

Remaining North West Transmission Developments Towers to Poles

Response to Further Information Request, dated 19 November 2025

Introduction

This document responds the Tasmanian Planning Commission's (TPC) request for further information (RFI) dated 19 November 2025 and is supplementary to the information provided by TasNetworks as a submission during the exhibition period of the permit application. The body of this document responds to points 3, 4 and 5 of the RFI, while responses to points 1 and 2 are attached by way of separate, independent reports.

Summary of Change Request

As part of the refining of the alignment during the design phase of the North West Transmission Developments Project, 25 locations have been identified as highly constrained from a construction standpoint, due to narrow easements, problematic topography and proximate residential uses. It is proposed that in these constrained locations, dual-monopoles will be constructed instead of towers (as originally proposed) to reduce the effect of significant outages and their associated impacts. Specifically, the amendment will prevent the need for multiple 'high-risk' three-month outages and instead result in a series of lower impact 'day' outages. The proposed maximum height of the dual-monopoles is generally very similar as for towers, as described in Section 2.8 of Part B – Planning Report. Table 1, below, provides more specificity in this regard.

Dual-monopoles are proposed to be sited in accordance with the proposed locations of the towers they will replace. However, as each dual-monopole structure includes two poles, these poles will sit either side of the centre of where the original tower was proposed. Due to the minor nature of the proposed change:

1. no changes to access tracks or vegetation clearance are required;
2. no changes to easements are required; and
3. regarding visual impact and any changes to impacts or mitigation actions on Tasmanian listed species and communities and Matters of National Environmental Significance (MNES), independent reports from Entura and Landform Architects addresses those matters, but in summary, impacts to all listed species, listed threatened vegetation communities, and MNES from the project area remains unchanged from the original impact assessment and the change to poles will not result in an increased detriment to visual amenity.

Additional to the towers to poles change request, TasNetworks also proposed to increase the allowable maximum height of Towers T3 and T4 on the Heybridge East Spur, from 53, to 59m.

The below tables provide supplementary specification on the 'Towers to Poles' change request.

Structure	Structure Description	Tower Heights in Planning Application (m)	Proposed Pole Height (m)	Difference Tower vs Poles (m)	Comments
538T6	Light Strain Pole (LSP)	49	47.2	-1.8	
538T7	LSP	47	43.2	-3.8	
538T8	LSP	58	55.2	-2.8	
538T9	LSP	57	58.7	1.7	
538T43	LSP	48	47.2	-0.8	
538T44	LSP	56	58.7	2.7	
538T45	LSP	33	43.2	10.2	Detailed design has determined that such a short structure is not possible due to excessive loading on the poles and insulator structure swing clearance violations. It should be noted that the original tower would have required a height increase, due to clearance requirements.
538T46	LSP	48	47.2	-0.8	
538T62a	LSP	38	43.2	5.2	
538T63a	LSP	38	47.2	9.2	Taller poles are required here to allow for crossing over the top of the existing TL504T91 tower.
538T86	Heavy Strain Pole (HSP)	35	35.2	0.2	
538T87	HSP	35	35.2	0.2	

538T88	LSP	55	55.2	0.2	
538T89	HSP	55	58.7	3.7	
538T90	LSP	47	47.2	0.2	
538T91	LSP	52	58.7	6.7	Taller poles are required here to allow for crossing over the top of the existing TL504T125 tower.
538T92	LSP	45	47.2	2.2	
538T93	LSP	46	43.2	-2.8	
538T94	LSP	43	37.2	-5.8	
538T95	LSP	58	55.2	-2.8	
538T96	LSP	37	37.2	0.2	
538T97	LSP	44	43.2	-0.8	
538T98	HSP	42	40.2	-1.8	
538T99	HSP	39	40.2	1.2	
538T100	HSP	37	45.2	8.2	Taller poles are required here to allow for crossing over the top of existing TL504.

Table 1: Changes to pole heights

Pole Type	Base Diameter (m)	Top Diameter (m)	Foundation Diameter (m)	Foundation Area (m ²)	Distance Between Pole Centres (m)	Distance Between Pole Foundations (m)	Total Footprint Including Area Between (m ²)
Light Strain Pole	2.2	0.6	3	7.07 (14.14 for dual-monopoles)	13	10	46.07
Heavy Strain Pole	2.5	0.8	3.5	9.62 (19.24 for dual-monopoles)	16	12.5	65.62

Table 2: Pole specifications

Response to Further Information Request

The Rem NWTD permit application is being assessed by the TPC under the *Major Infrastructure Development Approvals Act 1999 (MIDAA)*. As part of this process, the TPC developed a series of planning criteria against which the permit application will be assessed.

Should the TPC support this request to replace towers with dual-monopoles in specific locations, the dual-monopoles would be positioned in the same locations (proximately sited) as the proposed towers in the permit application and would be of similar heights to those proposed towers. Therefore, except as noted below, the bulk of the assessment against the Land Use and Development Standards in Part B of the 'Planning Report' for the permit application remains sufficient for poles as it was with towers.

The TPC requested revised plans and elevation drawings, these figures are presented in Attachment 1.

In Section 2.2 of Part B – Planning Report, the following was originally stated:

"Sheffield to Burnie (adjacent to the existing single-circuit 220 kV OHTL between Sheffield and Burnie substations). The new OHTL is approximately 55 km long and will include approximately 107 new towers predominantly located within the existing easement (widening of the easement will be required in some sections). The existing single-circuit 220 kV OHTL (TL504) will be dismantled between Sheffield and Burnie substations, removing 138 towers. Some sections of the existing easement will be relinquished following dismantling of the existing OHTL."

The following change is required: "Sheffield to Burnie (adjacent to the existing single-circuit 220 kV OHTL between Sheffield and Burnie substations). The new OHTL is approximately 55 km long and will include approximately 82 new towers and 25 new dual-monopoles predominantly located within the existing easement (widening of the easement will be required in some sections). The existing single-circuit 220 kV OHTL (TL504) will be dismantled between Sheffield and Burnie substations, removing 138 towers. Some sections of the existing easement will be relinquished following dismantling of the existing OHTL."

There is no material change to the following statement resulting from the change request:

"Heybridge Spur East. The new double-circuit 220 kV OHTL is approximately 3 km long and connects the proposed Sheffield–Burnie double circuit 220 kV OHTL in the Stowport area with the proposed Heybridge switching station. A new easement will protect the proposed OHTL, which will have approximately 9 towers."

Point 3: An assessment of the revised use and development of the proposed transmission infrastructure for the poles against planning criteria considered relevant.

Point 4: An assessment of the revised use and development of the proposed transmission infrastructure for the Heybridge Spur in relation to planning criteria 5.1.4 – Siting and 5.7.2 Dust or other airborne particulates from existing uses.

General Assessment Comments

- There is no proposed change to the use relating to transmission infrastructure for this change request.
- On the Heybridge Spur (East), two towers (T3 and T4), which were initially nominated to have maximum heights of 53m, are now proposed to have nominated maximum heights of 59m. The purpose of this increase is to further reduce the potential for land use conflict between the new OHTL and the landfill site. In effect, a greater tower height would enable an increase in landfill height while still maintaining acceptable clearances. The final height of the towers will be developed in consultation with the landfill operator (within the maximum 59m height limit).
- The proposed dual-monopoles will be in the same location and proximately sited to their tower counterparts and will be subject to the same allowances for micro-siting. As expressed within the initial application documentation, the micro-siting of dual-monopole is likely to occur after approval has been granted, in accordance with the proposed change management condition. Any changes in location would be within the approved parameters of the permit.
- Schedule 1 of the *Land Use and Planning Approvals Act 1993* (LUPAA), outlines a series of objectives of the Resource Management and Planning System of Tasmania (RMPS). The proposed change request will not impact the project's response to the objectives of Schedule 1, under the LUPAA.

Assessment of relevant planning criteria

the following table assesses the change request against all relevant planning criteria, including criteria 5.1.4 and 5.7.2, as expressly raised by the TPC.

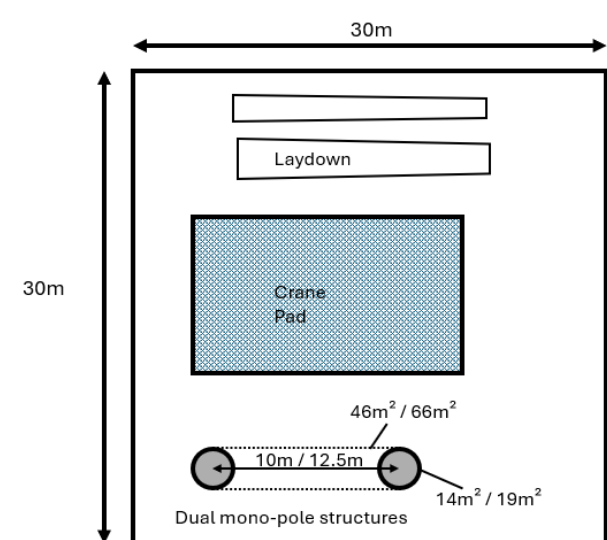
Number	Planning Provisions – Land use and development standards	Assessment Response (change impact)
5.1.1	<i>External lighting</i> Objective: That use does not cause an unreasonable loss of amenity to adjacent sensitive use. External lighting, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to: (a) the number of proposed light sources and their intensity; (b) the location of the proposed light sources; (c) the topography of the site; and (d) any existing light sources.	Towers to Poles No change – As with the towers, lighting along the Overhead Transmission Line (OHTL) is only used temporarily during emergency maintenance works when required for night works. The towers to poles change will not materially alter the outcomes or impacts under this criterion. The initial assessment within the Part B – Planning Report provides sufficient assessment of the criteria of the project impacts wholistically. Part B – Planning Report can be found with the exhibited documents on the TPC’s website. Heybridge Spur Maximum Tower Height Increases No change – As with the previous tower heights, lighting along the OHTL is only used temporarily during emergency maintenance works when required for night works. The towers to poles change will not materially alter the outcomes or impacts under this criterion. The initial assessment within the Part B – Planning Report provides sufficient assessment of the criteria of the project impacts wholistically. Part B – Planning Report can be found with the exhibited documents on the TPC’s website.
5.1.2	<i>Commercial vehicles</i> Objective: That use does not cause an unreasonable loss of amenity to adjacent sensitive use. Commercial vehicle movements and the unloading and loading of commercial vehicles, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to: (a) the extent and timing of traffic generation; (b) the dispatch of goods and materials; and (c) the existing levels of amenity.	Towers to Poles No change – There will be no change to the commercial vehicle movements required for the OHTL maintenance between towers or poles. The initial assessment within the Part B – Planning Report provides sufficient assessment of the criteria of the project impacts wholistically. Part B – Planning Report can be found with the exhibited documents on the TPC’s website. Heybridge Spur Maximum Tower Height Increases No change – Should the maximum tower heights be raised by 6m for T3 and T4 on the Heybridge Spur (East), there will be no change to the commercial vehicle movements required for OHTL maintenance. The initial assessment within the Part B – Planning Report provides sufficient assessment of the criteria of the project impacts wholistically. Part B – Planning Report can be found with the exhibited documents on the TPC’s website.
5.1.3	<i>Building Height</i> Objective: That use and development does not cause an unreasonable impact on adjoining properties. Building height must be necessary for the operation of the use and not cause an unreasonable impact on adjoining properties, having regard to: (a) the topography of the site; (b) the proposed height, bulk and form of the building; (c) the height, bulk and form of existing buildings on the site and adjoining properties; (d) the nature of the existing uses on adjoining properties; and (e) any buffers created by natural or other features.	Towers to Poles The maximum proposed height for the poles is broadly equivalent to towers; therefore, the impacts are comparable. While some poles will be moderately higher than towers, to ensure safe clearance distances, there are also several poles that will reach lower than their tower counterparts (see Table 1). Regardless of any height changes, all pole heights are proposed below the elected maximum height of 60m (to be conditioned with the permit) of the Sheffield to Burnie section of the overhead transmission line (OHTL). The assessment undertaken, including the visual amenity impacts, as part of the original application was done on a worst-case scenario basis, of all tower structures being constructed to their maximum height of 60m. The proposed height of the poles is necessary for the operation of the use and will not cause an unreasonable impact on adjoining properties. Barrington – Poles T6, T7, T8 and T9

		In the Barrington area, poles will be mostly lower than their tower counterparts were originally proposed, excluding T9. Gawler – Poles T43, T44, T45 and T46 In Gawler, poles are comparable in height to their tower counterparts, excluding T45, which is proposed to be approximately 10m higher than the tower originally was. This height increase for T45 is necessary given the originally proposed height is not possible due to excessive adding on the structure and further due to insulator structure swing clearance violations. Importantly, even if the structure was to remain as a tower, the height increase would be required and the approximate pole height of 43m is still well below the maximum height allowance of 60m along the Sheffield to Bernie alignment section. Mount Montgomery Reserve – Poles T62a and T62b In Mount Montgomery, both the pole heights are higher. Taller poles are required here to avoid any physical conflicts with existing infrastructure, such as the Gas Pipeline or existing transmission lines. Stowport - Poles T86, T87 In Stowport, poles will remain virtually the same height as their originally proposed tower counterpart. Burnie - Poles T88, T89, T90, T91, T92, T93, T94, T95, T96, T97, T98, T99, T100 In Burnie, pole heights will remain comparable to tower heights, with some changing more substantially. Specifically, T89, will increase in height by 3.7m, T94, will reduce by around 6m, T91 will increase in height by over 6m to allow for crossing over the top of the existing TL504T125 and T100 will increase by around 8m here to allow for crossing over the top of existing TL504. Increasing the height of some poles in this area will enable existing transmission infrastructure to be removed from residential backyards, through micro-siting allowances, and relocated to public land, which ultimately reduces impacts of the OHTL to adjoining properties. Refer to the attached assessment on Visual Amenity for further information and photomontages. The proposed height of the poles is necessary for the operation of the use and will not cause an unreasonable impact on adjoining properties. A full and thorough assessment of the developments building heights was undertaken and is documented under Section 3.1 of Part B – Planning Report. Part B – Planning Report can be found with the exhibited documents on the TPC's website. Heybridge Spur Maximum Tower Height Increases The maximum height for towers T3 and T4 located along the Heybridge Spur (East), is proposed to increase from 53m to 59m. The request is precautionary but will enable micro changes of the tower design during the final technical design stages. Despite a moderate increase in height, the towers will be of typical bulk and form and are consistent with the tower design proposed along the entirety of the OHTL alignment.
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5.1.4	<i>Siting</i>	Towers to Poles

	Objective: That the siting of buildings minimises potential conflict with use on adjoining properties Buildings must be sited to not cause an unreasonable impact on existing use on adjoining properties, having regard to: (a) the topography of the site; (b) the bulk and form of the building; (c) the nature of existing use on the adjoining properties; (d) separation from existing use on the adjoining properties; (e) the safety of vehicle crossings, junctions and level crossings; (f) any advice from a road or rail authority; and (g) any buffers created by natural or other features.	Dual-monopoles are proposed in the same locations, with both individual poles sited either side of the original tower siting. The overall alignment of the OHTL has been designed to minimise potential conflicts on affected and adjoining properties by utilising existing easements and tower alignments. These easements provide a spatial buffer between the poles and neighbouring properties, and the separation is comparable to that of the existing towers. Consequently, the replacement of towers with poles is not expected to have any net-negative impact on the use of adjoining land. It should be further noted that no additional land acquisition is required for the change in structure. While the poles will generally occupy the same locations as the original towers, the difference in structure type may result in minor variations in how they interact with adjoining properties. The proposed change to poles is not anticipated to increase detriment or cause unreasonable impacts. In most cases, dual-monopoles will be installed side by side and parallel. Where a staggered alignment is proposed, this is generally the result of consultation with landowners and aims to minimise conflicts with existing land uses. For example, some farmers have requested that poles be placed closer to paddock fence lines to optimise farming operations and maximise yields. To accommodate these requests, a staggered arrangement may be required, potentially increasing the distance between poles while allowing for improved farming practices and reducing the risk of farm machinery impacting the poles. Additional reasoning to stagger pole arrangements is to avoid existing infrastructure assets and in order to produce more efficient design outcomes of the alignment. Barrington – Poles T6, T7, T8, T9 In Barrington, the above poles may be micro-sited in a staggered formation, at the request of landowners. In some instances, staggering poles would further reduce impacts on existing agricultural uses. Gawler – Poles T44 and T45 In Gawler, the above poles may be micro-sited in a staggered formation, at the request of landowners. In some instances, staggering poles would further reduce impacts on existing agricultural uses. Mount Montgomery Reserve – Poles T62A and T63A (Gas Pipeline) In Mount Montgomery Reserve, the use of poles will provide additional micro-siting flexibility in relation to minimising potential construction impacts on the Gas Pipeline which is between the two existing OHTL alignments. As such poles are likely to be micro-sited to avoid the Gas Pipeline. The proposed change to poles and micro-siting will ensure that the NWTD in this alignment can co-exist alongside the Gas Pipeline without protruding from the notified corridor. Stowport – Poles T86 and T87 In Stowport, at the Heybridge Spur tee-off, poles T86 and T87 may be micro-sited at a 90-degree angle. This pole arrangement is the most prudent and efficient formation for the
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		site, where the topography is challenging for tower construction, and the design should result in an effective transition point from the SH-BU alignment to the Heybridge Spur (East). Burnie - Poles T92, T96 and T97 In Burnie, the above poles may be micro-sited to utilise the existing easement, whilst maintaining separation from adjoining properties. Micro-siting these poles into a staggered arrangement, along with increasing some of their height will allow some of the poles to be removed from residential backyards and relocated to public land, ultimately reducing the impacts of the OHTL to adjoining properties. Refer to the assessment on Visual Amenity (below and attached) for further information and photomontages. The proposed poles are sited to not cause an unreasonable impact on existing use on adjoining properties. A full and thorough assessment of the siting of development was undertaken and is documented under Section 3.1 of Part B – Planning Report. Part B – Planning Report can be found with the exhibited documents on the TPC’s website. Heybridge Spur Maximum Tower Height Increase While the maximum tower height is prosed to increase, the towers will remain in the same location. Given there is no change to the sitting of the towers the assessment of this criterion under Section 3.1 of Part B – Planning Report is considered sufficient. Refer to the assessment on Visual Amenity for further information and photomontages. Part B – Planning Report can be found with the exhibited documents on the TPC’s website.
	Planning Provisions – Standards for subdivision	Not Applicable – The application does not include subdivision.
	Planning Provisions – Standards for agricultural land	
5.3.1	<i>Conversion of agricultural land</i> Objective: That use must protect land for agricultural use by minimising the conversion of land to non-agricultural use. The use must minimise the conversion of agricultural land to non-agricultural use, having regard to: (a) the area of land being converted to non-agricultural use; (b) whether the use precludes the land from being returned to an agricultural use; and (c) whether the use confines or restrains existing or potential agricultural use on the site or adjoining sites.	Towers to Poles Using poles in lieu of towers will further reduce potential impacts on current land uses and users. The default tower base dimensions are 15m by 15m (225m² total) with a required construction pad area of 80m by 50m (refer to Figure 5.7 Tower assembly sketch within Part A – Introduction of the lodged planning application documents). For poles, the construction pad area is reduced to 30m x 30m (see Figure 1) and individual poles have a ground footprint area of approximately 8.5m², significantly less than that of towers. If the impacts of the dual-monopoles are to be considered collectively, light strain poles have a ground footprint of 46.07m (including the space between the poles), while heavy strain poles have a ground footprint of 65.62m. Despite this, the area between the two poles (10m for light strain, 12.5m for heavy strain) can be farmed and grazed no differently to the area directly adjacent to the structures, given appropriate risk management controls are in place and followed. The impacts on productive agricultural land, specifically, will therefore be minimised in accordance with the objectives of 5.3 Standards for agricultural land, given there will be less impacted land once the poles are established, compared to towers, due to their more compact ground footprint. Other land uses, such as for commercial and residential, will also

		benefit from minimised physical impact on the land. In some instances, poles are proposed to be positioned along paddock boundary fences improving farming operations and further maximising yields. Additionally, micro-siting will allow for the ability to offset the dual-monopoles. This will be achieved through negotiations with landowners and should result in further reductions of potential impacts on existing agricultural uses.  The diagram illustrates a 30m x 30m rectangular area. At the top, there is a horizontal rectangle labeled 'Laydown'. Below it is a shaded rectangular area labeled 'Crane Pad'. At the bottom, there are two circular structures labeled 'Dual mono-pole structures'. A horizontal dimension line between the centers of these two circles is labeled '10m / 12.5m'. To the right of the circles, there are two area calculations: '46m² / 66m²' and '14m² / 19m²'. The overall dimensions of the rectangle are indicated as '30m' on both the top and left sides. <i>Figure 1 (Pole laydown area arrangement)</i> Heybridge Spur Maximum Tower Height Increase The increase in maximum tower heights does not impact any agricultural land, therefore the assessment of this criterion under Section 3.3 of Part B – Planning Report is considered sufficient. Part B – Planning Report can be found with the exhibited documents on the TPC's website.
5.3.2	<i>Conversion of prime agricultural land</i> Objective: That use on prime agricultural land must protect land for agricultural use by minimising the conversion of land to non-agricultural use. The use located on prime agricultural land must be for the major infrastructure project, provided that:	Refer to the above assessment of 5.3.1.

	(a) the area of land converted to the use is minimised; (b) adverse impacts on the surrounding agricultural use are minimised; and (c) the site is reasonably required for operational efficiency.	
	Planning Provisions – Standards for natural hazards	Not Applicable – No change, details provided for, and assessment of towers is the same for poles. Structure sites have not changed, so there is no change in sites susceptible to natural hazards. The proposed foundations (single vertical bored pile) for poles are suitable for areas considered to have a landslip risk.
	Planning Provisions – Standards for coastal inundation	Not Applicable – No change, details provided for, and assessment of towers is the same for poles. None of the proposed changes fall within land affected by coastal inundation.
	Planning Provisions – Standards for coastal erosion	Not Applicable – No change, details provided for, and assessment of towers is the same for poles. None of the proposed changes fall within land affected by coastal erosion.
	Planning Provisions – Standards for attenuation	
5.7.1	<i>Substation noise</i> This standard applies to substation facilities within 60m of a sensitive use. Objective: That a substation is located and designed to not cause an unreasonable loss of amenity to a sensitive use, due to noise. A substation facility must be appropriately located or designed to not cause unreasonable loss of amenity to a sensitive use, due to substation noise emission, having regard to: (a) the nature of the sensitive use; (b) proximity to the substation facility; (c) noise levels generated by the substation facility; (d) any existing buffers to noise impacts; (e) any mitigation measures proposed; and (f) any written advice from a suitably qualified person.	Not Applicable – the change request does not include any changes that apply to substation facilities.
5.7.2	<i>Dust of other airborne particles from existing uses</i> Objective: That electricity transmission infrastructure is located and designed, so an existing use that produces dust or other airborne particulates, is not unreasonably constrained. The operation of a substation facility or overhead electricity transmission infrastructure will not unreasonably constrain existing uses specified in the table to	Towers to Poles Where poles are proposed to replace towers, there are no existing uses that produce dust or other airborne particles, therefore the change request does not unreasonably constrain existing uses. Heybridge Spur Maximum Tower Height Increase Towers T3 and T4 are proposed to increase in height from 53m to 59m. The reason for increasing the tower heights is to increase clearance between the OHTL and the existing

	this clause (Table 1.0*), with the potential to create dust or other airborne particulates, having regard to: (a) the nature of the existing use and the materials that are stored and handled on the site; (b) the conductivity or corrosiveness of any dust or other airborne particulates emitted by the existing use and potential of emissions to affect the operation of the substation electricity transmission infrastructure; (c) the proximity to the existing use; and (d) any management measures proposed. <i>* Table 1.0 includes recycling and waste disposal If not located within a building.</i>	waste disposal facility, this will allow the facility to store waste to an increased height if required, while continuing to maintain safe clearances. Ultimately, the height increase improves the outcome regarding potential conflict between existing uses and the proposed OHTL. The increase in maximum tower heights will not hinder the operation of the waste facility and instead will future proof its operation by allowing more waste to be disposed of at the site. Additionally, given the higher towers will provide increased clearances, any dust or other airborne particulates from the waste facility will not affect the operation of the OHTL. Ongoing communication and collaboration between TasNetworks and the land owner of the waste facility will ensure both uses can effectively coexist and operate. The assessment of this criterion under Section 3.7 of Part B – Planning Report is considered to remain sufficient and appropriate, while this analysis provides supplementary information. Part B – Planning Report can be found with the exhibited documents on the TPC's website.
	Planning Provisions – Standard for visual impacts	Further addressed in attached independent Visual Impact Assessment in response to point 1 of the Further Information Request.
5.8.1	Visual impact Objective: That: (a) destruction of vegetation does not cause an unreasonable reduction of landscape values; and (b) building and works do not cause an unreasonable reduction of landscape values. Buildings and works, including the destruction of vegetation, must not cause an unreasonable impact on landscape values, having regard to: (a) the nature and area of vegetation to be removed; (b) the topography of the site; (c) the landscape values; (d) the nature of the reduction of landscape values; (e) measures to avoid or mitigate adverse impacts; (f) a landscape character and visual impact assessment report; and (g) the purpose or any management objectives in a planning scheme particular purpose zone, code or specific area plan, related to scenic or landscape values.	Towers to Poles The proposed change will not result in an unreasonable impact on visual amenity or landscape values. While there are noticeable differences between pole structures and towers, the overall visual impact is expected to be comparable and, in some locations, visual amenity may be improved through the use of poles. The number of sensitive receptors remains unchanged, meaning the extent of visual exposure will be consistent with that previously assessed. The change from towers to poles will not increase vegetation removal and may, in some locations, reduce the extent of required clearance. As such, the proposed change would not result in any further reduction in landscape values. All changes occur within the previously assessed alignment and easement, and the stated objectives of the proposed amendments seek to retain additional areas of vegetation where possible. As with towers, poles will be constructed of galvanised steel. During the manufacturing process, the steel undergoes a chemical treatment that results in a duller, matte finish, making it less visually obtrusive and reducing brightness and reflectivity over time. The associated infrastructure for poles is comparable to that of towers and will not result in increased impacts on visual amenity. As the proposed pole locations remain proximate to the originally assessed tower locations, the conclusions of the original assessment relating to topography and existing natural buffers remain unchanged. In rural areas, as outlined in Part B – Planning Report, many dwellings proximate to the proposed alignment are naturally screened or filtered by geographical features such as vegetation, forested ridgelines, topography and mature gardens. In more densely populated urban areas, including Burnie, dwellings are often located on undulating terrain that

		provides natural visual buffering, and these areas commonly already accommodate views of overhead transmission lines. These existing conditions mean that the change from towers to poles will not increase the character or intensity of visual exposure, and any existing mitigation measures apply equally and remain effective for poles as they would for towers. Overall, the proposed poles will not result in an unreasonable impact on visual amenity or landscape values. A full and thorough assessment of the siting of the development has been undertaken and is documented in Section 3.8 of Part B – Planning Report, which is available with the exhibited documents on the TPC’s website. Heybridge Spur Maximum Tower Height Increase Although the height of the towers is proposed to be increase, the structure type will remain the same. There are no sensitive receptors within proximity to where the towers are proposed and there are unlikely to be any impacts on visual amenity. No additional clearing will be required to construct the higher tower causing no increased impacts on landscape values. Ultimately, the increase in tower height will not cause an unreasonable impact on visual amenity and landscape values. A full and thorough assessment of the siting of development was undertaken and is documented under Section 3.8 of Part B – Planning Report. Part B – Planning Report can be found with the exhibited documents on the TPC’s website. TPC RFI The TPC RFI of 19 November requested an updated visual impact assessment in relation to the use of dual-monopoles and this is attached below. The conclusion of this report is that the overall visual impact of the proposed changes to the Remaining NWTD will not materially alter the previously assessed levels of Landscape and Visual Impacts. For Clause 5.8.1 – Visual Impact, this review shows that ▪ Vegetation removal: The amendments do not require additional vegetation removal beyond that previously assessed. The changes are entirely within the previously assessed alignment and easement. The stated objectives of the proposed amendments seeks to retain additional areas of vegetation. ▪ Topography: Topography remains unchanged and continues to moderate visibility in the same manner assessed in the LVIA and RVIA. ▪ Landscape values: The landscape values of the corridor and surrounding areas remain unchanged from those previously assessed. ▪ Nature of impact: The change is limited to tower form, with no material change to visibility, distance, viewer sensitivity or overall visual impact. ▪ Mitigation: Existing mitigation measures remain applicable, and in some views the monopole form may reduce visual clutter.
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		▪ LVIA: The updated assessment applies the same methodology and confirms that impacts do not materially change. ▪ Planning objectives: The amendments are consistent with planning scheme objectives relating to scenic and landscape values. Accordingly, the proposed changes will not cause an unreasonable reduction in landscape values.
	Planning Provisions – Standards for road and rail assets	
5.9.1	<i>Traffic generation at a vehicle crossing, level crossing or new junction</i> Objective: To minimise any adverse effects on the safety and efficiency of the road or rail network from vehicular traffic generated from the site at an existing or new vehicle crossing or level crossing or new junction Vehicular traffic to and from the site must minimise any adverse effects on the safety of a junction, vehicle crossing or level crossing or safety or efficiency of the road or rail network, having regard to: - any increase in traffic caused by the use; - the nature and duration of the traffic generated by the use; - the nature of the road; - the speed limit and traffic flow of the road; - any alternative vehicle crossing or level crossing; - measures to minimise any adverse effects; - any traffic impact assessment; - any advice received from the rail or road authority; and - any written consent for a new vehicle crossing or level crossing issued by a rail or road authority.	Towers to Poles The proposed change will not adversely affect the safety and efficiency of the road or rail network from vehicular traffic generated from the site. Comparable daily vehicular movements, utilising the same type of vehicle, will be required during construction, for both towers and poles. However, due to the significant time difference in construction times between towers and poles, the period in which these vehicles movements last for will be greatly reduced for poles. For example, significant daily vehicle movements would be required for approximately six days during the construction of a tower, compared to around half a day for a pole. Any increase in vehicle noise to sensitive receptors during construction will also be reduced in duration. Vehicular traffic to and from the site will minimise any adverse effects on the safety of a junction, vehicle crossing or level crossing or safety or efficiency of the road or rail network. Further assessment of this criterion under Section 3.9 of Part B – Planning Report is considered sufficient. Part B – Planning Report can be found with the exhibited documents on the TPC’s website. Heybridge Spur Maximum Tower Height Increase The increase in tower height will not cause any changes in traffic generation. Further assessment of this criterion under Section 3.9 of Part B – Planning Report is considered sufficient. Part B – Planning Report can be found with the exhibited documents on the TPC’s website.
5.9.2	<i>Number of accesses for vehicles</i> Objective: That vehicle access to the land: - minimises the number of new vehicle crossings; - is safe and efficient for users of the land; and - does not cause an unreasonable loss of amenity of adjoining uses. The number of vehicle accesses must be minimised, having regard to: - the frequency of vehicle access; - the number and location of existing accesses and vehicle crossings; - pedestrian safety and amenity; - traffic safety; and	Not Applicable – No change, details provided for, and assessment of towers is the same for poles. The proposed change request does not result in any variation to the number of accesses required for vehicles.

	(j) amenity of adjoining use.	
5.10	Planning Provisions – Standards for heritage	N/A – Assessment in Part B – Planning Report is adequate, given there is no change, assessment of towers is the same for poles. The proposed changes do not result in any further impacts on heritage values.
	Planning Provisions – Standards for signs	N/A – Assessment in Part B – Planning Report is adequate, given there is no change, assessment of towers is the same for poles. The proposed changes do not result in any impacts on signage.

Environmental Impact Statement Requirements

The proposed change request will not result in any increase in vegetation clearance. In addition, the towers to poles request, nor the tower height increase request will cause any further impacts on Matters of National Environmental Significance and in some instances could result in a moderately improved outcome, as concluded by Entura, in their independent report addressing Point 2 of the RFI.

Key Issue	Assessment Response (change impact)
Threatened fauna	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required. The disturbed area of vegetation will remain the same for construction between towers and poles, however, there will be a reduction in native vegetation that will be permanently converted to transmission infrastructure. As such, there will be no material changes to the impacts of threatened fauna. Overall, and as confirmed by a separate report by Entura (specific to MNES), impacts to threatened fauna remain unchanged, and in some instances could produce marginally improve circumstances, as a product of the proposed modifications. As such, the original impact assessment remains sufficient.
Threatened flora and vegetation community values	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required. The disturbed area of vegetation will remain the same for construction between towers and poles, however, there will be a reduction in native vegetation that will be permanently converted to transmission infrastructure. As such, there will be no material changes to the impacts of threatened flora and vegetation community values. Overall, and as confirmed by a separate report by Entura (specific to MNES), impacts to threatened fauna remain unchanged, and in some instances could produce marginally improve circumstances, as a product of the proposed modifications. As such, the original impact assessment continues to be relevant.

Other biodiversity and natural values	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required. The disturbed area of vegetation will remain the same for construction between towers and poles, however, there will be a reduction in native vegetation that will be permanently converted to transmission infrastructure. Overall impacts to biodiversity and natural values remain unchanged as a product of the proposed modifications. As such, the original impact assessment continues to be relevant.
Surface water	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required. The disturbed area of vegetation will remain the same for construction between towers and poles, however, there will be a reduction in native vegetation that will be permanently converted to transmission infrastructure. Overall impacts remain unchanged as a product of the proposed modifications. As such, the original impact assessment continues to be relevant.
Noise and vibration emissions Discuss impacts of the proposal on ambient noise levels during construction, including: (a) identifying and describing all major sources of noise; (b) providing a map of the location of all major sources of noise; (c) considering the potential for noise emissions, particularly during construction, to cause nuisance for nearby land users, particularly to a sensitive uses or land in a planning scheme General Residential Zone, Inner Residential Zone or Low Density Residential Zone; and (d) considering the potential for the potential for noise emissions to affect terrestrial, marine and freshwater wildlife and livestock. <u>Legislative and policy requirements</u> Consideration must be given to the requirements of the <i>Tasmanian Environment Protection Policy (Noise)</i>.	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required. The disturbed area of vegetation will remain the same for construction between towers and poles, however, there will be a reduction in native vegetation that will be permanently converted to transmission infrastructure. The construction time for monopoles is significantly reduced compared to that of towers. In terms of noise and vibration, the emissions produced are comparable between towers and poles, given the method and equipment used for both structures is relatively similar. However, given the reduced construction period, noise and vibration emissions will also be reduced for the construction of poles. Regardless of the structure change, construction times will remain in accordance with the requirements of the <i>Tasmanian Environment Protection Policy (Noise)</i> and those as stipulated under the <i>Environmental Management and Pollution Control Act 1994</i>. In their attached report, Entura also made note of the reduced timeframes for potential noise and dust emissions, suggesting that this would reduce impacts on breeding fauna species. Overall impacts remain unchanged as a product of the proposed modifications. As such, the original impact assessment continues to be relevant.
Air quality	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required. The disturbed area of vegetation will remain the same for construction between towers and poles, however, there will be a reduction in native vegetation that will be permanently converted to transmission infrastructure.

	The construction time for monopoles is significantly reduced compared to that of towers. In terms of emissions, such as dust, that could affect air quality, the emissions produced are comparable between towers and poles, given the method and equipment used for both structures is relatively similar. However, given the reduced construction period, these emissions will also be reduced for the construction of poles. In their attached report, Entura also made note of the reduced timeframes for potential noise and dust emissions, suggesting that this would reduce impacts on breeding fauna species. Overall impacts remain unchanged as a product of the proposed modifications. As such, the original impact assessment continues to be relevant.
Greenhouse gases and ozone depleting substances	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required. The disturbed area of vegetation will remain the same for construction between towers and poles, however, there will be a reduction in native vegetation that will be permanently converted to transmission infrastructure. Overall, impacts remain unchanged as a product of the proposed modifications. As such, the original impact assessment continues to be relevant in relation to Greenhouse gases and ozone depleting substances.
Waste management	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required. Overall, impacts remain unchanged as a product of the proposed modifications. As such, the original impact assessment continues to be relevant in relation to waste management.
Dangerous goods and hazardous materials	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required. Overall, impacts remain unchanged as a product of the proposed modifications. As such, the original impact assessment continues to be relevant in relation to dangerous goods and hazardous materials.
Public health	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required. Overall, impacts remain unchanged as a product of the proposed modifications. As such, the original impact assessment continues to be relevant in relation to public health.
Infrastructure and off-site ancillary facilities	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required.

	Overall, impacts remain unchanged as a product of the proposed modifications. As such, the original impact assessment continues to be relevant in relation to infrastructure and off-site ancillary facilities.
Socio-economic	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required. Overall, impacts remain unchanged as a product of the proposed modifications. As such, the original impact assessment continues to be relevant in relation to socio-economic impacts.
Cumulative and interactive impacts	As previously detailed to the TPC, poles will be positioned where their tower counterparts were. Additionally, no changes to access tracks are required. Overall, impacts remain unchanged as a product of the proposed modifications. As such, the original impact assessment continues to be relevant in relation to cumulative and interactive impacts.

Point 5: An assessment of the direct cost and benefit outcomes for the Tasmanian community resulting from the proposed development of poles rather than towers, which expands on the information provided in Appendix A of Socioeconomic Assessment Report.

This section assesses the direct cost and benefit outcomes for the Tasmanian community arising from the proposed use of dual-monopole rather than lattice towers in specific locations. The change from towers to dual-monopole in 25 identified constrained areas will result in a more favourable overall cost benefit outcome for the Tasmanian community.

The specific economic costs and benefits associated with the project's construction are subject to 'commercial in confidence' requirements. However, TasNetworks has various obligations to the Australian Energy Market Operator and the Tasmanian community in relation to demonstrating economic prudence and a risk-based approach to maintaining network integrity, which informed and underpinned the decision to propose the use of dual-monopoles rather than towers in these constrained locations.

Construction cost

The primary cost associated with the proposed change is that one dual-monopole may cost approximately twice as much to manufacture as one tower of equivalent height, because they require more manufactured steel and concrete, resulting in increased upfront construction expenditure.

However, dual-monopoles can be installed in a considerably shorter time compared to that of towers, meaning that labour costs are greatly reduced. In addition to labour cost reductions, the impacts of construction on adjacent landowners, such as noise, dust, or increased traffic are compressed into a much shorter timeframe.

Network Security and Reliability

The North West of Tasmania is highly reliant on a limited power network and transmission assets, with the predominant infrastructure, between Sheffield and Burnie, comprising one 220 kV circuit and two 110 kV circuits. These assets are critical for maintaining secure and reliable electricity supply to the region.

As previously communicated to the TPC, where sections of the new 220 kV overhead transmission line (OHTL) are required to be constructed on the prevailing alignment, the existing SH–BU 220 kV OHTL and associated towers would need to be decommissioned and removed for the duration of works, prior to the new line being constructed. This will affectively cause an outage, which significantly reduces system reliability and increases the vulnerability of the network, particularly if another unplanned event were to occur on the same line.

The dual-monopole solution enables construction to proceed while allowing the existing 220 kV circuit to remain in situ and in service, thereby preserving network resilience and avoiding such outages and a substantial reduction in supply security.

Avoidance of Outage Risk and Community Impacts

If TasNetworks were to progress with the tower scenario, the removal of the existing 220 kV OHTL prior to commissioning the new OHTL would leave the North West reliant solely on the two remaining 110 kV transmission lines. Under this reduced-capacity scenario, a fault on either circuit could result in a complete loss of power to the region. Further, a prolonged outage on one 110 kV circuit combined with a fault on the other could lead to severe and compounding system impacts, including the potential for a broader system blackout.

Should a tower on either of the 110 kV lines be damaged and out of commission, reinstatement of both circuits could take up to three days. An outage of this duration has potentially serious consequences for thousands of residential households, as well as businesses, essential services, and critical infrastructure. Prolonged outages also pose risks to public safety, including impacts on health and emergency services, and, in extreme circumstances, could result in loss of life.

In addition, TasNetworks would be liable for Guaranteed Service Level (GSL) payments to affected customers. Furthermore, the use of diesel generators to support customers under this scenario comes with a substantial cost.

Avoiding this level of outage risk via the dual-monopole approach therefore represents a substantial direct benefit to the Tasmanian community.

Renewable Energy and Economic Benefits

If TasNetworks were to progress with the tower scenario in these constrained areas, there would be an extended period during which the existing 220 kV line would be removed before the new towers could be raised and the line reinstated. During these periods, energy exports from generators such as Woolnorth Wind Farm would be significantly constrained resulting in lost generation, reduced renewable energy supply to the grid, and reduced revenue for the wind farm and other generators.

Telecommunications Continuity

The existing 220 kV line also provides overhead fibre optic ground wire (OPGW). Progressing with towers would require a temporary alternative OPGW connection, introducing additional cost, complexity, and operational risk. Using dual-monopoles, on the other hand, reduces reliance on temporary telecommunications arrangements and supports continuity of essential communication services, as the quick installation of a dual-monopoles allows for almost immediate restringing of the OPGW.

Overall Outcome

While poles involve higher financial costs, this is outweighed by the direct benefits to the Tasmanian community through improved network security, reduced outage risk, protection of renewable energy generation, and continuity of essential services. On balance, the proposed use of poles rather than lattice towers delivers a net positive socioeconomic outcome.