Appendix C NSW Department of Climate Change, Energy, the Environment and Water – Environment and Heritage detailed response

Guide to Appendix C: NSW Department of Climate Change, Energy, the Environment and Water – Environment and Heritage detailed response

The former Department of Planning and Environment – Biodiversity, Conservation and Science Directorate (now NSW Department of Climate Change, Energy, the Environment and Water – Environment and Heritage (NSW DCCEEW Environment and Heritage) provided a response to the public exhibition of the Environmental Impact Statement (EIS) dated 8 November 2023.

Due to the level of detail in the submission received, the responses to the issues provided on the EIS and *Technical Report 1 – Biodiversity Development Assessment Report* of the EIS are provided in the following tables. Responses to issues provided on *Technical Report 11 – Hydrology and Flooding Impact Assessment* of the EIS (included in Attachment C1 of NSW DCCEEW Environment and Heritage's submission) are provided in Chapter 5 (Response to government agency and public authority submissions) of the main body of the Submissions Report (refer to Section 5.4.1).

Table C-1 provides responses to issues and recommendations raised in Attachment A and Attachment C2 of NSW DCCEEW Environment and Heritage's submission. Table C-3 provides responses to issues and recommendations raised in Attachment B of NSW DCCEEW Environment and Heritage's submission. Responses are predominantly focussed on the recommendations provided by NSW DCCEEW Environment and Heritage, however, responses to specific issues raised in the submission are provided where relevant.

Please note that issues detailed in Attachment C2 of NSW DCCEEW Environment and Heritage's submission included several figures to support the issue raised. These figures can be found here: NSW DCCEEW Environment and Heritage's submission dated 8 November 2023. The issues identified in the figures have been resolved in preparing *Technical Report 1 – Revised Biodiversity Development Assessment Report* and responses to these issues have been included in the responses below, where required.

Cross-references to *Technical Report 1 – Revised Biodiversity Development Assessment Report* have been provided where relevant, eg for further information and/or demonstration of how the issue has been considered in the revised assessment for the amended project.

Abbreviations and acronyms used in the following tables include:

Acronym	Description
APZ	Asset Protection Zone
BAM	Biodiversity Assessment Method
BAM-C	Biodiversity Assessment Method Credit Calculator
BC Act	Biodiversity Conservation Act 2016
BC Reg	Biodiversity Conservation Regulation 2017
BCD	Biodiversity Conservation Division of the former NSW Department of Planning and Environment
BCS	Biodiversity, Conservation and Science Directorate of the former NSW Department of Planning and Environment
BDAR	*Technical Report 1 – Biodiversity Development Assessment Report* of the EIS

Acronym	Description
BGW	Box Gum Woodland, ie White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South-Eastern Highlands, NSW South-Western Slopes, South-East Corner and Riverina Bioregion listed under the BC Act
BMP	Biodiversity Management Plan
BOS	NSW Biodiversity Offsets Scheme
CA	conservation agreement
CEEC	Critically Endangered Ecological Community
ECZ	easement clearing zone
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
HTZ	hazard tree zone
IBRA	Interim Biogeographic Regionalisation for Australia
MNES	Matters of National Environmental Significance (from the EPBC Act)
NPWS	National Parks and Wildlife Service
NSW DCCEEW Environment and Heritage	NSW Department of Climate Change, Energy, the Environment and Water – Environment and Heritage
PCT	plant community type
PMST	Protected Matters Search Tool
Revised BDAR	*Technical Report 1 – Revised Biodiversity Development Assessment Report*
RTS	response to submissions
SBAS	Supplementary Biodiversity Assessment Strategy
SAII	Serious and Irreversible Impacts
SEARs	Planning Secretary's Environmental Assessment Requirements
SEED	NSW Government's Sharing and Enabling Environmental Data portal
TBDC	Threatened Biodiversity Data Collection
TEC	Threatened ecological community
TCZ	total clearing zone
VI	Vegetation Integrity as calculated by the BAM Calculator

Table C-1 Detailed responses to Attachment A and Attachment C2 issues

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
1. Likely SAII to Box Gum Woodland CEEC, Tableland Basalt Forest CEEC & further information required to address SAII for other impacted SAII entities					
A. Section 8.1 of the BAM Attachment 13 of the BDAR	The loss of Box Gum Woodland (BGW) CEEC and Tableland Basalt Forest CEEC is likely to be greater than estimated and likely to result in SAII: • The loss of BGW and Tableland Basalt Forest CEEC is likely to be greater than estimated in the EIS (direct impact to 311.78 ha BGW and 37.42 ha Tableland Basalt Forest CEEC) due to underestimated and unaccounted impacts, indirect impacts that have not been quantified or mitigated. • The data indicates some CEECs may be inappropriately zoned as low condition and there are inconsistent calculations of direct impacts between BDAR, spatial data and BAM-C related cases. • The offset strategy for BGW and Tableland Basalt Forest lacks any detail and does not meet the SEARs.	The BDAR estimates the project will directly impact 311.78 ha of 3,137 ha BGW mapped within the project footprint. Loss of function due to indirect impacts including fragmentation of intact remnants has not been quantified. The BDAR reports the project will directly impact 37.42 ha of 176.85 ha of predominantly high condition Tableland Basalt Forest within the project area. The BDAR acknowledges there is a likely risk of SAII to both CEECs. BCD agrees there is a likely risk of SAII and that this loss may be greater due to further unquantified impacts associated with currently unidentified access ways that will be required for construction, continued operation and maintenance (refer Figure 2-7 below). There is insufficient detail and evidence to support assumptions of impact minimisation and mitigation. Data indicates some misidentification of low condition areas (zones) where VI scores of up to 70 have been included in vegetation zoned as low condition (for example Figure 1). There are inconsistent calculations of direct impacts to native vegetation between the BDAR, spatial data and BAM-C related cases. While some errors are minor, others differ by hectares within a vegetation zone or partial clearing zone and suggest impacts could be greater to all TECs than presented in the EIS. No additional offsets have been calculated for indirect impacts and no adaptive management or other conservation measures proposed for risk of failed mitigation, such as inability to avoid at re-design stage. There are no detailed offset measures proposed for consideration in the SAII assessment. [Refer to NSW DCCEEW Environment and Heritage's submission for figures]	Response to submissions	1.1 Revise vegetation condition mapping across BGW and Tableland Basalt Forest plant community types (PCTs). 1.2 Revise the impact assessment to consider all areas subject to surface impacts including areas subject to temporary impacts and access ways required for construction, operation and continued maintenance within and between the total and easement clearing zones and hazard tree zones (TCZ, ECZ and HTZ), and any areas required for any sediment and erosion control measures. Where existing access tracks are to be used, these should be clearly marked within the EIS and spatial data. 1.3 Identify location and extent of all indirect impacts that are mappable and include these in the assessment documentation. 1.4 Identify the CEEC to be avoided – or CEEC protection zones on BDAR maps, figures and in the datasets that will be used for detailed design and construction planning to support the assumptions of avoided and minimised impacts to SAII BGW and Tableland Basalt Forest. 1.5 Detail the measures that will be used to provide immediate and ongoing protection of these CEEC's before, during and after construction that are to be incorporated into the post-approval plans. 1.6 Provide Transgrid operational procedures to support the impact assessment in regard to retention of CEECs in ECZs and HTZs. 1.7 Provide revised BDAR and SAII assessment based on the above recommendations and any re-calculation of residual impacts, including for indirect impacts. 1.8 Identify a maximum clearing footprint and provide this to BCD for evaluation prior to approval. 1.9 Revise the BDAR to provide additional and appropriate measures to minimise the risk of SAII in accordance with section 7.16(3) of the BC Act, to be agreed with BCD prior to approval. 1.10 Provide an offset strategy that includes detailed measures to contribute to the recovery of the CEECs in the relevant IBRA subregions.	The SAII assessment for Box Gum Woodland has been updated in Attachment 17 of the Revised BDAR to address comments provided by NSW DCCEEW Environment and Heritage, the amended project, and using revised vegetation condition mapping. Chapter 3 (Description of the amended project) of the Amendment Report provides further information on the amended project. Indirect impacts relevant to Box Gum Woodland and Tableland Basalt Forest CEEC are limited to potential edge effects as discussed in Section 13.4 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. These CEECs are likely to be subject to fragmentation and connectivity impacts as detailed in Section 13.5 and shown in Figures 13-1 and 13-2 of the Revised BDAR. The SAII assessments documented in Section 13.6 and Attachment 17 of the Revised BDAR address these potential indirect and prescribed impacts. Project impacts were considered likely to result in an SAII for Box Gum Woodland CEEC only. As such, appropriate compensatory measures (to augment high condition remnants) would be developed and adopted where an SAII cannot be avoided through further avoidance and mitigation during the detailed design phase. Offsets are not proposed to address residual indirect and prescribed impacts given difficulties in equating these impacts with a meaningful Vegetation Integrity reduction that can be applied in the BAM-C. Rather, an adaptive management approach would be incorporated into the Biodiversity Management Plan (BMP) (mitigation measure B3), particularly for inaccessible lands and uncertain impacts, such as indirect impacts (refer to mitigation measures in Section 14.2 of Revised BDAR). Adaptive management procedures in the BMP would specify triggers for offsets where indirect impacts are deemed to be significant. Further consultation with NSW DCCEEW Environment and Heritage will be required as a part of preparing the BMP to confirm a suitable approach to offset calculation. Responses to the recommended actions include: 1.1 Vegetation condition mapping has been updated for the Revised BDAR, including for Box Gum Woodland and Tableland Basalt Forest CEECs (refer to Figures 4-1 and 6-1 of the Revised BDAR). 1.2 An amended project footprint is assessed in the Revised BDAR, which includes but is not limited to changes to the transmission line corridor, changes to the ancillary construction facilities and nomination of access tracks. The updated indicative disturbance area (including the TCZ, ECZ and HTZ) within the amended project footprint represents the maximum clearing footprint. Figure 1-3 of the Revised BDAR provides an overview of the amended project. The revised Vegetation Clearing Memo (provided to NSW DCCEEW Environment and Heritage in November 2023) details the approach to vegetation clearing, including clearing for construction, operation and maintenance. For clearing of isolated areas of vegetation, provision of a mapped or constructed access track would not be required, as vehicle access/egress would be minimal and required only once to remove vegetation (ongoing access not required). Additionally, a suitable location for access points to remove isolated patches of vegetation will be determined based on site specific limitations such as topography and location of existing infrastructure. The area of impact and location will be mapped and provided in post approval reporting. Where existing access tracks are being utilised, these areas have been excluded from vegetation mapping (and clearing calculations), eg where widening of an existing access track is proposed the extent of clearing impacts relates to the mapped vegetation that occurs beyond the existing access track only. A summary of how the clearing scenarios have been considered in the assessment of impacts is provided in Section 13.1 of the Revised BDAR.

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
					During operation and continued maintenance, the amended project would enable retention of groundcovers and shrubs along the majority of the transmission line easement, with mature height vegetation able to be retained where it does not encroach on the clearing requirements. Where it is considered safe to do so, logs and rocks would also be retained. Sediment and erosion control measures are included in the mitigation measures detailed in Section 14.2 and Table 14-1 of the Revised BDAR, and the updated indicative disturbance area incorporates areas to install such measures (to be included in detailed design and implemented during construction). 1.3 Indirect impacts relevant to Box Gum Woodland and Tableland Basalt Forest CEEC are limited to potential edge effects as discussed in Section 13.4 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. These CEECs are likely to be subject to fragmentation and connectivity impacts as detailed in Section 13.5 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. Edge effects have been mapped within a 20 m buffer to the updated indicative disturbance area. This buffer was intended to represent the average extent of potential edge effects. Given the scale of the amended project, field validation of existing edge effects in accordance with the *BAM Stage 2 Operational Manual* (DPE, 2023) was not considered feasible. Edge effects were considered for native vegetation supporting a cover score of greater than 30% and excluding any vegetation subject to existing edge effects based on aerial photo interpolation (Attachment 24 of the Revised BDAR). Approximately 8.00 ha of Box Gum Woodland may be subject to indirect impacts (PCTs 268, 280, 283, as per Attachment 24 of the Revised BDAR. Approximately 0.27 ha of Tableland Basalt Forest may be subject to indirect impacts (PCTs 953 (not within Snowy Mountains), 1097,1107 as per Attachment 24 of the Revised BDAR. CEEC fragmentation and connectivity impacts are likely to be permanent in some locations and range from minor to moderate in magnitude (refer to Section 13.5.3 and Table 13-17 of the Revised BDAR). 1.4 An updated indicative disturbance area is presented in the Revised BDAR (refer Figures 13-1 and 13-2) which reflects the construction contractor's preliminary detailed design (and a maximum clearing footprint), however this is still subject to final detailed design (ie the Revised BDAR does not include the final design for the project). Avoidance will be incorporated into the detailed design where possible, which was not available for inclusion in the Revised BDAR due to program timeline. As such, avoiding impacts through micro-siting has not been assessed in the Revised BDAR for these CEECs. It should be noted that micro-siting may assist in avoidance or minimisation of impacts to Box Gum Woodland CEEC, however there would be limited opportunities to avoid or minimise impacts to Tableland Basalt Forest CEEC through micro-siting during further detailed design (though it should be noted that impacts as a result of the project are not considered likely to result in an SAII for Tableland Basalt Forest CEEC, as discussed in Section 13.6 and Attachment 17 of the Revised BDAR). Avoidance measures that can be committed to at this stage of the project are discussed in Chapters 12 and 14 of the Revised BDAR. In addition, biodiversity constraints mapping has been provided to the construction contractors to enable avoidance measures to be considered in the detailed design where possible. The construction contractors have access to the full biodiversity mapping suite, including all updates.

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
					1.5 Detailed mitigation measures for the ongoing protection of TECs would be provided in the BMP (refer to mitigation measure B3 in Section 14.2 of the Revised BDAR). However, additional details regarding protection of TECs are included in the Revised BDAR. Section 14.1 of the Revised BDAR provides an overview of the approach to impact mitigation and management during detailed design, construction and operation. Specific mitigation measures developed to protect TECs are provided in Section 14.2 of the Revised BDAR and include avoidance, minimisation in the first instance, followed by compensatory measures for unavoidable impacts for potential SAII to Box Gum Woodland (refer to mitigation measure B6 and B7 in Table 14-1 of the Revised BDAR). Additional and Appropriate Measures to further conserve CEECs and other SAII entities will be developed in conjunction with NSW DCCEEW Environment and Heritage as a condition of approval. These conditions of approval are embedded in relevant contract documents such that the responsibility is emphatically passed onto the construction contractors. 1.6 Transgrid Operational procedures, the revised Vegetation Clearing Memo and Supplementary Biodiversity Assessment Strategy (SBAS) (to be developed by Transgrid and approved by NSW DCCEEW Environment and Heritage) outline an approach to vegetation clearing, including retention where possible. Partial retention in the ECZ is currently limited to groundcover in the BAM-C. The revised Vegetation Clearing Memo and BMP outline retention opportunities and minimisation of impact. As the quantum of retention is unable to be accurately predicted pre-clearing the BAM-C reflects the worst-case scenario. Where avoidance and minimisation can be achieved, vegetation integrity will be monitored as per the SBAS and potential credit reduction sought in consultation with NSW DCCEEW Environment and Heritage. 1.7 The Revised BDAR considers the amended project footprint, avoidance measures (where these can be confirmed/committed to) and the revised approach to indirect and prescribed impacts. Updated SAII assessments are included in Attachment 17 of the Revised BDAR. Updated areas of disturbance for the revised BDAR are as follows: • approximately 3,311.30 ha of BGW occurs within the Amended project footprint, 457.18 ha of which would be directly impacted. Considered likely SAII. • approximately 53.57 ha of Tableland Basalt Forest occurs within the Amended project footprint, 6.62 ha of which would be directly impacted. Considered unlikley SAII. 1.8 The Revised BDAR includes assessment of the construction contractor's preliminary detailed design disturbance area (including the TCZ, ECZ and HTZ) within amended project footprint which represents the maximum clearing footprint (refer to Figure 13-1 of the Revised BDAR). 1.9 Additional and Appropriate Measures for SAII have been incorporated into the Revised BDAR for Box Gum Woodland CEEC. Additional and Appropriate Measures are not required for Tableland Basalt Forest as the risk of SAII impacts to this CEEC is considered unlikely. Additional and Appropriate Measures for impacts to Box Gum Woodland CEEC include avoidance, minimisation in the first instance, followed by compensatory measures for unavoidable impacts (refer to mitigation measures B6 and B7 in Table 14-1 of the Revised BDAR). Additional and Appropriate Measures to further conserve CEECs and other SAII entities including *Pimelea bracteata* and Sooty Owl will be developed in conjunction with NSW DCCEEW Environment and Heritage as a condition of approval. 1.10 An offset strategy for the amended project has been prepared with the general approach documented in Chapter 16 of the Revised BDAR. The offset strategy will be provided separately to NSW DCCEEW Environment and Heritage, once available, or in accordance with any relevant condition of approval requirement.

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
B. Section 8.1 of the BAM Attachment 13 of the BDAR	There is risk of SAII to Coolac and Tumut Serpentinite Woodland CEEC due to unaccounted impacts and inaccurate assessment data (BAM Stage 1), however it not currently possible to determine the likelihood of SAII for these CEECs. The BDAR estimates 1.42 ha of the 33.10 ha of Coolac and Tumut Serpentinite Woodland CEEC estimated within the project area. It is likely that the impacts are greater than presented in the EIS, as: • aerial imagery shows some areas of TEC mapped as low condition in inaccessible lands contains intact vegetation. • loss of ecological and landscape function due to indirect impacts including fragmentation of intact remnants have not been quantified. • impact minimisation and mitigation statements are not supported with specific recommendations or examples of demonstrated success. • an unquantified further loss is likely to be associated with requirements for access, operation and maintenance not identified in the current assessment. • there are inconsistent calculations of direct impacts to native vegetation between BDAR, spatial data and BAM-C related cases. While some errors are minor, others differ by hectares, which suggests impacts could be greater to all TECs than presented in the EIS. As a result, current ecosystem credit liabilities are likely to be exceeded when the BDAR is revised. • BCS requires further information to make an informed decision about SAII for these entities.	The development is also estimated to directly impact 1.42 ha of the 33.10 ha of Coolac and Tumut Serpentinite Woodland CEEC mapped within the project area. It is likely that the impacts to all CEECs may be greater than presented in the EIS due to the following: • Unquantified indirect impacts including edge effects, fragmentation and loss of function of intact remnants. • Unquantified further loss associated with requirements for access, operation and maintenance that are not identified in the current assessment. • Misidentification of low condition vegetation. Aerial imagery shows intact vegetation in some areas of TEC mapped as low condition in inaccessible lands (refer Figure 8 below) • Inconsistent calculations of direct impacts to native vegetation between BDAR, spatial data and BAM-C related cases. While some errors are minor, others differ by hectares within a vegetation zone or partial clearing zone and suggests impacts could be greater to all TEC's than presented in the EIS such that the current ecosystem credit liabilities are likely to be exceeded • Impact minimisation and mitigation assumptions (refer Figure 9) that are not supported with specific recommendations or examples of demonstrated success for other transmission line projects. [Refer to NSW DCCEEW Environment and Heritage's submission for figures]	Response to submissions	1.11 Revise vegetation condition mapping/zoning for Coolac Tumut Serpentinite Woodland CEEC. 1.12 Revise the impact assessment to consider all areas subject to surface impacts including areas subject to temporary impacts and access ways required for construction, operation and continued maintenance within and between the TCZ, ECZ and HTZ, and any areas required for any sediment and erosion control measures. Where existing access tracks are to be used, these should be clearly marked within the EIS and spatial data. 1.13 Identify location and extent of all indirect impacts that are mappable. 1.14 Identify the CEEC to be avoided – or TEC protection zones on BDAR maps, figures and in the datasets that will be used for detailed design and construction planning to support the assumptions of avoided and minimised impacts. 1.15 Detail the measures that will be used to provide immediate and ongoing protection of the CEEC for before, during and after construction that are to be incorporated into the post-approval plans. 1.16 Provide Transgrid operational procedures to support the impact assessment regarding the retention of CEECs in ECZs and HTZs. 1.17 Provide revised SAII assessment for all CEECs based on the above recommendations and any re-calculation of residual impacts (above) including for indirect impact. 1.18 Identify a maximum clearing footprint and provide this to BCD for evaluation prior to approval.	The SAII assessment for Coolac-Tumut Serpentinite Woodland CEEC has been updated in Attachment 17 of the Revised BDAR to address comments provided by NSW DCCEEW Environment and Heritage, the amended project, and using revised vegetation condition mapping. Chapter 3 (Description of the amended project) of the Amendment Report provides further information on the amended project. Approximately 34.36 ha of Coolac-Tumut Serpentinite Woodland CEEC occurs within the amended project footprint, 3.38 ha of which would be directly impacted. As such, it is considered unlikely SAII. The increase in impact area from the BDAR to the Revised BDAR is due to a change in the project footprint and the construction contractor's preliminary detailed design disturbance areas to incorporate access tracks. Indirect impacts relevant to Coolac-Tumut Serpentine Woodland CEEC are limited to potential edge effects as discussed in Section 13.4 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. This CEEC is likely to be subject to fragmentation and connectivity impacts as detailed in Section 13.5 and shown in Figures 13-1 and 13-2 of the Revised BDAR. The SAII assessments documented in Section 13.6 and Attachment 17 of the Revised BDAR address these potential indirect and prescribed impacts. Project impacts were considered unlikely to result in an SAII for Coolac-Tumut Serpentine Woodland CEEC. As such, compensatory measures were not considered to be required for this CEEC. Offsets are not proposed to address residual indirect and prescribed impacts given difficulties in equating these impacts with a meaningful Vegetation Integrity reduction that can be applied in the BAM-C. Rather, an adaptive management approach would be incorporated into the BMP, particularly for inaccessible lands and uncertain impacts, such as indirect impacts (refer to mitigation measures in Section 14.2 of Revised BDAR and adaptive management measures in the BMP refer to mitigation measure B3) will specify triggers for offsets where indirect impacts are deemed to be significant. Further consultation with the NSW DCCEEW Environment and Heritage would be required as a part of preparing the BMP and SBAS to confirm a suitable approach to offset calculation. Responses to the recommended actions include: 1.11 Vegetation condition mapping has been updated for the Revised BDAR (refer to Figures 6-1 and 13-2 of the Revised BDAR). The example provided by NSW DCCEEW Environment and Heritage (ie Figure 8) regarding areas of intact vegetation being mapped as low condition, shows a fragmented patch of vegetation (not intact), which has been mapped as Low condition. Vegetation mapping within inaccessible lands is based on extrapolation of the condition of habitats in adjoining accessible land (from plot data and on-ground survey) and aerial photo interpretation, as detailed in Section 4.10 of the Revised BDAR. If data and existing knowledge of the surrounding locality was not available then a conservative approach was broadly adopted whereby a higher condition class was generally adopted. Supplementary biodiversity surveys (outlined in the SBAS) will be undertaken in areas not previously subject to biodiversity survey prior to work occurring in any such areas to inform detailed design and micro-siting opportunities, where possible. Priorities for additional survey will be based on potential conservation value and would prioritise areas mapped as supporting CEECs (refer to revised mitigation measure B4 in Table 14-1 of the Revised BDAR).

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
					1.12 An amended project footprint is assessed in the Revised BDAR, which includes but is not limited to changes to the transmission line corridor, changes to the ancillary construction facilities and nomination of access tracks. The construction contractor's preliminary detailed design disturbance area (including the TCZ, ECZ and HTZ) within the amended project footprint represents the maximum clearing footprint. The revised Vegetation Clearing Memo (provided to NSW DCCEEW Environment and Heritage in November 2023) details the approach to vegetation clearing, including clearing for construction, operation and maintenance. For clearing of isolated areas of vegetation, provision of an access track would not be required as this CEEC occurs within existing proposed disturbance areas. Additionally, vehicle access/egress would be minimal and required only once to remove vegetation (ongoing access not required). A summary of how the clearing scenarios have been considered in the assessment of impacts is provided in Section 13.1 of the Revised BDAR. During operation and continued maintenance, the amended project would enable the retention of groundcovers and shrubs along the majority of the transmission line easement, with mature height vegetation able to be retained where it does not encroach on the clearing requirements. Where it is considered safe to do so, logs and rocks would also be retained. Sediment and erosion control measures are included in the mitigation measures detailed in Section 14.2 and Table 14-1 of the Revised BDAR, and the updated indicative disturbance area incorporates areas to install such measures (to be included in detailed design). 1.13 Indirect impacts relevant to Coolac-Tumut Serpentine Woodland CEEC are limited to potential edge effects as discussed in Section 13.4 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. This CEEC is likely to be subject to fragmentation and connectivity impacts as detailed in Section 13.5 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. Edge effects have been mapped within a 20 m buffer to the updated indicative disturbance area. This buffer was intended to represent the average extent of potential edge effects based on available scientific literature. Given the scale of the project, field validation of existing edge effects in accordance with the *BAM Stage 2 Operation Manual* (DPE, 2023) was not considered feasible. Edge effects were considered for native vegetation supporting a cover score of greater than 30% and excluding any vegetation subject to existing edge effects based on aerial photo interpolation. Approximately 0.31 ha of Coolac-Tumut Serpentine Woodland CEEC may be subject to indirect impacts (PCT 301, as per Attachment 24 of the Revised BDAR. CEEC fragmentation and connectivity impacts are likely to be permanent in some locations and range from minor to moderate in magnitude (refer to Section 13.5.3 and Table 13-17 of the Revised BDAR). 1.14 Avoiding impacts through micro-siting the transmission line structures has not been assessed in the Revised BDAR. Avoidance measures that can be committed to at this stage of the project are discussed in Chapters 12 and 14 of the Revised BDAR. Avoidance measures will be incorporated into the detailed design, which was not available for inclusion in the Revised BDAR due to program timeline. To facilitate this, biodiversity constraints mapping has been provided to the construction contractors to enable avoidance measures to be considered in the detailed design where possible. It should be noted that biodiversity survey is ongoing into 2024, however survey results may not be able to be factored into design avoidance due to program timeline.

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
					1.15 Detailed mitigation measures for the ongoing protection of CEECs would be provided in the BMP (refer to mitigation measure B3 in Section 14.2 of the Revised BDAR). However, additional details regarding protection of CEECs are included in Chapter 14 of the Revised BDAR. Section 14.1 of the Revised BDAR provides an overview of the approach to impact mitigation and management during detailed design, construction and operation. Specific mitigation measures developed to protect CEECs are provided in Section 14.2 of the Revised BDAR and include avoidance, minimisation in the first instance. Additional and Appropriate Measures to further conserve CEECs and other SAII entities will be developed in conjunction with NSW DCCEEW Environment and Heritage as a condition of approval. These conditions of approval are embedded in relevant contract documents such that the responsibility is emphatically passed onto the construction contractors. 1.16 Transgrid Operational procedures, the revised Vegetation Clearing Memo and SBAS (to be developed by Transgrid and approved by NSW DCCEEW Environment and Heritage) outline an approach to vegetation clearing, including retention where possible. Partial retention in the ECZ is currently limited to groundcover in the BAM-C. The revised Vegetation Clearing Memo and BMP outline retention opportunities and minimisation of impact. As the quantum of retention is unable to be accurately predicted pre-clearing the BAM-C reflects the worst-case scenario. Where avoidance and minimisation can be achieved, vegetation integrity will be monitored as per the SBAS and potential credit reduction sought in consultation with NSW DCCEEW Environment and Heritage. 1.17 The Revised BDAR considers the updated indicative disturbance area (including the TCZ, ECZ and HTZ) and amended project footprint, avoidance measures (where these can be confirmed/committed to) and the revised approach to indirect impacts. Updated SAII assessments are included in Attachment 17 of the Revised BDAR. 1.18 The Revised BDAR includes assessment of the construction contractor's preliminary detailed design disturbance area (including the TCZ, ECZ and HTZ) within the amended project footprint which represents the maximum clearing footprint (refer to Figures 13-1 and 13-2 of the Revised BDAR).
C. Section 8.1 of the BAM Attachment 13 of the BDAR	SAII to three (3) critically endangered orchids within the McPhersons Plain Conservation Agreement Area is likely: • The BDAR concludes there is potential risk of SAII to the critically endangered *Prasophyllum bagoensis* and *Prasophyllum keltonii*, however BCD consider that SAII is likely due to their small populations, very restricted distribution and known locations in close proximity to the direct impacts of the project.at McPhersons Plain. • BCD also consider *Pterostylis oreophila* at high risk of SAII for the same reasons. • Indirect impacts are likely to be significant as records are located in sensitive vegetation fringing the Alpine bog/ montane peatlands TEC. There is no buffer between proposed tower locations and the bog. Altered hydrology from surface disturbance, increased risk of weed and pathogen invasions and removal of horse exclusion fencing for access have the potential to significantly impact known habitat at McPhersons Plain and have not been addressed. • Additional direct impacts are possible if species are within areas that have not been subject to targeted survey.	*Prasophyllum bagoensis*, *Prasophyllum keltonii, Pterostylis oreophila* are at high risk of SAII due to their small populations, restricted distribution (Principle 3 of Clause 6.7(2) of the NSW Biodiversity Conservation Regulation 2017 (BC Reg), and known locations in close proximity to the direct impacts of the project. • *P bagoensis* is restricted to a single known population in NSW of less than 4ha in area and population numbers highly fluctuate dependent on seasons (BioNet) • *P keltonii* is only known to occur in McPhersons Plain and is intermingled with *Prasophyllum bagoensis*. The population is small containing less than 400 plants • *Pterostylis oreophila* population is estimated at less than 40 plants Listed threats to all 3 species include stochastic events and environmental change affecting the whole populations simultaneously (small populations), grazing impacts from feral horses, altered hydrology from pig disturbance, weed infestation (St Johns Wort and *Potetilla recta*) and uncertainty of future land management practices.	Response to submissions	1.19 Complete further targeted survey/expert report to rule out additional impacts in areas of suitable habitat within the project footprint. 1.20 Provide additional information to quantify impacts and include further detailed actions and measures to avoid direct and indirect impacts on these species to enable BCD to make a more informed assessment of SAII risk. 1.21 Include an adequate buffer to tower locations to minimise direct and indirect impacts to McPhersons Plain Alpine Bog (Alpine Bogs & Fens EPBC Act, Montane peatland TEC BC Act) and known locations of *Prasophyllum bagoensis*, *Prasophyllum keltonii*, and *Pterostylis oreophila*. Maintenance of the existing horse exclusion fencing during, and post construction will need to be demonstrated.	The conservation agreement area that overlaps with McPhersons Plain is known as the Clear Water Springs Conservation Agreement Area. The updated indicative disturbance area intersects with and will impact the Clear Water Springs Conservation Agreement Area where the proposed HumeLink easement runs parallel to Line 64. HumeLink will not directly impact the portion of the conservation agreement area that overlaps with McPhersons Plain (refer to Figure C- 1). Additional targeted surveys were undertaken for the threatened orchids within the McPhersons Plain area during November/December 2023, and January/February 2024 as detailed in Sections 4.5 and 4.7 of the Revised BDAR. Additional avoidance and mitigation measures relating to the McPhersons Plain area have been included in Sections 14.1 and 14.2 of the Revised BDAR. Responses to the recommended actions include: 1.19 Additional targeted surveys have been undertaken for the threatened orchids within the McPhersons Plain area during spring and summer 2023 to fill data gaps. The following areas of assumed presence from the BDAR were removed for the Revised BDAR species polygons for these species due to additional survey effort: • *Prasophyllum bagoensis* – 60.70 ha reduction in assumed presence area, species polygon area 0.61 ha, 0.04 ha of which would be impacted by the project. • *Prasophyllum keltonii* – 56.06 ha of reduction in assumed presence area, species polygon area 0.28 ha, 0.03 ha of which would be impacted by the project.

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
	• Mitigation measures have not been sufficiently detailed or targeted to individual species or the Alpine bog. • Further avoidance to these entities at McPhersons Plain may mitigate the likelihood of SAII.	The BDAR provides 10racteatcation of the extent of indirect impacts associated with earth works for tower construction, including edge effects, increased run-off and nutrient loading, or altered hydrology. Tower locations immediately adjacent to the bog will alter hydrology from surface disturbance and run off and increase risk of weed and pathogen invasions from edge effects and vehicle access to and from the site. There has been no analysis of the indirect impacts likely to be associated with access requirements for construction and continued maintenance operations and resulting increased risk of threatening processes as a result. Maintenance of the horse exclusion fencing has not been addressed. Sediment and erosion control details have not been provided. Such controls need to be specifically targeted to avoid any impacts to the bog and have not been addressed. These also have the potential to significantly impact orchid habitat. Any impacts to the sensitive Alpine bog (Montane Peatlands TEC) and fringing subalpine vegetation at McPherson Plain is likely to significantly impact these populations. There has not been sufficient investigation into appropriate mitigation. We can provide recent examples of where buffers and sediment and erosion control measures for protection of threatened species habitat have not been adequate to avoid increased nutrient loading into receiving environments in the Alpine landscape. The proponent should review those measures which have failed and /or succeeded in similar environments for other major development of this nature (ie Snowy Transmission connection MP and Snowy 2.0). Mitigation measures have not been sufficiently detailed or targeted to individual species. No buffer to direct impacts has been proposed. The currently proposed tower locations are immediately adjoining the bog and are likely to detrimentally impact habitat in that location (refer Figure 8 below). Based on the small and restricted populations, the high potential for indirect impact to known records and the potential for additional direct impacts in areas where the species have been assumed present (*P. keltonii* assumed within 92.87ha, *P. bagoense* assumed within 101.6ha and *P. oreophila* assumed to occur within 2.96ha of predicted habitat in the project footprint) there is a high risk of SAII to these species. As the McPhersons Plain Conservation agreement area contains a known TEC (montane peatlands TEC) and habitat for multiple threatened species, area specific biodiversity management measures including maintenance of horse exclusion fencing should be included in the BDAR to be implemented through post-approval plans.		1.22 Review the sediment and erosion control measures to ensure they are adequate in this environment. It is suggested that the measures which have failed and /or succeeded in similar sensitive locations for other similar major projects of this nature (ie Snowy Transmission connection and Snowy 2.0) are examined and adopted where appropriate.	• *Pterostylis oreophila* – 3.17 ha of reduction in assumed presence area, species polygon area 2.24 ha, 0.56 ha of which would be impacted by the project. The results have been considered in the updated assessments within the Section 13.6 of the Revised BDAR including the SAII assessments for the threatened orchids in Attachment 17. Expert reports were not able to be undertaken for the threatened orchids due to specialist availability (a number of orchid specialists were approached, but none were available to assist as an expert for the amended project) or absence of existing species expert approved under the BAM (eg for *P. oreophila*). 1.20 Impact to threatened orchids associated with McPhersons Plain have been provided in Section 13.6 and Attachment 17. These assessments take into account additional survey that was undertaken since the EIS BDAR to reduce area of assume presence for these species. 1.21 Detailed design has been progressing in parallel with the preparation of the Revised BDAR. Noting the number of threatened species and SAII species associated with McPhersons Plain near the future Maragle 500 kV substation, the assessment of opportunities for impact avoidance and minimisation through detailed design has been prioritised. Avoidance undertaken through design development to date has prioritised known records. In the event that new records are detected, these would be managed through the unexpected finds protocol in the BMP (mitigation measures B3, B20, Table 14-1 of the Revised BDAR), noting that impacts to new records in the TCZ found during SBAS surveys may be unavoidable. The extent of impact avoidance and minimisation achievable through detailed design and construction planning undertaken to date is outlined below. The central portion of McPhersons Plain is fenced to prevent impacts to threatened flora species by horses. This area has been identified in the HumeLink biodiversity constraints mapping as a no-go zone. To avoid impacts to threatened flora species in the no-go zone, an aerial stringing method for the transmission line would be employed between transmission line structures on either side of McPhersons Plain, as vehicle and plant movement within the fenced area using other stringing methods could impact threatened species or their habitat. Potential habitat for the threatened species associated with McPhersons Plain extends beyond the fenced area. NSW DCCEEW Environment and Heritage has requested that a 30-m exclusion buffer from the fenceline be applied for project infrastructure. While the length of the transmission line span across McPhersons Plain is limited by design requirements for alpine environments, where snow and ice loading must be considered, the span has been maximised to locate the transmission line structures and associated construction bench outside the 30-m exclusion buffer. Some clearing of tall-growing vegetation would be required within the 30-m exclusion buffer to meet the vegetation clearing requirements for the transmission line easement and transmission line structures. Clearing methods that minimise ground disturbance will be used. Where there are known locations of recorded threatened species (as identified in the Revised BDAR), the associated buffer areas will be demarcated as a biodiversity exclusion zone (mitigation measure B13 in Table 14-1 of the Revised BDAR). Any threatened species identified through additional surveys or captured as an unexpected find, will be dealt with in accordance with the BMP (mitigation measure B3 in Table 14-1 of the Revised BDAR).

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
					The impact avoidance and minimisation outlined above has not been captured in the assessment outcomes or in the project impacts mapped in Figure 13-2 (map reference 38) of the Revised BDAR, which features the preliminary detailed design. However, new mitigation measure B38 has been developed to include the above avoidance and minimisation commitments (refer to Table 14-1 of the Revised BDAR). 1.22 A project specific Soil and Water Management Plan (SWMP) would be a sub-plan to the CEMP and provide mitigation measures to minimise impacts on soils and surface water due to sediment migration, saline soils and incidental spills. The SWMP would include Erosion and Sediment Control Plan (ESCPs), which would be prepared by the construction contractors and focus on managing potential erosion and sedimentation impacts. The SWMP and ESCPs would be prepared in accordance with *Managing Urban Stormwater – Soils and Construction, Volume 1* (Landcom, 2004) (the Blue Book), other relevant volumes and other relevant guidelines. Furthermore, Transgrid has prescribed a high level of compliance in commercial documents with regard to erosion and sediment control. This includes Contractor submission of progressive erosion and sediment control plans associated with all bulk earthworks to Blue Book standards as signed off by a Certified Professional in Erosion and Sediment Control. Erosion and sediment control plans are also required to be inserted into Environmental Controls Maps to advise construction workers in planning and risk review processes around erosion and sediment controls. Erosion and sediment control management is an important component of weekly construction contractor's environmental site inspections, which will be supplemented by regular Transgrid and Environmental Representative oversight.
	Risk of SAII for Smoky Mouse (*Pseudomys fumeus*) assumed to be present can be mitigated by targeted survey: • The BDAR acknowledges there is risk of SAII to smoky mouse as a result of impacts to 132.66 ha of high or very high condition potential habitat where the species has been assumed present. • The BDAR has not identified any access restrictions preventing the ability to conduct targeted survey for this species prior to approval to inform the SAII assessment. • Survey is the only way to rule out presence of smoky mouse from the subject land to inform the SAII assessment.	The BDAR acknowledges there is risk of SAII to smoky mouse as a result of impacts to 132.66 ha of high or very high condition potential habitat where the species has been assumed present. There has not been survey for the species to rule out its presence in areas of potential habitat despite there being no access constraints. The 11racteath to Niche's candidate species assessment in sites assessed as severely burnt (post 2019-2022 severe bushfires) (Attachment 15) has not been prepared in consultation with BCD. Despite this, we agree that targeted survey would be appropriate for this species based on the post fire monitoring for Snowy 2.0 Main Works Biodiversity Management Plan. There is opportunity to undertake targeted survey to determine the likely presence/absence of the species for the RTS to inform the BDAR and SAII assessment.		1.23 Conduct targeted survey for Smoky Mouse in areas of suitable habitat to inform the BDAR and SAII assessment at RTS stage and prior to approval	Targeted survey has been undertaken for Smoky Mouse as part of the additional surveys completed for the Revised BDAR, as detailed below. The project may lead to an SAII for Smoky Mouse (potential SAII) (refer to Section 13.6 and Attachment 17 of the Revised BDAR). Responses to the recommended actions include: 1.23 Targeted survey for Smoky Mouse was undertaken in November 2023 as detailed in Sections 4.6 and 4.7 of the Revised BDAR. The results of the survey have been considered in the updated assessments in Sections 13.3.3, 13.6 and 13.8.3 within the Revised BDAR, including the SAII assessment for Smoky Mouse in Attachment 17 and MNES assessment in Attachment 3. The area of assumed presence for Smoky Mouse has been reduced to 13.19 ha of potential habitat in Bondo, as a result of targeted survey confirming absence over all potential habitat within the Snowy Mountains IBRA subregion (490.44 ha of assumed presence at EIS BDAR removed from species polygon at Revised BDAR due to adequate survey). A total of 5.78 ha of assumed presence habitat would be impacted by the project. Additional surveys are proposed to be undertaken during next survey window (September – April) to further refine presence and impact area.
	There is uncertainty about SAII for 23 threatened species (at risk of SAII) that are assumed to be present: • Extensive modelling has been applied to predict and limit candidate species habitat and species polygons for assumed presence. • As previously discussed impacts have not been fully quantified. Further, species polygons are not representative of potential habitat for calculation of offsets for all species. These assessment issues and a strong reliance on assuming presence have led to uncertainty regarding numerous SAII entities.	Species polygons for the majority of species are not representative of potential habitat for calculation of offsets. Spatial data for species habitat has not been provided to BCD for adequacy review. BCD want to ensure the data will allow for recalculations of species credits with anticipated design and impacts shifting within the project corridor. However, the removal of species from areas of predicted habitat using vegetation cover substitutes for degraded habitat, and the rationales provided in the BDAR (and detailed in attachment 12) that deviate from BAM for species counts remain largely unsupported by BCD. There is a large degree of uncertainty in the species polygons mapping as a result of this.		1.24 Undertake targeted survey or provide expert report to determine presence/absence of SAII predicted species on accessible land as a priority to inform RTS. 1.25 Update the BDAR to account for survey results and refine SAII candidate species for assessment. 1.26 Revise the extent of assumed presence remaining on inaccessible land for RTS (i.e. for species that cannot be excluded by targeted survey or expert report prior to RTS).	All species polygons, including for the 23 threatened species at risk of SAII, have been reviewed and revised where appropriate for the Revised BDAR. Consultation with NSW DCCEEW Environment and Heritage was undertaken on 13 December 2023 to detail the approach to species polygon development and followed up with a related data package and a request for additional input from NSW DCCEEW Environment and Heritage following the workshop. The following components of the NSW DCCEEW Environment and Heritage feedback (relating to both SAII and non-SAII species) were incorporated/considered in the updated approach documented in Attachment 1 of the Revised BDAR: • Order of filters: The Revised BDAR has been updated to clarify the approach to patch size assignment in relation to scattered trees. • Category 1 exempt land/degraded habitat: NSW DCCEEW Environment and Heritage supported the approach to Category 1 exempt land/degraded habitat filters for species.

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
	• Although we acknowledge some of the predicted SAII species have low probability of occurrence, the likelihood of SAII will increase for the following entities if they are confirmed present within areas of impact: - *Acacia phasmoides* - *Bossiaea fragrans,* - *Caladenia concolor* - *Calotis glandulosa* - *Diuris bracteata* - *Eucalyptus alligatrix subsp. Alligatrix* - *Eucalyptus robertsonii subsp. Hemisphaerica* - *Euphrasia scabra* - *Genoplesium superbum* - *Glycine latrobeana* - *Grevillea iaspicula* - *Grebillea wilkinsonii* - *Pomaderis delicata* - *Pomaderis pallida* - *Miniopterus orinae oceanensis* - *Mixophyes balbus* - *Chalinolobus dwyeri* - *Solanum amourense,* - *Prasophyllum innubum,* - *Litoria castanea* (Yellow-spotted tree Frog) - *Pseudomys fumeus* (Smoky Mouse) - *Pseudophryne Corroboree* (Southern Corroboree Frog) - *Tyto tenebricosas* (Sooty Owl) • BCS will be able to provide further advice on the risk of SAII to the above species following the additional targeted survey and the submission of further information at the RTS stage to quantify impacts and better inform the assessment. • A post-approval approach to incorporating additional surveys, which needs to be detailed in the revised BDAR may be considered where access has not been possible, it can be demonstrated reasonable steps have been taken to obtain access, and the proposed survey methodology for the entity has been detailed agreed with BCD prior to approval. • A biodiversity offset strategy, whilst currently under preparation, has not been supplied as required by the SEARs creating uncertainty regarding how notably SAII entities will be offset.	Impacts have not been fully qualified or quantified for the assessment. There are unrealistic limitations applied to the project impact footprint to minimise credit calculations gives low credibility to the credit calculations of biodiversity impacts. The12racteateed credit liabilities for assumed present SAII species have not been calculated in accordance with the BAM. Although it is considered likely that species credit liabilities for assumed presence would exceed any credit liability based on survey results, a review of the methodology, vegetation zones and spatial data indicates species polygons may not be fit for purpose for all candidate species. Targeted survey has been insufficient to rule out presence in areas of potential habitat. Species polygons are not representative of potential habitat for calculation of offsets. Spatial data for species habitat has not been provided to BCD for adequacy review. BCD want to ensure the data will allow for recalculations of species credits with anticipated design and impacts shifting within the project corridor. Mitigation measures have not been sufficiently detailed or targeted to individual species. Or justified using evidence or proof of demonstrated success elsewhere. Although BCD acknowledges some of the predicted SAII species have low probability of occurrence, there is a high risk of SAII for the following 23 entities if present with the footprint: • *Acacia phasmoides* • *Bossiaea fragrans,* • *Caladenia concolor* • *Calotis glandulosa* • *Diuris bracteata* • *Eucalyptus alligatrix subsp. Alligatrix* • *Eucalyptus robertsonii subsp. Hemisphaerica* • *Euphrasia scabra* • *Genoplesium superbum* • *Glycine latrobeana* • *Grevillea iaspicula* • *Grevillea wilkinsonii* • *Pomaderis delicata* • *Pomaderis pallida* • *Miniopterus orinae oceanensis* • *Mixophyes balbus* • *Chalinolobus dwyeri* • *Solanum amourense,* • *Prasophyllum innubum,* • *Litoria castanea* (Yellow-spotted tree Frog) • *Pseudomys fumeus* (Smoky Mouse) • *Pseudophryne Corroboree* (Southern Corroboree Frog) • *Tyto tenebricosas* (Sooty Owl Breeding habitat)		1.27 Re-calculate residual impacts based on a revision of species polygons, vegetation condition zoning and predicted impacts in line with the recommendations of this review. 1.28 Revise avoidance and minimisation measures for remaining SAII candidate species in line with the recommendations in this review. 1.29 Provide revised SAII assessment based on survey results, a revision of the disturbance footprint and actions and measures taken to avoid direct and indirect impacts. 1.30 Provide robust methodology for targeted survey, avoidance, minimisation, and re-calculation of the residual impacts of the development post approval. This must include (but not be limited to) re-submission of BAM Calculator cases to BCD, preparation of a revised BDAR for the 'final design' in accordance with BAM that considers the results of targeted survey for predicted candidate species, any unexpected finds, and provide species specific detailed mitigation measures for inclusion into the biodiversity management plan. 1.31 Supply the biodiversity offset strategy currently under preparation as part of the revised BDAR as required by the SEARs.	• Low condition filters: Vegetation condition is still used as an indicator of degraded habitats for several species where it is considered an appropriate metric based on the review of all potential habitats and their attributes. Further justification is provided in Attachment 1 including reference to BAM plot data where relevant for species. • Post approval surveys and proposed development of the SBAS to guide further post BDAR and post approval surveys: Recommendations for additional survey is detailed in Attachment 27 of the Revised BDAR. The SBAS will be finalised post approval in conjunction with NSW DCCEEW Environment and Heritage. • Gang-gang Cockatoo and Glossy Black Cockatoo habitat constraints: The habitat constraints filters applied to Gang-gang Cockatoo to LiDAR tree heights greater than 10 m has been adjusted as per the NSW DCCEEW Environment and Heritage advice. Tree height thresholds for Glossy Black Cockatoo remain at greater than 20 m based on subsequent consultation with Damon Oliver from the DCCEEW Environment and Heritage. Due to program timeline, the Revised BDAR assessment and species polygon development was required to be finalised with limited further inputs from NSW DCCEEW Environment and Heritage following the workshop (as feedback received by NSW DCCEEW Environment and Heritage on 9 February 2024, was after the polygon finalisation to inform the Revised BDAR. This feedback, where appropriate, along with species specific discussions with the Transgrid Biodiversity team since January 2024 will be incorporated in the SBAS and applied to post approval survey and credit liability reduction application. The updated approach to species polygon development has been detailed in Attachment 1 of the Revised BDAR. A review of the degraded habitat prescriptions has also been undertaken for all candidate species and additional justification for exclusion has been included in the BDAR where relevant (refer to Sections 7.2, 7.3 and Attachment 1 of the Revised BDAR). Revised mitigation measures that can be committed to at this stage of the project have been detailed in Section 14.2 of the Revised BDAR, including one specific measure to those entities most likely to lead to SAII as a result of the project (including compensatory measures where avoidance/minimisation is not possible (refer to mitigation measure B6 and B7 in Table 14-1 of the Revised BDAR)). Additional targeted survey has been undertaken over four months (September-December 2023) to address survey gaps for SAII species where possible. Surveys were also conducted in January-March 2024 to continue to refine mapping and gather data to inform detailed design. Some additional records of *Leucochrysum albicans var tricolor* from the January-March 2024 surveys were not incorporated into the Revised BDAR due to program timeline, however the location of these records have been captured as assumed presence habitat for this species in the Revised BDAR. This additional survey data would be used to inform the BMP and SBAS. Section 4.6.3 of the Revised BDAR details the effort for the additional targeted surveys. Supplementary biodiversity surveys (outlined in the SBAS) will be undertaken in areas not previously subject to biodiversity survey prior to work occurring in any such areas to inform detailed design and construction avoidance (where possible) . Consultation with NSW DCCEEW Environment and Heritage regarding survey and assessment approach in Severely Burnt lands was also undertaken in November 2023. The Revised BDAR describes where the project has committed to impact avoidance and minimisation at the preliminary detailed design stage of the project. Constraints mapping provided to the construction contractors is being used to further investigate opportunities for impact avoidance and minimisation through the detailed design process. Noting the ecological sensitivity of McPhersons Plain, detailed design in this area was prioritised. Impact avoidance and minimisation achievable in this area is described in Section 12.1 of the Revised BDAR. The SBAS will note species and areas for which impact avoidance achieved through the detailed design process eliminates or reduces the extent of supplementary survey required. Responses to the recommended actions include:

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
		We will be able to provide further advice on whether or not SAII is likely for the above species following the results of additional targeted survey and the submission of further information to quantify impacts and better inform the assessment. Consultation with BCD on targeted survey within sites assessed as severely burnt is required. We strongly recommend that the revised BDAR incorporates results of further targeted surveys and assessment of threatened species wherever possible on accessible lands, particularly for SAII entities. This is because there is currently a strong reliance on assuming presence for threatened species in particular which is not in accordance with the BAM, has significant implications for determining absence or presence of SAII entities in particular, and may have artificially inflated offset liabilities. The revised BDAR must outline a process for demonstrating avoidance, minimising impacts and determining residual impacts and corresponding mitigation measures. We may consider a post-approval approach to incorporating additional surveys, which must be detailed in the revised BDAR, under the following limited circumstances: • Where access has not been possible, and it can be demonstrated in the revised BDAR that reasonable steps throughout the duration of the project's survey program have been taken to obtain access • The proposed survey methodology for the entity has been detailed in the revised BDAR and agreed by BCD prior to approval • Targeted surveys are incorporated into a revised BDAR and BAM-Calculator case at the time the final design is known, to determine the actual credit liability for predicted candidate species, account for unexpected finds and demonstrate avoidance for the final design • For threatened ecological communities generating ecosystem credits, a maximum clearing footprint must be identified and evaluated by BCD prior to approval This is essential to maintain transparency and integrity of the BOS and must demonstrate no increased impact to biodiversity values. We also note that a biodiversity offset strategy, which will necessitate offsets for a number of SAII species, is currently being prepared. There is currently lack of certainty regarding how the substantial quantum of offsets notably for SAII entities, will be secured post-approval. Preparation of a biodiversity offset strategy is required by the project SEARs.			1.24 Additional targeted survey have been undertaken over four months (September-December 2023) and results incorporated into the Revised BDAR where relevant. Surveys were also conducted in January-March 2024 to continue to refine mapping and gather data to inform detailed design. Some additional records of *Leucochrysum albicans var tricolor* from the January-March 2024 surveys were not incorporated into the Revised BDAR due to program timeline, however these have been captured as assumed presence habitat for this species. All potential habitats for three candidate SAII flora species and one candidate SAII fauna were excluded: *Diuris bracteata* (Pale Golden Moths), *Euphrasia scabra* (Rough Eyebright), *Glycine latrobean* and *Miniopterus orinae oceanensis* (Large Bent-winged Bat) based on the further survey (refer to Sections 7.2.2 and 7.3.2 of the Revised BDAR). There are no listed species experts and/or specialists were unavailable for some SAII species where expert input would have been ideally utilised, such as many of the candidate orchid species. Consultation has been carried out with DCCEEW Environment and Heritage Accountable Officers and DCCEEW Environment and Heritage suggested specialists (ie Michael Mulvaney, Dr Laura Rayner, Damon Oliver for Gang-gang-Cockatoo and Glossy Black Cockatoo; Accountable Officers at NSW DCCEEW Environment and Heritage for candidate frogs, owls and orchid species) to obtain the most up the date information regarding these species, which has been documented in the Revised BDAR where applicable (refer to Attachment 7 of the Revised BDAR). 1.25 The Revised BDAR has incorporated the additional threatened species survey results from September to December 2023 and for select species from January to March 2024, results of expert reports/advice and refinement of SAII species for assessment (refer to Sections 4.5 and 4.6 and Chapter 7 of the Revised BDAR for survey effort and for survey results, respectively). This additional data and information has been used to inform the species polygon updates (see Attachment 1 of the Revised BDAR) and impact assessment for the Revised BDAR. 1.26 A detailed species polygon review has been undertaken as part of the Revised BDAR. This review has revised the extent of assumed presence in inaccessible lands. Accredited experts and specialists have been enlisted (where possible) to assist in refinement of assumed presence areas in inaccessible lands and the outcomes are included in the Revised BDAR. Experts were enlisted for Key's Matchstick Grasshopper, Striped Legless Lizard, Golden Sun Moth, candidate Owl and Raptor species, and specialists consulted for candidate orchids, Gang-gang Cockatoo and Glossy Black Cockatoo. See Attachment 1 for details of species polygon generation. 1.27 Species polygons have been reviewed and revised following additional field survey and expert/specialist input. Residual impacts have been recalculated based on the amended project footprint as part of the Revised BDAR (refer to Chapter 13, Attachment 24 and Figures 13-1 to 13.14 of the Revised BDAR). 1.28 An updated indicative disturbance area is presented in the Revised BDAR, which reflects the construction contractor's preliminary detailed design (and a maximum clearing footprint). The project is therefore still subject to final detailed design (ie the Revised BDAR does not include the final design for the project). Avoidance will be incorporated into the detailed design, which was not available for inclusion in the Revised BDAR due to program timeline. As such, avoiding impacts through micro-siting has not been assessed in the Revised BDAR. Avoidance measures that can be committed to at this stage of the project are discussed in Chapters 12 and 14 of the Revised BDAR. In addition, biodiversity constraints mapping has been provided to the construction contractors to enable avoidance measures to be considered in the detailed design where possible. Additional mitigation measures in relation to likely SAII candidate species are included in Section 14.2 of the Revised BDAR (refer to mitigation measures B6 and B7 in Table 14-1), including compensatory measures where avoidance and minimisation are not

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
					possible. Additional and Appropriate Measures to further conserve CEECs and other SAII entities will be developed in conjunction with NSW DCCEEW Environment and Heritage as a condition of approval. 1.29 Revised SAII assessments are provided in Section 13.6 and Attachment 17 of the Revised BDAR, incorporating survey results, amended project footprint and additional avoidance measures that can be committed to at this stage of the project. 1.30 An updated indicative disturbance area is presented in the Revised BDAR, which reflects the construction contractor's preliminary detailed design (and a maximum clearing footprint), however is still subject to final detailed design (ie the Revised BDAR does not include the final design for the project). The SBAS will outline the approach for all species and PCTs where further survey is required. The strategy will outline the survey methods/requirements including seasonal constraints; land access; vegetation retention through avoidance/design reporting requirements including unexpected finds, survey results for predicted species credit recalculation and timing. BAM-C data will be submitted as part of periodic reporting to show VI of retained/regenerating vegetation and areas/counts of threatened species avoided during proposed clearing zones. Adaptive management measures are incorporated in the BMP to ensure additional constraints and avoidance opportunities are incorporated into construction activities. Total clearing limits (area of impact in Revised BDAR) will be sought as a condition of approval. If the final area of vegetation clearance is not consistent with what has been assessed in this Revised BDAR following design refinement, and/or would impact on areas with notably different biodiversity value, the biodiversity assessment would be revised accordingly (and, if necessary, modifications sought to the project approval). 1.31 An offset strategy for the amended project has been prepared with the general approach documented in Chapter 16 of the Revised BDAR. A draft Biodiversity Offset Package (BOP) outlining the offset strategy for the project will be provided for comment and consultation in early June 2024, with a view to submission of a final BOP following project approval.
2. Insufficient Stage 1 BAM Assessment – Assessment of biodiversity values					
A. Assessment of native vegetation Sections 3.2, 3.4, 4.3.3, 4.3.4 & 5.2 of the BAM Section 4.4.4 & Attachment 1 of the BDAR	The assessment of native vegetation is incomplete and contains errors: • The vegetation plot data are inadequate to represent the mapped vegetation zones (Section 3.4 of BAM). • There is uncertainty regarding vegetation zones for TECs, notably that vegetation identified as "low" condition often have relatively high vegetation integrity (VI) scores. • Spatial data indicate that not all native roadside vegetation has been included in the assessment.	There are concerns regarding vegetation integrity (VI) scores and vegetation condition zones. The vegetation integrity (VI) plot distribution described in Section 4.4.4 and Tables 4-5 to 4-10 do not demonstrate that vegetation zones were adequately or representatively sampled. Plot data from different plant community types (PCTs) has been used, along with plots from outside the IBRA subregion with no specific justification or details, such as distance from vegetation zone, or vegetation/edaphic characteristics for why each plot was considered. Section 3.4 of the BAM Stage 1 Operational Manual specifies the requirements for VI plot sampling in vegetation zones. Plots from different PCTs are not acceptable surrogates for vegetation zone integrity. Tables 4-5 to 4-10 must include the unique vegetation zone identifier and plot numbers, clearly indicating which plots are outside the subregion and why they are appropriate. Attachment 7 provides more detail but lacks distances of plots to the subregion in which they've been used, and justifications are generalised. Please refer to EnergyConnect East Final BDAR (RevG) Section 4.3.5 (p49), Tables 4-4 to 4-8, and Table 4-9 for examples of the expected level of detail and justification (WSP 2022).	Response to submissions	2.1 Revise Section 4.4.4 of the BDAR to demonstrate adequacy of vegetation integrity (VI) plot sampling for representing vegetation zones. 2.2 Revise Tables 4-5 to 4-10 and Attachment 7 of the BDAR to include unique vegetation zone identifiers and plot numbers, clearly indicating which plots are outside the subregion, how far they are from the vegetation zone, and why they are considered to represent vegetation within that zone. 2.3 Update the vegetation condition zone naming process in the BDAR, and outline a process outlined to review zone vegetation integrity scores when considering micro-siting impacts during construction. 2.4 Review native roadside vegetation for inclusion in the Stage 1 assessment.	A VI review was undertaken using plot data across all vegetation zones which resulted in updates to the condition assignment within the vegetation mapping for a number of areas of vegetation. The VI scores are now more consistent with the condition assignment for each vegetation zone and have been applied in the Revised BDAR. Any inconsistencies still present are considered to be minor. Responses to the recommended actions include: 2.1 Section 4.4.4 of the Revised BDAR has been updated with additional survey plot data and revision of vegetation zones using VI plot scores. This review consolidated vegetation zones into the same condition class where the VI scores were very close together and structural characteristics of the vegetation zones matched. The remaining plot shortfall largely restricted to PCTs in inaccessible lands, severely burnt vegetation, or in very small, isolated patches of vegetation. Where there has been a plot shortfall, surrogate plots have only been used from the same PCT in a different subregion or higher condition class. Where there were no appropriate surrogate plots available, benchmark data was used. Duplicate plots from the same subregion and vegetation zone were also used where appropriate. Section 4.4.4 of the Revised BDAR outlines the plots used in each vegetation zone and whether they were surrogate, duplicate or benchmark plots. A number of these plot shortfalls occur on the boundary of an IBRA subregion and it is therefore considered appropriate to use the adjacent IBRA subregions plots. This has been detailed in Attachment 12 of the Revised BDAR.

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
		There is uncertainty around vegetation zoning naming conventions for TECs, namely that some “moderate” condition scores are relatively while some “low” condition scores are relatively high. Notably in areas where there is a limited distribution of VI plots, there is risk of both under-estimated or over-estimated vegetation condition (refer Figure 1 example). This has the potential for repercussions during construction micro-siting where the footprint may microsite from a moderate zone (but with VI 40 for example) to a low zone (with VI 45 for example), This may lead to a perverse outcome whereby in terms of credits the impact is increased. A number of low condition vegetation zones for Box Gum Woodland TEC, which is a SAII entity, have relatively high VI scores (> 35 which is considered reasonably high for this TEC), and some low condition zoned PCT’s have assigned VI scores of >75 (eg PCT283 in Crookwell IBRA). Additionally, some VI scores for low condition zones are higher than the moderate condition zones in the same PCT. This reduces confidence in avoidance measures, notably in relation to flow-on effects for SAII assessments in TECs reliant on concentration of impacts in low condition vegetation zones to minimise risk of SAII or to exclude species. There are also areas of native vegetation along roadsides evident on aerial imagery (Figure 10) that have been mapped as Not Native in the spatial data. As a result, the area of native vegetation impacted by the proposal appears to be an underestimate. [Refer to NSW DCCEEW Environment and Heritage’s submission for figures]			2.2 The Revised BDAR has added vegetation zone identifiers and plot numbers, including which plots are outside the subregion, distance from vegetation zone and adequacy to represent the vegetation zone. Section 4.4 and Attachment 12 of the Revised BDAR has been updated as required. 2.3 Vegetation condition mapping was reviewed and where appropriate, areas of vegetation were reassigned to a condition class which more closely matches the VI of the vegetation zone. The SBAS will include validation of PCT and condition zone mapping within inaccessible lands. Mitigation measures have been included to document the process whereby micro-siting will target low VI score habitats and prioritise these areas for impact over high VI score areas where possible (refer to mitigation measure B1, included in Section 14.2 of the BDAR). In addition, biodiversity constraints mapping has been provided to the construction contractors, with low condition areas identified as a lower constraint than high condition areas, enabling consideration of prioritising these areas for impact. 2.4 Roadside native vegetation mapping has been reviewed as part of the updates to vegetation mapping undertaken for the Revised BDAR (refer to Section 6.7 and Figure 6-1). The review involved re-analysing the data collected within these areas as well as aerial imagery, street view imagery, and regional vegetation mapping where available. Several areas were reassigned to a PCT and included in the Stage 1 assessment.
B. Assessment of native vegetation Sections 3.2, 3.4, 4.3.3, 4.3.4 & 5.2 of the BAM Section 4.4.4 & Attachment 1 of the BDAR	The landscape assessment of percent of native vegetation cover is incomplete: • The application of the 500 m linear landscape assessment buffer to the entire project does not accurately reflect site-based components of the project, such as accommodation facilities and substations. Assessment in these site-based areas should be updated to apply the 1500 m buffer.	The landscape assessment of percent of native vegetation cover is incomplete and requires review. Section 5 states that the project is linear and that a 500-metre buffer has been applied to all project components, and the project has been entered as linear projects in the BAM-C. The proposal includes project components that are both site-based and linear in nature. The application of the linear 500 metre buffer to all project components does not accurately reflect the native vegetation cover for the site-based components of the project, such as accommodation facilities and construction compounds. A 1500 m buffer for the landscape assessment should be applied to site-based components within the linear BAM-C cases, such as such as the Tumbarumba Accommodation Facility, Yass Substation compound, Snowy Mountains Highway, Memorial Avenue, and Bowman’s Lane compounds. The linear BAM-C cases for subregions should be retained but the 1500 m buffer used for site-based components within those cases (rather than a separate site-based case).	Response to submissions	2.5 Update landscape assessment buffers to include both site based and linear buffers as appropriate and review percent native vegetation categories at completion.	Changing the landscape assessment buffer at this late stage of the project would involve significant rework of the Revised BDAR. It is understood that the ultimate outcomes of applying a mixed buffering model will make no noticeable difference to the outcomes and it is not clear why construction ancillary facilities need to buffered differently to the rest of the alignment, especially if they tie directly in with it. The landscape assessment buffer and percent of native vegetation cover is used to determine candidate species requiring assessment (based on their habitat requirements listed in the TBDC). Given the scale of the amended project, it is likely that the same list of candidate species would be output from the BAM-C regardless of a 1,500 m or 500 m buffer being applied. It is understood that this mixed buffering of the landscape assessment area for linear projects with site-based components was an amendment added to the April 2023 version of the BAM Stage 2 Operational Manual, which was released after the BDAR assessment for the project had significantly progressed, and the landscape component of the assessment had already been completed. There is a data provision table in the BAM Stage 2 Operational Manual that refers to a two-step approach but directives are subjective (*separate assessment areas for linear development with site-based aspects, eg new transmission line with large construction compound* (Appendix D, page 63 of the BAM Stage 2 Operational Manual). Response to the recommended action includes: 2.5 As per the above, it is not considered necessary to apply the mixed buffer approach to the landscape assessment of the project for the following reasons: 1. Linear projects do not specifically require per cent native vegetation assessment. A suitable approach for the project was designed and is explained within the BDAR and Revised BDAR (refer to Section 4.1.1 of the Revised BDAR).

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
					2. If the per cent native vegetation extent was assessed separately for each construction ancillary facility, it would require significant extra effort that would make no obvious material difference to the assessment outcomes, as understood by Niche. For a project of this scale, the rework to include a 1,500 m buffer for the non-linear aspects of the project would require significant additional mapping for a number of data layers that feed into the landscape assessment section of the Revised BDAR and BAM–C data, including woody, non-woody vegetation, per cent cover native vegetation, Category 1 exempt lands, patch size and amendments to most aspects of the prepared reports, attachments and figures.
C. Assessment of native vegetation Sections 4.3.3 & 4.3.4 of the BAM Section 4.4.4 & Attachment 1 of the BDAR	Vegetation integrity benchmarks have not been used for inaccessible lands: • Duplicate plots from some distance away have been utilised, rather than benchmark vegetation integrity scores.	Vegetation integrity benchmarks have not been used for inaccessible lands. The Bondo subregion VZ '953-Low' on accessible land is identified as Tablelands Basalt TEC. The 7 plots used to calculate VI are 'duplicate' plots, located 20 – 30 km away in a different subregion (Snowy Mountains). The justification for using these plots in Table A7-1 is that the VZ is severely burnt. We consider that benchmark VI scores should be used to assess TECs on inaccessible lands, unless it can be clearly demonstrated that the area lacks any woody vegetation, for example no trees or regenerating vegetation. Some areas mapped as low condition zoned TEC, such as Tableland Basalt Forest TEC, in inaccessible lands appear to be intact vegetation.	Response to submissions	2.6 Benchmark vegetation integrity scores should be used to assess TECs on inaccessible lands, unless it can be clearly demonstrated that the area lacks any woody vegetation or native groundcover.	Additional BAM plot surveys were conducted for the Revised BDAR from September to March 2024 to address plot shortfalls in the BDAR (wherever possible). A shortfall still remains for some vegetation occurring within inaccessible lands, severely burnt lands and/or very small isolated patches which were not suitable to be sampled with a plot. This shortfall has been met using surrogate, duplicate or benchmark plots. 2.6 A desktop assessment was undertaken over inaccessible lands to ascertain likely PCT and condition. The majority of areas where a plot shortfall is present are in very low and low condition PCT's. The use of benchmark data would significantly inflate VI scores for these low and very low condition areas therefore surrogate plots from similar condition zones in adjacent IBRA subregions have been used to more accurately represent the likely VI. Where surrogate plot data from the same vegetation zone was not available, surrogate data from a higher condition zone was used. Where neither of these options were available, benchmark has been used. The method for surrogate plot data use and associated justification is documented in Section 4.4.4 and Attachment 12 of the Revised BDAR'
D. Candidate species requiring assessment Sections 5.2.3(2)(a) & 5.2.5 of the BAM Section 7.7.7 & Table 7.2.1 of the BDAR	There are candidate threatened flora species which require further assessment: • The Stage 1 assessment (BAR) provides insufficient detail and fails to address all candidate species requiring assessment and should be revised to identify all candidate species (Section 5.2 of BAM). • *Pimelea bracteata* and *Caladenia montana* have not been included as a candidate species, but are been predicted by the BAM-C and are known to occur in proximity to the project. • Species polygons for candidate species that are assumed present are not well presented or justifiable against BAM requirements (Section 5.2.5 Box 2), and the spatial data do not clearly differentiate between species. • Species polygons for *Caladenia montana* are likely to be incorrect and they do not adequately address the microhabitat requirements of the species.	There are candidate threatened flora species requiring further assessment There is no justification for excluding *Caladenia montana* based on geographic location. *Caladenia montana* was recorded from Bondo subregion PCTs 296, 300, 729 and 999 within the Snowy 2 Transmission Connection footprint. The records include 166 plant clusters, varying from 1 to 12 plants, the closest being within five kilometres of the HumeLink study area. An offset liability was generated for that project. This Information does not appear to have informed the assessment (refer to Section 6.7.1.1 of the Snowy 2 Transmission BDAR V7 (Jacobs 2022)). The TBDC predicts it for PCTs 300, 303, 1191 and 1196. PCT 1191 in Bondo subregion is being impacted by HumeLink. Species polygons for *Caladenia montana* are overly modelled and not a reflection of microhabitat, or vegetation zones (see BAM s5.2.5). See attached image example near McPhersons Plain on a species polygon that is not BAM compliant (Figure 11 below). *Pimelea bracteata* has not been included as a candidate species but has been predicted by the BAM C and is known to occur in proximity to the project. *Pimelea bracteata* occurs in wetlands and along waterways and stream edges in high altitude treeless subalpine valleys. It can also occur in wet heathland and closed heath and is known in close proximity to the project footprint at McPhersons Plain. It may occur within other areas of unsurveyed suitable habitat within the project footprint. Bionet records should be reviewed and targeted survey (or expert report) will be required in areas of suitable habitat to determine presence/absence for the assessment.	Response to submissions	2.7 Revise the assessment to include *Pimelea bracteata* and *Caladenia montana* as candidate species for assessment. 2.8 Revise the assessment to include *Caladenia montana* based on review of the Snowy 2.0 Transmission BDAR V7 (Jacobs 2022). 2.9 Provide evidence and justification to support the exclusion of vegetation zones for each species polygon, and revise species polygons in accordance with Section 5 Box 2 of the BAM. 2.10 Ensure species habitat mapping data and figures are provided to guide micro-siting and avoidance. 2.11 Prepare a species polygon for *Caladenia montana* and *Pimelea bracteata* if targeted survey has not been completed to BAM requirements and the species have been excluded.	All species polygons have been reviewed and revised where appropriate for the Revised BDAR. Consultation with NSW DCCEEW Environment and Heritage was undertaken on 13 December 2023 to detail the approach to species polygon development and followed up with a related data package and a request for additional input from NSW DCCEEW Environment and Heritage following the workshop (refer to Attachment 7 of the Revised BDAR). Due to program timeline, the Revised BDAR assessment and species polygon development was required to be finalised with limited inputs from NSW DCCEEW Environment and Heritage following the workshop (as feedback was provided by NSW DCCEEW Environment and Heritage on 9 February 2024). However, the NSW DCCEEW Environment and Heritage feedback provided during the workshop was incorporated/considered in the updated approach documented in Attachment 1 of the Revised BDAR: • Order of filters: The Revised BDAR has been updated to clarify the approach to patch size assignment in relation to scattered trees. • Category 1 exempt land/degraded habitat: NSW DCCEEW Environment and Heritage supported the approach to Category 1 exempt land/degraded habitat filters for species. • Low condition filters: Vegetation condition is still used as an indicator of degraded habitats for several species where it is considered an appropriate metric based on the review of all potential habitats and their attributes. Further justification is provided in Attachment 1 including reference to BAM plot data where relevant for species. • Post approval surveys: Recommendations for additional survey is detailed in Attachment 27 of the Revised BDAR. • Gang-gang Cockatoo and Glossy Black Cockatoo habitat constraints: The habitat constraints filters applied to Gang-gang Cockatoo to LiDAR tree heights greater than 10 m has been adjusted as per the NSW DCCEEW Environment and Heritage advice. Tree height thresholds for Glossy Black Cockatoo remain at greater than 20 m based on subsequent consultation with Damon Oliver from the DCCEEW Environment and Heritage.

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
		The species polygons for candidate species assumed present are not well presented or justifiable against BAM requirements (Section 5.2.5 Box 2). Spatial data is missing for species habitat polygons. Data does not differentiate between species assumed present and species detected by survey. Figure 26-Figure 30 show examples of species polygons that are unrealistic or under/overestimated due to assumed presence or non-compliance with BAM Section 5.2.5. The species polygon is made up of several inputs, which are not suitable for the site scale. The land is accessible or could be surveyed from public road reserves. [Refer to NSW DCCEEW Environment and Heritage's submission for figures]			The updated approach to species polygon development has been detailed in Attachment 1 of the Revised BDAR. Responses to the recommended actions include: 2.7 As per Section 7.2.1 of the Revised BDAR, *Pimelea bracteata* and *Caladenia montana* have been included as candidate species. *Pimelea bracteata* was previously excluded due to incorrect Bionet data (the species was assigned incorrect associated PCTs in BioNet/TBDC). 2.8 Following review of *Snowy 2.0 Transmission Connection Project Biodiversity Development Assessment Report* (Jacobs 2021), *Caladenia montana* has been included as a candidate species in the Revised BDAR (refer to Section 7.2.1 of the Revised BDAR). Note: taxonomy (and inclusion) of the species is to be clarified post approval. 2.9 Justification of the mapping of species polygons is provided in Attachment 1 of the Revised BDAR. NSW DCCEEW Environment and Heritage were consulted on the development of species polygons for a select number of species on 13 December 2023, as detailed above. No consultation was carried out where guidelines requirements were clear for preparation of species polygons. Species polygons have been developed in accordance with Section 5 Box 2 of the BAM, as detailed in Section 7.4 of the Revised BDAR. Additional detail regarding species polygon development has been added to Attachment 1 in the Revised BDAR, including where advice obtained through NSW DCCEEW Environment and Heritage consultation regarding species polygon development has been incorporated into the species polygon mapping process. Justification for the exclusion of degraded habitats, including reference to field-collected floristic and habitat assessment data, has also been incorporated, where relevant to candidate species. 2.10 An updated indicative disturbance area is presented in the Revised BDAR, which reflects the construction contractor's preliminary design (and a maximum clearing footprint), however is still subject to final detailed design (ie the Revised BDAR does not include the final design for the project). Avoidance will be incorporated into the detailed design, which was not available for inclusion in the Revised BDAR due to program timeline. As such, avoiding impacts through micro-siting has not been assessed in the Revised BDAR. Avoidance measures that can be committed to at this stage of the project are discussed in Chapters 12 and 14 of the Revised BDAR. In addition, biodiversity constraints mapping has been provided to the construction contractors to enable avoidance measures to be considered in the detailed design where possible. The construction contractors have access to the full biodiversity mapping suite, including all updates. 2.11 Species polygons for *Pimelea bracteata* and *Caladenia montana* have been added to the Revised BDAR (refer to Attachment 1 of the Revised BDAR). *Pimelea bracteata* was confirmed present in the project footprint through survey (1.08 ha of known habitat, 14.57 ha of assumed presence, 29.47 ha of potential habitat removed from the species polygon due to adequate survey, 8.92 ha directly impacted). Additional data with records of *Pimelea bracteata* have been provided by NSW DCCEEW Environment and Heritage, which have not been incorporated in the Revised BDAR, but will be included in final constraints mapping and avoidance and mitigation will be considered during finalisation of detailed design. Further surveys for *Pimelea bracteata* will also be undertaken as part of the SBAS. *Caladenia montana* could not be surveyed in 2023/2024 due to lack of detected flowering at reference populations and hence has been assumed presence in suitable habitats (632.07 ha of assumed presence, 208.60 ha of which directly impacted). Further consultation with NSW DCCEEW Environment and Heritage will be undertaken regarding the taxonomy of the species. Additional survey will also be conducted for *Caladenia montana* in October/November 2024 to refine presence/area of occupation. Results will be

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
					communicated with the construction contractors and appropriate mapping provided.
E. Candidate species requiring assessment Sections 5.2.3(2)(a) & 5.2.5 of the BAM Section 7.7.7 & Table 7.2.1 of the BDAR	PCT habitat associations for some species have not been included in species polygons: • Several candidate species have missing PCT associations, for example Eastern Pygmy Possum within PCT 314 (including moderate-very high vegetation zones) and Broad-Toothed Rat within PCT 1224/1225 & PCT 637. This may also be the case for other species in the BDAR. • Species polygons do not meet BAM requirements and need to be revised (Section 5.2.5 of BAM).	PCT habitat associations for some species have not been included in species polygons Several candidate species have missing PCT associations, including Eastern Pygmy Possum within PCT 314 (including mod-very high condition zones) and Broad-Toothed Rat within PCT 1224/1225 & PCT 637 that has not been included in PCT mapping. There is concern that these issues may be indicative of issues throughout the BDAR, noting that not every candidate species for the whole alignment has been reviewed. Figure 12-Figure 13 below show the extent of Eastern Pygmy Possum habitat in the BDAR and spatial data. While the BDAR indicates that geographic constraints listed in the TBDC were determined spatially and relevant areas excluded, the specific process has not been detailed, nor is it clear whether this was applied on inaccessible land only or both accessible and inaccessible land. [Refer to NSW DCCEEW Environment and Heritage's submission for figures]	Response to submissions	2.12 Revise PCT associations for candidate species Eastern Pygmy Possum and Broad-Toothed Rat. 2.13 Review all threatened species PCT associations including revised BAM-C cases for BCD review. 2.14 Provide a detailed description of the constraints mapping process and justification for its use for individual species.	All species polygons, including PCT habitat associations and geographic constraints, have been reviewed for the Revised BDAR. Responses to the recommended actions include: 2.12 PCT associations have been revised and updated as per the latest BAM-C/TBDC data in the Revised BDAR (as per process detailed in Attachment 1). PCT associations for candidate species are drawn from TBDC, with power query updates run prior to each update of the species polygon mapping. For Eastern Pygmy-possum (*Cercartetus nanus*), this involved: • All of PCT 314 has been removed from the species polygon for *Cercartetus nanus* due to adequate survey (26.76 ha of habitat removed across Very high, Moderate and Low condition zones). For Broad-toothed Rat (*Mastacomys fuscus*), this involved: • PCT 637 was included for this species in the Revised BDAR and species polygon mapping. PCT 679 (0.01 ha of habitat, none of which will be impacted) was removed from the species polygon due to adequate survey. • PCT 1225 does not exist in the amended project footprint. • PCT 1224 was included for this species (5.12 ha in the project footprint, 0.02 ha will be impacted). 2.13 PCT associations have been revised and updated as per the latest BAM-C/TBDC data in the Revised BDAR. PCT associations for candidate species are drawn from TBDC, with power query updates run prior to each update of the species polygon mapping. 2.14 Attachment 1 of the BDAR includes species polygon development and habitat mapping process for each species, following Section 5.2.5 of the BAM. NSW DCCEEW Environment and Heritage were consulted on the approach in June 2022 (review of methods supplied to NSW DCCEEW Environment and Heritage), October 2022 (species workshop) and December 2023 (species polygon workshop and subsequent supply of data/mapping). Refer to Attachment 7 of the Revised BDAR for further details on consultation. More detail has been added to Attachment 1 of the Revised BDAR to include NSW DCCEEW Environment and Heritage advice/guidance and how this was incorporated into species polygon mapping. However, it should be noted that, due to program timeline, NSW DCCEEW Environment and Heritage feedback following the species polygon workshop (13 December 2023) could not be included in the Revised BDAR, with the exception of those items detailed in responses above (see response at row D). To clarify, geographic constraints listed in the TBDC were determined spatially and relevant areas excluded, within both accessible and inaccessible land.
F. Planted native vegetation Planted Native Vegetation (Appendix B Table 28) of the BAM Tables A11-1, A11-28 of the BDAR	Planted native vegetation has not been adequately assessed: • Limited detail has been provided for planted native vegetation, and further justification is required to support the conclusions.	Native vegetation plantings require further assessment. Plantings do not appear to have been individually surveyed or assessed in accordance with BAM Appendix D – streamlined assessment module for planted native vegetation. The BDAR states that there is 17.93ha of planted native vegetation on Category 1 land, however it is not apparent if these plantings have been included in Attachment 11 and assessed for threatened species habitat. The assessment in Attachment 11 is incorrectly based on a single application of the streamlined assessment for all plantings. Table 11-2 has 106 separate entries for discrete plantings, which all have the potential to support various threatened species.	Response to submissions	2.15 Provide further evidence and justification for the assessment of planted native vegetation.	2.15 The Revised BDAR estimates there is 16.91 ha of planted native vegetation on Category 1 exempt land based on the amended project (refer to Attachment 8 of the Revised BDAR). Attachment 16 of the Revised BDAR has been updated to include only areas that are clearly planted (such as planted rows along paddock fences). Where there was not sufficient evidence that an area was planted, a conservative approach has been taken for the Revised BDAR and the area has been removed from the Streamlined Assessment of planted vegetation (refer to Attachment 16) and assigned an appropriate PCT for inclusion in the standard BAM for assessment. This includes the individual plantings raised by NSW DCCEEW Environment and Heritage (such as Figure 7-2 (map reference 9) and Table 11-2 Row 6 and Row 8). Each planting has not been assessed in the field, due to access and time constraints (planted areas were not identified as a priority for survey within the amended project footprint). Where plantings were ground-truthed, field data and photos have been included in Attachment 16 of the Revised

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
		Table A11-1 provides insufficient information to justify the "no" answers at each step in the decision-making key, as required by Appendix D, D.1. Further evidence needs to be provided to support conclusions, for example: • Assessing the suitability of the planted native vegetation for use by threatened species - The assessment relies largely on desktop review and incidental records to determine the potential for threatened species habitat. Minimal survey effort has been made to assess individual plantings. - the desktop assessment did not identify that Figure 7-2 (map reference 9) indicates the presence of woodland bird records within 200 m of a planting (Table A11-2, row 9). BCD consider that planting to be potential habitat for Dusky Woodswallow and Diamond Firetail. - Similarly, there is a bird nest in the planting photographed in Table 11-2 Row 8 with no discussion about the potential habitat this could provide for threatened species. • Whether a planted area is part of a Saving our Species project or other type of government funded restoration project. • Table A11-2 Row 6 shows a large planting clearly visible on the aerial photo that appears to form a mosaic planting with the surrounding native vegetation. There is no evidence that public registers were checked to determine if conservation obligations (eg BAM s11.9) exist on the land parcels containing the planted vegetation or if public funds were used for the planting. We consider the conclusion that plantings within the project footprint do not support threatened species to be unjustified based on the limited information reported in Tables A11-1 and A11-2. [Refer to NSW DCCEEW Environment and Heritage's submission for figures]			BDAR and used to inform the assessment of threatened species habitat. All areas of planted vegetation identified within the footprint were checked for existing conservation or stewardship agreements using the BCT Agreement dataset available from SEED (searched March 2024) from publicly available data. No existing conservation obligations were identified by the search. Although some areas of planted vegetation appear to be associated with regeneration or stock exclusion efforts, the majority of mapped plantings appear to be planted native or exotic plantings for windbreaks located on fence lines on cropping or grazing land. A review of publicly available data shows that none of the areas of planted native vegetation are known to be a result of deliberate efforts to replace or regenerate a plant community type or a threatened plant species population or its habitat. Further, no database searches (including the BCT Agreement dataset available from SEED) revealed any of the listed purposes (2a-g from Planted Native Vegetation Streamlined Assessment Module decision making key, DPIE 2020) as occurring within the identified areas of planted vegetation. The areas of planted native vegetation generally occur as linear strips of vegetation of even age, often concentrated along paddock edges. Further justification for the assessment of planted native vegetation, including where planted vegetation does not support threatened species, has been added to the Revised BDAR (refer to Section 6.7 and Attachment 16 of the Revised BDAR).
G. Scattered trees assessment Scattered trees module (Appendix B & Table 26) of the BAM Section 4.2.3 of the BDAR	Scattered trees have not been assessed according to the BAM: • The scattered trees module of the BAM has not been used to classify and exclude scattered trees within paddocks from further assessment.	BCD have previously advised that scattered trees within Category 1 land should be considered as Category 2 lands, following the categories designated under Part 5A of the *Local Land Services Act 2013*, and that individual scattered trees should be identified in biodiversity mapping for the BDAR Individual trees need to be separated out with crowns shown for assessment if threatened species are present. BCD did not provide advice that the scattered tree module should not be used. Scattered trees that are surrounded by Category 1 land appear to have been excluded from the assessment without justification and without using the scattered tree module. When the BAM scattered tree module is being applied, scattered trees can be excluded from further assessment if they have been assessed as Class 1. However, there is no mention, justification or data provided to demonstrate that trees were classified and excluded. As such, an assessment of scattered trees for threatened species habitat has not been undertaken and potential offsets have not been calculated. It appears that exclusion of scattered trees from the assessment has resulted from errors in determining Category 1 land in the BDAR (Section 4.2.3).	Response to submissions	2.16 Provide detail to specifically explain how scattered trees have been assessed, including an explanation as to why they have been 'generally excluded' using the scattered trees streamlined assessment module of BAM 2020.	2.16 Category 1 exempt lands do not include woody vegetation, including scattered trees. All scattered trees are excluded from Category 1 exempt land mapping and are assessed under the BAM. The scattered trees module of BAM was not used. Rather, scattered trees were addressed in the same manner as other native woody PCTs. The extent of scattered tree canopies were mapped using aerial photo interpolation and NSW Woody Vegetation Extent Mapping. Where these were within 100 m of other native woody vegetation they were assigned to the same patch. These were also considered native woody vegetation for the purpose of native vegetation cover and contributed to overall native cover scores reported for the landscape buffer (refer to section 4.1 of the Revised BDAR). The above approach was applied as an alternative to applying the scattered tree assessment module of the BAM, which was deemed inappropriate to apply to a project of this scale. This approach was communicated to NSW DCCEEW Environment and Heritage in June 2022 within the HumeLink BAM methods for consultation Autumn 2022 data package.

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
H. Severely burnt sites Sections 4.3 & 5.2 of the BAM Section 9.3 of the BDAR	Severely burnt site assessment requires consultation with BCD: • There has been no consultation with BCD regarding the assessment of severely burnt sites for species eliminated for further survey or assessment of habitat constraints.	No consultation has been undertaken with BCD on assessment of severely burnt sites for species eliminated via survey or assessment of habitat constraints. This undermines the BCD guidance provided to all proposals in areas affected by the severe 2019/2020 bushfires. The rationale provided for some species may be sound, however for many there needs to be consideration of site suitability for detection of candidate species via survey. This is particularly the case for those that may not have a positive or predictable recovery post-fire. Some flora species, for example, may have had a favourable response immediately post fire but may now be undetectable within the dense regrowth and litter cover that dominates in a short timeframe after fire.	Response to submissions	2.17 Consult with BCD about the assessment of severely burnt sites, as previously requested, and provide evidence of addressing BCD advice in the revised BDAR. 2.18 Revise the survey requirements of threatened flora in severely burnt sites in consultation with BCD.	2.17 The severely burnt sites assessment was initially discussed with NSW DCCEEW Environment and Heritage during the workshop on 18 November 2021. Verbal advice from NSW DCCEEW Environment and Heritage at meeting held on 13 December 2023 included: "NSW DCCEEW Environment and Heritage agrees with the rationale to the severely burnt sites assessment, however further clarity on the outcome for each species (ie surveys undertaken or assumed presence) is required to be provided. NSW DCCEEW Environment and Heritage would still require consultation on this portion of the assessment to discuss each species in more detail." Where the literature review indicated that the species presence could be affected by the fire, survey effort was not included within severely burnt lands for those species and presence was assumed, as it was deemed inappropriate to rely on survey to determine species presence or absence in severely burnt lands. Attachment 19 of the Revised BDAR has been updated to detail the outcome for each species. Further consultation with NSW DCCEEW Environment and Heritage regarding the severely burnt sites assessment approach was undertaken on 27 November 2023 (refer to Section 1.9.1 and Attachment 7 of the Revised BDAR). 2.18 The Revised BDAR incorporates advice from NSW DCCEEW Environment and Heritage on severely burnt sites (refer to Attachments 7 and 19 of the Revised BDAR). NSW DCCEEW Environment and Heritage's recommendations have been adopted for fauna and flora in regards to severely burnt lands, with the exception of four species where justification was provided for the inclusion of survey effort to show presence/absence given habitats were limited to understorey layers, which were identified as sufficiently recovered through recent species detections within severely burnt lands: • *Pimelea bracteata* recorded and was able to be adequately identified within severely burnt lands in PCT 953 (high condition) in December 2023 (Figure 9-1 map reference 39 and Figure 13-11 map reference 39 of the Revised BDAR). Further, advice from the Accountable Officer regarding *Pimelea bracteata* and severely burnt lands included *"Pimelea bracteata should respond after fire and re-establish a population, the issue would be with visibility (ie very small) and ID if they are not in flower"*. • *Prasophyllum keltonii* and *P. bagoense* recorded in PCT 1224 (high condition) and *P. innubum* (recorded 300 m west of the project footprint) in December 2023 in understorey layers no longer classed as severely burnt as the habitat was deemed sufficiently recovered.
3. Inadequate Application of Stage 2 BAM – Impact assessment and prescribed impacts					
A. Operational footprint & subject site Sections 7.1 & 7.2 of the BAM Section 2.4, Table 2.1 & Chapter 13 of the BDAR	The operational footprint and subject land have not been fully or correctly delineated: • The assessment does not consider the maximum disturbance footprint and is likely to have underestimated areas of potential impacts, particularly for SAII entities and TECs. • Access ways to sections of the easement and total clearing zones (ECZ & TCZ) that are inaccessible to construction machinery have not been mapped, as required by Stage 2 of the BAM. • The definition of subject land does not currently include the entirety of the operational footprint. It is not clear whether all asset protection zones, necessary infrastructure or access ways required for construction have been included.	Subject land definition currently does not include the operational footprint. The operational footprint should include all ancillary infrastructure, including proposed access ways that are located on existing access tracks. There are some instances where towers appear to have no associated access, and it appears there could be impact to native vegetation and in-stream habitat not included in the project footprint. Figure 16-Figure 19 below provide examples of the likely underestimated impact and potentially unfeasible disturbance footprint. The mapped location of some sections of the total and easement clearing zones (TCZ and ECZ) (clearing impacts) appears to be in locations that are inaccessible to construction machinery. There is no mapping of access ways into and out of the corridor for access to all towers and ECZs or HTZs for clearing and continued operational access. This has compromised the Stage 2 impact assessment of direct, indirect and prescribed impacts. If there is no native vegetation underneath the impact, then there will be no credit liability generated.	Response to submissions	3.1 Include access ways to and from the project footprint for construction and operation in the assessment, including areas where no native vegetation is being impacted. 3.2 Revise the definition of the subject land to include the entire operational footprint and indirect impacts. 3.3 Consolidate and clarify all avoid and minimise measures in the BDAR in a single location. 3.4 Update the BDAR assessment and species polygons to include all necessary infrastructure, new and upgraded tracks, stringing and structure assembly areas, noting where existing tracks or cleared areas are being utilised. 3.5 After revising vegetation condition mapping, re-assess the location of	3.1 The amended project footprint and updated indicative disturbance area used in the Revised BDAR includes nominated access tracks for construction and operation. Further detail on the nominated access tracks can be found in Chapter 3 (Description of the amended project) of the Amendment Report (refer to Section 3.4). The updated indicative disturbance area is based on the construction contractor's preliminary design, which is still subject to final detailed design. The TCZ has been applied to all applicable areas, including those associated with the access tracks, in response to NSW DCCEEW Environment and Heritage feedback. For clearing of isolated areas of vegetation, provision of a mapped access track would not be required, as vehicle access/egress would be minimal and required only once to remove vegetation (ongoing access not required). Additionally, a suitable location for access points to remove isolated patches of vegetation will be determined based on site specific limitations such as topography and location of existing infrastructure. The area of impact & location will be mapped and provided in post approval reporting. A summary of how the clearing scenarios have been considered in the assessment of impacts is provided in Section 13.1 of the Revised BDAR. The revised Vegetation Clearing Memo, detailing methods of clearing to

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
		The assessment of impacts appears to be under-represented between towers along the proposed alignment. For example, refer to Figure 19 showing the area adjacent Pejar Dam and Goulburn Road. The BDAR should explain how access will be gained to tower locations for construction and maintenance. It is also unclear if the total clearing zone includes asset protection zones (APZs) required for infrastructure (Section 2.4). Specifications for vegetation maintenance are described in *Technical Report 13 – Bushfire Risk Assessment Repor*t (Aurecon 2023) (Section 9.4) include 20 m cleared areas around structures. Any hazard management requirements should be clearly identified in the BDAR. Table 2-1 lists "additional disturbance for structure assembly and stringing" as required for the TCZ, however it is not evident if these areas, which would require total clearing, have been included in the assessment. [Refer to NSW DCCEEW Environment and Heritage's submission for figures]		infrastructure in low condition or non-native vegetation.	be applied during construction, operation and maintenance, was provided to NSW DCCEEW Environment and Heritage in November 2023. APZs and "additional disturbance for structure assembly and stringing" as required for the TCZ are included in the construction contractor's preliminary detailed disturbance area. 3.2 The definition of the amended project footprint and updated indicative disturbance area (ie the subject land) in Table 1-3 of the Revised BDAR has been updated. The amended project footprint incorporates the amendments and refinements developed since the public exhibition of the EIS, which is detailed in Chapter 3 (Description of the amendments) in the Amendment Report. The updated indicative disturbance area is based on the amended project and includes the area that would be temporarily or permanently cleared during project construction and operation. Figure 13-1 of the Revised BDAR shows the updated indicative disturbance area. A revised approach to assessment of indirect impacts has been added to the Revised BDAR and is documented in Attachment 24, including calculation of areas of PCTs likely to be impacted by edge effects within 20 m of new disturbance/edges, assessment. 3.3 The avoidance and minimisation measures have been consolidated across Chapter 12 (Avoid and minimise impacts) and Chapter 14 (Mitigation and management measures) of the Revised BDAR. Avoidance measures are provided in a separate chapter as these are considered separately from mitigation measures, which are applied after residual direct impacts are considered, as per the BAM. 3.4 The amended project footprint and updated indicative disturbance area (ie the subject land) included in the Revised BDAR includes the entire operational footprint, including access tracks (utilising existing access tracks where possible), construction ancillary facilities, stringing areas (brake and winch sites), structure assembly areas (construction benches) and all necessary infrastructure; representing a maximum clearing footprint, to be further refined during detailed design. It should be noted that when formalised access tracks are no longer required and are removed, light vehicle access (4x4) may still be undertaken along the easement periodically but will not require vegetation removal. Heavy vehicle access to all structures is not required during the operational phase. Any repairs necessitating heavy vehicle access would be managed on a structure by structure basis. Refer to Figure 13-1 and 13-2 of the Revised BDAR for the updated indicative disturbance area, including indirect impacts. 3.5 Updated vegetation mapping (following revision of VI scores, additional field survey (including additional BAM plots and the use of surrogate plots where required), and assessment to fill data gaps) is used in Revised BDAR to assess impacts. During detailed design, infrastructure (clearing impacts) will be located within low condition native vegetation and non-native vegetation areas, where possible. Biodiversity constraints mapping, including the amended project footprint , was provided to the construction contractors engaged to develop the detailed design to inform micro siting and avoidance measures. Program timeline did not allow the detailed design to be included in the Revised BDAR however all biodiversity mapping has been provided to construction contractors to inform project planning. The BMP (mitigation measure B3 in Table 14-1 of the Revised BDAR) will detail additional avoidance and mitigation measures to further reduce impacts including within low condition native vegetation or non-native vegetation areas wherever possible..

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
B. Avoid and minimise Sections 7.1 & 7.2 of the BAM Chapter 12, Tables 12-1 & 14-1 of the BDAR	Landscape-scale avoidance hierarchy has errors: • The hierarchy for landscape-scale avoidance does not adequately demonstrate that priority biodiversity values will be conserved, for example the National Parks estate not being included in Tier 1 as highest priority for avoidance.	Some avoidance measures are likely to be ineffective due to limitations of the underlying biodiversity data, assumptions about the feasibility of clearing methods, and lack of detail about project impacts. Section 12.1 describes the hierarchy for landscape-scale avoidance with Tier 1 being highest priority. National parks estate (including nature reserves) has been included as Tier 2, along with "forested areas due to elevated bushfire risk". Although subsequent avoidance of specific national parks and nature reserves has occurred, BCD do not consider this designation to demonstrate a commitment to biodiversity conservation. CEECs have also not been separately classified as a priority for avoidance. The location of CEECs and habitat for CE and SAII species (including assumed presence) may change as further access is granted. It is not clear if there is a process for avoiding any new high priority finds. The text in Section 12.1 indicates that avoidance measures in Table 12-1 have been implemented, however there is no detail in the table to demonstrate that actions have been completed, and some (such as micro-siting and analysis of alternative sites during detailed design) appear to be future actions. For line-of-sight between BDAR commitments and post-approval planning, the measures in Table 12-1 should be clearly numbered and linked to linked to actions in Table 14-1. Table 12-1 includes "locating infrastructure in areas with low VI score to avoid biodiversity impacts" as an avoidance measure. The effectiveness of this measure is limited by lack of access, lack of confidence in habitat prediction methods used in the BDAR, and the designation of "low condition" in the HumeLink vegetation dataset. BCD have noted relatively high VI scores in for some vegetation zones being classified as low condition.	Response to submissions	3.6 Detail how revised biodiversity data will be incorporated into detailed design to demonstrate how and when avoidance measures will be implemented/completed, for example by cross referencing actions and mitigation measures. 3.7 Provide a priority list of biodiversity constraints (and finalised maps/datasets) that will be used in detailed design and construction planning and detail the process and scheduling by which this occurs.	The avoidance of National Parks and Nature Reserves has been consistently prioritised during project development and the amended project footprint avoids these areas. However, National Parks and Nature Reserves were not included as Tier 1 constraints as there are existing transmission lines in National Parks and Nature Reserves and paralleling existing transmission lines is a key feature of the project. Responses to the recommended actions include: 3.6 Biodiversity constraints mapping has been prepared and updated for the amended project footprint and provided to construction contractors to inform avoidance and mitigation during detailed design. The biodiversity constraints mapping identifies CEECs and SAII species as a priority for avoidance and impact minimisation within design constraints. Due to the widespread nature of some CEEC and SAII species (Box Gum Woodland in particular) there are very limited avoidance opportunities, especially within Low and Very Low condition vegetation zones. The biodiversity constraints mapping is being used by the construction contractors engaged to develop the detailed design for the project, ensuring avoidance measures committed to in the Revised BDAR are incorporated into the final detailed design. Further avoidance during construction of other areas of high biodiversity values will be guided by constraints mapping, results from post-BDAR and post approval surveys (as outlined in the SBAS), pre-clearance surveys and designated biodiversity exclusion zones. This is more achievable in the ECZ and HTZ than in the TCZ, however all opportunities to retain and avoid impacts to areas of high biodiversity value in the TCZ will be taken and procedures to do so are outlined in the BMP. Supplementary biodiversity surveys (as part of the BMP and post approval biodiversity assessment strategy) would be undertaken in areas not previously subject to biodiversity survey prior to work occurring in any such areas to inform detailed design and micro-siting opportunities. Priorities for additional survey will be based on potential conservation value and would prioritise areas mapped as supporting CEECs and SAII (refer to Section 14.2 and Attachment 27 of the Revised BDAR). Additional survey would include validation of vegetation mapping within inaccessible lands and review of PCT and condition zone mapping assigned in the Revised BDAR vegetation mapping to ensure correct PCT association and candidate species. Supplementary surveys to further refine species presence/absence in impact areas will be undertaken as part of the SBAS. 3.7 Attachment 27 of the Revised BDAR details priority biodiversity constraints for supplementary surveys to be conducted post submission of the Revised BDAR, which will be incorporated into the SBAS (to be developed by Transgrid in consultation with NSW DCCEEW Environment and Heritage). Priorities for additional survey is based on potential conservation value and would prioritise areas mapped as supporting CEECs and candidate SAII species (refer to Section 14.2 and Attachment 27 of the Revised BDAR). The hierarchy used for the development of the biodiversity constraints is provided in Table C-2. Final species polygons and vegetation mapping have been provided to NSW DCCEEW Environment and Heritage.
C. Mitigation measures Sections 8.4 & 8.5 of the BAM Chapters 12-14 of the BDAR	Avoidance commitments and mitigation measures provide insufficient detail to be successfully implemented: • The avoidance measures listed at Table 12-1 require further detail and are not linked to the mitigation measures in Table 14-1. • The proposed mitigation measures are unclear, avoid and minimise commitments are not concisely captured in the BDAR. • There are no examples provided to demonstrate where the proposed mitigation measures have been used successfully in similar situations.	Avoid and minimise (including mitigation) measures are scattered throughout the BDAR and attachments, such as Tables 12-1, A21-7, Attachment 9 – Golden Sun Moth Expert Report, SAII assessment in Attachment 13, Attachment 18 MNES, Attachment 21 Prescribed Impacts, etc. Without extensive cross-checking with Table 14-1 and Table 13-14, it is difficult to determine if all commitments have been captured.	Response to submissions	3.8 Provide a link in Table 12-1 to mitigation measures in Table 14-1, and revise mitigation measures to remove ambiguity. 3.9 In consultation with NPWS, provide known pathogen locations, assess the potential impacts to biodiversity, and specify mitigation measures.	3.8 Cross-references in Table 12-1 to mitigation measures in Table 14-1 have been added in the Revised BDAR. 3.9 Consultation with NPWS (Glenn Stroud, Team Leader Ranger Murrumbidgee Area, Southern Ranges Branch, NPWS, email correspondence dated 30/1/24) provided the known pathogen locations within Kosciuszko National Park.

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
	• Phytophthora has been detected in locations associated within Snowy 2.0 such as Lobs Hole, however this has not been addressed in Table 13-14.	Action B1 refers to avoiding "matters of biodiversity conservation significance". This term is not defined in the BDAR, and there are no details about how the various spatial datasets or maps should be organised for consideration during detailed design and micro-siting. 'May', 'would', and 'where practicable' are used extensively throughout the mitigation measures. Non-binding terms such as these give uncertainty about what will be implemented and when. Table 13-14 fails to identify that Phytophthora has been detected in locations associated with Snowy 2 and in Lobs Hole. As construction vehicles will be moving through Lobs Hole, the BDAR must address the risk of spread into, through and adjacent the development site.		3.10 Provide supporting evidence for proposed mitigation measures such as Transgrid approved vegetation management protocols, operating procedures for vegetation management in transmission line easements and examples of successful mitigation measures for maintaining fauna habitat connectivity across powerline easements in similar landscapes/ vegetation.	Mitigation measures to minimise the likelihood of pathogen spread have been added to Section 14.2 of the Revised BDAR (refer to B22 in Table 14-1). No access through Lobs Hole is proposed for construction or operation of the project. A Biosecurity Management Plan will be developed for the project (refer to mitigation measure B22 in Table 14-1 of the Revised BDAR), which includes management of pathogens such as Phytophthora. 3.10 The BMP required by mitigation measure B3 will outline vegetation clearing requirements (building on the approach outlined in the revised Vegetation Clearing Memo). Connectivity strategies will also be provided with the BMP and will be provided to NSW DCCEEW Environment and Heritage for comment. The SBAS will outline vegetation retention opportunities in transmission line easements and provide methods to determine biodiversity value of retained vegetation. Where credit reduction is sought, vegetation integrity scores will be provided as part of the monitoring works.(where approved by NSW DCCEEW Environment and Heritage).
D. Indirect impacts Sections 5.2.5 & 7.1 of the BAM Attachment 12 of the BDAR	Indirect impacts to Booroolong frog have not been identified or assessed: • Potential indirect impacts on upstream tributaries of mapped Booroolong Frog habitat have not been addressed.	Impacts in upstream tributaries of mapped Booroolong Frog habitat carry the potential for indirect downstream impacts. Impacts to any upstream tributary should be considered as indirect impacts from erosion and sedimentation, or waterway pollution, could result in significant impacts on isolated populations of this species. This species is particularly at risk of indirect impacts to its habitat. No spatial extent for indirect impacts has been provided. Table 1-3 'Key project terms' does not include the extent of indirect impacts in the project footprint. Figure 20 below shows the indicative disturbance footprint at Yaven Yaven Creek, which is currently not listed as one of the areas that will need specific or additional erosion and sediment control measures. In this example, the TCZ intersects with an upstream tributary that connects to mapped Booroolong habitat (shown in blue hatching) about 250 m downstream. Figure 21 below shows drainage towards Brungle Creek. The spatial data does not identify any access to the TCZ. There also do not appear to be any site-specific locations for controls to reduce construction impacts and minimise the risk of erosion to the mapped Booroolong Frog habitat (blue hatching). [Refer to NSW DCCEEW Environment and Heritage's submission for figures]	Response to submissions	3.11 Consider indirect impacts and provide reasonable buffers in proximity to frog habitat. 3.12 Identify and provide an assessment of all upstream tributaries connecting to mapped Booroolong Frog habitat and specify area-specific erosion and sediment controls at each location.	3.11 An assessment of indirect impacts to frog habitat within 250 m of the amended project footprint was included in Attachment 24, Section 1.3, and Section 13.5.5, Table 13-22 of the Revised BDAR. A 250 m buffer of the amended project footprint was considered appropriate for assessing indirect impacts to frog habitats (TSSC, 2021), resulting from the amended project. Biodiversity constraints mapping provided to the construction contractors developing the detailed design for the amended project includes frog habitat within the amended project footprint as a constraint to be avoided where possible, including crossings upstream of mapped frog habitat. Further, indicative monitoring locations have been provided on Figure 13-2 of the Revised BDAR, to monitoring indirect downstream impacts to potential frog habitat during the construction phase of the amended project. Mitigation measures to minimise impacts to threatened frogs have been included in the Revised BDAR (refer to mitigation measures B3 and B8 in Table 14-1), including avoidance measures, sedimentation, and control measures to minimise downstream impacts, hygiene protocols and monitoring. 3.12 An assessment of indirect impacts to all upstream and downstream tributaries associated with mapped Booroolong Frog habitat (within 250 m of the amended project footprint) has been provided in Attachment 24, Section 1.3, and Section 13.5.5 and Table 13-22 of the Revised BDAR. Further, area-specific mitigation measures are detailed in Attachment 24 (refer to Table A24-3).
E. Indirect impacts Sections 5.2.5 & 7.1 of the BAM Attachment 12 of the BDAR	Indirect impacts of noise and vibration have not been adequately addressed.	Section 4.6.2 of the EIS includes blasting as a potential activity. The impact of construction noise (including blasting) and vibration has not been adequately assessed in Table 13-14. The BDAR should include actions for determining potential indirect impacts and mitigating during construction, which are specific to threatened biodiversity, and explicit in the CEMP and tied into Blast Management Plans. We expect actions to include two-stage hollow-bearing tree assessment, and timing blasting outside breeding times. It is inadequate to refer to a Noise and Vibration Management Plan that has not yet been written. The direct and indirect impact of blasting on threatened fauna should be assessed, for example reference to Snowy 2.0 Main Works and Transmission Connection BDARs where blasting was assessed as an indirect impact. Highly intrusive and moderately intrusive sounds are predicted in the vicinity of construction compounds during construction, however the assessment only relates to human comfort levels not threatened fauna.	Response to submissions	3.13 Assess the potential impacts of noise and vibration on threatened fauna and detail specific actions to mitigate those impacts. Provide the location and extent for all indirect impacts that are mappable.	3.13 Noise and vibration impacts are addressed in Section 13.4 and Table 13-14 of the Revised BDAR, including proposed mitigation measures to be implemented during construction. The Revised BDAR also includes an assessment of construction methodologies such as controlled blasting and helicopter and drone stringing. Ripping or hammering of rock was also considered as an alternative to blasting, however this would extend the earthwork duration in comparison. Chapter 3 (Description of the amended project) of the Amendment Report provides further details on the potential areas where controlled blasting may be undertaken (refer to Section 3.7). The location, frequency and intensity of noise and vibration impacts from controlled blasting and/or crushing are unable to be quantified at this stage of the project as construction methods are yet to be finalised. If blasting and/or crushing are proposed an ecologist will be engaged prior to commencement of any blasting and/or crushing activities to determine potential impacts on sensitive species which may include bats, owls, cockatoos, raptors and Superb Parrot depending on the location of the activity. This assessment will be conducted in consultation with NSW DCCEEW Environment and Heritage. Attachment 24 of the Revised BDAR includes species sensitive to noise impacts from blasting and breeding times (refer to Table A24-2), to be considered during assessment of controlled

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
		Noise from transmission line and structure construction with highly intrusive noise within 150 m of the project footprint, and within 1200 m for brake and winch sites and 600 m for access tracks during daytime (7am – 6pm) is predicted. Vibration will also occur from vibratory rollers and construction hammers (see EIS *Technical Report 9 – Noise and Vibration Impact Assessment* (SLR 2023).			blasting impacts. If impacts are likely, appropriate mitigation measures will be proposed, which may include cessation of certain activities, avoiding breeding seasons (where practicable) and/or amending the construction methodology including selecting alternative plant or equipment (refer to mitigation measure B25 in Table 14-1 of the Revised BDAR). The proposed controlled blasting locations, nearby sensitive receptors and locations where mitigation measures will be applied, are provided in Figure 13-1 and Figure 13-2 in the Revised BDAR. In the unlikely event that impacts are unavoidable, offsetting requirements will be discussed with NSW DCCEEW Environment and Heritage.
F. Prescribed impact assessment Sections 8.3 & 8.6 of the BAM Section 13.5 & Attachment 21 of the BDAR	The prescribed impact assessment has not identified all impacted entities or addressed residual prescribed impacts.	Prescribed impact assessment has not identified all impacted entities or addressed residual prescribed impacts. The prescribed impacts of connectivity, non-native vegetation and changes to hydrology do not identify all potentially impacted entities and have grouped some species that do not have similar habitat or lifecycle requirements into the same assessment. Species such as the Broad-toothed Rat and Squirrel Glider have been assessed as having the same impacted extent, duration and consequences to changes to connectivity when these species rely on different impacted growth forms of connectivity. There are some areas of potential connectivity has not been acknowledged along the alignment (refer Figure 22 as an example) The effect is that the consequences of these prescribed impacts are unreliable, and the proposed mitigation relies on post construction surveys and avoidance during micro-siting. These should be undertaken as part of the BDAR impact assessment rather than during post approval and final design surveys to ensure outcomes are reliable. As a result of the uncertainty of the consequences of prescribed impacts, an assessment of prescribed residual impacts and requirements for additional credits or other measures has not be prepared. Section 15.2 of the BDAR summarises some of the species that were assessed as being impacted by prescribed impacts but defers any offset requirements to later discussions. We recommend that an assessment of residual prescribed impacts be prepared using some of the information prepared in Attachment 21 of the BDAR to identify high risk locations and species where residual prescribe impact offsets may be required in accordance with 6.1.2(b) of the BC Regulation. This process should be conducted in consultation with BCD as documented in s15.2 of the BDAR. [Refer to NSW DCCEEW Environment and Heritage's submission for figure]	Response to submissions	3.14 Update Section 13.5 of the BDAR to include all impacted entities and assess each entity based on individual habitat requirements against the prescribed impacts. 3.15 Prepare an assessment of residual prescribed impacts in accordance with Section 8.6 of the BAM. 3.16 Prepare a Preliminary Connectivity Strategy that builds on the existing information from Attachment 21 of the BDAR and use the outcomes of the targeted mitigation actions to calculate prescribed residual impacts.	3.14 The prescribed impact assessment included in Section 13.5 of the Revised BDAR has been reviewed and updated based on NSW DCCEEW Environment and Heritage's submission. The assessment of prescribed impacts was updated to include the amended project footprint, updated indicative disturbance areas, and revised construction activities (eg rock blasting). The updated assessment also included additional field survey findings, and species expert advice regarding prescribed impacts (refer to Attachment 6 of the Revised BDAR). 3.15 Assessment of indirect and prescribed impacts has been included in Attachment 24 of the Revised BDAR. Indirect and prescribed impacts will be addressed where possible through proposed mitigation measures to be applied during construction and operation (refer to the Section 14.2 of the Revised BDAR). Residual impacts are difficult to quantify at this stage due to the scale of the project, confounding impacts from existing land uses and absence of detailed design, and further consultation with the NSW DCCEEW Environment and Heritage is required to confirm any offset requirements as appropriate. 3.16 Connectivity Strategies for the amended project have been prepared by the construction contractors and will be included in the draft BMP to be submitted to NSW DCCEEW Environment and Heritage. The Connectivity Strategies outline design commitments with regard to the location and nature of proposed mitigation measures to address prescribed impacts associated with habitat connectivity where impaired or severed as a result of the amended project. The final suite of measures to mitigate impacts on habitat connectivity and fauna movement based on the final design will be detailed in the Connectivity Strategies to be developed in accordance with mitigation measure B10 (refer to Table 14-1 of the Revised BDAR).
4. Inconsistent and/or incomplete data					
A. Section 5.2.5 of the BAM Sections 6.5.3, 13.3 & 15.1 of the BDAR	Not all species and TECs have been accounted for: • Not all TECs in BAM-Calculator (BAM-C) cases have been accounted for. • Spatial data and BAM-C cases do not have identifiers for surrogate plots, and these are required.	The direct impacts to native vegetation species are different in the spatial data, BDAR and BAM-C cases highlighted in section 6.5.3 of the BDAR. The calculated impact areas in the indicative disturbance footprint are different in the BDAR, spatial data and BAM-C related cases. While some errors are minor, others differ by hectares within a vegetation zone or partial clearing zone. This also applies to impacts to TECs outlined in Table 13-12 in the BDAR.	Response to submissions	4.1 Update the BDAR and BAM-C cases to ensure they exactly match the spatial data impact areas for all vegetation zones (including partial impacts) and species credit species, including within severely burnt sites.	4.1 The spatial data, BAM-C data and BDAR data have been subject to a quality assurance review as part of preparing the Revised BDAR. It should be noted that the BAM-C applies rounding to entered values, leading to some slight discrepancies between spatial data, BAM-C and the Revised BDAR, however these differences are minor and negligible in terms of measurable differences. 4.2 The TEC allocation in BAM-C has been subject to a quality assurance review as part of preparing the Revised BDAR.

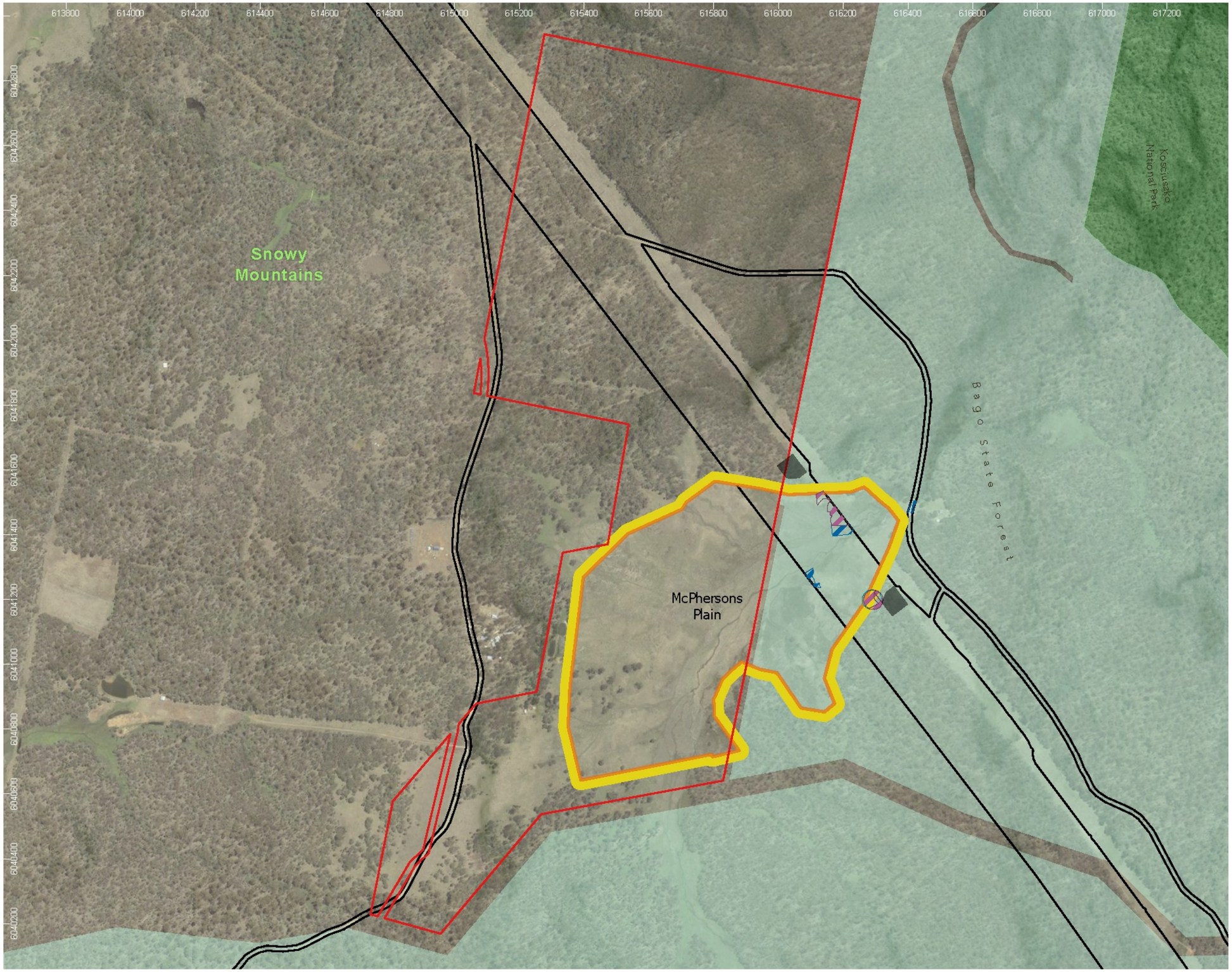
Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
	• There is no differentiation in the spatial data between species confirmed by survey and species assumed present in areas where species polygons have been generated. Despite Table 7-2 of the BDAR presenting survey results as recorded or assumed, the resulting direct impacts (Section 13.3) and offset requirements (Section 15.1) do not include this information which is important to determine requirements for further survey and assessment outcomes.	In addition, some PCTs and vegetation zones in the BDAR have not been identified as TECs in the BAM-C cases, which will impact the offset trading group outputs in the credit reports for each case. Some of the PCTs cannot be attributed to the correct PCTS as they are not listed as a TEC for that subregion. This is a limitation within the BAM-C where further advice from the BOS Helpdesk will be required to resolve this issue. For species credits assumed to be present, there is no differentiation in the spatial data between confirmed and assumed presence areas where species polygons have been generated. Without this differentiation, changes to the credit liability for assumed presence species from proposed additional surveys will be difficult to identify. Despite Table 7-2 of the BDAR presenting survey results as recorded or assumed, the resulting direct impacts (Section 13.3) and offset requirements (Section 15.1) do not include this information which is important to determine requirements for further survey and assessment outcomes. [Refer to NSW DCCEEW Environment and Heritage's submission for figure]		4.2 Update the BAM-C cases to ensure all identified TECs in the BDAR are correctly identified as TECs in the BAM-C cases to ensure accurate generation of offset trading groups. 4.3 Differentiate direct impacts for species detected by survey and those assumed present in the BDAR, spatial data and figures.	4.3 Figures 13-4 to 13-14 (species polygons) provided in the Revised BDAR show known species records. As part of preparing the Revised BDAR, the figures and spatial data have been updated to show assumed presence versus known presence (ie detected through survey). Known presence is illustrated through a record of the species on the figure and in the legend. Where there is no known record illustrated on the figure, this indicates assumed presence habitat.
B. Data gaps in native vegetation integrity scores Section 4.3.4(1)-(2) of the BAM Attachment 5 of the BDAR	There are data gaps in native vegetation integrity scores: • Not all areas of the subject land have species habitat mapping and accompanying data. For example, the attributes table does not show survey effort per species. • The vegetation plot data as presented are difficult to use in assessing whether individual plots represent the vegetation zone.	Species habitat is shown in some figures (not all species) and species habitat mapping data is not provided. Not all areas of the subject land have species habitat mapping and accompanying data. The spatial data as submitted is insufficient, as it is not possible to review the survey effort because the attribute table does not show survey effort per species. The extent of survey effort per species can therefore not be reviewed. Species habitat spatial data must be provided for the project footprint and subject land (including all areas detailed design and micro-siting and operational impacts, access during construction and ongoing maintenance etc) to demonstrate that re-calculation of credits associated with any re-design or shift in project footprint can be satisfactorily achieved. Spatial data and BAM-C cases do not have identifiers for surrogate plots. This is required to review the adequacy of the data for contribution to PCT identification and VI scores and vegetation zoning, as it affects predicted species/ vegetation condition assessment or VI score and ultimately the credit obligation. The vegetation plot data presented in Attachment 5 is difficult to use in assessing if individual plots represent the vegetation zones. These should be presented as a standard BAM datasheet and provided to BCD.	Response to submissions	4.4 Provide species habitat spatial data for the project footprint and subject land, including areas subject to further detailed design and micro-siting. 4.5 Provide specific survey effort data for individual species, for example clarifying survey methodology and area covered for each. 4.6 Provide plot data with unique identifiers for surrogate plots used to assess vegetation integrity (VI) for veg zones so it is clear in the spatial data what plots are used as surrogates. 4.7 Provide vegetation plot data to BCD in a format that resembles field data sheets to enable assessment of the representativeness of vegetation zones.	NSW DCCEEW Environment and Heritage have been provided with all the data layers, as required by the BAM, to assist in their review of the Revised BDAR. 4.4 Species habitat spatial data has been updated for the amended project footprint with the additional surveys undertaken since the public exhibition of the EIS and is provided with the Revised BDAR. 4.5 Survey effort data per species has been provided in Attachment 1 (refer to section 2.6) of the Revised BDAR, including site IDs that are provided in Figures 4-1 and 4-2 of the Revised BDAR. Track data has been provided in the data package where it relates to targeted flora surveys and implementation of the parallel transect methodology. General track locations have not been provided given they do not relate to a targeted survey effort. Point datasets have also been provided with the spatial data package (ie threatened flora found, threatened fauna found. aquatic field inspections). 4.6 Plots have been updated with unique identifiers and surrogate, duplicate and benchmark plots identified in the data (refer to Attachment 12 of the Revised BDAR). 4.7 Plot data has been collected digitally. The plot data is not available as field data sheets. All plot data is presented in Attachments 10 and 11 of the Revised BDAR.
C. Species polygons Section 5.2.5 of the BAM Chapter 7, Section 13.3 and Attachment 12 of the BDAR	Species polygons are incomplete and unjustified: • All species polygons require review. For example, frog species polygons are not justified against the BAM guidelines for threatened frogs and is likely to have underestimated areas of potential impacts. • Species polygons will need to be revised to guide avoidance strategies. Numerous *Eucalyptus aggregata* species polygons wholly overlap with farm dams.	The species polygons for candidate species assumed present are not well presented or justifiable against BAM requirements (Section 5.2.5 Box 2). Spatial data is missing for species habitat polygons. Data does not differentiate between species assumed present and species detected by survey. Evidence and justification to support the exclusion of vegetation zones from each species polygon must be provided. Species polygons should be revised in accordance with Section 5 Box 2 of BAM 2020. The assessment has not considered indirect impacts of construction and provide reasonable buffer in proximity to frog habitat or include in species polygons.	Response to submissions	4.8 Revise species polygons for threatened frog species in accordance with *NSW Survey Guide for Threatened Frogs* (Section 3), and *Eucalyptus aggregata*. 4.9 Undertake a complete review of all species polygons.	4.8 Along with all species polygons, species polygons for threatened frog species and *E. aggregata* have been reviewed for the Revised BDAR and updated where required to ensure they have been mapped according to guidelines and including suitable habitat for each species (where not excluded through survey). Refer to Attachment 1 of the Revised BDAR for candidate species mapping and polygon development methods. Each species polygon in the Revised BDAR has been checked for accuracy and updated accordingly. 4.9 All species polygons have been extensively reviewed for the Revised BDAR, including survey adequacy review, habitat suitability, degraded habitat prescriptions and incorporating additional survey effort and species expert input (refer to Attachment 1 of Revised BDAR).

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
		Spatial data for species habitat must also be provided. Areas required for frog foraging/ shelter and dispersal/movement between areas of habitat must be incorporated into the species polygon. Frog species polygons are not justified against the BAM guidelines for threatened frogs and are likely to have underestimated areas of potential impacts. Numerous Eucalyptus aggregata species polygons wholly overlap with farm dams (Figure 32). These polygons will need to be revised to guide avoidance strategies. Species polygons for threatened frog species should be revised in accordance with *NSW Survey Guide for Threatened Frogs* - Section 3. Areas required for frog foraging/shelter and dispersal/movement between areas of habitat must be incorporated into the species polygon. For example, Figure 24- Figure 25 below show complicated Corroboree Frog species polygons that have multiple features within single vegetation zones. The hard boundaries between PCTs here has created an ambiguous outcome for the species polygon, in what appears on aerial imagery to be relatively contiguous vegetation. *Bossiaea fragrans* species polygon is within a contiguous vegetation zone. These species polygons are difficult to justify against BAM 5.2.5 and show consistent with microhabitat features and/or all of the vegetation zone given the hard boundary at the northern tip (shown above). [Refer to NSW DCCEEW Environment and Heritage's submission for figures]			
D. Inaccessible lands Sections 4.1(3) & 4.1.1 of the BAM Section 4.4.1 of the BDAR	The source and reliability of vegetation mapping on inaccessible land is not clear: • Vegetation on inaccessible lands has been mapped using a compilation of existing datasets described as variably reliable, however this has not been justified.	Vegetation on inaccessible lands has been mapped using a compilation of existing datasets described in Section 4.4.1 as variably reliable. Section 4.4.1 should include justification, such as analysis of dataset reliability/usefulness, and list of datasets in order of inclusion in the proponent's vegetation mapping layer to demonstrate which datasets were on top and why. This information is important for determining reliability of PCT allocation and follow-on assumptions about fauna habitat presence and condition. Furthermore there is no referencing of the Snowy 2.0 Transmission Connection major project, which verified PCTs adjacent to the HumeLink study area, in the BDAR.	Response to submissions	4.10 Provide justification (such as analysis of dataset reliability/usefulness) and list of datasets in order of inclusion in the vegetation mapping dataset used on inaccessible lands.	4.10 Vegetation mapping methods within inaccessible lands included desktop extrapolation of existing datasets (a review and justification of the datasets used is included in Section 4.4.1 of the Revised BDAR), field-based vegetation zone mapping within nearby lands, notes and observations from over the fence surveys and review of high-resolution aerial imagery to delineate and map vegetation zones. Additionally, geology, topography, canopy density, surrounding land use, Category 1 exempt land mapping and the survey team's knowledge from nearby surveyed areas, was used to inform PCT and condition assignment. The SBAS will identify and schedule validation surveys for select inaccessible land, as well as outline communication/reporting methods for this information to be submitted to NSW DCCEEW Environment and Heritage.
5. Adaptive management					
A. Adaptive management Section 8.5 of the BAM Tables 13-14 & 14-1 of the BDAR	Adaptive management details have not been provided • There is a lack of specific detail about mitigation measures, monitoring and adaptive management, to demonstrate that all commitments to minimise impacts can be met post-approval. • No adaptive management is proposed for uncertain impacts. • No adaptive management or proposed offsets is proposed for prescribed impacts on Category 1 land.	There is not enough specific detail about mitigation measures, monitoring of threatened species, and adaptive management, to demonstrate that all commitments to avoid and minimise impacts will be successfully implemented after project approval. Apart from mitigation measures B8 to B15 in Table 14-1 (relating to aquatic habitat protection), the actions in Tables 13-14 and 14-1 lack sufficient detail to inform post-approval plans. Actions also rely on plans that have not yet been written. Section 4.4 of the BAM 2020 Operational Manual - Stage 2 provides guidance about the expected detail to provide in a BDAR. For example, Table 13-14 relies on Transgrid standard procedures for mitigating impacts of weeds and pathogens during operation. The Transgrid procedures have not been supplied, and there is no detail specific to the assessed threatened entities or high-risk locations such as TEC occurrences downstream of the development.	Response to submissions	5.1 Revise Tables 13-14 and 14-1 to provide specific, measurable, and achievable actions, with sufficient detail to be implemented through post-approval plans. 5.2 Provide adaptive management measures for uncertain impacts, including prescribed impacts.	Mitigation measures have been reviewed as part of the Revised BDAR (refer to Section 14.2), including reference to adaptive management measures to be developed as part of the BMP (mitigation measure B3) and revision of mitigation measure B8. An updated assessment of indirect impacts to Booroolong Frog (refer to Attachment 24, Section 1.3) has also been include in the Revised BDAR. Responses to the recommended actions include: 5.1 Given the program timeline, specific, measurable and achievable avoidance and mitigation actions cannot be detailed in Tables 13-14 and 14-1 of the Revised BDAR. These actions will be identified during finalisation of the detailed design and included in the BMP (refer to mitigation measure B3 in Table 14-1 of the Revised BDAR). A SBAS will be prepared to guide surveys conducted post BDAR lodgement and post approval to confirm presence/absence of species within the disturbance footprint. The strategy will also outline requirements for validation of PCTs/TECs assumed present on previously inaccessible land where surrogate, duplicate or benchmark plots were used and low confidence of PCT allocation or condition. Additionally, the SBAS will guide post approval credit reduction through provision of documented evidence of avoidance

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
		Action B6 relies on monitoring surveys in accordance with the BMP (which has not yet been prepared) to determine success of Booroolong Frog mitigation measures. The location of Booroolong frog habitat to be protected is known and mapped. The BDAR should provide an assessment of any location in the landscape where impacts may occur due to the proposal, and specify appropriate protections. No adaptive management is proposed for uncertain impacts, such as those associated with unsurveyed lands/unexpected finds or for risk associated with potential failure of mitigation, or circumstances where avoidance by the final design may not be achievable. No adaptive management or proposed offsets for prescribed impacts on Category 1 land are proposed.			during any further detailed design or during construction. Survey, monitoring and reporting requirements will be outlined to facilitate application to NSW DCCEEW Environment and Heritage for a reduction in the overall credit liability of the project. Detailed design has been progressing in parallel with the preparation of the BDAR and, noting the number of threatened species and SAII species associated with McPhersons Plain, the opportunities for impact avoidance and minimisation through detailed design has been prioritised in this area (mitigation measure B38). See response to 1.21 and Section 12.1 of the Revised BDAR for details of avoidance measures at McPhersons Plain. 5.2 Adaptive management measures and monitoring will be included in the BMP. The BMP will stipulate objectives for monitoring, and how baseline data will be captured and represented (refer to mitigation measure B3 in Table 14-1 of the Revised BDAR). The SBAS will outline how impacts from indirect and prescribed impacts will be monitored and triggers for offsetting will be developed with NSW DCCEEW Environment and Heritage.
6. McPhersons Plain Conservation Agreement site					
A. Sections 7.1 & 7.2 of the BAM Not addressed in the BDAR	Avoidance of the McPhersons Plain Conservation Area site is required to protect critically endangered biodiversity: • The avoidance measures that have been proposed at the McPhersons Plain Conservation Agreement site for three critically endangered orchids and Alpine Bog (Montane Peatland TEC) and associated threatened species habitat are inadequate. There are implications for three critically endangered orchids listed as SAII entities, as discussed further under Key Issue 1. • Indirect impacts associated with the construction, maintenance, and ongoing access requirements to the proposed towers at this site, provision of detailed mitigation measures targeted at the protection of the bog and critically endangered threatened orchids, and maintenance of the current horse exclusion fencing have not been detailed. • The Alpine Bogs and Fens TEC in the vicinity of McPhersons Plain has not been identified in the subject land.	It is considered that inadequate avoidance measures have been proposed for the McPhersons Plain Conservation Area (CA) site (see Figure 34 and Figure 35 below). There is insufficient consideration of indirect impacts associated with the proposed tower pads and construction in the BDAR. Protection measures for McPhersons plain conservation agreement- indirect impacts from tower sites have not been addressed including appropriate buffer requirements to bogs/fens and TS known habitat/ locations of sediment and erosion controls and associated impacts accounted for in the assessment. It is expected that the proponent would demonstrate the tower spacing and line installation achieves maximum avoidance/minimisation to the Alpine Bogs and Fens TEC, threatened species records and habitat in this location, notably as some of these species are SAII entities (see discussion and recommendations under Key Issue 1 Serious and Irreversible Impacts above). The tower pad locations should therefore be revised. Maintenance of the existing fencing to exclude horses has also been raised by the NSW Biodiversity Conservation Trust as an important conservation measure for this site. It is expected that the fencing be maintained to achieve continued protection of the sites values over the life of the development. Indirect impacts due to the proposed tower pads at this site, including buffers to sensitive areas, have not been provided. Furthermore, Alpine Bogs and Fens mapped habitat (PCT 637) & Associated TEC Montane peatlands EPBC TEC Bogs and Fens in the vicinity of McPhersons Plain has not been identified in the subject land. It is unclear whether these vegetation types may not have been identified elsewhere. Locations of sediment and erosion controls must also be provided & included in the disturbance footprint subject to the Stage 2 impact assessment. Maintenance of horse exclusion fence to the CA site must also be addressed. [Refer to NSW DCCEEW Environment and Heritage's submission for figures]	Response to submissions	6.1 Relocate the tower pads in the McPhersons Plain site to provide an adequate buffer from the sensitive Alpine Bog and fringing vegetation known to provide habitat for critically endangered orchids. 6.2 Identify the extent of indirect impacts on McPhersons Plain taking into consideration the sensitivity of the site and demonstrate an appropriate buffer for avoidance from any direct (including temporary) impact to the Alpine Bog and threatened orchid locations. 6.3 Provide detailed protection measures for the McPhersons Plain site, including maintenance of horse exclusion fencing. 6.4 Include PCT 637 McPhersons Plain & associated Alpine Bogs and Fens TEC, as listed under both BC Act & EPBC Act in the subject land for assessment.	The response below addresses 6.1 and 6.2: The conservation agreement area that overlaps with McPhersons Plain is known as the Clear Water Springs Conservation Agreement Area. The updated indicative disturbance area intersects with and will impact the Clear Water Springs Conservation Agreement Area where the proposed HumeLink easement runs parallel to Line 64. HumeLink will not directly impact the portion of the conservation agreement area that overlaps with McPhersons Plain. Detailed design has been progressing in parallel with the preparation of the Revised BDAR. Noting the number of threatened species and SAII species associated with McPhersons Plain near the future Maragle 500 kV substation, the assessment of opportunities for impact avoidance and minimisation through detailed design has been prioritised. The extent of impact avoidance and minimisation achievable through detailed design and construction planning undertaken to date is outlined below. The central portion of McPhersons Plain is fenced to prevent impacts to threatened flora species by horses. This area has been identified in the HumeLink biodiversity constraints mapping as a no-go zone. To avoid impacts to threatened flora species in the no-go zone, an aerial stringing method for the transmission line would be employed between transmission line structures on either side of McPhersons Plain, as vehicle and plant movement within the fenced area using other stringing methods could impact threatened species or their habitat. Potential habitat for the threatened species associated with McPhersons Plain extends beyond the fenced area. NSW DCCEEW Environment and Heritage has requested that a 30-m exclusion buffer from the fenceline be applied for project infrastructure. While the length of the transmission line span across McPhersons Plain is limited by design requirements for alpine environments, where snow and ice loading must be considered, the span has been maximised to locate the transmission line structures and associated construction bench outside the 30-m exclusion buffer. Some clearing of tall-growing vegetation would be required within the 30-m exclusion buffer to meet the vegetation clearing requirements for the transmission line easement and transmission line structures. Clearing methods that minimise ground disturbance will be used. Where there are known locations of recorded threatened species (as identified in the Revised BDAR), the associated buffer areas will be demarcated as a biodiversity exclusion zone (mitigation measure B13 in Table 14-1 of the Revised BDAR). Any threatened species identified through additional surveys or captured as an unexpected find, will be dealt

Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
					with in accordance with the BMP (mitigation measure B3 in Table 14.1 of the Revised BDAR). The impact avoidance and minimisation outlined above has not been captured in the assessment outcomes or in the project impacts mapped in Figure 13-2 (map reference 38) of the Revised BDAR, which features the preliminary detailed design. However, new mitigation measure B38 has been developed to include the above avoidance and minimisation commitments (refer to Table 14-1 of the Revised BDAR). The above measures of avoidance and mitigation will reduce the extent of both direct and indirect impacts to the TEC and threatened orchids known to occur at McPhersons Plain. 6.3 Mitigation measure B38 (see Table 14-1 of the BDAR) details the projection measures around McPhersons Plain, including no construction work to occur within the existing horse exclusion fencing at McPhersons Plain; transmission line structures to be located outside a 30-m buffer area applied to the existing horse exclusion fencing at McPhersons Plain; construction benches to be oriented away from McPhersons Plain and will not encroach into the 30-m buffer area. 6.4 The vegetation mapping at the McPhersons Plain Conservation Area site has been reviewed as part of preparing the Revised BDAR. PCT 637 and the associated Alpine Bogs and Fens TEC has been added to the McPhersons Plain area as per consultation with NSW DCCEEW Environment and Heritage (phone and email consultation with Angela Jenkins on 3 November 2023).
7. Minor amendments, wording terminology changes					
A.	There are numerous examples of inconsistency between text in the BDAR and spatial data.	Spatial data for the Total Clearing Zone (TCZ) referred to the in the BDAR is inconsistent with the spatial data, in which it is referred to as the FCZ. To ensure the spatial data relied upon for the Biodiversity Management Plan (BMP) and contractors implementation is not misinterpreted, terminology for partial clearing and total clearing zones should be consistent within the BDAR and spatial data. The BDAR does not provide a checklist against the minimum requirements for a BDAR (Appendix K BAM-including Table 24 (Stage 1 Assessment of Biodiversity Values), Table 25 (Stage 2 Impact assessment), Table 26 (Scattered Trees Assessment) and Table 28 (Planted Native vegetation Assessment).	Response to submissions	7.1 Update the spatial data terminology to ensure total clearing and partial clearing terminology is consistent. 7.2 Edit Table A21-6 to remove the word “high” from the “criteria for risk of impacts to connectivity” column and replaced with “moderate”. 7.3 Provide checklist against BAM minimum requirements for a BDAR (BAM Appendix K).	7.1 The spatial data has been reviewed and updated as part of preparing the Revised BDAR to ensure total clearing and partial clearing terminology is consistent between the Revised BDAR and spatial data. TCZ is the correct terminology. 7.2 Table A21-6 has been reviewed as part of preparing the Revised BDAR to ensure consistency with spatial data. Risk of impact to connectivity has been updated to Major, Moderate and Minor. 7.3 The BAM minimum requirements checklist (BAM Appendix K) is included as Attachment 6 to the Revised BDAR.
8. Lack of supporting information and/or evidence in BDAR					
A. References & nearby studies informing assessment Section 1.5 of the BAM Section 1.6, Table 1-5 of the BDAR	The BDAR does not appear to have been informed by similar projects in the same region, or if this is the case, it has not been adequately detailed.	Sources of information are not provided in the BDAR, as required BAM Section 1.5. The BDAR does not appear to have been informed by similar projects in the same region. The results of the Snowy 2.0 Main Works (SSI 9687) and Transmission Connection (SSI 9717) BDARs have not been included and the reports are not included in the reference list. For example, the Snowy 2.0 Transmission Connection reports extensive records (that are being offset) for the threatened orchid *Caladenia montana* within 5 km of the proposed HumeLink footprint in the Bondo subregion, but the species has been incorrectly excluded from this assessment based on geographic limitations. Table 1-5 references an out-of-date version of the BAM Operational Manual.	Response to submissions	8.1 Review relevant studies and include information from Snowy 2.0 Main Works (SSI 9687) and Transmission Connection (SSI 9717) BDARs.	Sources of information used in the Revised BDAR are provided in Sections 4.4.1, 4.5.1 and 4.6.1, as well as a comprehensive reference in Chapter 18. Responses to the recommended actions include: 8.1 Both the BDARs and Revised BDARs for Snowy 2.0 Main Works, Snowy 2.0 Transmission Connection Project, Project EnergyConnect (NSW - Eastern Section) and Project EnergyConnect (NSW - Western Section) were used to inform many aspects of the approach to the BDAR and Revised BDAR prepared for HumeLink. References have been added to Section 1.6 and Chapter 18 of the Revised BDAR as relevant. The reference to BAM Stage 2 Operational Manual has been updated in Table 1-5 of the Revised BDAR.

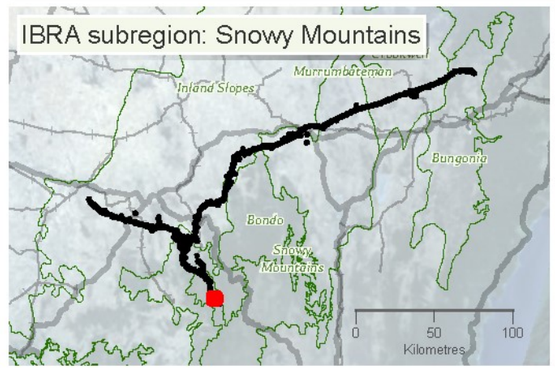
Reference	Summary issue (Attachment A)	Detailed issue (Attachment C2)	Timing	Recommended actions	Transgrid response
9. Assessment of matters of national environmental significance (MNES)					
1. N/A in the BAM Chapter 11 & Attachment 16 of the BDAR	Information requirements for the MNES assessment are not provided: • The adequacy of the MNES assessment cannot be determined until other assessment and survey issues have been resolved. BCD will provide the bilateral assessment at this time. • Four TECs have been excluded from the six generated by the Protected Matters Search Tool (PMST), without justification. • Not all plant species listed in the Protected Matters Report have been identified as likely to occur in the BDAR.	The adequacy of the MNES assessment cannot be determined until other issues with the assessment of impacts and the survey effort have been resolved. BCD will provide its bilateral assessment at this time. Chapter 11 states that the Protected Matters Search Tool (PMST) generated 6 TECs, however only two are listed as being known to occur within and/or adjacent to the project footprint. The BDAR does not provide any justification or evidence for excluding the other four TECs. There are 14 plant species that are listed in the MNES Protected Matters Report that are not included in Table A16-3: Likelihood of occurrence, listed below: 1. Mueller Daisy [15572] 2. Curtis' Colobanth [23961] 3. White-flowered Wax Plant [12533] 4. Trailing Hop-bush [12149] 5. *Genoplesium baueri* - Yellow Gnat-orchid, Bauer's Midge Orchid, Brittle Midge Orchid [7528] 6. *Genoplesium vernale* - East Lynne Midge Orchid [68379] 7. *Grevillea raybrownii* [65665] 8. *Helichysum calvertianum* [5702] 9. Spiny Pepper-cress [10976] *Lepidium aschersonii* 10. Winged Pepper-cress [9190] *Lepidium monoplocoides* 11. *Persoonia mollis* subsp. *Revoluta* [56094] 12. *Pimelea bracteata* [8125] 13. Button wrinklewort [67251] *Rutidosis leptorhynchoides* 14. Kangaloon sun orchid [81861] *Thelymitra kangaloonica*	Pre-approval	9.1 Revise the MNES assessment following completion of other recommendations as the impacts are likely to have changed. 9.2 Justify the exclusion of the four TECs that were predicted in the Protected Matters Search Tool (PMST) but excluded from the assessment in Chapter 11 of the BDAR. 9.3 Ensure that all the MNES listed in the Protected Matters Report are addressed in Table A16-3 Likelihood of Occurrence.	9.1 The MNES assessments in Attachment 3 of the Revised BDAR have been revised to include an updated PMST search undertaken in November 2023, additional survey since the public exhibition of the EIS and the amended project footprint. 9.2 Six TECs were identified in the PMST search in April 2024 for the Revised BDAR. Two of these TECs were confirmed present in the amended project footprint (White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland and Alpine Sphagnum Bogs and Associated Fens) The other four TECs were excluded from further assessment as they are not likely to occur in the amended project footprint. Justification for the exclusion of the four TECs identified from PMST search has been included in Section 11.2 of the Revised BDAR. 9.3 The MNES likelihood of occurrence assessments in Attachment 2 of the Revised BDAR have been reviewed with reference to list of species in the updated PMST search in April 2024. Some MNES from the PMST search undertaken for the EIS were omitted from the BDAR in error (as detailed in the NSW DCCEEW Environment and Heritage submission), however these have been addressed in the Revised BDAR. An additional 23 species listed as threatened and/or migratory under the EPBC Act (15 fauna and 8 flora) were added to the Revised BDAR for consideration (refer to Attachment 2). Of these, only one flora species (ie *Pimelea bracteata*) and six fauna species (ie Southern Whiteface, Sharp-tailed Sandpiper, Latham's Snipe, Brown Treecreeper, South-eastern Hooded Robin, Diamond Firetail and Riek's Crayfish) were included in the Revised BDAR for further assessment, as they were considered likely to occur. The remaining species were considered to have a low likelihood of occurrence in the project footprint.



- Proposed tower pads and construction benches
- Amended project footprint
- Clear Water Springs Conservation Agreement Area
- Horse exclusion fence
- 30-meter buffer
- IBRA subregion
- National Park
- State Forest

Orchid species habitat

- *Prasophyllum bagoense*
- *Prasophyllum keltonii*
- *Pterostylis oreophila*



niche Environment and Heritage

0 400 m

GDA2020 MGA Zone 55

McPhersons Plain and Clear Water Springs Conservation Agreement Area in relation to the amended project footprint

Figure C-1

HS: Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community/World Imagery: Earthstar Geographics/public/NSW_Imagery: © Department of Customer Service 2020/Terrain: Multi-Directional Hillshade: Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community/elevation mist: Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to GDA2020 MGA Zone 55 is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020 MGA Zone 55.

v2.0

Drawn by: SuzanneM Last updated: 24/06/2024 File: C:\OneDrive\SyncFolder\Niche\8196 - HumeLink - General\Figures\Spatial\edit\Editing\APR\Xls8196_HumeLink_BDAR_Stage3_Japx

Table C-2 Hierarchy used for the development of the biodiversity constraints

Constraint	Constraint level	Criteria
Actively managed conservation areas	No-go	Fenced areas
	Very high	Fenced areas – buffer zone
Conservation sites	Very high	Protected area
Booroolong frog habitat	Very high	Streams that are Booroolong Frog habitat including 50 m buffer outside of the footprint
Threatened glider corridors	High	All threatened Glider corridors mapped according to field and desktop data
Hollow bearing trees	Low	Field collected hollow bearing trees points with 100 m buffer
Native vegetation and TECs	Very high	Very High or High condition of SAII or CEEC or limited extent TECs: (*Alpine Sphagnum Bogs and Associated Fens, Coolac-Tumut Serpentinite Shrubby Woodland, Monaro Tableland Cool Temperate Grassy Woodland*)
	High	Moderate or Low condition woody SAII / CEEC listed TECs; or Very High and High woody condition EEC
	Moderate	Any woody TEC in moderate or low condition; or Non-TEC woody vegetation in Very high and High condition
	Low	All non-woody TECs and very low condition woody TECs
	Not assigned	All other areas
Species polygons	Very high	SAII species polygons in very high or high condition vegetation; or CE in very high or high condition vegetation; or SAII species with confirmed habitat
	High	SAII moderate and low condition vegetation; or CE in moderate and low condition vegetation; or Endangered and Vulnerable species in high or very high condition; or Threatened species (not SAII) with confirmed habitat
	Moderate	Endangered species in moderate or low condition; or Vulnerable species in moderate or low condition
Stream crossings	Very high	Class 1 Key Fish Habitat
	High	Key Fish Habitat; or Threatened aquatic species predicted habitat; or Riek's Crayfish predicted habitat
	Moderate	All streams (> Strahler order 2)

Table C-3 Detailed responses to Attachment B issues

SAII entity	Guidance summary	Detailed issue	Recommendations and other comments	Transgrid response
White Box-Yellow Box-Blakely's Red Gum Grassy Box Woodland and Derived Native Grassland (Box Gum Woodland- BGW CEEC	A package of additional and appropriate measures for BGW in accordance with section 7.16(3) of the BC Act is provided at the RTS stage with these measures to be agreed with BCD.	There has been effort to concentrate the project infrastructure on low condition TEC. However there are no measures to ensure that detailed design and micro-siting will maintain avoidance of high condition areas. BCD do not have confidence in the information used to represent low condition areas. BCD have found that there are numerous unaccounted for impacts, limited detailed mitigation measures and no commitment to adaptive management which may result in a greater impact than assessed for the EIS. Although the BDAR states a conservative approach has been applied to the assessment, there are numerous areas where temporary or permanent access requirements for maintenance of ECZ, HTZ and TCZ APZs have not been addressed or included in the quantification of impacts to the community. There is also risk of impacts to a greater percentage of good quality TEC than accounted for in the BDAR, due to a potential misidentification of low condition TEC zones and loss of function due to fragmentation of intact remnants that has not been quantified. The BDAR estimates an increase in area to perimeter ratio of existing areas of TEC within the project of 0.3 to 0.8 which indicates increased fragmentation. The misidentification of low condition areas (zones) and inconsistent calculations of direct impacts to native vegetation between BDAR, spatial data and BAM-C related cases casts uncertainty on the data supporting the impact assessment. While some errors are minor, others differ by hectares within a vegetation zone or partial clearing zone and suggests impacts could be greater to all TECs than presented in the EIS. The uncertainty regarding the extent of impacts and condition state of zones is contributing to this conclusion. The project will add to the reduction of the ecological function experienced by this community and will contribute to further decline of a rapidly declining community, and as such SAII is considered likely based on Principles 1 and 2.	1. Prepare a revised SAII assessment for BGW for RTS that considers: a) The revised BDAR prepared to address the recommendations within this review. b) Revision of BGW mapped vegetation zones c) All areas subject to surface impacts associated with the development including temporary impact areas, access ways that will be relied on for construction, operation and continued maintenance within and between the TCZ, ECZ and HTZ, and any areas required for any sediment and erosion control measures. d) Re-calculation of residual impacts (above) including for indirect and prescribed impacts e) Evidence of Transgrids approved operational procedures for vegetation management within powerline easements that support the avoidance and ongoing protection of biodiversity exclusion zones and partial impact assessment within the ECZ and HTZ. f) Identified areas to be avoided – or BGW protection zones in BDAR maps, figures and in the datasets that will be used for detailed design and construction planning to support the assumptions of avoided and minimised impacts to SAII BGW. g) Evidence based justification for mitigation measures that will be used to provide immediate and ongoing protection of BGW pre, during and post construction that are to be incorporated into the post-approval plans. 2. A maximum clearing footprint must be identified and evaluated by BCD prior to approval. 3. Detail offset strategy and additional and appropriate measures for BGW in accordance with section 8.8 of the BC Act at RTS stage.	A revised SAII assessment for Box Gum Woodland CEEC is included in Section 13.6 and Attachment 17 of the Revised BDAR. A total of 457.18 ha would be directly impacted by the amended project. Of the area that is likely to be directly impacted, 11% (52.57 ha) is in high to very high condition, and the majority is in low to very low condition. The project was considered likely to result in a SAII for this CEEC. Responses to the recommendations include: 1. A revised SAII assessment for Box Gum Woodland CEEC is included in Attachment 17 of the Revised BDAR, which includes consideration of the following: a) assessment of the updated indicative disturbance area (incorporating a maximum potential disturbance area) b) Revision of mapped vegetation zones and condition c) Revised clearing calculations, including the amended project footprint representing a maximum indicative disturbance area. d) Indirect impacts relevant to Box Gum Woodland CEEC are limited to potential edge effects as discussed in Section 13.4 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. This CEEC is likely to be subject to fragmentation and connectivity impacts as detailed in Section 13.5 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. Edge effects have been mapped within a 20 m buffer to the updated indicative disturbance area. This buffer was intended to represent the average extent of potential edge effects based on available scientific literature. Given the scale of the amended project, field validation of existing edge effects in accordance with the *BAM Stage 2 Operational Manual* (DPE, 2023) was not considered feasible. Edge effects were considered for native vegetation supporting a cover score of greater than 30% and excluding any vegetation subject to existing edge effects based on aerial photo interpolation. Approximately 8.00 ha of Box Gum Woodland CEEC may be subject to indirect impacts (ie PCTs 268, 280, 283 as per Attachment 24 of the Revised BDAR). CEEC fragmentation and connectivity impacts are likely to be permanent in some locations and range from minor to moderate in magnitude (refer to Section 13.5.3 and Table 13-17 of the Revised BDAR). Impacts to connectivity would be somewhat mitigated through implementation of a connectivity strategy for the project (refer to mitigation measure B10 in Table 14-1 of the Revised BDAR). e) Transgrid Operational procedures, the revised Vegetation Clearing Memo and SBAS (to be developed by Transgrid and approved by NSW DCCEEW Environment and Heritage) outline an approach to vegetation clearing, including retention where possible. Partial retention in the ECZ is currently limited to groundcover in the BAM-C, with partial clearing in the HTZ reducing all growth forms but not to zero in the BAM-C (ie some trees can remain if not identified as hazard trees, this changes by PCT). The revised Vegetation Clearing Memo and BMP outline retention opportunities and minimisation of impact. As the quantum of retention is unable to be accurately predicted pre-clearing the BAM-C reflects the worst-case scenario. Where avoidance and minimisation can be achieved, vegetation integrity will be monitored as per the SBAS and potential credit reduction sought in consultation with NSW DCCEEW Environment and Heritage.

SAII entity	Guidance summary	Detailed issue	Recommendations and other comments	Transgrid response
				f) Avoiding impacts through micro-siting has not been assessed in the Revised BDAR due to the program timeline preventing inclusion of the detailed design for assessment in the Revised BDAR, but has been progressed separately to the BDAR to ensure all available species location data can be used for avoidance during design. Avoidance measures are included in Chapter 14 of the Revised BDAR and will be further detailed in the BMP (refer to mitigation measure B3 in Table 14-1 of the Revised BDAR). Biodiversity constraints mapping has been developed for the amended project to enable the construction contractors to incorporate avoidance into the detailed design where possible and ensure avoidance and minimisation commitments in the Revised BDAR are realised in the final detailed design. g) The SBAS will provide evidence-based justification for mitigation measures including vegetation retention on easement. Vegetation retention/regeneration during and post clearing will be monitored to show retained vegetation integrity scores. Evidence of retention and regeneration from similar projects (eg Snowy 2.0 Transmission Connection Project and Project EnergyConnect) will be provided. 2. The Revised BDAR includes an amended project footprint, which includes but is not limited to changes to the transmission line corridor, changes to the ancillary construction facilities and nomination of access tracks. The amended project footprint represents the maximum clearing footprint. Whilst an updated indicative disturbance area is presented in the Revised BDAR, this reflects the construction contractor's preliminary design (and a maximum clearing footprint), which is still subject to final detailed design (ie the Revised BDAR does not include the final design for the project). 3. An offset strategy for the amended project has been prepared with the general approach documented in Chapter 16 of the Revised BDAR. The offset strategy will be provided separately to NSW DCCEEW Environment and Heritage following planning approval of the amended project. Additional and appropriate measures, such as the regeneration of Box Gum Woodland to enhance and increase connectivity of retained patches have been included in Section 14.2 of the Revised BDAR (refer to mitigation measures B6 and B7 of Table 14-1) and will also be further developed in conjunction with NSW DCCEEW Environment and Heritage pre- and post-planning approval.
Pterostylis orephila	A SAII to these three critically endangered orchids is considered likely based on small population sizes, fragmentation, very restricted distribution and known locations near the direct impacts of the project. Indirect impacts including altered hydrology from earth works and surface disturbance, increased threat of weed and pathogen invasion and removal of horse exclusion fencing at McPhersons Plain for access have the potential to significantly impact known habitat.	There are records of the species within close proximity to the project footprint. These records are likely to be subject to unquantified indirect impacts from altered hydrology and increased weed / pathogen invasion as they are downslope from direct impacts. Targeted survey has not been adequate to rule out further presence within the disturbance footprint, so the species is also assumed to be present. The species is known to occur within Alpine Bogs and Fens which has been mapped within areas likely to be impacted by the project at McPhersons Plain (PCT 637) but has not been acknowledged in the BDAR as occurring in the subject land. The BDAR estimates direct impacts to 0.56 ha of 2.95 ha of high condition habitat within the project footprint. Indirect impacts from total clearing at tower locations will impact a greater proportion of suitable habitat. Given the species estimated area of occupancy is less than 10km2, there is risk of SAII if the species is found to be located within or downslope of any impacts.	1. Undertake targeted survey or expert report to rule out species presence from project footprint as a priority prior to approval and to inform RTS. 2. Extend the impact assessment (subject land) to consider all areas that will be subject to surface impacts associated with the development including temporary impact areas, access ways that will be relied on for construction, operation and continued maintenance within and between the TCZ, ECZ and HTZ, and areas required for any sediment and erosion control measures 3. Include more detail on the level of partial impact in those areas stated to be minimal impact 4. Provide revised assessment /calculation of residual impacts (above) including for indirect and prescribed impacts 5. Provide an adequate buffer to known locations to avoid and minimise indirect impacts	1. Additional targeted survey for *P. oreophila* was undertaken in December 2023 to address survey gaps from the BDAR. The species was not recorded during targeted surveys and survey effort reduced the assumed presence areas from the BDAR by 4.23 ha, with 2.24 ha of assumed presence habitat remaining for this species in the Revised BDAR. Seasonal survey limitations, competing survey priories during a short survey window (December to January), and program timeline prevented the entire area being surveyed. Engagement of a species expert was not able to be undertaken due to availability of orchid experts (a number of orchid specialists were approached/consulted, and none were available to assist on the project as orchid experts).

SAII entity	Guidance summary	Detailed issue	Recommendations and other comments	Transgrid response
	Targeted survey/expert report is required to rule out presence (and loss) within the disturbance footprint. Any loss of habitat in the McPhersons Plain Conservation Agreement site is constitute a likely Serious and Irreversible Impact. This impact may be mitigated by further avoidance of tower pads associated infrastructure and indirect impacts, as per recommendations in this review. Additional information is provided at the RTS stage to quantify impacts and provide more certainty of avoidance and mitigation to enable BCD to make a more informed assessment.	Given the species is associated with the Alpine Sphagnum Bogs and Associated Fens EPBC Act-listed TEC, it is likely to be affected by any changes to hydrology and drainage lines from impacts on adjacent land. Indirect impacts include increased weed infestation, altered hydrology and disturbance from maintenance activities. Based on the assumed presence, predicted impacts and further unquantified indirect impacts to known habitat contribute to the likelihood of SAII. While the presence is largely assumed for the purpose of calculating direct impacts, the project will also indirectly impact a significant area of the species' known habitat to an unknown degree. Without certainty of the extent of direct impact or the ability to mitigate indirect impacts to the species habitat, there is a significant risk and high likelihood of SAII. This impact may be mitigated by further avoidance of tower pads associated infrastructure and indirect impacts, as per recommendations in this review.	We will be able to provide further advice as to whether or not SAII is likely for the above species following: • the results of additional targeted survey or expert report provided in accordance with BAM Sections 5.2.3 to 5.2.5 • the submission of further information to quantify impacts, and • the provision more detailed avoidance and mitigation and better inform the assessment.	2. The Revised BDAR includes an amended project footprint which includes but is not limited to changes to the transmission line corridor, changes to the ancillary construction facilities and nomination of access tracks. The amended project footprint represents the maximum clearing footprint. Impacts to *P. oreophila* have been assessed against the amended project footprint (refer to Section 13.6 and Attachment 17 of the Revised BDAR). The Revised BDAR estimates direct impacts to 0.56 ha of habitat for *P. oreophila,* similar to the BDAR. 3. Assessment of partial, indirect or prescribed impacts (where relevant) are included in the Revised BDAR (refer to Sections 13.4, 13.5, 13.6, Attachment 17 and Attachment 24 of the Revised BDAR). Opportunities for impact avoidance and minimisation through detailed design has been prioritised in McPhersons Plain due to the number of threatened and SAII candidate species occurring or with potential to occur in this area, with the aim of reducing the likelihood of direct, indirect or partial impacts, including (mitigation measure B38, Table 14-1 and Section 12.1 of the Revised BDAR): • The horse-exclusion fencing around the central portion of McPhersons Plain (to prevent impacts to threatened flora species) would be maintained and has been identified as a no-go zone. • Given potential habitat for the threatened species associated with McPhersons Plain extends beyond the fenced area, a 30-m exclusion buffer from the fenceline would be applied for project infrastructure. • Use of clearing methods that minimise ground disturbance. • Where there are known locations of recorded threatened species (as identified in the Revised BDAR), the associated buffer areas will be demarcated as a biodiversity exclusion zone (mitigation measure B13). Any threatened species identified through additional surveys or captured as an unexpected find, will be dealt with in accordance with the BMP (mitigation measure B3). 4. Assessment of indirect and prescribed impacts has been included in Section 13.4 and 13.5 and Attachment 17 and Attachment 24 of the Revised BDAR. Indirect and prescribed impacts will be addressed where possible through proposed mitigation measures to be applied during construction and operation. Impacts to this species are considered to be unlikely SAII, as indirect impacts are expected to be managed through proposed mitigation measures (as described in Section 13.6 and Attachment 17). Approximately 0.56 ha of assumed presence habitat would be directly impacted by the amended project. 5. A 30 m buffer, as required under the BAM, has been applied to known records of the species. In the assessment the 30 m buffer was treated as known habitat in the clearing polygons and impact calculations. The 30-m buffers around these orchid species have been identified as a constraint and have been considered in the preliminary detailed design for structures near McPhersons Plain.

SAII entity	Guidance summary	Detailed issue	Recommendations and other comments	Transgrid response
Prasophyllum keltonii		The project footprint contains 92.78 ha of suitable habitat for the species, 31.70 ha (34%) of this would be directly impacted by the project, mostly (98%) high condition. There are records of the species within close proximity to the project footprint. These records may be subject to unquantified indirect impacts from the altered hydrology and increased weed / pathogen invasion as they are downslope from direct impacts. Targeted survey has not been adequate to rule out further presence within the disturbance footprint, so the species is also assumed to be present. The species is known to occur within the Alpine Bogs and Fens TEC which has been mapped within areas likely to be impacted by the project at McPhersons Plain (PCT 637), but has not been acknowledged in the BDAR as occurring in the subject land. Indirect impacts from total clearing at tower locations will impact a greater proportion of suitable habitat than acknowledged in the assessment. Given the species estimated area of occupancy is less than 10km^2, there is risk of SAII if the species is found to be located within or downslope of any impacts. Given the species is associated with the Alpine Sphagnum Bogs and Associated Fens EPBC listed EC it is likely to be affected by any changes to hydrology and drainage lines from impacts on adjacent land. Indirect impacts include increased weed infestation, altered hydrology and disturbance from maintenance activities. Based on the assumed presence there is high risk of SAII due to the predicted impacts and further unquantified indirect impacts to known habitat. While the presence is largely assumed for the purpose of calculating direct impacts, the project will also indirectly impact a significant area of the species' known habitat to an unknown degree. Without certainty of the extent of direct impact or the ability to mitigate indirect impacts to the species habitat, the current layout and extent of impact poses a significant risk and contributes to likelihood of SAII. This impact may be mitigated by further avoidance of tower pads associated infrastructure and indirect impacts, as per recommendations in this review.	1. Undertake targeted survey or expert report to rule out species presence from project footprint as a priority prior to approval and to inform RTS. 2. Extend the impact assessment (subject land) to consider all areas that will be subject to surface impacts associated with the development including temporary impact areas, access ways that will be relied on for construction, operation and continued maintenance within and between the TCZ, ECZ and HTZ, and areas required for any sediment and erosion control measures 3. Include more detail on the level of partial impact in those areas stated to be minimal impact 4. Provide revised assessment /calculation of residual impacts (above) including for indirect and prescribed impacts 5. Provide known locations to avoid and minimise indirect impacts We will be able to provide further advice as to whether or not SAII is likely for the above species following: • the results of additional targeted survey or expert report provided in accordance with BAM Sections 5.2.3 to 5.2.5 • the submission of further information to quantify impacts, and • the provision more detailed avoidance and mitigation and better inform the assessment.	1. Additional targeted survey for *P. keltonii* was undertaken in December 2023 to address survey gaps from the BDAR. *Prasophyllum keltonii* was recorded in the amended project footprint. Two individuals recorded by NSW DCCEEW Environment and Heritage in the amended project footprint (but outside the updated indicative disturbance area) may be impacted by the project. There is a total of 0.28 ha of known habitat for the species in the project footprint, with 56 ha of potential habitat excluded from the species polygon through survey. Direct impacts are restricted to 0.03 ha of known habitat for the species (the known records are outside the updated indicative disturbance area, however the updated indicative disturbance area encroaches on the 30 m buffer for the known records). Engagement of a species expert for *P. keltonii* was not able to be undertaken due to availability of orchid experts (a number of orchid specialists were approached/consulted, and none were available to assist on the project as orchid experts). 2. The Revised BDAR includes an amended project footprint which includes but is not limited to changes to the transmission line corridor, changes to the ancillary construction facilities and nomination of access tracks. The amended project footprint represents the maximum clearing footprint. Impacts to this species have been assessed against the amended project footprint (refer to Section 13.6 and Attachment 17 of the Revised BDAR). 3. Assessment of partial, indirect or prescribed impacts (where relevant) are included in the Revised BDAR (refer to Sections 13.4, 13.5, 13.6, Attachments 17 and 24 of the Revised BDAR). Opportunities for impact avoidance and minimisation through detailed design has been prioritised in McPhersons Plain due to the number of threatened and SAII candidate species occurring or with potential to occur in this area, with the aim of reducing the likelihood of direct, indirect or partial impacts, including (mitigation measure B38, Table 14-1 and Section 12.1 of the Revised BDAR): • The horse-exclusion fencing around the central portion of McPhersons Plain (to prevent impacts to threatened flora species) would be maintained and has been identified as a no-go zone. • Given potential habitat for the threatened species associated with McPhersons Plain extends beyond the fenced area, a 30-m exclusion buffer from the fenceline would be applied for project infrastructure. • Use of clearing methods that minimise ground disturbance. • Where there are known locations of recorded threatened species (as identified in the Revised BDAR), the associated buffer areas will be demarcated as a biodiversity exclusion zone (mitigation measure B13). Any threatened species identified through additional surveys or captured as an unexpected find, will be dealt with in accordance with the BMP (mitigation measure B3). Residual direct impacts are restricted to 0.03 ha of known habitat for the species (the known records are outside the updated indicative disturbance area, however the updated indicative disturbance area encroaches on the 30 m buffer for the known records). Assessment of indirect and prescribed impacts has been included in Attachment 24 of the Revised BDAR. Indirect and prescribed impacts will be addressed where possible through proposed mitigation measures to be applied during construction and operation. Impacts to this species are considered to be potential SAII, partly due to the possibility of indirect impacts to known habitat areas (as described in Section 13.6 and Attachment 17).

SAII entity	Guidance summary	Detailed issue	Recommendations and other comments	Transgrid response
				4. Known locations of sensitive species, such as orchids, have been excluded from the figures in the Revised BDAR as per the requirements of the Scientific Licence agreement (these records are included in the spatial dataset provided to NSW DCCEEW Environment and Heritage). However, known orchid locations were used to inform impact assessment in the Revised BDAR and biodiversity constraints mapping to enable avoidance and minimisation of impacts to be incorporated into the final detailed design where possible. A 30 m buffer, as required under the BAM, has been applied to known records of the species. In the assessment the 30 m buffer was treated as known habitat in the clearing polygons and impact calculations. These areas of known habitat were included in the constraints mapping to enable consideration of avoidance during detailed design.
Prasophyllum bagoense		There are records of the species in and adjacent to the project footprint. The BDAR estimates the project will impact 31.9 ha of suitable habitat, almost all in high condition. This could be >8% of the species' extent of occurrence. Seed dispersal will not be affected across the whole of the impacted area. We have found that there are numerous unaccounted for impacts, limited detailed mitigation measures and no commitment to adaptive management which may result in a greater impact than assessed for the EIS. Although the BDAR states a conservative approach has been applied to the assessment, there are areas where temporary or permanent access requirements for maintenance of ECZ, HTZ, TCZ and APZs have not been addressed or included in the quantification of impacts to the species. Indirect impacts that include increased risk of weed and pathogen invasion or altered hydrology and disturbance from maintenance activities have not been quantified or mapped in the BDAR. No buffer for indirect impacts has been applied to known locations. While the presence of the species is assumed, it is also known to occur within areas that are likely to be indirectly impacted. The project has potential to impact on a significant area of the species' extent for a species that has a very limited geographic distribution. This impact may be mitigated by further avoidance of tower pads associated infrastructure and indirect impacts, as per recommendations in this review.	1. Undertake targeted survey or expert report to rule out species presence from project footprint as a priority prior to approval and to inform RTS. 2. Extend the impact assessment (subject land) to consider all areas that will be subject to surface impacts associated with the development including temporary impact areas, access ways that will be relied on for construction, operation and continued maintenance within and between the TCZ, ECZ and HTZ, and areas required for any sediment and erosion control measures 3. Include more detail on the level of partial impact in those areas stated to be minimal impact 4. Provide revised assessment /calculation of residual impacts (above) including for indirect and prescribed impacts 5. Provide an adequate buffer to Alpine bogs and known habitat to avoid and minimise indirect impacts We will be able to provide further advice as to whether or not SAII is likely for the above species following: • the results of additional targeted survey or expert report provided in accordance with BAM Sections 5.2.3 to 5.2.5 • the submission of further information to quantify impacts, and • the provision more detailed avoidance and mitigation and better inform the assessment.	1. Additional targeted survey for *P. bagoense* was undertaken in November and December 2023 to address survey gaps. *Prasophyllum bagoense* was recorded in the amended project footprint (recorded by NSW DCCEEW Environment and Heritage, 0.28 ha of known habitat), further the species has been assumed present over an additional 0.32 ha of the amended project footprint due to survey limitations. Approximately 60 ha of potential habitat for the species was excluded from the species polygon through survey. Engagement of a species expert for *P. bagoense* was not able to be undertaken due to availability of orchid experts. 2. The Revised BDAR includes an amended project footprint which includes but is not limited to changes to the transmission line corridor, changes to the ancillary construction facilities and nomination of access tracks. The amended project footprint represents the maximum clearing footprint. Impacts to this species have been assessed against the amended project footprint (refer to Section 13.6 and Attachment 17 of the Revised BDAR). The Revised BDAR estimates direct impacts to 0.04 ha of habitat for *P. bagoense*. 3. Assessment of partial, indirect or prescribed impacts (where relevant) are included in the Revised BDAR (refer to Sections 13.4, 13.5, 13.6 and Attachments 17 and 24 of the Revised BDAR). Opportunities for impact avoidance and minimisation through detailed design has been prioritised in McPhersons Plain due to the number of threatened and SAII candidate species occurring or with potential to occur in this area, with the aim of reducing the likelihood of direct, indirect or partial impacts, including (mitigation measure B38, Table 14-1 and Section 12.1 of the Revised BDAR): • The horse-exclusion fencing around the central portion of McPhersons Plain (to prevent impacts to threatened flora species) would be maintained and has been identified as a no-go zone. • Given potential habitat for the threatened species associated with McPhersons Plain extends beyond the fenced area, a 30-m exclusion buffer from the fenceline would be applied for project infrastructure. • Use of clearing methods that minimise ground disturbance. • Where there are known locations of recorded threatened species (as identified in the Revised BDAR), the associated buffer areas will be demarcated as a biodiversity exclusion zone (mitigation measure B13). Any threatened species identified through additional surveys or captured as an unexpected find, will be dealt with in accordance with the BMP (mitigation measure B3).

SAII entity	Guidance summary	Detailed issue	Recommendations and other comments	Transgrid response
				4. Residual impacts for *Prasophyllum bagoense* include 0.28 ha of known habitat and 0.32 ha of assumed presence. Assessment of indirect and prescribed impacts has been included in Attachment 24 of the Revised BDAR. Indirect and prescribed impacts will be addressed where possible through proposed mitigation measures to be applied during construction and operation. Impacts to this species are considered to be unlikely SAII, as indirect impacts are expected to be managed through proposed mitigation measures (as described in Section 13.6 and Attachment 17). 5. A 30 m buffer, as required under the BAM, has been applied to known records of the species. In the assessment the 30 m buffer was treated as known habitat in the clearing polygons and impact calculations. The 30-m buffers around these orchid species have been identified as a constraint and have been considered in the preliminary detailed design for structures near McPhersons Plain.
Tableland Basalt Forest in the Sydney Basin and South-Eastern Highlands Bioregions CEEC	Additional information is provided at the RTS stage to quantify impacts and provide more certainty of avoidance and mitigation to enable BCD to make a more informed assessment.	BCD consider there is potential for additional loss associated with currently unaccounted for indirect impacts and impacts associated with access, operation and maintenance that have not been identified in the disturbance footprint or accounted for in the BAM calculator in the Bonda IBRA subregion. 37.42 ha of mostly high condition remnant of this TEC is predicted to be directly impacted by the project. There has been no quantification of indirect impacts adjacent to the disturbance footprint to account for edge effects and potential for increased weed and pathogen invasion. Fragmentation of isolated remnants has not been qualified or quantified. There is uncertainty whether the claimed level of avoidance may be achieved due to unaccounted impacts, limited detailed mitigation measures or commitment to adaptive management. Areas required for temporary or permanent access and ongoing maintenance of ECZ, HTZ and TCZ APZ's have not been identified or included in the quantification of impacts to the community. There is risk of impacts to a greater percentage of good quality TEC than accounted for in the BDAR due to a potential misidentification of low condition TEC and no detailed measures proposed for design and micro-siting. Detailed constraints mapping is proposed to be undertaken for micro-siting but there is no commitment to further on-ground survey to ensure this is not a provision guided largely by desktop assessment data. This project will cause a further decline of an ecological community which is in rapid decline, in area, connectivity and ecological function. The uncertainty around area of impact, the vegetation integrity in low condition zones and insufficient evidence that ongoing protection of the TEC can be maintained in proposed exclusion zones is contributing to the risk. We will be able to provide more informed advice regarding the likelihood the risk of SAII following the provision of additional information and revised BDAR for RTS.	1. Prepare a revised SAII assessment for Tableland Basalt Forest for RTS that considers: • The revised BDAR prepared to address the recommendations within this review: • Revision of low condition mapped vegetation zones • All areas subject to surface impacts associated with the development including temporary impact areas, access ways that will be relied on for construction, operation and continued maintenance within and between the TCZ, ECZ and HTZ, and any areas required for any sediment and erosion control measures • Re-calculation of residual impacts (above) including for indirect and prescribed impacts • Evidence of Transgrid's approved operational procedures for vegetation management within powerline easements that support the avoidance and ongoing protection of biodiversity exclusion zones and partial impact assessment within the ECZ and HTZ. • Identified areas to be avoided – or TEC protection zones in BDAR maps, figures and in the datasets that will be used for detailed design and construction planning to support the assumptions of avoided and minimised impacts to this TEC. • Evidence based justification for mitigation measures that will be used to provide immediate and ongoing protection of BGW pre, during and post construction that are to be incorporated into the post-approval plans. 2. A maximum clearing footprint must be identified and evaluated by BCD prior to approval. 3. Detail offset strategy and additional and appropriate measures for Tableland Basalt Forest in accordance with section 8.8 of the BC Act at RTS stage.	The Revised BDAR includes an updated assessment for Tableland Basalt Forest (refer to Section 13.6 and Attachment 17 of the Revised BDAR)). A total of 6.62 ha is likely to be directly impacted by the project, 77% (5.08 ha) of which is in low to very low condition. The project is not considered likely to result in an SAII for this CEEC. Responses to the recommendations include: 1. A revised SAII assessment for Tableland Basalt Forest CEEC is included in Attachment 17 of the Revised BDAR, which includes consideration of the following: • Revision of mapped vegetation zones and condition (see Figure 4-1 and Figure 6-1) • Revised clearing calculations, including amended project footprint, representing a maximum indicative disturbance area. Indirect impacts relevant to Tableland Basalt Forest CEEC are limited to potential edge effects as discussed in Section 13.4 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. This CEEC is likely to be subject to fragmentation and connectivity impacts as detailed in Section 13.5 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. Edge effects have been mapped within a 20 m buffer to the updated indicative disturbance area. This buffer was intended to represent the average extent of potential edge effects based on available scientific literature. Given the scale of the amended project, field validation of existing edge effects in accordance with the *BAM Stage 2 Operational Manual* (DPE, 2023) was not considered feasible. Edge effects were considered for native vegetation supporting a cover score of greater than 30% and excluding any vegetation subject to existing edge effects based on aerial photo interpolation. Approximately 0.27 ha of Tableland Basalt Forest CEEC may be subject to indirect impacts (PCTs 953 (excluding Snowy Mountains IBRA subregion), 1097,1107, as per Attachment 24 of the Revised BDAR. • CEEC fragmentation and connectivity impacts are likely to be permanent in some locations and range from minor to moderate in magnitude (refer to Section 13.5.3 and Table 13-17 of the Revised BDAR).

SAII entity	Guidance summary	Detailed issue	Recommendations and other comments	Transgrid response
				Transgrid Operational procedures, the revised Vegetation Clearing Memo and the SBAS (to be developed by Transgrid and approved by NSW DCCEEW Environment and Heritage) are intended to outline an approach to vegetation clearing, including retention of CEECs where possible. Avoidance measures are not included in the amended project footprint as assessed in the Revised BDAR. These will be incorporated into the detailed design, which is not available for inclusion in the Revised BDAR due to the project timeline. As such, avoiding impacts through micro-siting has not been assessed in the Revised BDAR but has progressed separately to the Revised BDAR to ensure all available species location data can be used for avoidance during ongoing design development which is being undertaken concurrently. Avoidance measures are included in Chapter 14 of the Revised BDAR and will be further detailed in the BMP (refer to mitigation measure B3 in Table 14-1 of the Revised BDAR). Biodiversity constraints mapping has been developed for the project to enable the construction contractors to incorporate avoidance into the detailed design and ensure avoidance commitments in the Revised BDAR are realised in the final detailed design. It should be noted that there will be limited opportunities to avoid or minimise impacts to Tableland Basalt Forest through micro-siting at the detailed design stage. The SBAS will provide evidence-based justification for mitigation measures including vegetation retention on easement. Vegetation retention/regeneration during and post clearing will be monitored to show retained vegetation integrity scores. Evidence of retention and regeneration from similar project (eg Snowy 2.0 Transmission Connection Project and Project EnergyConnect) will be provided. 2. The Revised BDAR includes an amended project footprint which includes but is not limited to changes to the transmission line corridor, changes to the ancillary construction facilities and nomination of access tracks. The amended project footprint represents the maximum clearing footprint. Whilst an updated indicative disturbance area is presented in the Revised BDAR, this reflects the construction contractor's preliminary design (and a maximum clearing footprint), which are still subject to final detailed design (ie the Revised BDAR does not include the final design for the project). 3. An offset strategy for the amended project has been prepared with the general approach documented in Chapter 16 of the Revised BDAR. The offset strategy will be provided separately to NSW DCCEEW Environment and Heritage following planning approval of the amended project. Additional and Appropriate Measures for SAII have been incorporated into the Revised BDAR where practicable. This includes avoidance, minimisation in the first instance, followed by compensatory measures for unavoidable impacts for potential SAII (refer to mitigation measure B6 and B7 in Table 14-1). However, additional measures have not been proposed in the Revised BDAR for this CEEC specifically, as it is considered unlikely that the amended project would lead to a SAII to Tableland Basalt Forest.

SAII entity	Guidance summary	Detailed issue	Recommendations and other comments	Transgrid response
Coolac-Tumut Serpentinite Shrubby Woodland in the NSW South-Western Slopes and South-Eastern Highlands Bioregions CEEC		BCD consider there is potential for additional loss associated with currently unaccounted for indirect impacts and impacts associated with access, operation and maintenance that have not been identified in the disturbance footprint. 1.42 ha of mostly high condition remnant of this TEC is predicted to be directly impacted by the project. Fragmentation of isolated remnants has not been qualified by the assessment, although the BDAR estimates distance between isolated remnants increases from 4.3 – 4.8 km and the perimeter to area ratio will increase from 0.1 to 0.4. No buffer to account for potential indirect impacts including edge effects and potential for increased weed and pathogen invasion adjacent to the easement has been applied to quantify the total impact. The claimed level of avoidance may not be achieved due to unaccounted impacts, limited detailed mitigation measures or commitment to adaptive management. Areas required for temporary or permanent access and ongoing maintenance of ECZ, HTZ and TCZ APZs have not been identified or included in the quantification of impacts to the community. There is risk of impacts to a greater percentage of good quality TEC than accounted for in the BDAR due to a potential misidentification of low condition TEC zones. Detailed constraints mapping is proposed to be used for micro-siting but there is no commitment to further on-ground survey to ensure this is not a provision guided largely by desktop assessment data. This project will contribute to the decline of an ecological community which has a restricted geographic distribution and is in rapid decline, in area, connectivity and ecological function. There is risk that the combined direct and indirect impact may be greater than the 1.42 ha assessed in the current BDAR and that the ongoing protection of the TEC in proposed exclusion zones will not be achievable. We will be able to provide more informed advice regarding the likelihood the risk of SAII following the provision of additional information and revised BDAR for RTS.	1. Prepare a revised SAII assessment for Coolac-Tumut Serpentinite Shrubby Woodland CEEC for RTS that considers: • The revised BDAR prepared to address the recommendations within this review: • Revision of low condition mapped vegetation zones • All areas subject to surface impacts associated with the development including temporary impact areas, access ways that will be relied on for construction, operation and continued maintenance within and between the TCZ, ECZ and HTZ, and any areas required for any sediment and erosion control measures • Re-calculation of residual impacts (above) including for indirect and prescribed impacts • Evidence of Transgrid's approved operational procedures for vegetation management within powerline easements that support the avoidance and ongoing protection of biodiversity exclusion zones and partial impact assessment within the ECZ and HTZ. • Identified areas to be avoided – or TEC protection zones in BDAR maps, figures and in the datasets that will be used for detailed design and construction planning to support the assumptions of avoided and minimised impacts to SAII CEEC. • Evidence based justification for mitigation measures that will be used to provide immediate and ongoing protection of TEC pre, during and post construction that are to be incorporated into the post-approval plans. 2. A maximum clearing footprint must be identified and evaluated by BCD prior to approval.	A revised SAII assessment for Coolac-Tumut Serpentinite Shrubby Woodland CEEC is included in Attachment 17 of the Revised BDAR. The amended project would result in direct impacts to a total of 3.38 ha of Coolac-Tumut Serpentinite Shrubby Woodland, 61% (2.06 ha) of which is in low to very low condition. The amended project is not considered likely to result in an SAII for this CEEC. Responses to the recommendations include: 1. A revised SAII assessment for Coolac-Tumut Serpentinite Shrubby Woodland CEEC is included in Attachment 17 of the Revised BDAR, which included consideration of the following: • Revision of mapped vegetation zones and condition • Revised clearing calculations, including amended project footprint, representing a maximum indicative disturbance area. • Indirect impacts relevant to Coolac-Tumut Serpentine Woodland CEEC are limited to potential edge effects as discussed in Section 13.4 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. This CEEC is likely to be subject to fragmentation and connectivity impacts as detailed in Section 13.5 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. Edge effects have been mapped within a 20 m buffer to the updated indicative disturbance area. This buffer was intended to represent the average extent of potential edge effects based on available scientific literature. Given the scale of the amended project, field validation of existing edge effects in accordance with the *BAM Stage 2 Operational Manual* (DPE, 2023) was not considered feasible. Edge effects were considered for native vegetation supporting a cover score of greater than 30% and excluding any vegetation subject to existing edge effects based on aerial photo interpolation. Approximately 0.31 ha of Coolac-Tumut Serpentine Woodland CEEC may be subject to indirect impacts (PCT 301, as per Attachment 24 of the Revised BDAR). • CEEC fragmentation and connectivity impacts are likely to be permanent in some locations and range from minor to moderate in magnitude (refer to Section 13.5.3 and Table 13-17 of the Revised BDAR). Transgrid Operational procedures, the revised Vegetation Clearing Memo and SBAS (to be developed by Transgrid and approved by NSW DCCEEW Environment and Heritage) are intended to outline an approach to vegetation clearing, including retention of CEECs where possible. Avoidance measures are not included in the amended project footprint as assessed in the Revised BDAR. These will be incorporated into the detailed design, which is not available for inclusion in the Revised BDAR due to the project timeline. but has been progressed separately to the Revised BDAR to ensure all available species location data can be used for avoidance during ongoing design development which is being undertaken concurrently. As such, avoiding impacts through micro-siting has not been assessed in the Revised BDAR and will be further detailed in the BMP (refer to mitigation measure B3 in Table 14-1 of the Revised BDAR). Avoidance measures are included in Chapter 14 of the Revised BDAR. Biodiversity constraints mapping has been developed for the project to enable the construction contractors to incorporate avoidance into the detailed design and ensure avoidance commitments in the Revised BDAR are realised in the final detailed design. The SBAS will provide evidence-based justification for mitigation measures including vegetation retention on easement. Evidence of retention and regeneration from

SAII entity	Guidance summary	Detailed issue	Recommendations and other comments	Transgrid response
				similar projects (eg Snowy 2.0 Transmission Connection Project and Project EnergyConnect) will be provided. • The Revised BDAR includes an amended project footprint which includes but is not limited to changes to the transmission line corridor, changes to the ancillary construction facilities and nomination of access tracks. The amended project footprint represents the maximum clearing footprint. Whilst an updated indicative disturbance area is presented in the Revised BDAR, this reflects the construction contractor's preliminary design (and a maximum clearing footprint), which are still subject to final detailed design (ie the Revised BDAR does not include the final design for the project).
Monaro Tableland Cool Temperate Grassy Woodland in the South- Eastern Highlands Bioregion CEEC	Additional information is provided at the RTS stage to enable BCD to make a more informed assessment.	BCD consider there is potential for additional loss associated with currently unaccounted for indirect impacts and impacts associated with access, operation and maintenance that have not been identified in the disturbance footprint. 1.7 ha of mostly low condition remnant of this TEC is predicted to be directly impacted by the project. There will be some additional impacts including increased edge effects and potential for increased weed and pathogen invasion adjacent to the easement however these have not been quantified. Fragmentation of isolated remnants has not been qualified in the BDAR, although the BDAR estimates distance between isolated remnants will not be increased by the project. Unaccounted impacts limited detailed mitigation measures and no proposed adaptive management measures may result in a greater impact than reported in the BDAR. Access ways and operational requirements for maintenance of ECZ, HTZ and TCZ and APZs have not been included in the mapping or quantification of impacts to the community. There is a risk of greater impact to TEC than accounted for in the BDAR and misidentification of low condition TEC zones. This advice is subject to further information being provided at RTS stage, noting that this project will contribute to the decline of an ecological community which is in rapid decline, in area, connectivity and ecological function. There is risk that the combined direct and indirect impact may be greater than the 1.7 ha assessed in the current BDAR and that the ongoing protection of the TEC in proposed exclusion zones and continued maintenance of partial impact areas for the retention biodiversity values will not be achievable. A revised BDAR addressing the recommendations in this submission that provides further detail on vegetation assessment, extent of impacts and detailed mitigation should assist BCD in making a more informed conclusion on this entity.	1. Prepare a revised BDAR for RTS 2. The revised BDAR shall address the recommendations within this review and must incorporate the following: • A revised Stage 1 BAM assessment incorporating review of TEC vegetation zones and results of further targeted survey to determine presence/absence of SAII predicted species on accessible land • A revised Stage 2 BAM assessment that considers all areas subject to surface impacts associated with the development including temporary impact areas, access ways that will be relied on for construction, operation and continued maintenance within and between the TCZ, ECZ and HTZ, and any areas required for any sediment and erosion control measures • Mapped location and extent of all indirect impacts that are mappable. • Calculation of residual impacts (above) including for indirect and prescribed impacts • Evidence of Transgrid's approved operational procedures for vegetation management within powerline easements that support the avoidance and ongoing protection of biodiversity exclusion zones and partial impact assessment within the ECZ and HTZ.	A revised SAII assessment for Monaro Tableland Cool Temperate Grassy Woodland CEEC is included in Attachment 17 of the Revised BDAR. A total of 1.92 ha of Monaro Tableland Cool Temperate Grassy Woodland CEEC is likely to be directly impacted by the project. The project is not considered likely to result in an SAII for this CEEC. Responses to the recommendations include: 1. A Revised BDAR has been prepared and is provided as *Technical Report 1 – Revised Biodiversity Development Assessment Report*. 2. A revised SAII assessment for Monaro Tableland Cool Temperate Grassy Woodland CEEC is included in Attachment 17 of the Revised BDAR, which included consideration of the following: • Revised Stage 1 assessment, including review of vegetation zones for TECs and incorporating results of additional survey. • Revised Stage 2 assessment, including an amended project footprint that represents a maximum indicative disturbance area. • The general extent of indirect impacts (that are mappable) is shown in Figure 13-1 of the Revised BDAR. • Indirect impacts relevant to Monaro Tableland Cool Temperate Grassy Woodland CEEC are limited to potential edge effects as discussed in Section 13.4 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. This CEEC is likely to be subject to fragmentation and connectivity impacts as detailed in Section 13.5 and Attachment 24 and shown in Figures 13-1 and 13-2 of the Revised BDAR. Edge effects have been mapped within a 20 m buffer to the updated indicative disturbance area. This buffer was intended to represent the average extent of potential edge effects based on available scientific literature. Given the scale of the amended project, field validation of existing edge effects in accordance with the *BAM Stage 2 Operational Manual* (DPE, 2023) was not considered feasible. Edge effects were considered for native vegetation supporting a cover score of greater than 30% and excluding any vegetation subject to existing edge effects based on aerial photo interpolation. Approximately 3.03 ha of C Monaro Tableland Cool Temperate Grassy Woodland CEEC may be subject to indirect impacts (PCT 679, as per Attachment 24 of the Revised BDAR. • CEEC fragmentation and connectivity impacts are likely to be permanent in some locations and range from minor to moderate in magnitude (refer to Section 13.5.3 and Table 13-17 of the Revised BDAR).

SAII entity	Guidance summary	Detailed issue	Recommendations and other comments	Transgrid response
				• Transgrid Operational procedures, the revised Vegetation Clearing Memo and SBAS (to be developed by Transgrid and approved by NSW DCCEEW Environment and Heritage) are intended to outline an approach to vegetation clearing, including retention of CEECs where possible.
Acacia phasmoides, *Bossiaea fragrans* *Caladenia concolor* *Calotis glandulosa* *Diuris ochroma* *Eucalyptus alligatrix subsp. Alligatrix* *Eucalyptus robertsonii subsp. Hemisphaerica* *Euphrasia scabra* *Genoplesium superbum* *Glycine latrobeana* *Grevillea iaspicula* *Grebillea wilkinsonii* *Pomaderis delicata* *Pomaderis pallida* *Miniopterus orinae oceanensis* *Mixophyes balbus* *Chalinolobus dwyeri* *Solanum amourense* *Prasophyllum innubum* *Litoria castenea* (Yellow-spotted tree Frog) *Pseudomys fumeus* (Smoky Mouse) *Pseudophryne Corroboree* (Corroboree Frog) *Tyto tenebricosas* (Sooty Owl Breeding habitat)	These 23 SAII entities have been assumed present and require targeted survey or an expert report (BAM Section 5.2.4) to rule out presence from the project impact footprint. If present there is increased risk of SAII. BCD will be able to provide further advice on the risk of SAII to the above species following the results of additional targeted survey or expert report provided in accordance with BAM Sections 5.2.3 to 5.2.5 and the submission of further information to quantify impacts and provide more certainty of avoidance and mitigation. Additional information is provided at the RTS state to enable BCD to make a more informed assessment.			Regarding the SAII entities identified by NSW DCCEEW Environment and Heritage, additional targeted surveys have been undertaken since public exhibition of the EIS within areas of assumed presence to address out survey gaps where possible (refer to Section 4.7 of the Revised BDAR). The results of surveys undertaken from September to December 2023, and up until March 2024 for some species, are incorporated into the Revised BDAR. The list of SAII entities that have been assessed as a conservative measure but are considered unlikely to be impacted due to limited potential impacts and/ or occurrence within the amended project footprint have been reduced from 23 to 11 species (refer to Section 13.6 of the Revised BDAR). SAII entities for which additional survey since the BDAR has been undertaken include: • *Bossiaea fragrans* • *Caladenia concolor* • *Calotis glandulosa* • *Diuris ochroma* • *Eucalyptus robertsonii subsp. hemisphaerica* • *Euphrasia scabra* • *Genoplesium superbum* • *Glycine latrobeana* • *Grevillea iaspicula* • *Pomaderis delicata* • *Pomaderis pallida* • *Miniopterus orinae oceanensis* • *Mixophyes balbus* • *Solanum amourense* • *Prasophyllum innubum* • *Litoria castenea* (Yellow-spotted tree Frog) • *Pseudomys fumeus* (Smoky Mouse) *Pseudophryne Corroboree* (Corroboree Frog), *Acacia phasmoides,* and *Eucalyptus alligatrix subsp. alligatrix* are no longer candidate species (excluded due to vagrancy in consultation with NSW DCCEEW Environment and Heritage). Further, *Diuris ochroma, Euphrasia scabra, Glycine latrobeana* and *Miniopterus orinae oceanensis* (breeding habitat) have been excluded through field survey. Surveys undertaken since December 2023 will be used to inform the BMP (refer to mitigation measure B3 in Table 14-1 of the Revised BDAR) and reduce the overall offset liability where possible. The updated indicative disturbance area for the amended project represents the maximum clearing footprint that approval is being sought for. Further, specialists and species experts have been consulted for a number of species (including SAII orchids, Sooty Owl, and SAII frogs) and are incorporated into the Revised BDAR where the program has allowed. SAII assessments for SAII entities identified by NSW DCCEEW Environment and Heritage have been updated to consider the amended project footprint, including assessment of the maximum indicative disturbance area. The updated SAII assessments are documented in Section 13.6 of the Revised BDAR and included in Attachment 17.