Transgrid

People. Power. Possibilities.

Labour and indirect costs

2024-29 Revenue Proposal Waratah Super Battery Project (non-contestable)

30 June 2023

Contents

1. Executive Summary

This document explains and justifies our labour and indirect capital expenditure (capex) for the Waratah Super Battery Project (non-contestable) (WSB) from 2022-23 to 2025-26, which includes pre-period costs in 2022-23 and 2023-24. The final commissioning date for the WSB project is August 2025.

We will incur labour and indirect capex in the delivery of WSB. These costs relate to activities that would not be incurred if we did not proceed with WSB. We have seven categories of indirect capex:

1. Project Management – to directly manage the Project, including various Deeds and Agreements with numerous stakeholders and delivery partners (contract management, cost control, risk management, schedule management, performance reporting etc.). This also includes all site and construction management resources to deliver the project safely.
2. Other support and corporate roles – to provide support for the Project including engineering and design, health and safety, legal, risk & audit and network operations
3. Transaction procurement support - to support the tender process and ongoing support of contract administrative management
4. Regulatory approvals – to provide support in preparing the revenue proposal
5. Community and stakeholder engagement – for activities associated with engaging with the community and stakeholders affected by the Project, and
6. Environment – to undertake assessments, prepare and submit environmental approvals, including stakeholder consultation.
7. SIPS control implementation labour and indirect costs to manage, design, construct, test and commission the SIPS control.

In our Revenue Proposal we have presented:

- Item 1 to 6 as labour and indirect costs (refer to Table 1-1), and
- Item 7, SIPS control implementation (refer to Table 1-2), as part of our SIPS control capex. It is referred to as the Design, Installation and Commissioning component of our SIPS control capex.

Table 1-1 – Labour and indirect capex summary (excl. SIPS control implementation) ($M, 2022-23)

Labour and Indirect capex (excl. SIPS control implementation)	Actuals (to 31 March 2023)	Forecast (from 1 April 2023)	Total
Labour (internal and outsourced, direct)	1.13	27.73	28.86
Labour-related (direct)	0.01	1.51	1.52
Indirect	2.24	22.46	24.70
Total	**3.38**	**51.70**	**55.08**

Table 1-2 – SIPS control implementation labour and indirect capex summary ($M, 2022-23)

SIPS control implementation	Actuals (to 31 March 2023)	Forecast (from 1 April 2023)	Total
Labour (internal and outsourced, direct)	0.33	6.37	6.70
Labour-related (direct)	0.00	0.53	0.53
Indirect	0.47	0.03	0.50
Total	**0.80**	**6.93**	**7.73**

2. Purpose, structure and scope of this document

2.1. Purpose of this document

This document explains and justifies our labour and indirect capital expenditure (capex)[1] for the Waratah Super Battery Project (non-contestable) (WSB) from 2022-23 to 2025-26.[2] The last commissioning date for the WSB (non-contestable) project is August 2025. Therefore, the majority of the labour and indirect capex will be incurred from 2022-23 to 2025-26. Some minor in-service commissioning and project close out costs are expected to be incurred from August 2025 to December 2025.

We refer to 'Labour Costs' as 'labour capex' and 'Non-labour costs' as 'indirect capex' in this document. This capex is separate to the capex approved by the Australian Energy Regulator (AER) in its 2023-28 Revenue Determination for Transgrid. This is because the WSB project is a Priority Transmission Infrastructure Project (PTIP) under the *NSW Electricity Infrastructure Investment Act 2020 No 44* rather than part of Transgrid's Regulatory Asset Base (RAB) that is regulated by the AER under the National Electricity Rules (NER).[3]

This document supports our Revenue Proposal for WSB (non-contestable) and should be read in conjunction with the Proposal, in particular our Capex Forecasting Methodology.

All values in this document are presented in real 2022-23 dollars.[4] This document references other supporting documents for further detail.

2.2. Scope of this document

The scope of this document is limited to the labour and indirect capex for WSB (non-contestable) project which comprises:

- actual costs incurred from 27 October 2022 to 31 March 2023; and
- forecast costs from 1 April 2023 to 31 December 2025, which is when the project development and construction is expected to be completed.

Real labour escalation is not included as part of this report. Real labour escalation is undertaken in the Capex Forecast Model, as explained in the Capex Forecasting Methodology.

Forecast expenditure has been identified as either capex or opex in a manner consistent with relevant accounting standards including AASB 116. For WSB (non-contestable), all labour and indirect costs incurred during the development and construction phase have been treated as capex as they are linked

[1] Non-network costs include property and IT costs, whilst network overhead costs include project management costs and corporate overheads include legal and regulatory costs.
[2] This includes pre-regulatory period costs in 2022-23 and 2023-24.
[3] *Electricity Infrastructure Investment Act 2020 No 44*, available at: https://legislation.nsw.gov.au/view/pdf/asmade/act-2020-44
[4] The financial values exclude *both* inflation and any real input cost escalation (including labour) from 30 June 2024 (FY2024) onwards.

directly to the WSB (non-contestable) capital project. Operation and maintenance related labour costs are captured separately in the operating expenditure forecast, included in the Opex Forecast Model, and explained in the Opex Forecasting Methodology.

The approach employed in this document is consistent with the approach we have taken for other projects and has been verified externally.

2.3. Structure of this document

This document is structured as follows:

- Section 3 overviews our historical labour and indirect capex for WSB (non-contestable)
- Section 4 summarises forecast and total labour and indirect capex (historical and forecast) for WSB (non-contestable)
- Section 5 provides a general overview of the methodology adopted to forecast labour and indirect capex
- Section 6 explains and justifies our forecasting methodology for labour and labour-related capex for Project Management, System Integrity Protection Scheme (SIPS) control implementation, Other Support and Corporate Roles, Transaction Procurement Support, Regulatory Approvals, Community and Stakeholder Engagement and Environment cost categories
- Section 7 provides an overview of our forecast indirect capex for Project Management, SIPS control implementation, Other Support and Corporate Roles, Regulatory Approvals, Environment and Transaction Procurement Support cost categories, and
- Section 8 summarises the key assumptions underpinning our WSB (non-contestable) forecast labour, labour-related and indirect capex.

3. Historical labour and indirect capex

Historical labour and indirect capex of $4.17 million (Real $2022-23) was incurred between 27 October 2022 and 31 March 2023 to progress WSB (non-contestable), as shown in **Table 3-1**. **Table 3-1** presents our historical labour and indirect capex by capex category.

Labour and labour-related capex includes on-costs, support costs, outsourced labour, travel and accommodation and sustenance. Indirect capex includes a proportion of labour and labour-related cost, legal fees, computer equipment, plant and equipment, protective clothing and equipment, and other non-labour costs.

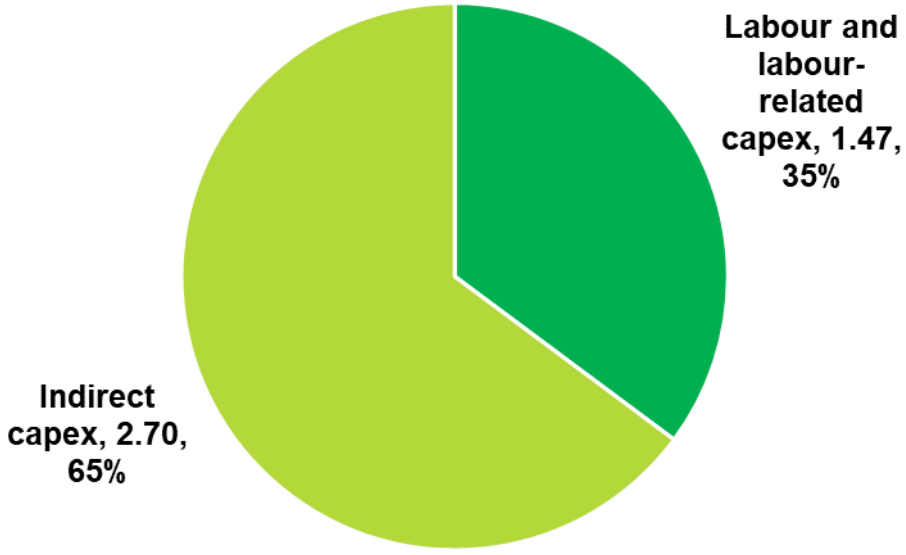
Table 3-1 - Historical labour and indirect capex from 27 October 2022 to 31 March 2023 ($'000s, Real 2022-23)

Capex category	FY2023 (Until 31 March 2023)
Labour (internal and outsourced, direct)	
Project Management	[redacted]
SIPS Control Implementation	
Other Support & Corporate Roles	
Transaction Procurement Support	
Regulatory Approvals	
Community and Stakeholder Engagement	
Environment	
Procurement	
Labour-related (direct)	
Project Management	
SIPS Control Implementation	
Other Support & Corporate Roles	
Transaction Procurement Support	
Regulatory Approvals	
Community and Stakeholder Engagement	
Environment	
Procurement	
Indirect	
Proportion of labour and labour-related costs	
Project Management	
SIPS Control Implementation	
Other Support & Corporate Roles	
Regulatory Approvals	
Community and Stakeholder Engagement	
Environment	

Capex category	FY2023 (Until 31 March 2023)
Procurement	[redacted]
Transaction Procurement Support	
Total	**4,170,715**

Our historical capex is based on transactions recorded in Ellipse, which is our enterprise resource planning (ERP) system. We have allocated and attributed historical capex to WSB in accordance with our AER-approved cost allocation methodology (CAM).[5] We have also treated historical capex in accordance with our capitalisation policy. Figure 3-1 below shows that labour and labour-related costs accounted for 35% of historical total costs, with indirect costs representing the remaining 65% of historical total costs.

Figure 3-1 - Historical labour and indirect capex by nature, from 27 October 2022 to 31 March 2023 ($M, Real 2022-23)

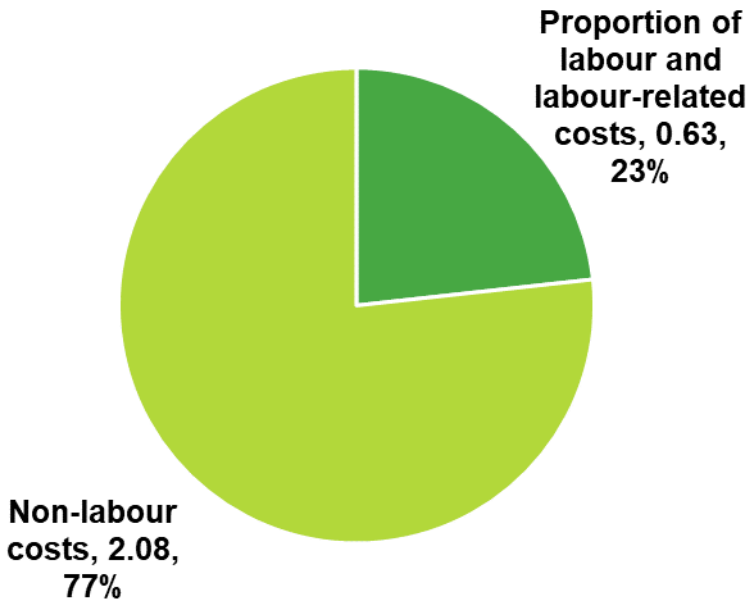


Recognising that, on average, roughly 70% of Transgrid's capitalised labour and labour related costs are direct in nature, we have included 30% of Transgrid's labour and labour-related cost as an indirect capex, which is consistent with the approach adopted in the VNI Contingent Project Application cost allocation model. This assumption is discussed further in Section 8.4.

As a result, indirect capex is split into non-labour cost and a proportion of labour and labour-related costs. Figure **3-2** below shows that non-labour cost accounts for 77% of forecast indirect capex, whilst the labour and labour-related costs accounts for 23% of indirect cost.

[5] Transgrid, Cost Allocation Methodology, 30 May 2023

Figure 3-2 - Split of historic indirect capex – non-labour cost and a proportion of labour and labour-related costs ($'000s, Real 2022-23)



All costs associated with Procurement are recognised as historical amounts as these costs were incurred prior to 1 April 2023. We employed a design and construct procurement approach for the substation and transmission line works. This involved:

- In November 2022, we published an Expression of Interest (EOI) to identify contractors with the capacity to undertake the work
- From December 2022 to January 2023, we undertook an Early Contractor Involvement (ECI) process, where we provided potential contractors with technical information for them to develop the scope of works to meet the requirements of the project . We note that the ECI costs were reimbursable to the contractors and so historical and forecasts costs are incurred, and
- From February to April 2023, a Request for Tender (RFT) was undertaken, where the contractors provided a competitive and contractually binding tender based on the scope of works they developed through the ECI. We note that RFT costs are not reimbursed to tenderers so no historical or forecast costs are incurred.

This procurement process used our existing construction services panel. This panel had previously been established using a competitive process, in accordance with our business-as-usual procurement policies.

4. Summary of forecast and total labour and indirect capex for WSB

Table 4-1 provides an overview of our historical and forecast indirect, labour and labour-related capex. The capex sub-categories relate to work-stream activities and are described in detail in subsequent sections of this report:

Labour and labour-related cost categories:

- Project Management
- SIPS Control Implementation
- Other Support & Corporate Roles
- Transaction Procurement Support
- Regulatory Approvals
- Community and Stakeholder Engagement, and
- Environment.

Indirect cost categories:

- Proportion of labour and labour-related costs
- Project Management
- SIPS Control Implementation
- Other Support & Corporate Roles
- Regulatory Approvals
- Environment, and
- Transaction Procurement Support.

4.1. Historical and forecast – total capex

Table 4-1 shows that our historical and forecast capex is $62.77 million from 27 October 2022 to 30 June 2026. This comprises $4.17 million (or 6.6%) of historical capex and $58.59 million (or 93.4%) of forecast capex. This capex is incremental to our business-as-usual capex.

Table 4-1 - Summary total capex – historical and forecast ($M, Real 2022-23)

Capex	FY2023 (27 October 2022 - 31 March 2023)	FY2023 (From 1 April 2023)	FY2024	FY2025	FY2026	Total capex	% of total
Historical	4.17					**4.17**	6.6%
Forecast		6.28	32.17	18.47	1.68	**58.63**	93.4%
Total	**4.17**	**6.28**	**32.17**	**18.47**	**1.68**	**62.81**	

4.2. Forecast only – total capex

Table 4-2 shows our total forecast labour and indirect capex by capex category over the period 1 April 2023 to 30 June 2026.

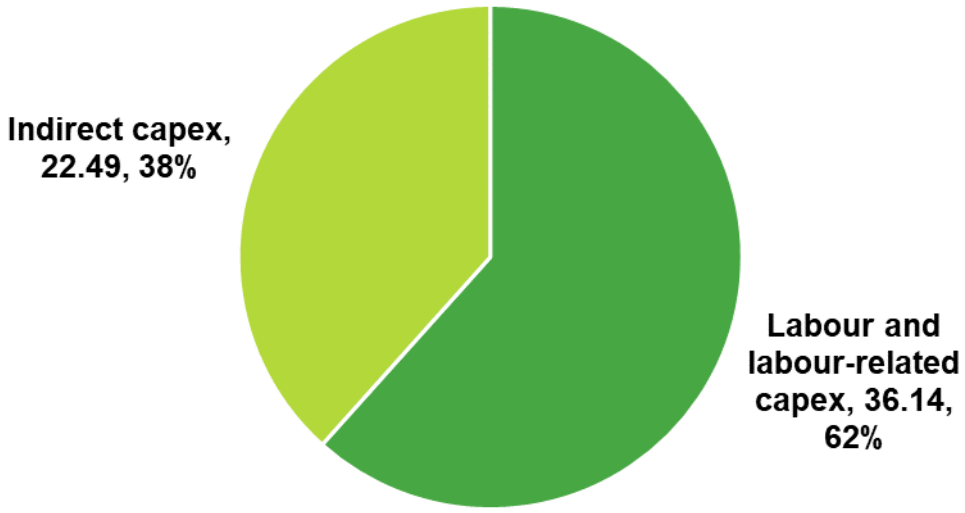
Table 4-2 - Forecast WSB (non-contestable) labour and indirect capex by category, from 1 April 2023 to 30 June 2026 ($'000s, Real 2022-23)

Capex category	FY2023 (From 1 April 2023)	FY2024	FY2025	FY2026	Total capex	% of total
Labour (internal and outsourced, direct)						
Project Management	[redacted]					
SIPS Control Implementation						
Other Support & Corporate Roles						
Transaction Procurement Support						
Regulatory Approvals						
Community and Stakeholder Engagement						
Environment						
Labour-related (direct)						
Project Management	[redacted]					
SIPS Control Implementation						
Other Support & Corporate Roles						
Transaction Procurement Support						
Regulatory Approvals						
Community and Stakeholder Engagement						
Environment						
Procurement						
Indirect capex						

Capex category	FY2023 (From 1 April 2023)	FY2024	FY2025	FY2026	Total capex	% of total
Proportion of labour and labour-related costs	[redacted]					
Project Management						
SIPS Control Implementation						
Other Support & Corporate Roles						
Regulatory Approvals						
Community and Stakeholder Engagement						
Environment						
Procurement						
Transaction Procurement Support						
Total	**6,317.84**	**32,166.86**	**18,472.86**	**1,677.03**	**58,634.59**	**100.00%**

Figure 4-1 shows that the forecast labour and indirect capex for WSB (non-contestable) comprises 38% of indirect capex which includes non-labour costs and a proportion of labour and labour-related costs and 62% of labour and labour-related capex.

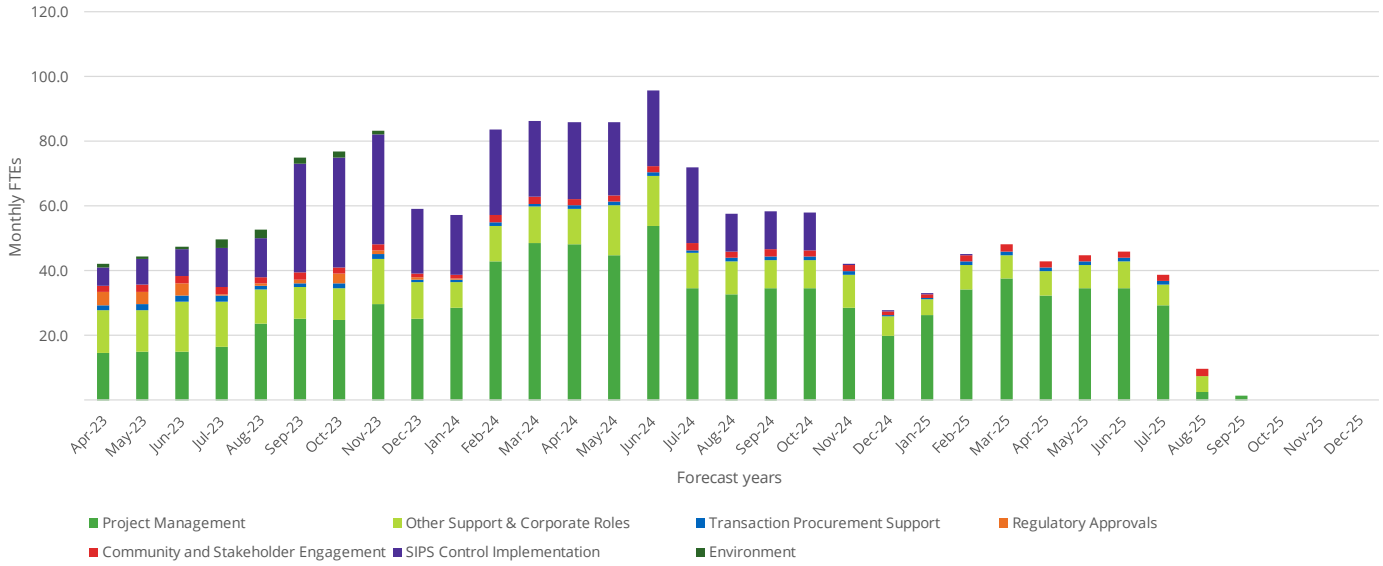
Figure 4-1 - Split of forecast labour and indirect capex, from 1 April 2023 to 30 June 2026 ($M, Real 2022-23)



4.3. Forecast only - labour and labour-related capex

Forecast labour and labour-related costs account for 62% of total forecast capex. Over the forecast years, we estimate that there will be approximately 36.7 FTEs working on average per month (including outsourced labour). The number of FTEs in the Project Management, SIPS control implementation and Other Support and Corporate Roles category account for approximately 53.0%, 22.1% and 17.7% of all FTEs across the forecast years, respectively. The number of monthly FTEs is expected to be highest in FY2024 as the project will be undergoing construction (i.e., project delivery phase).

Figure 4-2 - Forecast monthly FTEs - Internal and outsourced contracted labour (from 1 April 2023 to 30 June 2026)



4.4. Forecast indirect capex only – proportion of labour and labour-related capex and non-labour cost

Indirect capex can be split further into a proportion of labour and labour-related costs, and non-labour costs. Figure 4-3 shows that non-labour cost accounts for 31% of forecast indirect capex whilst the proportion of labour and labour-related costs accounts for 69% of indirect costs.

Figure 4-3 - Split of forecast indirect capex – non-labour cost and 30% of total labour and labour-related costs ($Real, 2022-23)

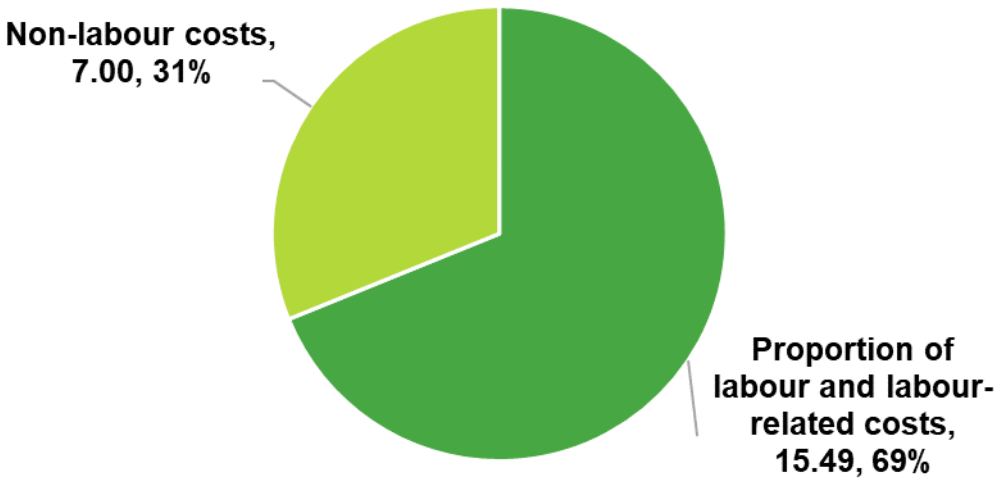


Figure 4-4 presents a breakdown of the total forecast non-labour cost by items. The forecast indirect capex includes a range of non-labour costs with the top three most costly items relating to Transgrid's Corporate

Support ($2.76m, 39.4% of non-labour costs), SIPSA Technical Reviews [redacted] of non-labour costs), and costs relating to regulatory submissions ($0.49m, 7.0% of non-labour costs). We note that Transgrid Corporate Support cost comprises the cost associated with the Principal Arranged Insurance [redacted], Landowner Compensation Payments [redacted], Legal Consultant (Property and Easements) [redacted] and Media Costs [redacted].

[redacted]

Details of the indirect cost (excluding the proportion of labour and labour-related costs) are presented in Table 4-3.

Table 4-3 - Summary forecast non-labour cost (indirect capex excluding proportion of labour and labour-related costs) ($'000s, Real 2022-23)

WSB category	Detail of indirect cost	FY2023 (From 1 April 2023)	FY2024	FY2025	FY2026	Total forecast capex	% of non-labour cost
Project Management							
Project Management	*1 Assurance Gate Reviews	[redacted]					
TL Project Management	Management of Distribution TL Undercrossings						
SIPSA Technical Reviews	*8 Independent Engineer (NOD, SIPSA, PGSA)						
Other Support & Corporate Roles							
Commercial & Controls	*2 Risk Workshop Facilitation	[redacted]					
	*3 Schedule Support / Review						

WSB category	Detail of indirect cost	FY2023 (From 1 April 2023)	FY2024	FY2025	FY2026	Total forecast capex	% of non-labour cost
	Document Controller	[redacted]					
	Probity Advisor						
	*4 Contract Independent Adjudicator						
	Enco/TG Workshop Facilitation						
HSE	*5 Independent Audit (HSE)						
TG Corporate Support	Legal Consultant - Property & Easements						
	Landowner Compensation Payments						
	Media Costs						
	PAI Insurance						
SIPS Network Planning AEMO	*7 AEMO Concept Design Endorsement						
TL Engineering Design	Geotechnical Services						
	Asbestos Testing and Remediation Services						
Regulatory Approvals							
Regulatory Submissions	Labour & Indirect Cost Models	[redacted]					
	Financeability Report						
	Independent Verification						
	Regulatory Modelling						
	Insurance Proposal						
Environment							
SIPS Environmental Approvals	Exemption Cert / SER external costs	[redacted]					
TL Environmental Approvals	SER external costs						
Transaction Procurement Support							
TL ECI Agreement Zinfra	ECI Line Works Supplier 1	[redacted]					

WSB category	Detail of indirect cost	FY2023 (From 1 April 2023)	FY2024	FY2025	FY2026	Total forecast capex	% of non-labour cost
TL ECI Agreement Genus	ECI Line Works Supplier 2	[redacted]					
Subs ECI Agreement Zinfra	ECI Subs Works Supplier 1						
SIPS Control Implementation							
SIPS Engineering Design	*6 Independent SIPS Design Cost Review	[redacted]					
	Total	**1,629.03**	**4,366.27**	**889.65**	**118.55**	**7,003.50**	**100.0%**

5. Methodology for forecast labour and indirect capex

This section explains and justifies the key assumptions and calculations underpinning our direct labour and indirect capex. We have determined our forecast labour and indirect capex for WSB (non-contestable) based on a bottom-up build of costs from 1 April 2023 to 30 June 2026. Our forecasting method is consistent with the methodology applied in our previous Contingent Project Applications (CPAs) for Project EnergyConnect, Humelink and VNI. As noted, our forecast capex has been treated in accordance with our capitalisation policy.

5.1. Labour costs

Our labour costs are based on both our internal team as well as outsourced contractors. No real labour cost escalation is included in the rates (as this is applied subsequently in the WSB Capex Model). This comprises 141 roles (135 internal roles and 6 contracted roles) categorised into several sub-teams:

- Project Management (inclusive of construction management) (47 roles / 19.5 average FTEs per month) to directly manage WSB (non-contestable);
- SIPS Control Implementation (22 roles / 8.1 average FTEs per month) to provide the SIPS design and installation (implementation) of the SIPS control system
- Other Support and Corporate Roles (52 roles / 6.5 average FTEs per month) to provide support for WSB (non-contestable) including engineering and design, health and safety, legal, risk & audit and network operations;
- Transaction Procurement Support (5 roles / 0.7 average FTEs per month) to support the tender process and ongoing support of contract administrative management;
- Regulatory Approvals (4 roles / 0.4 average FTEs per month) to provide support in preparing the revenue proposal submission;
- Community and Stakeholder Engagement (5 roles / 1.2 average FTEs per month) to support in engaging with the community and stakeholders affected by the WSB (non-contestable) project; and
- Environment (6 roles / 0.3 average FTEs per month) to provide support in the environmental approval and land acquisition process.

The forecast cost was built up based on:

- the month-by-month FTE requirements for each role type (e.g., Commercial Manager) to meet the project schedule; and
- hourly labour rates for each role type including on-costs and support costs (see assumptions in Section 8).

5.2. Labour-related costs

Our labour-related costs include training, external recruitment, travel expenses (including accommodation, meal allowances and other expenses), and IT hardware costs. Assumptions underpinning these cost forecasts are outlined in Section 8.2.

5.3. Indirect capex

5.3.1. Proportion of labour and labour-related costs

Recognising that, on average, roughly 70% of our capitalised labour and labour related costs are direct in nature, we have treated 30% of our labour and labour-related cost as an indirect cost, which is consistent with the approach adopted in the VNI Contingent Project Application cost allocation model. This is discussed further in Section 8.4.

5.3.2. Non- Labour costs

These costs comprise a wide range of professional and consulting services. The approach adopted in forecasting these costs involves separately itemising/defining the costs and phasing the costs over the project life based on the project schedule.

For a number of these cost items, supplier arrangements have been arranged or quotes have already been obtained. As such, these arrangements and quotes form the basis of the forecast costs. However, given that for other cost items it may be too early to undergo the procurement process, we have instead relied on historical project estimates, recent relevant experience, and reasonable assumptions to prepare the forecast costs (as described further in Section 7).

6. Breakdown of forecast labour and labour-related costs

6.1. Project Management

Our WSB (non-contestable) forecast labour and labour-related capex for the Project Management cost category relates largely to incremental labour needed for managing and co-ordinating the project's activities to be able to deliver the agreed scope, program and budget safely and efficiently. This includes project scheduling, expenditure forecasting and reporting, and analysis of risk to mitigate the likelihood of undesirable outcomes from being realised. All construction and site management related labour costs are included within Project Management.

Table 5-1 shows that our Project Management labour and labour-related capex is $19.68 million (real $2022-23) and comprises:

- Internal (Transgrid) labour costs – these comprise approximately 87.2% of forecast Project Management labour and labour-related capex;
- Outsourced labour costs – these comprise approximately 6.7% of forecast Project Management labour and labour-related capex; and
- Labour-related costs – these comprise training, travel expenses, recruitment and IT hardware costs which account for approximately 6.2% of forecast Project Management labour and labour-related capex.

Table 6-1 - Summary of labour and labour-related costs for Project Management ($'000s, Real 2022-23)

Category	Total capex
Labour	[redacted]
Internal	
Outsourced	
Labour-related	
Travel expenses	
Training	
Recruitment	
IT hardware expenses	
Total	**19,682.84**

6.2. SIPS control implementation

Our WSB (non-contestable) forecast labour and labour-related capex for the SIPS control implementation cost category relates largely to incremental labour needed for managing and co-ordinating the design and installation (implementation) of the overall SIPS Control system.

Table 6-2 shows that our SIPS control implementation labour and labour-related capex is $6.90 million (real $2022-23) and comprises:

- Internal (Transgrid) labour costs – these comprise approximately 90.6% of forecast labour and labour-related capex;
- Outsourced labour costs – these comprise approximately 1.7% of forecast labour and labour-related capex; and
- Labour-related costs – these comprise travel expenses which account for approximately 7.7% of forecast labour and labour-related capex.

Table 6-2 - Summary of labour and labour-related costs for SIPS control implementation ($'000s, Real 2022-23)

Category	Total capex
Labour	[redacted]
Internal	
Outsourced	
Labour-related	
Travel expenses	
Training	
Recruitment	
IT hardware expenses	
Total	**6,903.47**

6.3. Other Support and Corporate Roles

Other Support and Corporate Roles costs in WSB (non-contestable) relate to engineering, legal, spatial, finance, HR and ongoing procurement tasks. All works related to the assessment and compensation of existing easements is also captured within this cost category.

Table 6-3 shows that our labour and labour-related costs for Other Support and Corporate Roles is $6.90 million (real $2022-23) and comprises:

- Internal (Transgrid) labour costs – these comprise approximately 92.1% of forecast Other Support and Corporate Roles labour and labour-related capex;
- Outsourced labour costs – these comprise approximately 4.3% of forecast Other Support and Corporate Roles labour and labour-related capex; and
- Labour-related costs – these comprise travel expenses which account for approximately 3.5% of forecast Other Support and Corporate Roles labour and labour-related capex.

Table 6-3 - Summary of Labour and Labour-related costs for Other Support and Corporate Roles ($'000s, Real 2022-23)

Category	Total capex
Labour	[redacted]
Internal	
Outsourced	
Labour-related	
Travel expenses	
Total	**6,897.84**

6.4. Transaction Procurement Support

Transaction Procurement Support labour and labour-related costs include the cost of providing procurement support and assisting with administrative procurement tasks. There is no labour-related capex associated with Transaction Procurement Support.

Table 6-4 shows that our WSB forecast transaction procurement support labour capex is $0.62 million (real $2022-23) and comprises:

- Internal (Transgrid) labour costs – these comprise approximately 64.0% of forecast Transaction Procurement Support labour capex; and
- Outsourced labour costs – these comprise approximately 36.0% of forecast Transaction Procurement Support labour capex.

Table 6-4 - Summary of Labour and labour-related costs for Transaction Procurement Support ($'000s, Real 2022-23)

Category	Total capex
Labour	[redacted]
Internal	
Outsourced	
Total	**616.46**

6.5. Regulatory Approvals

Regulatory Approvals labour and labour-related costs refer to the cost of preparing the WSB Revenue Proposal, including explaining and justifying our forecast costs, document preparation, regulatory modelling, commissioning expert advice, and independent assessment and verification of our costs. It also involves continuous engagement with the AER throughout the development of our proposal to ensure we receive early feedback. There is no labour-related capex associated with Regulatory Approvals.

Table 6-5 shows that our forecast Regulatory Approvals labour capex is $0.53 million (real $2022-23) and comprises:

- Internal (Transgrid) labour costs – these comprise approximately 83.9% of forecast Regulatory Approvals labour capex; and
- Outsourced labour costs – these comprise approximately 16.1% of forecast Regulatory Approvals labour capex.

Table 6-5 - Summary of Labour and labour-related costs for Regulatory Approvals ($'000s, Real 2022-23)

Category	Total capex
Labour	[redacted]
Internal	
Outsourced	
Total	**533.27**

6.6. Community and Stakeholder Engagement

Community and Stakeholder Engagement labour and labour-related costs relate to the engagement required to deliver the project in a sustainable way given that it is expected to impact several landholders and communities. This cost is associated with the cost of managing media and communications, and leading the community strategy and activities. There are no outsourced labour costs associated with the Community and Stakeholder Engagement cost category.

Table 6-6 shows that our forecast Community and Stakeholder Engagement labour and labour-related capex is $1.18 million (real $2022-23) and comprises:

- Internal (Transgrid) labour costs – these comprise approximately 99.0% of forecast Community and Stakeholder Engagement labour and labour-related capex; and
- Labour-related costs – these comprise travel expenses which comprise approximately 1.0% of forecast Community and Stakeholder Engagement labour and labour-related capex.

Table 6-6 - Summary of Labour and labour-related costs for Community and Stakeholder Engagement ($'000s, Real 2022-23)

Category	Total capex
Labour	
Internal	
Labour-related	
Travel expenses	
Total	**1,176.52**

6.7. Environment

Environment labour and labour-related costs relate to the costs required to manage environmental approvals and compliance over the course of the project. Given that WSB (non-contestable) does not require any new land, but rather modifications to existing easements, no allowance has been set for land-related approvals.

Table 6-7 details our Environment labour and labour-related cost of $0.33 million (real $2022-23) which comprises:

- Internal (Transgrid) labour costs – these comprise approximately 89.2% of forecast Environment labour and labour-related capex; and
- Labour-related costs – these comprise training and travel expenses which account for approximately 10.8% of forecast Environment labour and labour-related capex.

Table 6-7 - Summary of Labour and Labour-related costs for Environment ($'000s, Real 2022-23)

Category	Total capex
Labour	
Internal	
Labour-related	
Travel expenses	
Training	

Category	Total capex
Total	**331.35**

7. Breakdown of forecast indirect capex

This section explains and justifies our methodology for forecasting indirect capex for WSB (non-contestable). Forecast indirect capex includes a proportion of labour and labour-related costs as well as non-labour costs.

Where no specific assumptions or the basis of estimates are discussed, it should be assumed that the cost item was calculated based on actual costs incurred to date and fee proposals from suppliers. In instances where specific fee proposals have not been provided by suppliers, estimates have been developed based on agreed rates under master service agreements.

It should also be assumed that cost forecasts were developed on the basis that:

- Forecast capex is based on the agreed rate provided by the successful tenderer;
- Service provider was selected through a formal RFT process;
- Forecast capex is based on recent historical costs for similar projects;
- An additional allowance for the remaining cost may be required; and
- It is a non-recurring capex.

7.1. Proportion of labour and labour-related capex

Table 7-1 shows that 30% of labour and labour-related costs are categorised as indirect capex over the forecast years. The total labour and labour-related cost categorised as an indirect capex over the forecast years is $15.49 million (real $2022-23) (accounting for 69% of forecast indirect capex).

Table 7-1 - Summary of proportion of labour and labour-related cost categorised as forecast indirect capex ($'000s, Real 2022-23)

Capex	FY2023 (From 1 April 2023)	FY2024	FY2025	FY2026	Total over forecast years
Proportion of labour and labour-related cost	1,406.64	8,340.18	5,274.96	467.55	**15,489.33**

Further detail on the approach adopted to calculate the proportion of labour and labour-related cost is discussed in Section 8.4.

7.2. Project Management

Our WSB (non-contestable) forecast indirect capex of $1.64 million (real $2022-23) for Project Management largely relates to the incremental cost associated with managing and co-ordinating the project's activities in order to efficiently deliver the agreed scope, program and budget as summarised in **Table 7-2**. This cost is the non-labour cost relating to:

- undertaking assurance gate review during development, delivery and close out stages of the project, based upon rates from the relevant project services panel agreements

- management of distribution transmission line undercrossings, which allows for outage co-ordination activities between Transgrid's transmission network that directly affect the associated distribution network's transmission lines, based upon established rates and agreements, and
- the Independent Engineer (NOD, SIPSA, PGSA) for this project as required by EnergyCo.

Table 7-2 - Summary of forecast indirect capex – Project Management ($'000s, Real 2022-23)

Item	1 April 2023 - FY2023	FY2024	FY2025	FY2026	Total
Assurance Gate Reviews	[redacted]				
Management of Distribution TL Undercrossings					
Independent Engineer (NOD, SIPSA, PGSA)					
Total	145.00	715.88	721.76	60.15	**1,642.78**

7.3. SIPS Control Implementation

The SIPS Control Implementation non-labour costs is approximately $0.03 million (real $2022-23) and is associated with the cost of supporting the overall SIPS Control Implementation function. This cost relates to the allowance for external independent verification of the SIPS Design internal estimate, based on rates from historical costs for similar design review project work as summarised in **Table 7-3**.

Table 7-3 - Summary of forecast indirect capex – SIPS Control Implementation ($'000s, Real 2022-23)

Item	1 April 2023 - FY2023	FY2024	FY2025	FY2026	Total
Independent SIPS Design Cost Review	[redacted]				

7.4. Other Support and Corporate Roles

Our WSB (non-contestable) forecast indirect capex of $3.50 million (real $2022-23) for Other Support and Corporate Roles relates to the costs associated with the overarching program level activities that support the overall Project Management function as summarised in **Table 7-4**. This includes the non-labour costs relating to:

- external risk workshop facilitation based upon rates from historical costs for similar project work
- external schedule support and review services based upon agreed rates from project services panel agreements

- external support service responsible for training, management and administration of the formal project information / document management system (i.e., [redacted] or similar)
- a probity advisor to provide advice on the procurement process for the WSB project, and to ensure that the project is compliant with our probity policies and procedures
- a contract independent adjudicator for contractor claims arbitration services (Design and Construct (D&C) delivery-related contracts), based upon rates from historical costs for similar project work
- external facilitation of project risk workshops organised for our stakeholders
- independent audit for external project HSE systems auditing services, based upon agreed rates from project services panel agreements
- legal fees for property and easements involving conveyancing services, negotiation for site agreements and contract execution and reviewing variations and modifications to standard easement terms based on fee estimates provided by our external legal advisors and experience supporting on other projects of a similar nature and scope
- landowner compensation payments for additional compensations payments made to landowners, that may require modifications to their existing easement footprints, to accommodate new transmission line structure works. It is calculated on the basis of undertaking individual valuations of the properties/landowners affected by the existing transmission line easements.[6]
- media costs for external support including the production of printed and multimedia content pertaining to the project including research/testing project messages, printed materials, web and social media, videos and animation production, event management, advertising and graphics design based on a $25,000 (Real $2022-23) monthly cost assumption incurred over the course of the project. This is based on recent historical costs for these activities.
- Principal Arranged Insurance (PAI) costs based on the rates provided by our insurance broker for non-recurring incremental insurance costs covering the period from construction to commissioning
- AEMO review of the SIPS Control Concept Design for external design review support service
- geotechnical Services as part of the transmission line design process, based on existing rates and panel agreements
- asbestos testing and remediation services undertaken as part of the transmission line design and investigations process, based on existing rates and panel agreements

[6] The compensation amounts required to be paid out are determined by land valuation agents using the various heads of compensation as outlined under the *Land Acquisitions (Just Terms Compensation) Act 1991*.

Table 7-4 - Summary of forecast indirect capex – Other Support and Corporate Roles ($'000s, Real 2022-23)

Item	1 April 2023 - FY2023	FY2024	FY2025	FY2026	Total
Risk Workshop Facilitation	[redacted]				
Schedule Support / Review					
Document Controller					
Probity Advisor					
Contract Independent Adjudicator					
Risk Workshop Facilitation					
Independent Audit					
Legal Consultant - Property & Easements					
Landowner Compensation Payments					
Media Costs					
PAI costs - Insurance premium (construction)					
AEMO Concept Design Endorsement					
Geotechnical Services					
Asbestos Testing and Remediation Services					
Total	**247.37**	**3,023.39**	**167.89**	**58.4**	**3,497.06**

7.5. Regulatory Approvals

The total WSB (non-contestable) indirect forecast capex for Regulatory Approvals is $0.493 million (real $2022-23) as summarised in **Table 7-5**.

This capex includes costs for external consultants:

- assisting with the development of labour and indirect models for the project
- undertaking an independent verification of the regulatory submission, and
- regulatory modelling for this project
- preparing the project's insurance proposal

Table 7-5 - Regulatory Approvals ($'000s, Real 2022-23)

Item	1 April 2023 - FY2023	FY2024	FY2025	FY2026	Total
Labour & Indirect Cost Models	[redacted]				
Financeability report					
Independent Verification					
Regulatory Modelling					
Insurance proposal					
Total	**346.14**	**147.00**	**0.00**	**0.00**	**493.14**

7.6. Environment

Total WSB (non-contestable) indirect forecast capex for Environment is $0.610 million (real $2022-23). This is associated with the cost of carrying out the Summary Environmental Report (SER) assessments, as per requirements of Transgrid's Environmental Assessment Framework for all projects and summarised in **Table 7-6**. This includes the non-labour costs relating to:

- Exemption Certificate external costs based on our environmental assessment and approvals service provider rates
- Summary Environmental Report (SER) external costs based on our environmental assessment and approvals service provider rates

Table 7-6 - Summary of forecast indirect capex – Environment ($'000s, Real 2022-23)

Item	1 April 2023 - FY2023	FY2024	FY2025	FY2026	Total
Exemption Certificate external costs	[redacted]				
SER external costs					
Total	**130.00**	**480.00**	**0.00**	**0.00**	**610.00**

7.7. Transaction Procurement Support

Total WSB (non-contestable) indirect forecast capex for Transaction Procurement Support is $0.731 million (real $2022-23). This is the allowance for covering the expected costs associated with engaging a nominated supplier for Early Contractor Involvement (ECI) services a summarised in **Table 7-7**.

Table 7-7 - Summary of forecast indirect capex – Transaction Procurement Support ($'000s, Real 2022-23)

Item	1 April 2023 - FY2023	FY2024	FY2025	FY2026	Total
ECI Line Works Supplier 1					
ECI Line Works Supplier 2					
ECI Subs Works Supplier 1					
Total					

8. Key assumptions

This section explains and justifies the key assumptions underpinning our direct labour and indirect capex calculations.

8.1. Labour costs

The number of incremental FTEs required for WSB (non-contestable) is based on current practices, the complexity and timeframes of the project, plus relevant legislative requirements. The commencement of FTEs is phased over the duration of the project as per the project schedule.[7]

Labour cost estimates have been calculated based on the following:

- Standard labour rates apply
- Labour on-costs will be incurred for all staff and contractors
- Resources seconded (fully or partially) from existing business as usual roles to WSB (non-contestable) will be backfilled with internal Labour or via greater reliance on outsourced arrangements
- External contractor rates will be sourced from those contracts where appropriate, and
- No real labour cost escalation is included in the costs (as this will be subsequently applied in the WSB Capex Model).

These are explained further below.

8.1.1. Standard Labour Rates

Labour rates and role classifications were aligned to our 2023 Standard labour rates.[8] Labour escalation rates have not been applied to subsequent years of the project.

Labour including our internal staff, contractors and external labour hire have been classified into a series of salary bands and the corresponding labour rate has been used to estimate costs.

Consistent with our approved CAM:[9]

- All project staff will timesheet and charge to a Work Order
- Actual times (logged to work orders) will be used to determine labour costs, and
- The time spent by all WSB team members is considered an incremental cost on the basis that there is no spare resource in Transgrid, so time spent by existing staff members on WSB will lead to

[7] All scheduling and resource forecasting for WSB has been undertaken utilising Transgrid's established systems and tools through the Project and Portfolio Management (PPM) tool. The PPM tool is utilised for all of Transgrid's prescribed capital projects and regulatory submissions.

[8] Labour and Support Cost Rates Effective July 2023

[9] Transgrid, Cost Allocation Methodology, 30 May 2023

higher costs for Transgrid through backfill with internal Labour or via greater reliance on outsourced arrangements.

8.1.2. Labour On-Costs

Table 8-1 below shows the labour on-cost rates which have been applied to the base labour costs in line with standard practice and our policies.

Table 8-1 - Breakdown of labour on-costs

Type	Rate (%)	Breakdown
Employees under Award – Enterprise Agreement	[redacted]	[redacted]
Employees on individual employment contracts – Contract Officers	[redacted]	[redacted]

8.1.3. Labour support costs

A labour support cost rate has been applied to the base labour costs in line with our standard practice and policies. This captures a variety of corporate overheads including business and administration services, people support, IT support, legal services, recruitment (excluding external recruitment fees which are captured by labour-related costs) and non-mandatory training and development.

8.1.4. Resource Backfill and Evidence

As described above, the following assumptions have been applied in this document:

- time spent by all WSB team members is considered an incremental cost on the basis that there is no spare resource in WSB, and
- time spent by existing staff members on WSB will lead to higher costs for Transgrid through backfill with internal Labour or via greater reliance on outsourced arrangements.

8.1.5. External Contractor Rates

The rates applied for external contracted labour have been determined based on documentation provided by the external party detailing fees, rates and charges and our existing panel agreements in Real $2022-23 dollar terms.

8.1.6. Escalation Factors

Real labour cost escalation factors have not been applied to the labour and labour-related costs. This is subsequently applied in the WSB Capex Model.

8.2. Labour-related costs

8.2.1. Training

Training costs for staff within the Project Management and Environment teams are based on our standard allowance of $1,750 per FTE per annum (real $2022-23). This allowance is set for all internal roles that are Contract Officers or under an Enterprise Agreement (Award) and has been applied on a per role basis. Our adopted approach aligns with the training allowance calculation applied for PEC.

The nature of training provided includes mandatory field training, soft skills and development training, professional development, and industry specific training for each role. The training includes the SIPS control portion and familiarity of the equipment by operational staff to enable to operate and maintain the service including first response.

8.2.2. Travel and Expenses

All costs in relation to Travel and Expenses (including accommodation, meal allowances and other expenses) have been determined in accordance with ATO Guidelines TD 2022/10.[10] The application of these standard rates and calculation methodologies are summarised in the table below:

Table 8-2 - Travel and expenses methodology and assumptions

Labour Type	Calculation Methodology, Assumptions and Application
Project Management (Project Development team); SIPS Control Implementation; Other support and Corporate Roles;	Allowance for travel costs has been determined in accordance with the following assumptions in relation to travel frequency, duration, and location. The cost per trip per staff per night is assumed to be $1,351 (real $2022-23). This cost consists of: • Cost per return flight to site per staff: $410 ○ Based upon Qantas pricing for return flights per person, between Sydney and Armidale, over the next six months. • ATO rates for accommodation and meals: $320.55

[10] ATO, TD 2022/10, available at td2022-010.pdf (ato.gov.au)

<table>
<tr><th>Labour Type</th><th>Calculation Methodology, Assumptions and Application</th></tr>
<tr><td>Community and Stakeholder Engagement; and
Environment</td><td>

Based on the ATO Allowances,[11] and selecting Armidale as the default travel location, the proposed Accommodation, Meals and Incidentals allowance for all groups is $320.55.[12]

Car hire per day at site: $95[13]
Travel allowance: $525

Based on the assumption that three hours of additional travel time for staff is required.

Based on the assumption that two staff members are required to travel per trip and that each trip duration is one night, the cost per trip is $2,702. We calculated travel expenses by multiplying the cost per trip for two staff ($2,702) with the number of trips taken in each year of the modelling period:
Number of trips taken in each year of the modelling period:
<table>
<tr><th>Broader cost category</th><th>FY2023 (From 1 April 2023)</th><th>FY2024</th><th>FY2025</th><th>FY2026</th></tr>
<tr><td>Project Management</td><td>12</td><td>49</td><td>44</td><td>3</td></tr>
<tr><td>Other Support & Corporate Roles</td><td>19</td><td>63</td><td>43</td><td>4</td></tr>
<tr><td>Transaction Procurement Support</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Regulatory Approvals</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Community and Stakeholder Engagement</td><td>1</td><td>4</td><td>1</td><td>0</td></tr>
<tr><td>Environment</td><td>3</td><td>14</td><td>0</td><td>0</td></tr>
</table>
</td></tr>
</table>

[11] ATO, TD 2022/10, available at td2022-010.pdf (ato.gov.au)
[12] This is based on a salary grade of $133,451 - $237,520 for all FTEs (including Executive staff) and all expense amounts have been calculated using the High-cost Country Centre classification provided by the ATO.
[13] This quote is based on an [redacted] online quote for overnight rental of a Full Size vehicle

<table>
<tr><th>Labour Type</th><th>Calculation Methodology, Assumptions and Application</th></tr>
<tr><td></td><td>
<table>
<tr><td>Procurement</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>SIPS Control Implementation</td><td>3</td><td>8</td><td>1</td><td>0</td></tr>
</table>
</td></tr>
<tr><td>Project Management (Works Delivery team)</td><td>Consistent with previous CPAs, the assumptions regarding the Works Delivery team’s travel and sustenance are that:
All flights for Works Delivery staff travel as per project schedule and Works Delivery labour assumptions
Total flight costs have been determined in line with the schedule within the Updated Works Delivery Labour Assumptions Report
An allocation or 1-2 flights per month for site visits has been provisioned for relevant project resources
This relates to work related travel expenses such as food and accommodation. The forecast sustenance allowance is in line with the Australian Tax Office (ATO) Reasonable Allowance amounts based on a salary of $133,450 and below.
Sustenance allowances are provided under the following conditions under our Enterprise Agreement:
Overnight Absences from home – when employees are transferred to a temporary headquarters and the temporary transfer requires them to be absent from their usual place of residence overnight, we must provide them with accommodation wherever practicable at our own expense. For each night’s absence, employees must be paid an allowance of:
$15.80 when interstate, or
$12.70 when intrastate
Where accommodation is not provided employees may arrange their own accommodation in which case we will pay for the following allowances:
Capital Cities – ATO reasonable allowance amounts set out below based on a salary of $133,450
Other than Capital Cities – Relevant ATO reasonable allowance amount for High Cost Country Centre, Tier 2 Country Centre or Other Country Centre as per ATO Ruling.[14]</td></tr>
</table>

[14] ATO, TD 2022/10, available at td2022-010.pdf (ato.gov.au)

<table>
<tr><th>Labour Type</th><th>Calculation Methodology, Assumptions and Application</th></tr>
<tr><td></td><td>
<table>
<tr><th>Location</th><th>Overnight Breakfast</th><th>Overnight Lunch</th><th>Overnight Dinner</th><th>Overnight All meals</th></tr>
<tr><td>City ($)</td><td>29.90</td><td>33.65</td><td>57.30</td><td>120.85</td></tr>
<tr><td>Country ($)</td><td>26.80</td><td>30.60</td><td>52.75</td><td>110.15</td></tr>
</table>
All sustenance expenses are claimed through expense timesheets, with the provision of tax receipts and require formal approval by a line manager.
</td></tr>
</table>

8.2.3. Recruitment (External)

In order to account for the recruitment of the additional resources required for WSB (non-contestable), an allocated external recruitment cost has been included in the forecasted additional labour costs in Project Management and Environment, consistent with the approach adopted in our previous Contingent Project Applications (CPAs).

In addition, we expect to incur an agency fee of 15% of the value of the first year's annualised salary where a recruitment service provider is used.

Based on historical experience, it is anticipated that 50% of the new roles (including backfilled roles) will be employed directly and the remaining 50% will require recruiter assistance. Note that the recruitment fee is prorated according to the average number of FTEs over the modelling period for each role.

The recruitment costs are applied on the following basis:

Recruitment fees = sum of annualised salary of incremental employees x 50% x 15%

This has been applied consistently across as Project Management, SIPS Control Implementation and Environment category cost estimates.

The table below shows the percentage increase in 'new' FTEs year-on-year assumed in our calculations:

Table 8-3 – Percentage increase in number of 'new' FTEs compared to previous year

Cost category	FY2023 (From 1 April 2023)	FY2024	FY2025	FY2026
Project Management	0%	73%	0%	0%
Environment	0%	0%	0%	0%
SIPS Control Implementation	0%	66%	0%	0%

8.2.3.1. Project Management

For the Project Management cost category, the total recruitment expenses were calculated based on:

- Total annual salaries of $5.42 million (real $2022-23) for Project Management roles
- As presented in Table 8-3, there is an 73% year-on-year increase in the number of 'new' Project Management FTEs in FY2024, with no further increase in the remaining forecast years.

8.2.3.2. SIPS Control Implementation

For the SIPS Control Implementation cost category, the total recruitment expenses were calculated based on:

- Total annual salaries of $2.36 million (real $2022-23) for SIPS Control Implementation roles
- As presented in Table 8-3, there is an 66% year-on-year increase in the number of 'new' SIPS Control Implementation FTEs in FY2024, with no further increase in the remaining forecast years.

8.2.4. IT expenses

Additional IT hardware and connectivity is required for the new FTEs within the Project Management and SIPS Control Implementation categories. We have based these costs on our existing supplier rates.

The estimated total costs per new FTE are $3,337 (real $2022-23), as shown in Table 8-4. The estimates are based on the current supply rate from our vendors.

Table 8-4 – IT expenses

Item	Cost
Lightweight laptop	[redacted]
27" Monitor	
Headset	
Backpack	
Standard iPhone	
Total	**$3,337**

Total IT expenses were calculated based on 30 new starters in the Project Management category and 19 new starters in the SIPS Control Implementation in FY2024 requiring $3,337 worth of IT hardware.

8.3. External Advice – Consulting Fees and Other Services

Where possible, costs in relation to consulting fees and legal advice were sourced directly from external party documents that detail fees, rates and charges. All rates are assumed to have been provided at current rates i.e., real $2022-23 dollars. No escalation for CPI inflation or real rate escalation has been applied.

Details regarding the nature of anticipated costs and activities have been detailed in the relevant sections of this report. Where documentation has not been provided within the required time frame for the delivery of this report, we have used our experience from previous projects to estimate the costs of external advice.

8.4. Direct Labour Costs Assumption

In practice, some labour and labour-related costs are reported as direct costs for regulatory purposes. The QNI contingent project application did not split the forecast labour and labour-related costs between direct and overhead components. Recognising the AER's concerns with the level of forecast indirect costs for QNI,[15] forecast TransGrid labour and labour-related costs for WSB have been split between direct and overhead costs.

For the 2021-22 financial year, 74% of Transgrid capitalised labour and labour related costs were reported as direct costs within the category analysis RIN response.[16] Based on this, we have assumed that 70% of forecast Transgrid labour and labour-related costs for WSB are direct in nature i.e., 30% of labour and labour-related costs are assumed to be indirect capex.

[15] See: AER, *Final Decision – TransGrid Contingent Project, QNI Minor Upgrade*, April 2020, pp. 17–21.

[16] That is, $93.8 million of the reported $520.6 million in capex for prescribed services was labour and labour related costs. Of those labour and labour related costs, $24.4 million fell in the network overheads and corporate overheads categories (derived by applying the capitalised share of the respective overheads categories to the direct labour overheads). $69.4 million fell within the direct capex categories (e.g. replacements, connections, augmentation, non-network), or 74.0%.