Transmission Revenue Reset 2027 to 2032 (TRR 2027-32)

Project Planning Report:	Moorabool Terminal Station Shunt Reactor Replacement Project
Date:	September 2026

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1. Executive summary

Moorabool Terminal Station (MLTS) is part of the main Victorian 500 kV transmission system and includes transformation from 500 kV to 220 kV, as well as several reactors that are used for voltage control.

The No.1 220 kV bus shunt reactor and the Cressy Terminal Station (CRTS) No.2 500 kV line shunt reactor at MLTS are in poor to very poor condition, with an increasing risk of failure. If either reactor becomes unavailable, AEMO may need to use alternative voltage management measures, including generator-based voltage support, to maintain transmission voltages within secure operating limits.

AusNet considers that replacement of the existing two reactors is prudent and efficient expenditure required to maintain voltage control and power system security during low-demand operating conditions. Shunt reactors provide a dedicated and local source of reactive power absorption at low variable cost. Generator-based voltage support is not an efficient enduring substitute because the generators likely to provide this support are generally not dispatched during the low-demand periods when high-voltage control is most needed. Procuring equivalent support from those generator stations would likely require generator commitment, start costs, fuel costs and availability payments, and would expose the network to generator availability risk. Where network studies confirm a recurring requirement for reactive absorption, the annualised cost of replacing existing reactors is expected to be lower than the cost of procuring equivalent voltage management support.

AusNet's economic cost-benefit analysis indicates that investment is economically justified by 2029 to manage this asset failure risk at MLTS. Given the estimated four-year delivery lead time, AusNet plans to commence the project in 2027 to achieve completion by 2030, with all forecast expenditure falling in the 2027 to 2032 TRR period. VicGrid confirmed the ongoing need for the services provided by these two reactors at MLTS.

2. Background

Moorabool Terminal Station (MLTS) is located north of Geelong in Victoria. It was commissioned in the early 1980s and forms part of the main Victorian 500 kV transmission system with transformation from 500 kV to 220 kV. It is part of the main 500 kV transmission backbone that provides major transmission network services in Victoria. The 500 kV transmission backbone runs from east to west across the state and connects generation in the Latrobe Valley and western parts of Victoria with the major load centre in Melbourne. It also forms an interconnector with South Australia at Heywood Terminal Station (HYTS) as shown below.

The two 500 kV line shunt reactors and three 220 kV bus shunt reactors at MLTS are used to control high voltages during low demand periods.

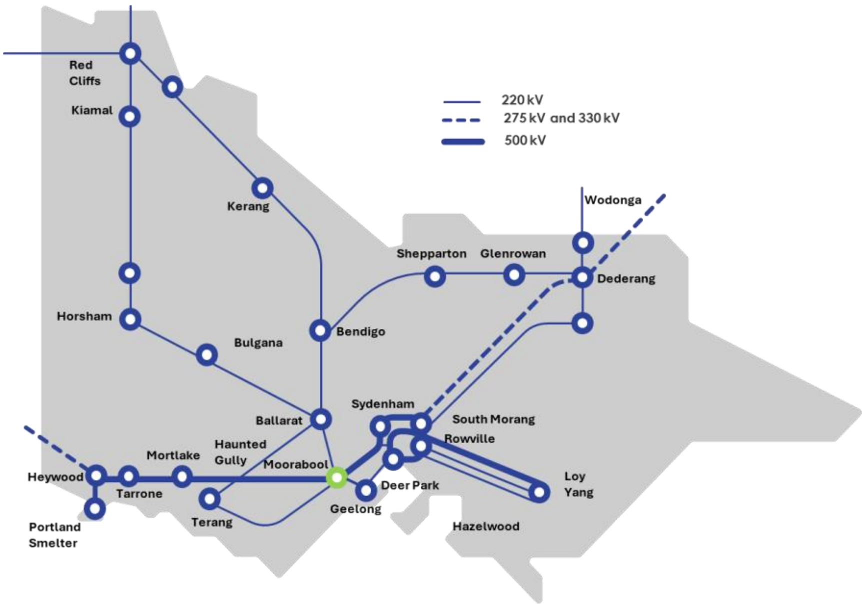

Figure 1: Victorian main transmission system

AusNet

Asset Condition

AusNet has undertaken a comprehensive condition assessment of all shunt reactors at MLTS. The evaluation has determined that the No.1 220 kV bus shunt reactor and the CRTS No.2 500 kV line shunt reactor are in an advanced state of deterioration and both reactors should be replaced during the 2027-2032 TRR period.

No.1 220 kV Bus Shunt Reactor

The No.1 220 kV bus shunt reactor, commissioned in 1983, is 43 years old and near the end of its expected service life.

Long term condition results for this reactor consistently show elevated levels of phenolic compounds within the insulating oil, which are typically linked to degradation in resin bonded/impregnated insulating structures. This type of degradation leads to shrinkage in the winding insulated support materials, leading to reduced clamping pressure and reduced structural integrity. This deterioration is currently the most significant factor contributing to the reactor's poor condition.

The 245 kV bushings are also in an advanced deteriorated state with a high risk of failure of the bushing oil seals that could lead to internal insulation system deterioration.

Shunt reactors are frequently switched in and out of service depending on the system need for voltage control. Frequent switching causes high-magnitude forces on the internal winding support structures from the inrush currents. This increases the likelihood of failure.

While the bushings, insulating oil, reactor tank and cooling system are considered recoverable, the windings are not. The internal support structures for the windings shows advanced deterioration, posing a significant risk of winding failure and potential catastrophic failure of the reactor. The Asset management strategy for these reactors is to replace rather than refurbish.

Please refer to the Asset Condition Report for detailed information.

CRTS No.2 500 kV Line Shunt Reactor

The CRTS No.2 500 kV line shunt reactor was commissioned in 1983 alongside the No.1 220 kV bus shunt reactor. This reactor has reached its technical end of life. Long term condition analysis results for this reactor consistently show increasing elevated levels of 2FAL and phenolic compounds within the insulating oil which are typically linked to degradation of cellulose and resin bonded/impregnated insulating structures. This type of degradation leads to loss of tensile strength and shrinkage in the winding's insulation and cellulose based support materials, leading to reduced clamping pressure and reduced structural integrity.

Therefore, due to the identified non-recoverable winding and core issues that are compounded by the HV bushings and oil condition, the replacement of the reactor is recommended rather than refurbishment that cannot address the winding's highly advanced 'end of life' condition.

Please refer to the Asset Condition Report for detailed information.

Reactor forecast failure rates

Table 1 shows the forecast failure rates for the No.1 220 kV bus shunt reactor and CRTS No.2 shunt reactor at MLTS.

Reactor Failure Rates	2026	2027	2028	2029	2030	2031	2032
No.1 220 kV Bus Shunt Reactor	0.0742	0.0768	0.0794	0.0821	0.0848	0.0876	0.0905
CRTS No.2 500 kV Line Shunt Reactor	0.0777	0.0804	0.0831	0.0859	0.0887	0.0915	0.0944

Table 1: MLTS shunt reactor forecast failure rates

3. Identified need

MLTS is a 500 kV switching station with 500/220 kV transformation that connects Victoria's 500 kV transmission backbone to the 220 kV transmission network supplying the Geelong region, as shown in Figure 1. MLTS is equipped with two 121 MVAr 500 kV line shunt reactors and three 121 MVAr 220 kV bus shunt reactors.

The poor condition of these assets at MLTS has increased the likelihood of asset failures. Such failures could result in prolonged outages and loss of voltage control capability. Without remedial action beyond current business-as-usual maintenance practices, the condition of the affected assets is expected to deteriorate further, increasing both the likelihood and consequences of failure. Increased asset failure risk may result in higher voltage management costs, increased safety risks associated with equipment failures involving fire or explosion, environmental impacts, collateral damage to adjacent assets, and increased expenditure associated with emergency replacement works and reactive repairs.

The MLTS shunt reactors absorb reactive power and maintain transmission network voltages within acceptable operating limits, particularly during low-demand conditions. Effective voltage control is critical in Victoria because several legacy 500 kV assets, including the KTS 500/220 kV transformers and the SYTS and SMTS GIS, have a maximum continuous operating voltage rating of 525 kV (1.05 pu), below the contemporary standard of 550 kV (1.1 pu).

By providing essential reactive power absorption, the MLTS reactors reduce reliance on generator interventions or alternative non-market voltage support arrangements. Id the reactors become unavailable, AEMO may need to rely on higher-cost operational measures to maintain power system security and network voltage performance.

The identified need for this project is to maintain reliable and efficient voltage control capability at MLTS and to mitigate the increasing risks associated with ageing and deteriorated assets.

AusNet has estimated the economic impact of reactor unavailability using an assumed equivalent generator-based voltage support cost of approximately $30,000 per hour (see section 3.1 for further details). Applying this methodology, the present value of the baseline risk associated with the unavailability of the two MLTS shunt reactors is estimated to exceed $97 million over the 45-year assessment period commencing in 2026.

The key risks are summarised in Figure 2. The largest components comprise the cost of providing alternative voltage support when the reactors are unavailable and the increased asset replacement costs associated with failure-driven replacement of deteriorated equipment.

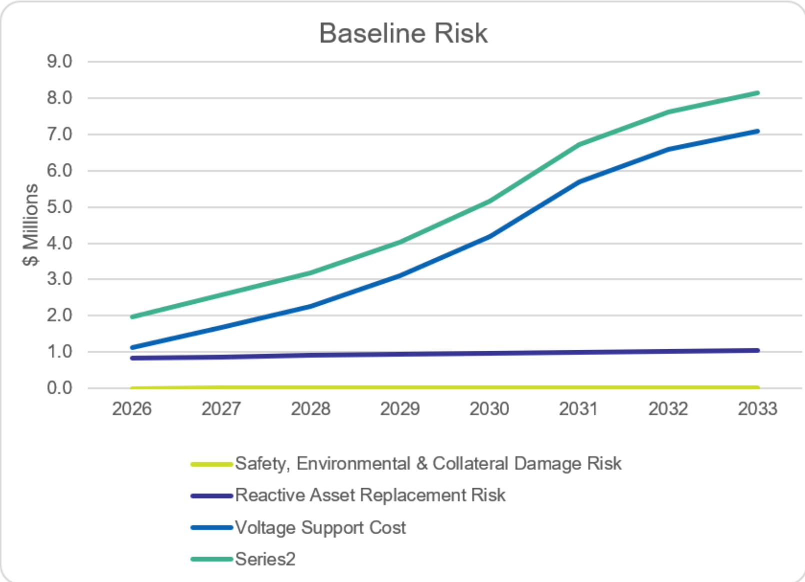

Figure 2: Baseline risk

Implementing the options identified, will enable AusNet Services to maintain reliable transmission network services at MLTS while mitigating safety and environmental risks as required by the NER and Electricity Safety Act 1998[1].

The ongoing need for MLTS is both demonstrated in AEMO's Integrated System Plan (ISP), Victorian Annual Planning Report (VAPR) and VicGrid's Victorian Transmission Plan.

[1] Victorian State Government, Victorian Legislation and Parliamentary Documents, "Electricity Safe Act 1998"

3.1. Key inputs and assumptions

Aside from the failure rates (determined by the condition of the assets) and the likelihood of relevant consequences, AusNet Services also adopted the following assumptions to quantify the risks associated with asset failure.

Voltage Management cost

High transmission voltages occur during low-demand conditions because transmission lines generate capacitive reactive power while demand-side reactive power consumption decreases. This effect is expected to become increasingly significant as minimum demand continues to decline due to the growth of distributed photovoltaic generation and the reduction in synchronous generator operation during light-load periods.

Voltage management requirements are typically highest during overnight periods, mild-weather weekends and periods of high distributed solar generation. These are the same operating conditions during which peaking generators such as Newport and Laverton North are least likely to be dispatched for energy production. If these generators are not already online, maintaining network voltages may require generator commitment and operation primarily for reactive power absorption. This can introduce generator start-up costs, minimum generation constraints, fuel costs, increased operational complexity and reduced operational flexibility.

The operational requirement is to absorb surplus reactive power at appropriate network locations so that transmission voltages remain within equipment design limits and secure operating limits. Existing transmission shunt reactors provide this service directly by absorbing reactive power from the network when switched into service.

The requirement is not solely an energy market consideration. It is a power system security and voltage management function that must be available at the appropriate network location and under the operating conditions that give rise to over-voltage risk. The MLTS shunt reactors provide dedicated reactive power absorption and contribute to maintaining secure operating voltages across the Victorian transmission network.

A reasonable planning approach is therefore to compare the annualised cost of replacing the shunt reactors with the estimated cost of providing an equivalent level of reactive power absorption using alternative voltage management measures. A 121 MVAr reactor provides a useful normalised basis for comparison because it corresponds to the rating of the existing MLTS shunt reactors. This framework has been applied to the proposed replacement of the existing CRTS No.2 500 kV line shunt reactor and 220 kV bus shunt reactor at MLTS. If these reactors were unavailable, alternative voltage management measures would be required to provide equivalent reactive power absorption.

AEMO Metropolitan Melbourne Voltage Management RIT-T[2]

In the "do nothing" scenario of AEMO's Metropolitan Melbourne Voltage Management RIT-T, AEMO assessed the cost of directing gas-fired generators online to provide voltage management support. The study estimated annual intervention costs associated with out-of-merit generator dispatch and start-up requirements as shown in Table 2.

Year	Estimated annual intervention cost
2028	~$1.2 million
2029	~$3.8 million
2030	~$7.3 million
2031	~$11.5 million
2033	~$14.7 million
2034	~$16.1 million

Table 2: Estimated annual cost of generator intervention for voltage management

These costs represent the out-of-merit dispatch and start-up costs associated with operating gas-fired generators to absorb reactive power and manage transmission voltages.

The same study utilised representative gas-fired generators with the following characteristics:

- Fuel costs between approximately $169/MWh and $223/MWh.
- Additional operating costs of approximately $10/MWh.

[2] AEMO Melbourne Metropolitan Voltage Management – Project Assessment Conclusions Report 16 December 2024

- Start-up costs incurred when generators were required to be committed specifically for voltage management purposes.

The study demonstrates that maintaining voltage control through generator intervention can impose material operating costs on the power system, particularly as the requirement for voltage support increases.

Development of a Planning Cost Estimate

The Metropolitan Melbourne Voltage Management PACR does not publish a direct $/MVAr-hour value for reactive power absorption services. However, it provides sufficient information to derive an indicative engineering estimate for planning purposes.

The representative generators used in the study were designed to provide at least 100 MVAr of absorbing reactive capability with an estimated dispatch cost of approximately:

- Fuel cost: $169-$223/MWh.
- Variable operating and maintenance cost: $10/MWh.

This corresponds to a total dispatch cost of approximately $179-$233/MWh.

Providing approximately 100 MVAr of reactive absorption from a synchronous generator generally requires the unit to operate at or near its minimum stable generation level. While the PACR does not specify the minimum loading requirement of the representative generators, typical gas-fired generators providing reactive support may operate at approximately 100 MW to 200 MW minimum load. This assumption has been adopted as an engineering estimate and is not explicitly stated in the PACR.

Based on these assumptions, the indicative generator operating costs shown in Table 3 can be derived.

Assumed minimum generation	Dispatch cost	Approximate hourly cost
100 MW	$179-$233/MWh	$18,000-$23,000/h
150 MW	$179-$233/MWh	$27,000-$35,000/h
200 MW	$179-$233/MWh	$36,000-$47,000/h

Table 3: Indicative generator operating cost associated with providing approximately 100 MVAr of reactive support derived from assumptions based on AEMO PACR data.

The values shown above represent indicative generator operating costs and exclude generator start-up costs. The PACR separately identifies additional start-up costs associated with generator commitment for voltage management purposes.

Planning Benchmark Applied in this Assessment

For the purposes of this TRR assessment, AusNet has used AEMO's Metropolitan Melbourne Voltage Management PACR as the primary source of evidence regarding the cost of alternative voltage management measures. The PACR demonstrates that maintaining voltage control through generator intervention can impose substantial power system operating costs associated with fuel consumption, generator commitment, start-up costs and out-of-merit dispatch.

Using the PACR inputs and the engineering assumptions described above, AusNet adopted an indicative planning range of approximately $20,000 to $40,000 per hour for 100 MVAr of generator-based reactive power absorption. This range is not a published market price, ancillary service tariff, or contracted NSCAS rate. Rather, it is an engineering estimate derived from AEMO's intervention-cost methodology and representative generator operating costs.

Expressed on a unit basis, this corresponds to approximately $200-$400 per MVAr-hour of reactive power absorption. This value has been used only as a planning estimate for assessing the avoided cost of alternative voltage management measures.

AusNet applied this planning benchmark to estimate the cost of providing equivalent reactive power absorption following the loss of the two existing 121 MVAr shunt reactors at MLTS. The resulting voltage management cost was calculated using the expected duration of reactor unavailability and the reactive power absorption requirement associated with the two reactors. This cost forms one component of the quantified risk associated with continued operation of the ageing assets.

Safety risk costs

The Electricity Safety Act 1998[3] requires AusNet Services to design, construct, operate, maintain, and decommission its network to minimize hazards and risks to the safety of any person as far as reasonably practicable or until the costs

3 Victorian State Government, Victorian Legislation and Parliamentary Documents, “Electricity Safe Act 1998”

become disproportionate to the benefits from managing those risks. By implementing this principle for assessing safety risks from explosive asset failures, AusNet Services uses:

- a value of statistical life[4] to estimate the benefits of reducing the risk of death;
- a value of lost time injury[5]; and
- a disproportionality factor[6].

AusNet Services notes this approach, including the use of a disproportionality factor, is consistent with the practice notes[7] provided by the AER.

Financial risk costs

As there is a lasting need for the services that MLTS provides, the failure rate-weighted cost of replacing failed assets (or undertaking reactive maintenance) is included in the assessment.[8]

Environmental risk costs

Environmental risks from plant that could impact the environment when it fails and where cleanup cost could be in the order of $30,000 per event.

4. Options assessed

AusNet Services considered the following three network options to address the identified need.

4.1. Option 1: Replace No.1 220 kV Bus Shunt Reactor

Option 1 involves the replacement of the No.1 220 kV bus shunt reactor in 2030. The estimated capital cost of this option is $27.8 million and the change in operating and maintenance cost is negligible.

This option includes minor works associated with control building and AC and DC supply.

4.2. Option 2: Replace 500 kV Line Shunt Reactor

Option 2 involves the replacement of the CRTS No.2 500 kV line shunt reactor in 2030. The estimated capital cost of this option is $25.9 million and the change in operating and maintenance cost is negligible.

4.3. Option 3: Replace both Reactors

Option 3 involves the replacement of both the No.1 220 kV bus shunt reactor and CRTS No. 2 500 kV line shunt reactor in 2030. The estimated capital cost of this option is $49.1 million and the change in operating and maintenance cost is negligible.

4.4. Option 4: Deferred Replacement of both Reactors

Option 4 is the same as Option 3, except that it defers the replacement of the two reactors to 2035 after the TRR 27-32 period. There is an increased probability of asset failure and risk for this option given the later project completion date.

4 Department of the Prime Minister and Cabinet, Australian Government, "Best Practice Regulation Guidance Note: Value of statistical life"
5 Safe Work Australia, "The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community: 2012-13"
6 Health and Safety Executive's submission to the1987 Sizewell B Inquiry suggesting that a factor of up to 3 (i.e. costs three times larger than benefits) would apply for risks to workers; for low risks to members of the public a factor of 2, for high risks a factor of 10. The Sizewell B Inquiry was public inquiry conducted between January 1983 and March 1985 into a proposal to construct a nuclear power station in the UK.
7 Australian Energy Regulator, "Industry practice application note for asset replacement planning"
8 The assets are assumed to have survived and their condition-based age increases throughout the analysis period.

4.5. Material inter-regional network impact

The proposed asset replacements at MLTS will not change the transmission network configuration and none of the network options considered are likely to have a material inter-regional network impact. A 'material inter- regional network impact' is defined in the NER as:

"A material impact on another Transmission Network Service Provider's network, which may include (without limitation): (a) the imposition of power transfer constraints within another Transmission Network Service Provider's network; or (b) an adverse impact on the quality of supply in another Transmission Network Service Provider's network."

5. Assessment approach

Consistent with the AER RIT-T requirements and practice notes on risk-cost assessment methodology, AusNet Services undertook a cost-benefit analysis to evaluate and rank the net economic benefits of the credible options over a 45-year period.

All options considered have been assessed against a business-as-usual case (counter factual) where no proactive capital investment to reduce the increasing baseline risks is made.

Optimal timing of an investment option is the year when the annual benefits from implementing the option become greater than the annualised investment cost.

5.1. Proposed scenarios and input assumptions

The robustness of the investment decision is tested using the range of input assumptions and scenarios described in the table below. This analysis involves variation of assumptions around the most likely values as per the IASR, VicGrid's connection point forecast, generator support cost, and AusNet Service's best estimate of project cost and forecast asset failure rates.

Parameter	Lower Bound	Most likely (central) assumption or scenario	Upper Bound
Demand Growth	85% of central assumption	2026 Connection Point Forecast	115% of central assumption
Generator Support	75% of central assumption	$30,000/h	125% of central assumption
Asset failure rate	75% of central assumption	Assessed failure rate	125% of central assumption
Discount rate[9]	WACC rate of a network business (3.0%)	Latest commercial discount rate from IASR (7%)	Upper Bound (10%)
Project Capital Cost	85% of estimated cost	Estimated cost	115% of estimated cost

Table 4 - Summary of input assumptions for range of scenarios

5.2. Material classes of market benefits

NER clause 5.16.1(c)(4) formally sets out the classes of market benefits that must be considered in a RIT-T. AusNet Services estimates that the classes of market benefits that are likely to be material include changes in involuntary load shedding, and changes in ancillary services cost including fuel consumption arising through different patterns of generation dispatch.

9 Discount rates as recommended in the AEMO Inputs, Assumptions and Scenarios Report (IASR)

5.3. Other classes of benefits

Although not formally classified as classes of market benefits under the NER, AusNet Services expects material reduction in safety risks from potential explosive failure of deteriorated assets, environmental risks, collateral damage risks to adjacent plant, and the risk of increased costs resulting from the need for emergency asset replacements and reactive repairs by implementing any of the options.

5.4. Classes of market benefits that are not material

AusNet Services estimates that the following classes of market benefits are unlikely to be material for any of the options considered:

- Changes in costs for parties, other than the RIT-T proponent – there is no other known investment, either generation or transmission, that will be affected by any option considered.
- Competition benefits – there is no competing generation affected by the limitations and risks being addressed by the options considered.
- Option value – as the need for and timing of the investment options are driven by asset deterioration; there is no need to incorporate flexibility in response to uncertainty around any other factor.

6. Options assessment

This section presents the results of the economic cost benefit analysis that has been conducted to determine the preferred option and its economic timing. All the options considered will deliver a reduction in voltage management cost, safety risk, environmental risk, collateral risk and risk cost of emergency replacement in the event of asset failure.

AusNet selected the preferred option based on the planning criteria defined in AMS 10-24, the AER RIT-T guideline and the AER Industry Practice Application Note – Asset Replacement Planning.

6.1. Preferred Option

Option 3 (Replace No.1 220 kV Bus shunt reactor and CRTS No.2 500 kV line shunt reactor) is the preferred option, as Option 3 has the highest net benefits for all sensitivity studies considered. Presented in Figure 3, Option 3 has the highest net benefits for all sensitivities where input variables are varied one at a time. The assessment has been undertaken over a 45-year period which is the expected service life of the shunt reactors.

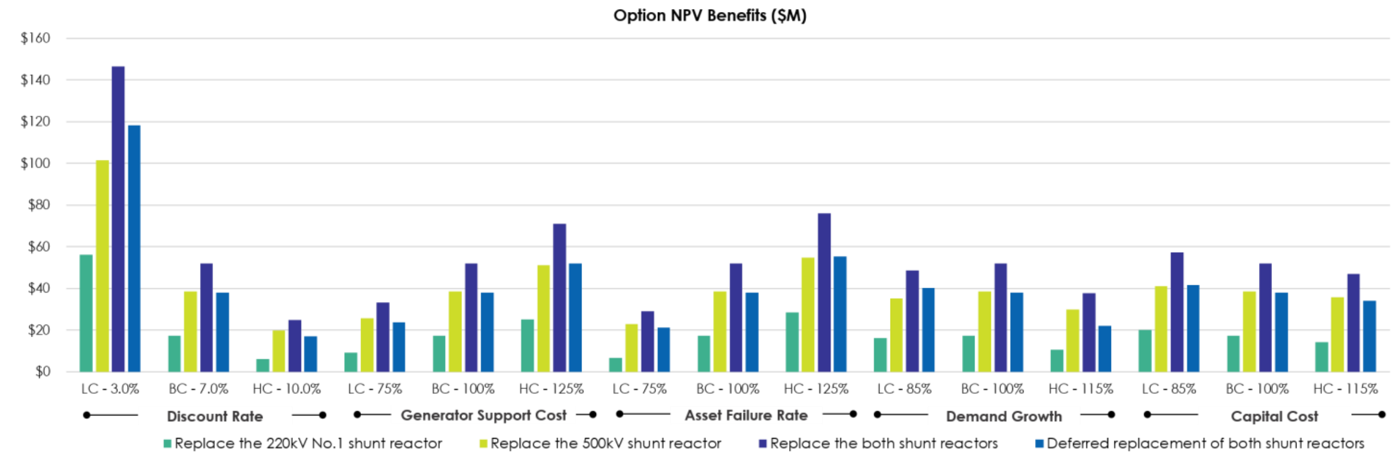

Figure 3: Option selection NPV Benefits ($M)

6.2. Preferred Option Sensitivity Study

The option analysis has also been undertaken for a 20-year analysis period to ensure that the investment decision is not biased and dependent on long-dated benefits rather than being primarily driven by benefits that arise within the near- to medium-term planning horizon.

The NPV benefits for all options are lower when considering a 20-year analysis period but remains positive for all investment options for all sensitivities considered. This provides strong evidence that the project will deliver NPV benefits for a shorter analysis period and that the economic outcome is not dependent on the inclusion of long-dated benefits as it is primarily driven by benefits that arise within the near- to medium-term planning horizon. Importantly, the project continues to deliver **positive net economic benefits** and remains economically justified in 2029, within the 2027-32 regulatory control period when the analysis period is set at 20 rather than 45 years.

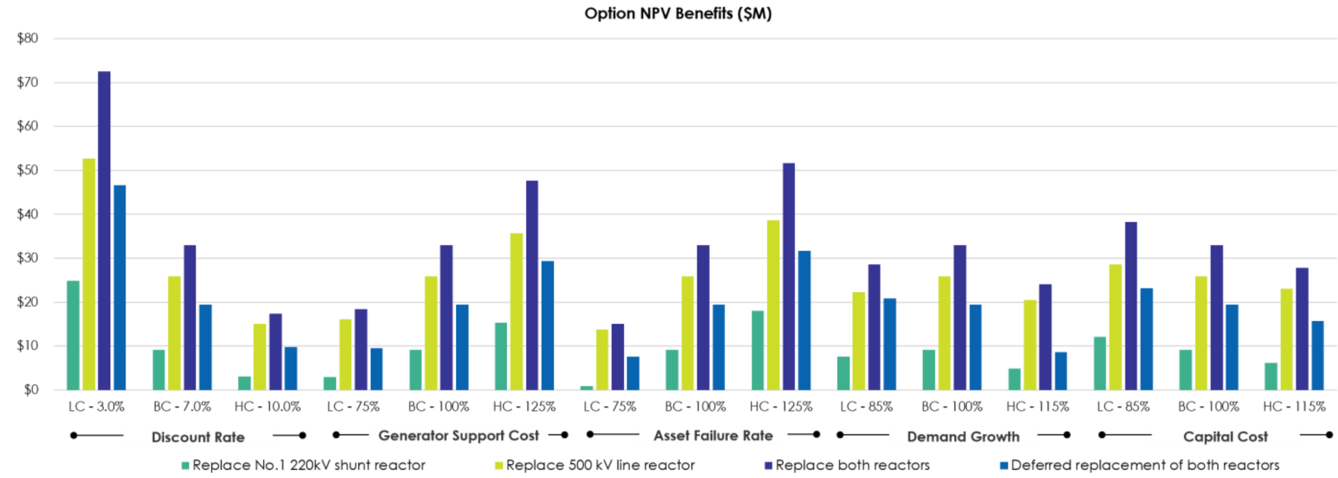

Figure 4: Option selection NPV Benefits ($M) – Analysis period of 20 years

6.3. Optimal timing of the preferred option

This section describes the optimal investment timing of the preferred option for different assumptions of key variables. Figure 5 shows that the optimal timing of the preferred option (Option 3) is 2029 and that investment is needed within the 2027 to 2032 regulatory period.

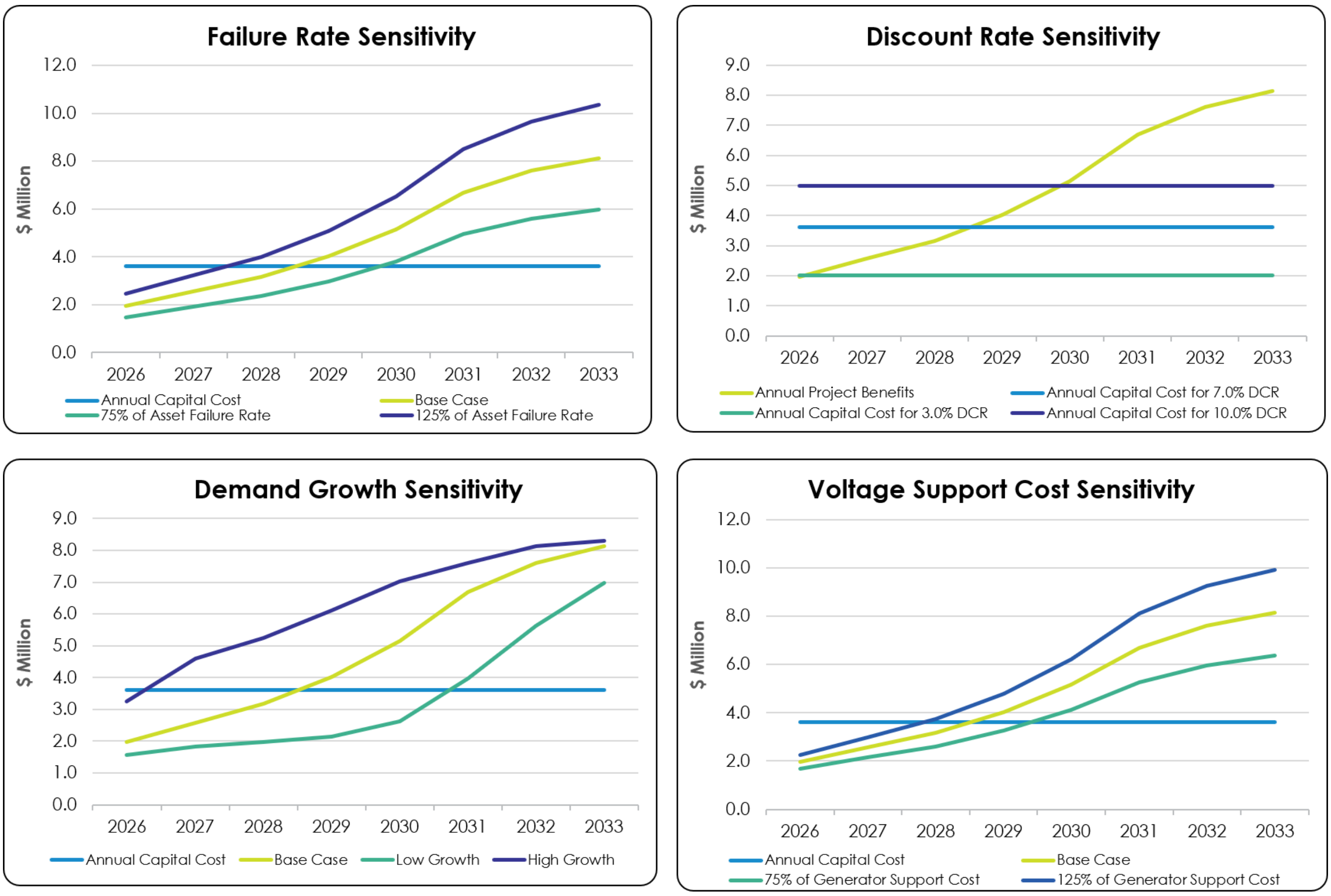

Figure 5 - Optimal investment timing sensitivity study

Figure 6 shows that the investment economic timing does not change much for a 15% increase in investment cost.

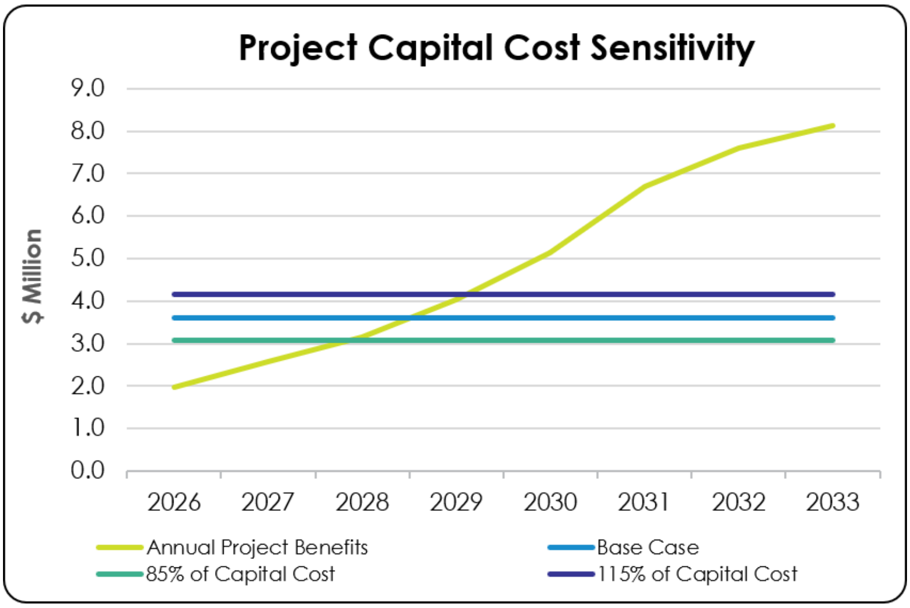

Figure 6 - Optimal investment timing sensitivity study – Capital cost

7. Conclusion

Amongst the options considered, Option 3 is the most cost-effective option to maintain reliable transmission network services at MLTS and manage safety, environmental, collateral and emergency replacement risks. The preferred option involves the replacement of the No.1 220 kV bus shunt reactor and CRTS No.2 500 kV line shunt reactor at MLTS.

The estimated capital cost of this option is $49.1 million with no material change in operating and maintenance cost. The project is economically justified by 2029 and has a delivery lead time of four years. AusNet plans to start the project in 2027, with the majority of project cost falling within the 2027 to 2032 regulatory control period.

8. Appendix 1: Cost Estimate

Option 1: No.1 220 kV Bus Shunt Reactor

	PROJECT EXPENDITURE FORECASTS	TOTAL	2026	2027	2028	2029
1	DESIGN & STUDIES/ASSESSMENTS	$ 1,519,408.78	$ -	$ 1,216,628.04	$ 302,780.74	$ -
2	INTERNAL LABOUR	$ 2,993,671.26	$ 540,787.23	$ 869,547.75	$ 878,650.86	$ 704,685.41
3	MATERIALS (AusNet Free Issue Materials)	$ 6,695,095.44	$ -	$ -	$ 6,598,518.39	$ 96,577.05
4	PLANT & EQUIPMENT	$ 79,986.25	$ -	$ -	$ 34,092.50	$ 45,893.75
5	CONTRACTS (incl insurance)	$ 11,167,245.34	$ -	$ -	$ 4,759,809.49	$ 6,407,435.85
6	OTHER - RISK P(50)	$ 2,786,007.72	$ 56,270.46	$ 236,808.33	$ 1,534,339.43	$ 958,589.50
7	PROJECT DIRECT EXPENDITURE P(50)	$ 25,241,414.78	$ 597,057.69	$ 2,322,984.13	$ 14,108,191.40	$ 8,213,181.56
8	OVERHEADS	$ 1,173,295.02	$ 28,256.13	$ 109,002.69	$ 656,983.77	$ 379,052.44
9	FINANCE CHARGES (IDC)	$ 1,391,330.71	$ 9,824.56	$ 74,693.14	$ 459,528.48	$ 847,284.53
10	PROJECT DIRECT EXPENDITURE (SAP)	$ 27,806,040.51	$ 635,138.38	$ 2,506,679.96	$ 15,224,703.65	$ 9,439,518.53
11	MANAGEMENT RESERVE [P(90)-P(50)]	$ 1,852,571.08				
12	ESCALATION	$ -				
12	TOTAL EXPENDITURE FOR APPROVAL	$ 29,658,611.59	$ 635,138.38	$ 2,506,679.96	$ 15,224,703.65	$ 9,439,518.53

Option 2: CRTS No.2 500 kV Line Shunt Reactor

	PROJECT EXPENDITURE FORECASTS	TOTAL	2026	2027	2028	2029
1	DESIGN & STUDIES/ASSESSMENTS	$ 1,824,093.84	$ -	$ 1,599,701.34	$ 224,392.50	$ -
2	INTERNAL LABOUR	$ 2,691,573.53	$ -	$ 802,418.97	$ 1,031,027.51	$ 858,127.05
3	MATERIALS (AusNet Free Issue Materials)	$ 6,958,621.38	$ -	$ -	$ 6,560,510.46	$ 398,110.92
4	PLANT & EQUIPMENT	$ 133,950.23	$ -	$ -	$ 67,445.66	$ 66,504.56
5	CONTRACTS (incl insurance)	$ 9,285,675.58	$ -	$ -	$ 4,675,457.26	$ 4,610,218.32
6	OTHER - RISK P(50)	$ 2,585,660.96	$ -	$ 273,548.13	$ 1,533,445.49	$ 778,667.34
7	PROJECT DIRECT EXPENDITURE P(50)	$ 23,479,575.52	$ -	$ 2,675,668.44	$ 14,092,278.88	$ 6,711,628.20
8	OVERHEADS	$ 1,091,707.04	$ -	$ 125,510.79	$ 656,199.04	$ 309,997.20
9	FINANCE CHARGES (IDC)	$ 1,318,400.32	$ -	$ 46,843.99	$ 444,363.85	$ 827,192.48
10	PROJECT DIRECT EXPENDITURE (SAP)	$ 25,889,682.87	$ -	$ 2,848,023.22	$ 15,192,841.77	$ 7,848,817.88
11	MANAGEMENT RESERVE [P(90)-P(50)]	$ 1,723,747.95				
12	ESCALATION	$ -				
12	TOTAL EXPENDITURE FOR APPROVAL	$ 27,613,430.83	$ -	$ 2,848,023.22	$ 15,192,841.77	$ 7,848,817.88

Option 3 and 4: No.1 220 kV Bus Shunt Reactor and CRTS No.2 500 kV Line Shunt Reactor

	PROJECT EXPENDITURE FORECASTS	TOTAL	2026	2027	2028	2029	2030
1	DESIGN & STUDIES/ASSESSMENTS	$ 3,284,093.84	$ -	$ 2,379,622.09	$ 904,471.75	$ -	$ -
2	INTERNAL LABOUR	$ 3,411,879.65	$ -	$ 823,882.52	$ 1,059,773.94	$ 1,066,542.00	$ 461,681.19
3	MATERIALS (AusNet Free Issue Materials)	$ 13,653,716.82	$ -	$ -	$ 12,959,596.73	$ 484,424.15	$ 209,695.93
4	PLANT & EQUIPMENT	$ 213,936.48	$ -	$ -	$ 60,873.85	$ 106,821.91	$ 46,240.72
5	CONTRACTS (incl insurance)	$ 18,336,315.36	$ -	$ -	$ 5,217,446.78	$ 9,155,615.74	$ 3,963,252.84
6	OTHER - RISK P(50)	$ 4,872,035.90	$ -	$ 361,563.34	$ 2,432,102.73	$ 1,425,313.58	$ 653,056.25
7	PROJECT DIRECT EXPENDITURE P(50)	$ 43,771,978.05	$ -	$ 3,565,067.95	$ 22,634,265.78	$ 12,238,717.38	$ 5,333,926.94
8	OVERHEADS	$ 2,030,511.57	$ -	$ 167,217.55	$ 1,054,518.94	$ 564,441.50	$ 244,333.58
9	FINANCE CHARGES (IDC)	$ 3,284,151.02	$ -	$ 61,282.55	$ 722,076.43	$ 1,528,066.83	$ 972,725.22
10	PROJECT DIRECT EXPENDITURE (SAP)	$ 49,086,640.64	$ -	$ 3,793,568.06	$ 24,410,861.15	$ 14,331,225.70	$ 6,550,985.73
11	MANAGEMENT RESERVE [P(90)-P(50)]	$ 3,174,327.62					
12	ESCALATION	$ -					
12	TOTAL EXPENDITURE FOR APPROVAL	$ 52,260,968.26	$ -	$ 3,793,568.06	$ 24,410,861.15	$ 14,331,225.70	$ 6,550,985.73

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