AusNet

Date:	[C-I-C] August 2026
For:	Approval by circulating resolution
Sponsor:	[C-I-C], Executive General Manager, Transmission
Authors:	[C-I-C], GM Delivery; [C-I-C], GM Network Management

Shepparton Transformer & Circuit Breaker Replacement - Regulated Expenditure

1. Executive Summary

- The Shepparton Terminal Station (**SHTS**) Transformer and Circuit Breaker Replacement Business Case was approved by the CEO, under AusNet's Delegation of Authority (DoA), in December 2021 for $41.8M.
- This paper seeks approval to amend Scope, Time and Budget as explained in more detail below, with the budget increasing from $41.8M to $125.0M.
    - The budget increase is driven by additional scope addressing more stringent planning requirements introduced by new environmental legislation, substation construction inflation[1] since 2021 and greater estimation maturity.
- Management recommends this Project Change Request as:
    - **The needs case and options assessment have been revalidated** demonstrating the project is still the best value and least risk for consumers, even at the increased price.
    - **A risk assessment has been completed and independently reviewed** with $5.9M Contingency, plus $15.9M Management Reserve.
    - **The current price is robust and achievable** – the project is now mature (class 2[2] estimate) with design and planning requirements known, scope finalised, major materials ordered, early works 95% complete, stage 2 construction market tested and close to award.
    - **Delivery position is known and robust –** project is in construction with $37.7M spent to date, and $1.7M committed. Early works have validated key design, constructability and delivery assumptions, reducing uncertainty in the remaining scope.
    - **Project Assurance has been completed** with Group Operations supporting progress to Board approval. Conditions have been applied where the Project team will provide Group Operations with updates as the project moves through stage 2 contract award and delivery.
    - **Considerable learnings from this project were obtained** and will be applied going forward.
    - **Risks to approval delay** include increased costs, prolonged exposure to asset failure risk, jeopardises planned outages.

Project Context

The project will replace two B Type (220/66kV) Power Transformers and 12 66kV Circuit Breakers at SHTS, which were commissioned in the 1960s to 2000s that are now in poor condition. It also includes replacing the control building, which is in very poor condition and no longer suitable for ongoing operational requirements or future expansion. Despite the increase in cost, Management confirms the project remains a high priority investment for AusNet to mitigate risks relating to safety, explosion, fire, customer power supply interruptions and large-scale embedded generation.

[1] 85% inflation between 2021 and 2026 for substation construction costs. AEMO Transmission Cost Database, Building Blocks Costs and Risks Factors Update, and Draft 2025 Electricity Network Options Report (AEMO)
[2] As per the AACE estimate classification system. Generally, means scope, quantities, execution methodology, schedule, contracting approach and major equipment pricing are sufficiently developed to set a realistic cost baseline and evaluate contractor proposals.

Scope Change

New legislation (Environmental Protection Amendment Act 2018) came into effect in mid-2021 increasing environmental requirements and these have been reflected in stringent planning permit conditions that require transformer noise mitigation and stormwater drainage management. As a result, the project scope must now include three transformer sound enclosures, replacement of cooler banks, fans and surface drainage upgrades.

The planning requirements have also necessitated a revision to the original construction methodology. The revised construction methodology involves additional asset relocation and intervention works , as in-situ replacement is no longer feasible due to noise compliance requirements.

Time Change

Change the scheduled in-service date from November 2028 to April 2029 to manage the scope changes.

Budget Change

An additional $83.2M is required to enable remaining works to commence, increasing the total expenditure to $125.0M. This increase is primarily due to the additional scope required to meet planning permit requirements, related changes to the construction methodology, and substation construction inflation[3] since original Business Case approval in 2021. The remainder of the cost increase reflects greater estimation maturity.

Figure 1: Cost Increase Waterfall

The original 2021 Business Case approval was requested before design had commenced, planning permit conditions were known, site investigations were complete or construction pricing had been market tested. The revised scope, time and budget request reflects a substantially more mature project definition. AusNet has since changed the Business Case approval timing and now undertakes more upfront project development activities before seeking full project Business Case approval, to improve cost certainty.

2. Requested Resolution

The Board is requested to consider, and if thought fit, pass the following resolution.

[3] 85% inflation between 2021 and 2026 for substation construction costs. AEMO Transmission Cost Database, Building Blocks Costs and Risks Factors Update, and Draft 2025 Electricity Network Options Report (AEMO)

The Board **RESOLVED** to:

a) approve a total budget for Transformer and Circuit Breaker replacement at Shepparton Terminal Station (the **Project**) of up to $125.0M, as outlined in this paper; and

(a) authorise the Chief Executive Officer, or his delegate, to take, and authorise the taking, of all actions reasonably necessary or appropriate to implement the Project or otherwise give effect to resolution a), including negotiating, finalising, executing and delivering all agreements and ancillary documentation.

3. Station Background

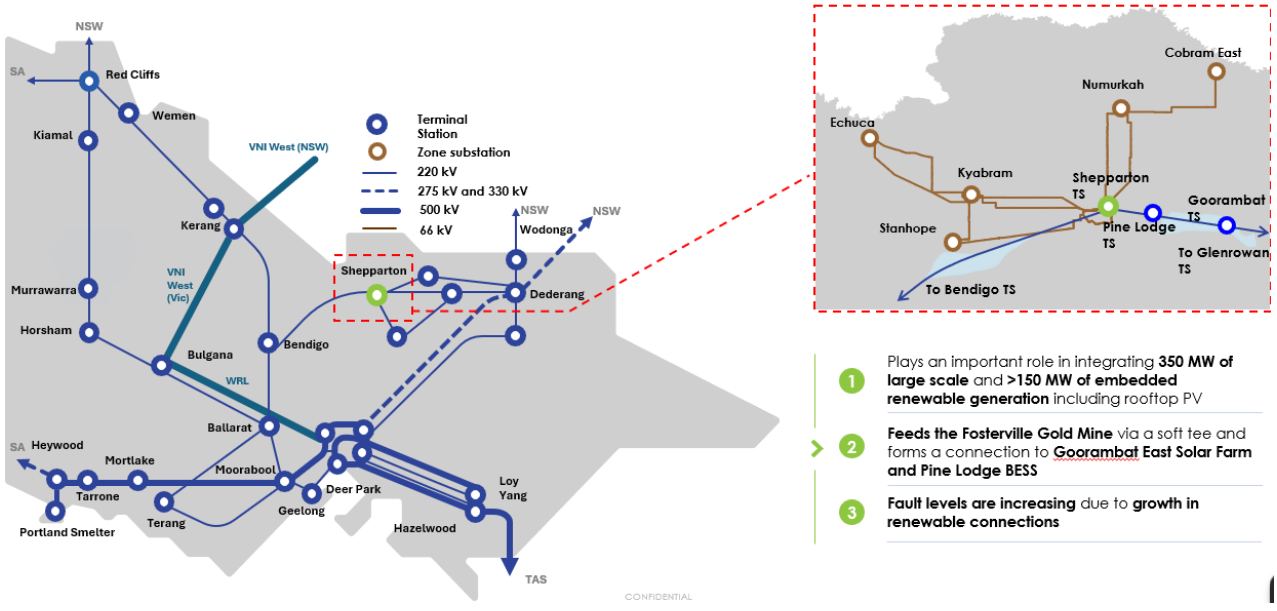
SHTS is owned and operated by AusNet and is located in Shepparton, northern Victoria. Since commissioning in the late 1960s, SHTS has served as the main transmission service connection point for Powercor's distribution supply. Approximately 77,024 customers depend on SHTS for electricity supply.

At business case approval in December 2021, SHTS had one major 66 kV embedded generator connected to the Station, Numurkah Solar Farm at 100MW, along with several smaller 22kV generators. Summer peak demand was 232 MW, and AEMO forecast it would decline by an average annual rate of 0.25% over the next nine years.

Today, a total of 505MW of embedded generation capacity is installed or proposed to be installed on the Powercor distribution system connected to SHTS (353 MW of large scale solar and 152 MW of rooftop solar). Peak demand reached 267MW in 2025 Summer. By the end of 2035, approximately 105 MVA of embedded generation is at risk of curtailment if one SHTS transformer is lost.

AEMO and Powercor recognize the continuing need for electricity supply services to communities in the Shepparton area, as reflected in jurisdictional planning reports and demand forecasts. Both parties endorsed the like for like replacement solutions at SHTS which this project delivers. Without remedial action SHTS assets will continue to deteriorate risking supply interruptions as well as safety and environmental risks.

Figure 2: Shepparton Terminal Station in the Victorian Transmission Network



4. Project Progress to Date

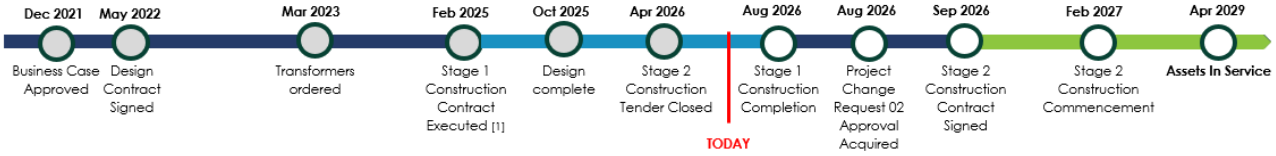
The project scope comprises of:

- Replacement of B2 and B3 Transformers (220/66kV) and 12 66kV Circuit Breakers, asset relocation required and associated protection and control schemes.
- New control building and radio hut, fencing and surface drainage works.

Design has been fully completed, majority of materials are ordered (apart from secondary cables that have a 12 week lead time), and early works[4] (stage 1 construction) are 95% complete with PowerNet. This work validates key design, constructability and delivery assumptions, reducing uncertainty in the remaining scope.

The project is currently in a stage 2 construction tender, which will be awarded once the project change request is approved.

Figure 3: Project timeline



5. Needs Case

The needs case of the project has been revalidated, and management confirms there is a strong need to replace the two power transformers and 12 circuit breakers for the following reasons:

- Two power transformers (B2 and B3, commissioned in 1969 and 1971) are in poor condition and need replacement.
    - Have cellulose insulation deterioration at a level equivalent to end-of-life condition, which cannot be rectified through refurbishment.
    - Have an inherent winding design flaw making them vulnerable to failure under rising short circuit currents. 3 in-service failures have already occurred on the AusNet network on transformers with the same design flaw. There were 11 units of this type on the AusNet network, with 4 remaining: B2 at Ballarat Terminal Station (planned replacement in the 2027-2032 TRR), B4 at Geelong Terminal Station (planned replacement in the 2032–2037 TRR), and 2 units at SHTS, which form part of this project scope. Refurbishment cannot rectify the design flaw.
- 12 66kV circuit breakers are in poor to very poor condition and present a material risk of failure.
    - Five bulk oil circuit breakers and their bushings are in a deteriorated state and present a significant risk of explosive failure and fire, requiring intervention in the short term.
    - Seven circuit breakers have interrupter failure concerns that can only be addressed through complete interrupter head replacement. This includes capacitor bank circuit breakers that are nearing their cumulative switching operational limit due to their higher frequency of operation. Replacement costs are comparable to refurbishment costs.

Additional factors that contribute to why replacement is required:

- AusNet is required, under the National Electricity Rules, to plan and manage assets to ensure the network operates in a reliable and safe manner.
- AusNet presently maintains two country spare transformers, however, these must be retained for emergency contingencies across a wide fleet of approximately 90 transformers across both metropolitan and rural areas. Circuit breaker spares are aged and/or unreliable, with breaker types no longer supported by manufacturers and replacement parts only available through cannibalisation or salvage of decommissioned units.
- Given the known winding design flaw of our fleet of 220/66 kV [C-I-C] transformers, there is a credible scenario where the B2 and B3 transformers at SHTS could fail simultaneously which would result in involuntary load shedding up to 44,390 customers and constraining up to 140 MW of embedded generation.

[4] *Construct New Control Building, Replace B4 Cooler Bank, Construct B4 Sound Enclosure, Perimeter Fence Electrification, Radio Hut Installation*

Figure 4: B2 Transformer Photo

Figure 5: Example of Surface Drainage Challenge at SHTS

6. Optioneering and Cost Benefit Analysis

The updated optioneering and cost benefit analysis confirms that, despite the cost increases outlined, the project remains the most economically efficient option to maintain reliable and safe transmission network services at SHTS. The economic timing reveals the project should continue its current schedule.

Management considered a long list of options and narrowed these down to a sub-set, which are included in the economic modelling (further detail in Table 1 and Appendix B). The preferred option remains Option 2, to continue replacing the two power transformers and selected switchgear by 2029 in line with current project scope and timing.

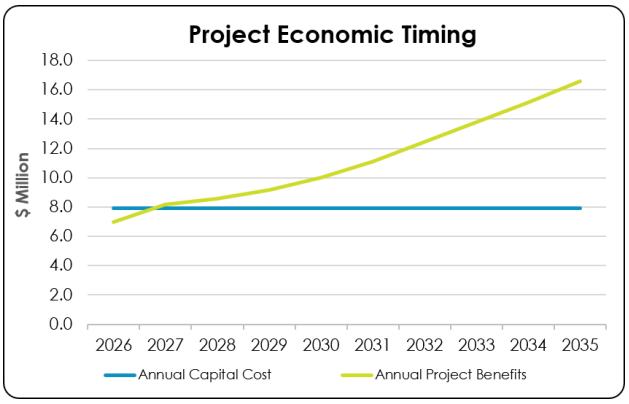
Table 1: Optioneering and cost benefit analysis

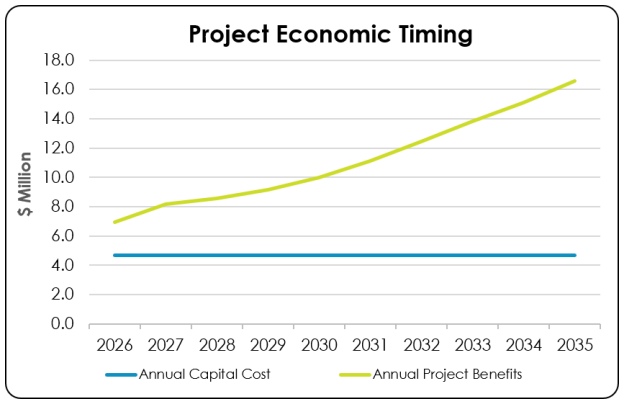
Option	Description	NPV	Outcome

Option 1: Do nothing	Run to failure	$0 NPV, residual risk of $241M	Not Recommended
Option 2: Like for Like Replacement - Original Scope	Replace both transformers and 66kV circuit breakers by 2029	**$133M NPV**	**PREFERRED OPTION**
Option 3: Life extension	Defer replacement of both transformers and 66kV circuit breakers to 2034, undertake minor remediation in interim	$111M NPV	Not Recommended. • replacement occurs in 2034 following only minor remediation • minor works will not materially reduce the identified asset failure risk prolonging failure risk • core and winding condition and the inherent winding design flaw cannot be rectified through life extension works
Option 4: Refurbishment	Refurbish both transformers and replace 66kV circuit breakers by 2029	-$4.5M NPV	Not Recommended. • cannot address the major transformer failure risk identified, which arises from both the inherent winding design flaw and the condition of the core and windings of the two Toshiba transformers (B2 and B3).
Option 5: Partial replacement	Descope by replacing the B2 transformer and 66kV circuit breakers in 2029 but deferring the B3 transformer replacement to 2034	$127M NPV	Not Recommend. • carries significant residual risk with one remaining Toshiba transformer due to its elevated failure rate and the inability to mitigate this risk through refurbishment, as the failure mode is associated with the core and windings and is exacerbated by an inherent design flaw. • whilst AusNet maintains spare transformers to reduce the consequence of a failure, the time to restore supply remains relatively long, with replacement of a failed transformer with a spare taking up to six weeks.
Modify operating conditions to meet needs case	Not viable – the needs case cannot be solved through operational changes		
Non-network new technology to solve the needs case	No viable non-network alternatives		
Incorporate into augmentation	Not viable - no planned augmentation in the Victorian Transmission Plan, Transmission Connection Planning Report, or Victorian Annual Planning Report		

The economic timing assessment has shown that this project (Option 2) is economic prior to 2029, supporting the proposed project in service date of 2029. Figures 6 and 7 below show the economic timing assessments for this option under both scenarios (Scenario 1 – NPV benefits if no work was done on project yet and Scenario 2 – NPV benefits as today, work already begun, considering sunk costs).

Figure 6 and 7: **Project Economic Timing (Scenario 1 LHS and Scenario 2 RHS)**





Continuing this project with the scope outlined in this paper (Option 2) aligns with:

- Powercor and AEMO joint planning sessions which determined the current project scope as the optimal configuration to meet network needs. Deviating from this approach would compromise AusNet's ability to meet its joint-planner obligations.
- Independent engineering consultancy firm's assessment of needs case and optioneering concluded that the full project scope is required and should continue to the project schedule.
- The RIT-T assessment. A regulatory investment test for transmission (**RIT-T**) has been completed for this project in October 2021. There is no formal requirement to redo a RIT-T for this project as there is no change to the preferred option, the project remains economic based on the revised cost, and a non-network option is not feasible despite the increased project cost.

7. Scope Changes

From July 2021, the Environmental Protection Amendment Act 2018 introduced an environmental duty on Victorian businesses to take reasonable proactive steps to eliminate or otherwise reduce risks of harm to health and the environment, replacing the previous reactive obligation. This increased AuNet's requirements to conduct Environmental Site Assessments and proactively manage noise and ground water conditions. In the last TRR submission for 2022-2027 there was no funding requested at the time to accommodate these new duties and the assumption was made that it would take time to conduct the assessments and rectifications could occur over time. Similarly, when the SHTS Business Case was submitted in 2021 it was not known that these expectations would be applied to the project itself through the planning permit conditions.

When a planning permit was requested, the approved permit included two key conditions that had to be addressed as part of the project:

1. **Noise mitigation**
   - Noise monitoring confirmed that noise emissions from all three B-type transformers, B2, B3 and B4, exceeded EPA compliance limits. Full sound enclosures are therefore required for all three B-type transformers. B4 cooler bank and fan replacement are also required to support EPA noise compliance as this system contributes to noise levels.
   - The original business case assumed in-situ replacement of B2 and B3, however the added requirement of noise mitigation significantly increased the outage length required for in-situ replacement requiring a change of construction approach:
     - Under an in-situ approach, each transformer replacement would have required an extended outage of approximately seven months (compared to 4 months when noise mitigation was not required). These outages would not have been approved due to operational and curtailment risks.
     - The revised approach relocates the transformers to different areas in the station, allowing the existing B2 and B3 transformers to remain in service while the new transformer bays, transformers and associated sound enclosures are constructed. This limits the required outage length to final cutover

only needing a one-week outage, significantly reducing operational risk, limiting generator curtailment impacts and improving constructability while maintaining continuity of supply at SHTS.

- However, this approach adds asset intervention work and cost:
  - B3 transformer is now being installed in the former 66kV capacitor bank bay, requiring 220kV overhead line to be transferred to the new bay.
  - A new overhead gantry is required in the new B3 transformer bay to accommodate the conductors and earth wire landing spans.
  - Capacitor bank relocation to make room for new B3 transformer.
  - Reconfiguration of B3 & B2 transformer connection assets (rebuild relevant bays).
  - Transformer storage and double handling due to schedule impact.

2. **Surface drainage remediation**
   - As part of the planning permit, it was determined additional work was required to enhance surface drainage to support Council concerns about storm water runoff given the additional control building added to station, and the identification of poorly drained low-lying areas of the station previously hidden by trees and shrubs. This requirement was not included in the original Business Case estimate.

Through the design phase other areas of additional scope were identified:

- Install Radio Hut at base of communications pole to convert radio signals from waveguide to fibre optic as the New Control Building location exceeded maximum distance from the Radio Communications Monopole for the Waveguide cables.
- No. 2A/2B 66kV Capacitor Bank Circuit Breaker Replacement as condition deteriorated since business case approval in 2021. This change was requested by Network Management in 2025.

8. Cost Changes

The cost increase has been assessed against an updated internal control estimate, and the construction costs have been market tested. The contingency and management reserve values were updated after a P90 workshop and their values validated by an independent consultancy firm.

The original Business Case approved expenditure was $41.8M. The SHTS transformer project costs have increased to $125.0M. The cost is now a class 2 estimate with low escalation risk as most materials are ordered, design is complete, early works are 95% compete, and stage 2 construction costs have been market tested on a full 100% issued for construction (IFC) design.

The reason for the project cost increase is broken down in the table below and waterfall chart in the Executive Summary. The increase is driven by additional scope due to new legislation leading to more stringent planning permit requirements, substation construction inflation between 2021 and 2026, and enhanced estimate maturity.

Table 2: Cost breakdown

Cost Type (Category)	Last Approved Budget ($ Nominal)	Revised Budget ($ Nominal)	Difference ($ Nominal)	Cause of Change
Design	$3,846,400	$4,733,649	$887,249	Additional scope incorporating sound enclosures and surface drainage remediation
Internal Labor	$2,596,500	$8,896,377	$6,299,877	Increase due to extended project duration/scope (c. $2M) and labor inflation (c. $0.5M). PMO support, FAT activities, engagement labor not included in original estimate
Materials (free issued)	$11,503,300	$26,785,750	$15,282,450	Additional scope (c. $6M), material inflation (c. $7M), remainder attributable to estimation maturity (c. 2M)

Plant & equip	$996,700	$74,591	-$922,109	Reallocated to Contracts line
Contracts	$16,169,600	$50,967,857	$34,798,257	Additional scope driven mainly by sound enclosures and Cap Bank relocation (c. $15M), substation construction costs inflation (c. $13M) and estimation maturity (c. 6M)
Construction Insurance	$0	$1,125,157	$1,125,157	Previously not considered in the approved Business Case
Contingency	$1,682,800	$5,875,881	$4,193,081	Uplifted with project complexity and scale. Aligns with detailed bottom-up risk register and corresponding Monte Carlo analysis
Finance Charges	$1,997,100	$5,440,233	$3,443,133	Finance charges grow with higher project costs
Overheads	$1,490,200	$5,120,625	$3,630,425	Overheads grow with higher project costs
Mgmt. Reserve (MR)	$1,563,300	$15,934,923	$14,371,623	Uplifted with project complexity and scale matching updated risk register and corresponding Monte Carlo analysis. Plus delta between preferred and highest bidder for stage 2 construction
Total capex	**$41,845,900**	**$124,955,042**	$83,109,142	
OPEX	$0	$0	$0	N/A
Written down value	$0	$0	$0	N/A
Total expenditure	**$41,845,900**	**$124,955,042**	$83,109,142	

Incremental Opex	**Annual incremental Opex Impact ($'000)**	**Business Owner**	**Cost Centre**
N	N/A	N/A	N/A

9. Risk

Management confirms contingency and management reserve values are suitable for the cost to complete for SHTS.

- A comprehensive risk register was developed with appropriate likelihood and consequence ratings assigned to each identified risk. AusNet's allocation of risk within the CDP contract terms was considered, as well as project-specific risks.
- A risk workshop was conducted and the risk register assessed by a third-party to verify the identified risks, risk probabilities and risk values.
- Monte Carlo analysis was subsequently completed, confirming that the contingency and management reserve values are adequate.
- The independent review confirmed that the risk provisions included in the forecast are reasonable and sufficient to manage the project's residual risk exposure.

10. Financial Position

The capital expenditure being requested as part of this Project Change Request can be accommodated within the 5-year capital plan.

The updated forecast for SHTS has been included in the 5-year capital financial planning process. If capital shortfalls arise, Management will make prioritisation decisions accordingly.

The project covers two regulatory periods 2022-2027 (current period), and 2027-2032 (next period). As part of the final TRR submission due on 1 September 2026, an updated forecast will be included for SHTS to fund the 2027-2032 project capital expenditure ($70M[5]).

11. Next Steps

Subject to Board approval, AusNet will continue delivering the project, award stage 2 construction works, and complete the updated scope as outlined in this paper.

12. Management Endorsement and Assurance

Group Operations has completed an independent assurance review of the proposed Project Change Request (PCR), including the approved business case, Board Paper, project controls, Commercial/procurement process, cost estimate, schedule assumptions, risk profile and delivery approach. The review considered whether the submission has reached a level of maturity appropriate for the approval being sought and whether the key delivery, cost, schedule, commissioning and operational risks have been adequately identified and are being actively managed through established governance processes.

The assurance review concluded that the project has achieved an appropriate level of maturity to support progression of the PCR through the approval process. The revised proposal is supported by completed design development, a significantly enhanced cost estimate, improved project controls and a more mature understanding of the delivery risks and implementation approach than was available at the time of the original approval.

The review also recognised that several aspects of the project remain subject to ongoing development and validation. In particular, final commercial certainty remains dependent on completion of Stage 2 negotiations and contract award, while schedule confidence remains conditional pending further maturation of outage planning, commissioning validation, delivery sequencing and key project interface activities. In addition, the final commercial risk allocation arrangements and residual risk position will require confirmation prior to contract award. These matters are not considered barriers to progression of the PCR; however, they require continued governance oversight and closure through subsequent project delivery phases.

Group Operations is satisfied that the key project risks have been identified, are understood and are being actively managed through the project's governance, risk management, engineering assurance and delivery control frameworks. Recommendations and assurance actions arising from the review have been documented and will continue to be monitored through established governance forums to ensure delivery risks, commercial outcomes, schedule performance and management reserve utilisation remain within approved tolerances.

Accordingly, Group Operations supports progression of the Project Change Request for approval, subject to the ongoing management and closure of the identified assurance conditions, recommendations and governance actions. This assurance position reflects the current level of project maturity and recognises that residual uncertainty remains in relation to final commercial negotiations, risk allocation and delivery execution, all of which are considered manageable with the continued application of appropriate governance oversight and project controls

The executives listed below confirm that they have reviewed this paper within their respective areas of accountability, support the recommendation to proceed on the terms set out in the Requested Resolution (section above), and collectively endorse Management's recommendation based on the assurance activities summarised above.

Name	Position
[C-I-C]	Chief Executive Officer
[C-I-C]	Executive General Manager, Transmission
[C-I-C]	Chief Financial Officer
[C-I-C]	Executive General Manager, Group Operations

[5] Funded through the TRR. Rest funded in current TRR period (2022-2027)

13. Appendices

Appendix A – Scope of Works

Appendix B – Options Analysis

Appendix C – Financial Breakdown

Appendix D – Project scope visual

Appendix A – Scope of Works

Scope

Replacement of B2 Transformer and B3 Transformers (220/66kV) and 12 x 66kV circuit breakers, augmentation required and associated protection and control schemes.

New control building and radio hut, fencing and surface drainage works.

Project stages

- **Stage 1 (early works)** – comprises several work fronts to expedite project delivery where possible and prepare site for the transformer and circuit breaker replacement. This approach was agreed in PCR01
    - Perimeter Security Upgrade (Tree & Shrub removals, Fence electrification, Perimeter cameras) - due to SHTS's long (>10 year) history of unauthorised entries and thefts
    - New control building, including amenities
    - Radio Hut
    - B4 transformer Cooler Bank upgrade
    - B4 transformer sound enclosure
- **Stage 2 –** rest of the construction program
    - Cutover all secondary protection and control systems from the old control building to the new control building
    - Decommission and demolish the old Control Building
    - Replace 12 x 66kV CB's
    - Relocate 66kV Cap Bank
    - Double switch 220kV Bay G (B2 TX)
    - Construct the new B3 transformer bund, transformer and sound enclosure on the former 66kV capacitor bank footprint. Test and commission the new B3 transformer (cutover from old B3).
    - Decommission the old B3 transformer, construct the new B2 transformer and sound enclosure on the former B3 transformer footprint. Test and commission the new B2 transformer (cutover from old B2).
    - Decommission the old B2 transformer
    - Remediate switchyard surface drainage
    - Remediate overall site drainage

Appendix B - Options Analysis

A 2-part options analysis methodology was used. Part A considered options, assessed against investment need and technical feasibility criteria, part B considered 5 options, assessed for economic NPV benefits. The original business case scope (option 2) was the only credible and prudent path forwards.

Scenario 1 – NPV benefits if no work was done on project yet

Scenario 2 – NPV benefits as today, work already begun, considering sunk costs

The table below represents the options taken through to part B (detailed optioneering).

	Option 1 **Do nothing – run to failure**	Option 2 **Like for like replacement** (original scope) (Replace both transformers and 66kV circuit breakers by 2029)	Option 3 **Life extension** (Defer replacement to 2034, undertake minor remediation in interim)	Option 4 **Refurbishment** (Refurbish both transformers and replace 66kV circuit breakers by 2029)	Option 5 **Partial replacement** (Descope. Replace B2 transformer and 66kV circuit breakers in 2029 but deferring the B3 transformer to 2034)
Economic Value (NPV of Economic Benefits)	**$0** Present Value of Baseline Risk: $241M	**$133M** Scenario 1 **$166M** Scenario 2	**$111M** Scenario 1 **$134M** Scenario 2	**-$4.5M** Scenario 1 **-$2.3M** Scenario 2	**$127M** Scenario 1 **$158M** Scenario 2
Impact on Supply Risk	**High** Assets remain in poor condition and present a material asset failure risk	**Low** Asset failure risk significantly reduced	**Medium-High** Assets remain in poor condition for five more years with increasing failure rates. Remediation does not resolve transformer insulation and winding design flaw issues.	**High** Significant load remains at risk under a credible B2/B3 transformer simultaneous failure event, as refurbishment does not resolve the underlying winding design flaw.	**High** The B3 transformer remains in poor condition for five more years with increasing probability of failure. The supply risk of deferral outweighs the benefits of postponing expenditure.
Deliverability Impacts	**N/A** Does not deliver a solution to meet identified need	**Low** Aligned to brownfield staging; leverages mobilised team & procured equipment	**Medium** Deferral of scope leads to cost increases and need to store and maintain transformers. Long term rework likely to replace transformers as remediation of core & windings not feasible.	**Medium** Long term rework likely to replace B2 and B3 transformers as insulation deterioration and winding design flaw cannot be rectified through refurbishment.	**Medium** Aligned to brownfield staging but need to either store or redeploy the B3 transformer.
Joint Planning Commitment Met	**No** Does not meet joint planning obligations and scope agreed by Powercor and included in VicGrid planning reports	**Yes** Scope agreed on by Powercor through joint planning and included in VicGrid planning reports	**No** Does not align with scope agreed on by Powercor and included in VicGrid planning reports	**No** Does not align with scope agreed on by Powercor and included in VicGrid planning reports	**No** Does not align with scope agreed on by Powercor and included in VicGrid planning reports
Outcome	**Not credible**	**Preferred Option** Only credible and prudent option. Delivers highest net benefit	**Not Recommended** Sustained exposure to material asset failure risk due to remediation not resolving transformer insulation and winding design flaw issues.	**Not Recommended** Sustained exposure to material transformer failure risk. Deviation from agreed functional requirement and joint planning outcome for SHTS.	**Not Recommended** Sustained exposure to material transformer failure risk. Deviation from agreed functional requirement and joint planning outcome for SHTS.

Appendix C – Financial Breakdown

Project Expenditure for Approval

Project Expenditure for approval (nominal) - ($M)		Calendar year (first 5 years)					PCR Total
	Prior Years	2026	2027	2028	2029	2030	
Baseline - Capex spend to date	32.7	4.2	-	-	-	-	36.9
Baseline - Capex delivery budget remaining	-	3.4	-	-	-	-	3.4
Additional Direct Capital	-	-	30.0	26.8	5.9	-	62.7
Additional Overheads	-	0.0	1.4	1.3	0.3	-	3.0
Additional Capitalised Finance Charges	-	-	1.4	1.4	0.2	-	3.0
Project Delivery Budget (SAP Capex budget)	**32.7**	**7.6**	**32.8**	**29.5**	**6.4**	**-**	109.0
Baseline - Management Reserve	-	1.6	-	-	-	-	1.6
Additional Management Reserve	-	-	-	-	14.4	-	14.4
Utilized Management Reserve	-	-	-	-	-	-	-
Management Reserve	**-**	**1.6**	**-**	**-**	**14.4**	**-**	15.9
Total Capex for Approval (incl risk, CFCs & OHs)	**32.7**	**9.2**	**32.8**	**29.5**	**20.8**	**-**	**125.0**
Baseline - Project Opex spend to date	-	-	-	-	-	-	-
Baseline - Project Opex delivery budget remaining	-	-	-	-	-	-	-
Additional Project Opex	-	-	-	-	-	-	-
Total Project Opex for Approval	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Written down value of assets retired/sold	-	-	-	-	-	-	-
Total New Estimated Expenditure for Approval (nominal)	**32.7**	**9.2**	**32.8**	**29.5**	**20.8**	**-**	**125.0**

Change Breakdown Analysis

Note the table below does not include Management Reserve

Changes to Approved Delivery Budget	CAPEX	PROPEX	TOTEX
Business Case Baseline (BC delivery budget, Incl CFCs & OHs)	40.3	-	40.3
Current Approved Baseline (Including all PCRs to date)	40.3	-	40.3
Requested Change (Additional budget requested in this PCR Incl. CFCs & OHs)	68.7	-	68.7
New Baseline (Delivery Budget post-change incl. CFCs & OHs)	**109.0**	**-**	**109.0**

Changes to Approved Management Reserve	
Original Approved Management Reserve (BC)	1.6
Current Approved Management Reserve	1.6
Additional Management Reserve Requested	14.4
Less Management Reserve to be utilised	-
New Total Management Reserve	**15.9**

Appendix D – Project Scope Visual