waterways, and within the transmission line easement. If the discharge water is highly turbid, dewatering through a filter sock (or similar) shall be considered, where appropriate, to minimise sedimentation. > HW 5: Any groundwater encountered as part of excavation and boring works within the modified proposed activity area must be pumped from the excavation and appropriately stored prior to being classified in accordance with the Waste Classification Guidelines (EPA, 2014). The collected groundwater would then need to be managed and disposed of in accordance with its waste classification.

Issue Category	Issue Description	Submitter Number	Response
Project need and justification	Negative sentiment towards the Coppabella Wind Farm and wind energy development in general.	2, 4, 5, 6	<p>TransGrid as an Authorised Network Operator needs to make reasonable efforts to connect new generation assets to the National Electricity Market with all Connection Applications including Coppabella Wind Farm being assessed in accordance with the Australian Energy Market Commission's National Electricity Rules.</p> <p>TransGrid acknowledges that people have differing perceptions towards wind energy developments, however it should be noted that the approved project and proposed modified activity is concerned only with the connection of the Coppabella Wind Farm to the National Electricity Market. As such, if the CWF was not approved or does not progress, the rebuild of Line 99M, including the installation of a transformer at Yass to service the connection of CWF would not be required.</p>
	Lack of transparency regarding the need for the additional transformer and the Line 99M rebuild project in general.	2, 5	<p>TransGrid acknowledge that the first time the need for the additional transformer at Yass substation to support the grid connection of the CWF was communicated was at the Community Consultative Committee meeting on 22 August 2019. At that time, the concept design works had not commenced and the Line 99M Rebuild REF had already progressed beyond the public exhibition phase. Given this, it was decided that approval for the additional transformer at Yass substation would be sought by a modification once a location and concept design for the new switchbay and transformer had been determined. Project scoping and location selection for the additional transformer was carried out between August 2019 and April 2020. Once the concept scope of works for the additional transformer and switchway was finalised, the Addendum REF was prepared.</p> <p>As detailed in Section 2.2 of the Addendum REF, TransGrid's 132 kV network in the Yass region is constrained due to the introduction of other renewable generators in the region. As such, the CWF would need to connect into the 330kV network. Without the additional transformer at Yass substation, the connection of the CWF into the 330 kV network would not be possible.</p>
	The limited transfer capacity in the 132 kV network has been an ever present issue and questioning why the need for the proposed modified activity was not identified earlier.	2	<p>The decision for the CWF to connect into TransGrid's 330 kV network instead of the 132 kV network is driven by the 132 kV network in the Yass and surrounding region now being highly constrained, particularly due to the broader influx of renewable generation into the system. Further analysis in mid-2019 of the 330 kV network and existing network conditions at Yass substation determined that an additional transformer would be needed. At that stage, the original REF had already progressed and the concept design for the new transformer and associated works (as described in the Addendum REF) had not commenced. As such, it was</p>

Issue Category	Issue Description	Submitter Number	Response
			<p>decided that approval for transformer installation and associated works would be sought at a later stage once the works were appropriately scoped.</p>
	<p>The approval of CWF included the grid connection via a cut-in to Line 99M and did not include the rebuild of the line to support the direct connection at Yass substation or the additional transformer at Yass substation.</p>	<p>4, 5</p>	<p>The current line rating of Line 99M was not sufficient to accommodate the proposed generation of the CWF. While approval was sought to uprate the line by replacing the existing conductors, further network constraint studies determined that the line would still be constrained under certain operating conditions. As such, rebuilding Line 99M as a double circuit line between the CWF and Yass substation is required to support the direct connection to Yass substation.</p> <p>Further assessment determined that the constraints on the 132 kV network as a result of the connection of other renewable generation assets in the surrounding region has now meant that the grid connection of the CWF would need to occur via TransGrid's 330 kV network. To support the grid connection at 330 kV, an additional transformer at Yass substation (as detailed in the Addendum REF) is required to step-up the voltage from 132 kV to 330 kV.</p>
<p>Community Consultation</p>	<p>Lack of direct face to face (including public forum) community consultation directly associated with approved Line 99M rebuild and partly the proposed modified activity.</p>	<p>3</p>	<p>This Addendum REF relates only to the proposed modified activity at Yass substation to support the grid connection of the CWF. Based on works being generally confined to the Yass substation site and the adjoining land, it was not deemed necessary to hold face to face discussion with the wider community. All stakeholders previously consulted, including residents in Yass who may be potentially affected by construction noise, primarily due to traffic movements were notified of this proposed modified activity in writing between 30 July and 2 August 2020.</p> <p>Given the minor scope of the proposed modified activity and the limited scope for impacts to the community, direct face to face meetings were not considered necessary.</p> <p>TransGrid commits to undertake ongoing consultation with landholders well in advance of works commencing to discuss access arrangements, crops and stock management and other issues raised in relation to works associated with the proposed modified activity and the broader approved project.</p>
<p>Construction Noise</p>	<p>Concerns over elevated construction noise.</p>	<p>5</p>	<p>Construction noise was assessed as part of the original REF (refer to Section 6.7) and the Addendum REF (refer to Section 5.5), which determined the following:</p> <ul style="list-style-type: none"> > Elevated construction noise may be experienced at nearby residential dwellings as part of the transmission lien rebuild works, however is expected to be short term and intermittent in nature.

Issue Category	Issue Description	Submitter Number	Response
			<p>> Elevated construction noise is predicted to occur at surrounding residential dwellings as part of the construction works at Yass substation for the new switchbay and transformer installation.</p> <p>Although elevated noise levels are predicted, the predicted construction noise levels do not represent a constant emission that would be experienced by the community on a daily basis throughout the project's schedule of works. Potentially noise affected properties would be notified as to the timing and duration of the construction works at least 7 days prior to commencing work.</p>

Other Issues Raised that were not directly related to Proposed Modified Activity

Agriculture and Land Use	Biosecurity Risks	3, 6	<p>TransGrid is committed to ensuring the risk of weed and pathogen infestation into agricultural areas is minimised as far as practicable. TransGrid would consult directly with the landholders prior to the commencement of construction to understand any specific biosecurity risks/issues on the subject land and incorporate any specific mitigation measures into the Construction Environmental Management Plan.</p>
	Damage to agricultural land	3, 6	<p>To access the transmission line easement, construction vehicles would use the existing access roads and access routes. Additionally, some new tracks would need to be constructed as outlined in Section 3.2 of the original REF. Disturbances to farm operations including stock movements would be minimised through consultation with landholders on an individual basis.</p> <p>TransGrid acknowledges that the physical presence of the construction works may cause disturbance to landholders as part of the movement of construction vehicles and works occurring within the transmission line easement. TransGrid is committed to undertaking any repair works of any tracks and watercourses which may be damaged during construction in consultation with individual landholders. Additionally, remediation of disturbed areas at the transmission tower and brake and winch sites would be carried out in consultation with the landholder.</p> <p>Where direct disturbance and/or crop damage has occurred as part of the construction works (e.g. crop damage/ temporary loss of agricultural land from a construction bench), TransGrid would offer compensation to the landholder for that loss. Compensation payment would be determined on a case-by-case basis in consultation with individual landholders.</p>

Issue Category	Issue Description	Submitter Number	Response
Alternatives to connect CWF to the grid.	Connect to the proposed new HumeLink transmission infrastructure.	6	<p>Connection to the proposed 500kV HumeLink transmission infrastructure would not be a feasible alternative to connect the CWF to the grid due to:</p> <ul style="list-style-type: none"> > The alignment of the HumeLink lines has not been determined and may not be suitably located for a connection. Should a connection to HumeLink be considered possible, > A new transmission line to connect the CWF to the HumeLink line would still be required.. > The anticipated commissioning date of HumeLink is late 2024, which would not coincide with the grid connection requirements for the CWF.
Bushfire	Bushfire risk during both construction and operation.	3	<p>The rebuild of Line 99M and the proposed modified activity has followed TransGrid's internal design, operational and maintenance guidelines.</p> <p>During construction and maintenance activities, all works would be undertaken in accordance with TransGrid's Hot Works and Fire Risk Procedure. This procedure includes identification and management of potential ignition sources during construction works including during a Total Fire Ban or Catastrophic fire weather.</p>

3. Updated Activity Description and Environmental Management

3.1 Activity Description

Following the display of the Addendum REF and consideration of submissions received, no changes to the proposed activity as described in Chapter 2 of the Addendum REF have been made (reproduced in Section 1.1 of this Submissions Report).

3.2 Environmental Management

Appendix A of the Addendum REF identified mitigation measures for implementation. The issues raised in the submissions have been considered and one new mitigation measure has been included (GS5). The full complete revised summary of mitigation measures is include in Appendix A of this report.

4. Conclusion and Next Steps

The conclusion as described in Chapter 8 of the Addendum REF has not changed. Considering the information in the Addendum REF and this Submissions Report, it is concluded:

- > That the activity is not likely to significantly impact on the environment, therefore an Environmental Impact Statement under section 5.7 of the EP&A Act is not required, and Division 5.2 of Part 5 of the Act is not triggered
- > That the activity is not likely to significantly affect threatened species, populations, ecological communities or their habitats and will not be carried out in declared areas of outstanding biodiversity value and therefore a Species Impact Statement is not required.

TransGrid is therefore able to make a determination of the activity's impacts based on the information in the Addendum REF and this Submissions Report. The Addendum REF and Submissions Report provide a true and fair review of the activity in relation to its potential effects on the environment. They address, to the fullest extent possible, all matters affecting or likely to affect the environment as a result of the activity.

Once TransGrid has completed its assessment of the Addendum REF and this Submissions Report, a decision statement will be prepared which may include recommended conditions of approval. A copy of the decision statement, Submissions Report and the Addendum REF will be published on TransGrid's website following a determination.

Appendix A Revised Summary of Mitigation Measures

Mitigation Measures	
Environmental Management and Incident Response	
EM1	A Construction Environmental Management Plan (CEMP) shall be prepared and submitted by the Contractor to Environment – HSE/ TransGrid for review and endorsement four weeks prior to the commencement of works, including site establishment. The CEMP shall be prepared in accordance with TransGrid’s procedure <i>Preparation of a Construction Environmental Management Plan</i> .
EM2	All works shall be undertaken in accordance with the TransGrid Environmental Handbook.
EM3	All workers shall be inducted onto the Environmental Management Plan, site environmental conditions and sensitivities identified in this REF and receive training as appropriate. All workers shall receive Aboriginal heritage awareness training. Records shall be kept of this induction and training.
EM4	An Environmental Supervisor shall be included as part of the construction staff to oversee implementation of the Environmental Management Plan and to ensure that all mitigation measures are being effectively applied. In addition to the Contractors Environmental Supervisor, TransGrid shall appoint an Environmental Inspector to regularly check that the work is being carried out in compliance with all environmental approval and legislative conditions.
EM5	The following additional environmental approvals/licences/permits are required for the activity: <ul style="list-style-type: none"> > A Section 138 permit and Road Occupancy Licence shall be obtained from Roads and Maritime Services (RMS) prior to carrying out works in, on or over Hume Highway which is a classified road. > A permit is required to be obtained from NSW Department of Primary Industries-Fisheries (DPI-Fisheries) for the proposed watercourse crossing works at: <ul style="list-style-type: none"> - Booroo Creek (1st order watercourse) between Structures 8-9. - Booroo Creek (4th order watercourse) between Structures 9-10. - Illalong River (4th order watercourse) to access Structure 99 and 100. - Balgala Creek (3rd order watercourse) between Structures 122 and 123. - Bobbara Creek (5th order) to access Structure 143 from Coppabella Road. > Controlled Activity Approval to be sought from NSW Department of Primary Industries-Water prior to carrying out works at same locations listed above. > Aboriginal Heritage Impact Permit for works at Structures 11 and 12 on Line 99M.
EM6	All environmental incidents and near misses shall be reported to TransGrid. All pollution incidents that threatens or harms the environment shall be reported immediately to relevant authorities, in accordance with the <i>Protection of the Environment Operations Act 1997</i> (POEO Act).
EM7	Environmental spill kits containing spill response materials suitable for the works being undertaken shall be kept on site at all times and be used in the event of a spill. Any spills shall be contained, cleaned up promptly and immediately reported to the TransGrid site representative.
EM8	All chemicals or other hazardous substances shall be stored in a bunded area and away from any drainage lines/pits. The capacity of the bunded area shall be at least 130% of the largest chemical

Mitigation Measures

	volume contained within the bunded area. The location of the bunded enclosure/s shall be shown on the Site Plans.
EM9	Any environmentally sensitive areas shall be clearly delineated and shown on Site Plans and identified on site.
EM10	A REF Close Out Report shall be prepared at the conclusion of the construction of the proposed activity to document how and whether the conditions and measures were observed, and the nature of and reasons for any non-compliance.

Land Use

LU1	Ongoing consultation shall occur with all affected landholders prior to and during construction to allow the planning of activities on their land which may conflict with the construction works. Landholder requirements shall be discussed on an individual basis.
LU2	On completion of the work disturbed areas shall be stabilised, and returned to as close to original condition or as otherwise agreed with the landholder. TransGrid is to undertake any repair works of access tracks and watercourses which have been damaged during construction in consultation with the landholder.

Geology and Soils

GS1	An Erosion and Sediment Control Plan (ESCP) shall be prepared as part of the CEMP. All erosion and sediment control measures shall be designed, implemented and maintained in accordance with relevant sections of “ <i>Managing Urban Stormwater: Soil and Construction Volume 1</i> ” (Landcom, 2004) (‘the Blue Book’) (particularly Section 2.2) and “ <i>Managing Urban Stormwater: Soil and Construction Volume 2A – Installation of Services</i> ” (DECC, 2008a)”. The ESCP shall include stockpiles, stormwater run-off, trees, site boundaries, site access and storage areas. Exposed surfaces shall be kept to a minimum to limit the potential for erosion. Erosion and sediment controls shall remain in place and be monitored and maintained until such time the site has been stabilised.
GS2	Any imported fill shall be certified at source location (e.g. Quarrymaster or property owner) as pathogen and weed free Excavated Natural Material (ENM) or Virgin Excavated Natural Material (VENM) in accordance with the <i>Protection of the Environment Operations Act 1997</i> (POEO Act) and the <i>Protection of the Environment (Waste) Regulation 2014</i> (POEO Waste Regulation).
GS3	Any material or soil suspected of showing evidence of contamination shall be sampled and analysed by a NATA Registered laboratory and managed in accordance with the <i>Waste Classification Guidelines</i> (EPA, 2014), <i>the Guidelines on the Duty to Report Contamination</i> (EPA, 2015) and the <i>Contaminated Land Management Act 1997</i> .
GS4	Access tracks off public roads shall not be used in wet weather conditions where there is a risk of damage to the tracks which could cause soil erosion and sediment control issues.
GS5	All excess spoil generated as part of excavation works within the switchyard is to be appropriately managed, stored and disposed of in accordance with its waste classification as per the <i>Waste Classification Guidelines</i> (EPA, 2014). This would require the material to be tested for the presence of elevated levels of the following: heavy metals; total recoverable hydrocarbons (TRH), polycyclic aromatic hydrocarbons (PAH); benzene, toluene, ethylbenzene and xylene (BTEX), PFAS; PCBs and asbestos.

Hydrology and Water Quality

HW1	Spoil shall be stockpiled in a manner so as to avoid the possibility of sediments entering watercourses (including stormwater drains) or migrating off-site.
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Mitigation Measures

HW2	Any bulk fuel or hazardous material transport vehicles shall be parked on level ground a minimum of 40 m away from watercourses (including drainage line). No refuelling or bulk herbicide preparation shall occur within 40 metres of a watercourse.
HW3	Watercourse crossings shall be constructed in accordance with the <i>Fisheries Management Act 1994, Policy and guidelines for fish habitat conservation and management 2013, Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings</i> (Fairfull and Witheridge, 2003), <i>Controlled Activity Guidelines</i> under the <i>Water Management Act 2000</i> (WM Act) and the DPI - <i>Water's Guidelines for watercourse crossings on waterfront land</i> .
HW4	If minor dewatering is required outside the modified proposed activity area, the management of discharge water shall be documented in the CEMP. Discharge water should be limited to vegetated, grassed areas, away from waterways, and within the transmission line easement. If the discharge water is highly turbid, dewatering through a filter sock (or similar) shall be considered, where appropriate, to minimise sedimentation.
HW5	Any groundwater encountered as part of excavation and boring works within the modified proposed activity area must be pumped from the excavation and appropriately stored prior to being classified in accordance with the <i>Waste Classification Guidelines</i> (EPA, 2014). The collected groundwater would then need to be managed and disposed of in accordance with its waste classification.

Ecology

EC1	Ground disturbance (including vehicle movements) and vegetation clearing shall not occur within any of the mapped areas containing White Box Yellow Box Blakely's Red Gum Woodland EECs and Derived grassland of the NSW South Western Slopes (refer to Figure 6-2 and Figure 6-3 of the REF).
EC2	Weed control mitigation and management strategies shall be documented and implemented in accordance with the CEMP. All herbicide selection and use shall be in accordance with TransGrid requirements.
EC3	Ground disturbance works and plant traversing the site shall avoid Wombat (<i>Vombatus ursinus</i>) burrows identified near Structures 10, 11 and 13 and any other burrows which may occur within the study area.
EC4	Any fallen timber, dead wood and bush rock (if present) encountered on site shall be left in situ or relocated to a suitable place nearby.
EC5	Consultation with DPI Fisheries would be carried out as part of the design of all watercourse crossings upgrade and construction works to ensure the designs meet relevant requirements and to confirm if a Part 7 Permit is required.
EC6	Consultation with the landholder would be carried out prior to any undertaking any clearing of planted vegetation along the following Spans 19-20, 21-23, 27-28, 30-31, 62A-63, 88-89, 96-98 and 114-115.
EC7	Any disturbed riparian areas would be remediated with native endemic vegetation as appropriate.
EC8	Consultation with each landholder shall occur prior to the commencement of construction to understand any biosecurity risks specific to their land. Any properties with an on-farm biosecurity plan shall be complied with and specific measures incorporated in the CEMP.

Heritage

Mitigation Measures

HE1	AHIMS 51-4-0392 (Yass River-OS1) - To manage the unavoidable impact to the site, an Aboriginal Heritage Impact Permit (AHIP) pursuant to Section 90 of the <i>National Parks and Wildlife Act 1997</i> shall be sought from the NSW Office of Environment and Heritage prior to any works occurring at Structure 11 and 12. Once obtained, all works at these locations must comply with the conditions outlined in the AHIP.
HE2	<p>To protect AHIMS 50-5-0027 (Booroo Ponds 1) and the associated sensitive terrace landform the following measures shall be implemented:</p> <ul style="list-style-type: none"> > No ground disturbance associated with improving access through the gate on the existing access track to structure 10 shall occur north of GDA Zone 55 672249E; 6142442N as shown in Figure 6-7. > Works in the area should take place in dry weather to minimise ground churning. > All ground disturbance works within the terrace landform (area west of the fence line) must be kept to a strict minimum > As much as possible, the depression in the terrace (former erosion) should be utilised as the location of the access track/earth works as shown in Figure 6-7.
HE3	<p>In the event that a site or artefact (as defined by the <i>National Parks and Wildlife Act 1974</i> or <i>Heritage Act 1977</i>) is identified during construction works, works shall cease at the location and no further harm to the object shall occur. The find shall be immediately reported to TransGrid, and the regulator in accordance with legislation. No work shall commence in the vicinity of the find until any required approvals have been given by the regulator. In the event that skeletal remains are encountered during the activity, works must stop immediately, the area secured to prevent unauthorised access and NSW Police, OEH and TransGrid contacted.</p>

Noise and Vibration

NV1	<p>Noise generating works shall be in accordance with the <i>Interim Construction Noise Guideline</i> (DECC, 2009):</p> <ul style="list-style-type: none"> > 7:00am – 6:00pm Monday to Friday. > 8:00am – 1:00pm Saturdays. > No work on Sundays or Public Holidays. <p>Work outside normal hours, on Sundays and public holidays shall only comprise:</p> <ul style="list-style-type: none"> > The delivery of materials outside normal hours requested by police or other authorities for safety reasons. > Emergency work to avoid the loss of lives and/or property. > Work timed to correlate with system planning outages. <p>Other noise generating works outside of the standard construction hours shall require the prior formal written consent of Environment - HSE/TransGrid and require justification in accordance with the Guideline.</p>
NV2	<p>Noise affected neighbouring properties shall be notified as to the timing and duration of the construction works at least 7 days prior to commencing work. The notification shall provide details on who to contact should they have any issues or require further information. Noise affected properties in Yass include:</p> <ul style="list-style-type: none"> > Yeo Crescent – Numbers 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63 > Merriman Drive – Numbers 67, 69, 70

Mitigation Measures

- > Victoria Street – Numbers 3, 11/9, 10/9, 9/9, 8/9, 7/9, 6/9, 5/9, 4/9, 3/9, 2/9,1/9, 11, 13, 15, 19, 21, 25, 27, 31, 33, 35, 37, 45, 47, 49,51, 53
- > Cobham Street – Numbers 49. 51, 53, 55, 57, 59, 61, 54, 58, 74, 62,60
- > Perry Street- Numbers 1A, 1B, 1C, 1, 3, 5, 7, 9, 11, 13, 15, 19, 21, 23, 25, 27, 29, 31, 33, 30, 26, 24, 18, 16, 14, 12, 10
- > Grand Junction Road. Number 114

Traffic and Access

TA1	Transportation and equipment delivery movements on public roads shall be in accordance with RMS and Council requirements.
TA2	Access track works shall be constructed in accordance with the <i>Soils and Construction Volume 2C Unsealed Roads (DECC, 2008)</i> .
TA3	Traffic, transportation and access mitigation and management strategies shall be documented and implemented in accordance with the CEMP and updated as required. This shall include: <ul style="list-style-type: none"> > The management of the delivery of equipment and materials. > Access to and from the site including nominated roads and site access tracks should be undertaken in consultation with the landholder. > Traffic management to be implemented for conductor, OPGW and earth wire road crossings > Parking. > Speed limits. > Road occupancy licence conditions.

Air Quality and Climate Change

AQ1	If necessary, dust suppression techniques shall be implemented, and incorporated into the Environmental Management Plan, as per the techniques outlined in the “Blue Book”, such as water spraying of surfaces, covering stockpiles and covering surplus soils and materials during transportation.
AQ2	Air quality mitigation and management strategies shall be documented and implemented in accordance with the CEMP. This shall include: <ul style="list-style-type: none"> > Reducing vehicle speeds when in the vicinity of residences to minimise the generation of nuisance dust. > Progressively revegetating or otherwise rehabilitating disturbed areas as works are completed.

Visual Amenity

VA1	All construction plant, equipment, waste and excess materials shall be contained within the designated boundaries of the work site and shall be removed from the site following the completion of construction.
VA2	TransGrid shall undertake further direct consultation with each landholder to identify opportunities to further minimise impacts on visual amenity.

Waste

WA1	Waste mitigation and management strategies shall be documented in the Construction Environmental Management Plan, and be in accordance with TransGrid Waste Procedures and associated Work Instructions.
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Mitigation Measures

WA2	All waste, including surplus soils, which cannot be reused shall be classified in accordance with the <i>Waste Classification Guidelines</i> (EPA, 2014), removed from the site and disposed of at a facility that can lawfully accept the waste in accordance with the POEO Act and POEO Waste Regulation.
WA3	Concrete trucks shall be permitted to flick wet wipe their discharge chutes with the effluent discharged into prepared bored holes, prepared excavations/formwork or a watertight receptacle for recycling or disposal. No concrete washout or agitators is permitted.
WA4	Wooden poles, including pole butts, shall be disposed of in accordance with the TransGrid document – <i>Waste Management of Timber Poles</i> or gifted to landholders in accordance with the OEH's ' <i>Protocols for recycling redundant utility poles and bridge timbers in New South Wales</i> ' (2011) and TransGrid requirements. If gifted, TransGrid shall provide the landholder information on what the pole is treated with, how to appropriately handle treated timber, and what it can and cannot be used for.

Electric and Magnetic Fields

EF1	All designs shall be in accordance with the International Commission on Non-Ionizing Radiation Protection (ICNIRP) Guidelines for limiting exposure to EMF (ARPANSA 2010).
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Social and Economic Considerations

No Additional Mitigation Measures

Bushfire

BF1	All works shall be undertaken in accordance with TransGrid's Hot Works and Fire Risk Work Procedure.
BF2	Fuels and other hazardous materials shall be stored to minimise potential impacts on bushfires.

Cumulative Impacts

No Additional Mitigation Measures