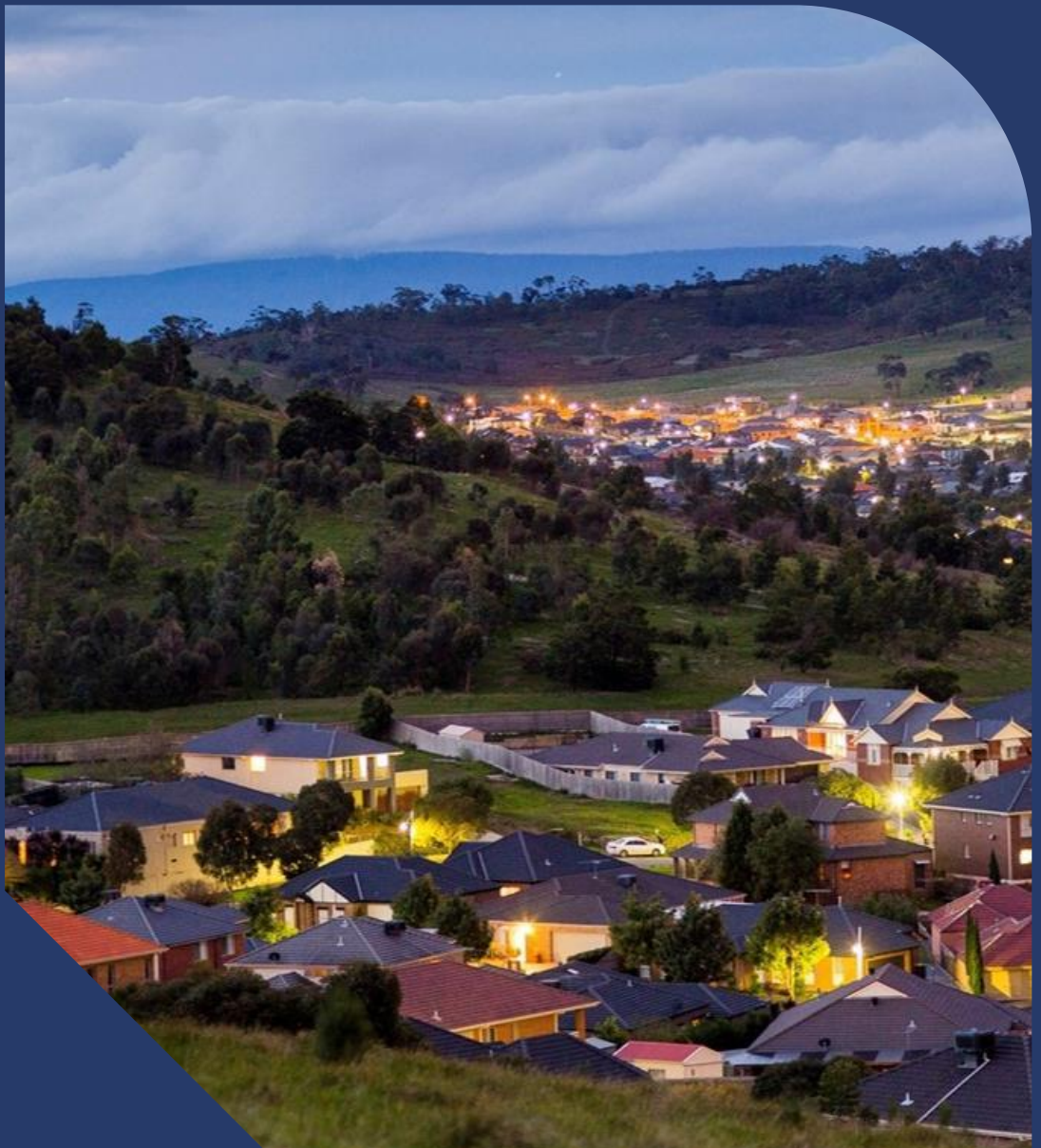

Maintaining Reliable Transmission Network Services at South Morang Terminal Station

Regulatory Investment Test for Transmission (RIT-T)
Project Assessment Draft Report

September 2025



1. Executive summary

South Morang Terminal Station (SMTS) is owned and operated by AusNet and is located 23km north of Melbourne's CBD. It forms part of the main Victorian 500 kV, 330 kV and 220 kV transmission network with ties to Tasmania and major generation in the Latrobe Valley, the Victoria-South Australia interconnector, the interconnector between Victoria and New South Wales and the Melbourne metropolitan 220 kV network.

This Regulatory Investment Test for Transmission (RIT-T) investigates options that could allow continued delivery of safe and reliable transmission services. Publication of this Project Assessment Draft Report (PADR) represents the second step in the RIT-T process in accordance with clause 5.16 of the National Electricity Rules (NER) and section 4.2 of the RIT-T Application Guidelines.

The RIT-T analysis shows that it is no longer economical to continue to provide transmission network services with the existing assets at SMTS as the asset failure risk has increased to a level where investment to replace the selected assets presents a more economical option.

Two credible network options to replace the 500 kV gas-insulated switchgear (GIS) and F2 500/330 kV transformer that are likely to deliver economical solutions to the identified need are considered in this RIT-T:

- Option 1 – Replacement of the 500kV GIS with air-insulated switchgear (AIS) and like for like replacement of the F2 500/330 kV transformer.
- Option 2 – Deferred replacement of the 500kV GIS with AIS and like for like replacement of the F2 500/330kV transformer.

No non-network proposals were received during the RIT-T PSCR consultation.

The preferred option to address the asset failure risk at SMTS is the replacement of the 500 kV GIS with modern outdoor 500 kV AIS, and the replacement of the F2 transformer with a 1000 MVA 500/330 kV transformer by 2032.

AusNet Services welcomes written submissions on the credible options presented in this PADR. Submissions should be emailed to rirtconsultations@ausnetservices.com.au on or before 24 October 2025. In the subject field, please reference 'RIT-T - Maintaining Reliable Transmission Network Services at SMTS'. Submissions will be published on AusNet Services' and AEMO's websites. If you do not wish for your submission to be made public, please clearly stipulate this at the time of lodgement.

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2. Introduction

This Regulatory Investment Test for Transmission (RIT-T) evaluates options to maintain reliable transmission network services at South Morang Terminal Station (SMTS). The 500 kV gas-insulated switchgear (GIS) and the F2 500/330 kV transformer at SMTS are reaching the end of their serviceable life which is driving the need for this investment.

Publication of this Project Assessment Draft Report (PADR) represents the second step in the RIT-T process in accordance with clause 5.16 of the National Electricity Rules (NER) and section 4.3 of the RIT-T Application Guidelines. The Project Specification Consultation Report (PSCR), which represents the first step in the RIT-T process, was published in June 2024. The PADR describes the following:

- credible network options that may address the identified need;
- a summary of the submissions to the PSCR;
- the assessment approach and assumptions that AusNet Services employed for this RIT-T assessment as well as the specific categories of market benefits that are unlikely to be material; and
- the identification of the preferred option

The need for investment to address asset failure risks from the deteriorating assets at SMTS has been included in AusNet Services' revenue proposal for the 2022 to 2027 regulatory control period. This specific investment need is also identified in AusNet Services Asset Renewal Plan, published as part of AEMO's 2024 Victorian Transmission Annual Planning Report (VAPR)¹.

¹ Australian Energy Market Operator (AEMO), ["Victorian Annual Planning Report"](#)

3. Background

3.1. Victorian Transmission Network

SMTS is owned and operated by AusNet Services and is located 21 km north of Melbourne. It is part of the main 500 kV transmission network with ties to Tasmania and major generation in the Latrobe Valley, the Victoria-South Australia interconnector and the interconnector between Victoria and New South Wales.



Figure 1 – SMTS and the Victorian transmission network

SMTS includes four voltage levels and the following transmission connections and transformers:

- Two 500 kV lines to Hazelwood, one 500 kV line to Rowville, one 500 kV line to Kellor and two 500 kV lines to Sydenham terminal stations
- Two 1,000 MVA 500/330 kV transformers with one spare phase
- Two 330 kV lines to Dederang Terminal Station (DDTS)
- Three 700 MVA 330/220 kV transformers
- Two 220 kV lines to Thomastown Terminal Station (TTS)
- Two 225 MVA 220/66 kV transformers

Figure 2 shows the SMTS 500 kV primary assets as the other voltages are not included in the scope of this RIT-T.

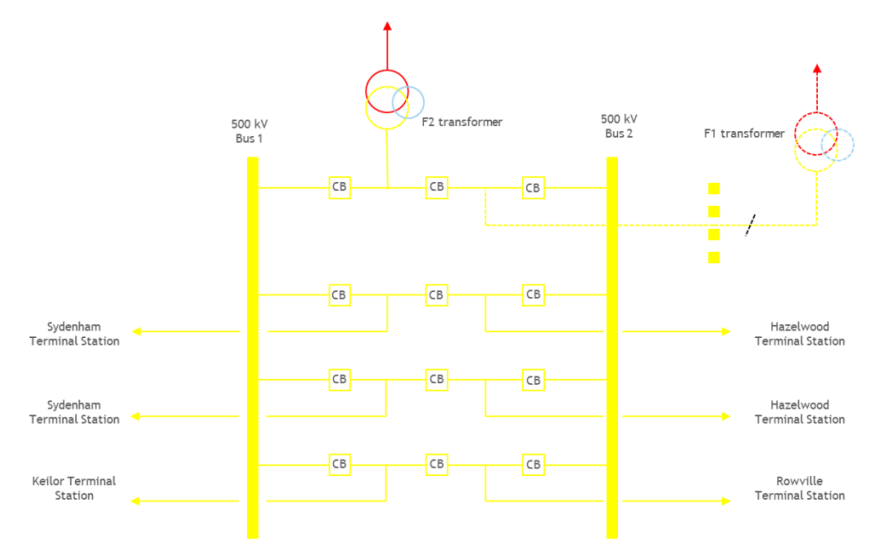


Figure 2 - SMTS 500 kV switching

3.2. Asset Condition

AusNet conducted a condition assessment of the 500 kV GIS and F2 transformer at SMTS, where the components were evaluated across a range of criteria, including physical condition, spares availability, estimated rate of deterioration, and manufacturer support. The assessment revealed these to be in very poor condition, and the GIS no longer supported by the manufacturer.

The GIS present challenges due to duty-related deterioration. Common problems include flange corrosion, SF6 leakage, isolator failure and hydraulic mechanism seal deterioration. As the original equipment manufacturer (OEM) no longer supports this GIS, AusNet no longer has access to OEM technical support or spare parts.

The F2 transformer is nearing the end of its operational life and is showing clear signs of age-related degradation. The tap changers are experiencing advanced wear and require frequent maintenance. Additionally, significant oil leaks have been observed, indicating further deterioration of the unit.

The probability of failure for these assets are high, and likely to increase further if no remedial action is taken. No alternative maintenance strategies have been identified that would reduce the failure rates or address the lack of manufacturer support.

4. Identified need

4.1. Description

SMTS is part of the main transmission network which provides major transmission network services in Victoria. AusNet expects that the services that the terminal station provides will continue to be required given the transmission network developments that are foreshadowed in AEMO's Integrated System Plan², the Victorian Annual Planning Report (VAPR)³, VicGrid's Victorian Transmission Plan⁴ and the Distribution Business' Transmission Connection Planning Report (TCPR)⁵.

The poor condition of the 500 kV GIS and F2 transformer has increased the likelihood of asset failures. Without remedial action, other than ongoing maintenance practice (business-as-usual), these assets are expected to deteriorate further and more rapidly. This will increase the probability of asset failure resulting in a higher likelihood of an impact on users of the transmission network, heightened safety risks, increased environmental impacts (including greenhouse gas emissions), increased collateral damage risks to adjacent plant, and the risk of increased costs resulting from the need for emergency asset replacements and reactive repairs.

The 'identified need' this RIT-T intends to address is to maintain reliable transmission network services at SMTS and to mitigate risks from asset failures.

AusNet Services calculated the present value of the baseline risk costs to be close to \$1.12 billion over the forty-five-year period from 2025. The key elements of these risk costs are shown in Figure 3. The largest component of the baseline risk costs is the supply interruption risk, which is borne by electricity consumers.

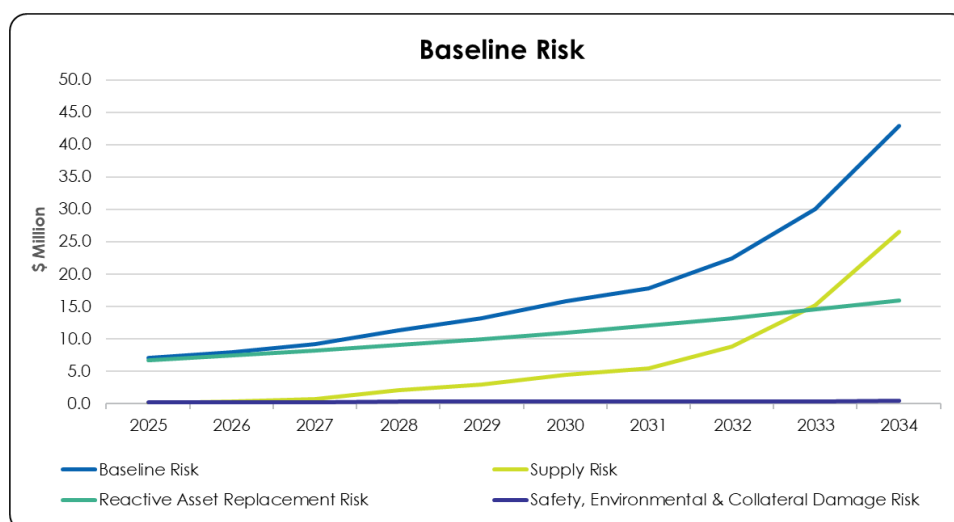


Figure 3 - Baseline risk

4.2. Assumptions

The identified need is underpinned by several assumptions, including the risk of asset failure (determined by the condition of the assets), the likelihood of the relevant consequences, and several assumptions adopted from the latest Inputs Assumptions and Scenarios Report (IASR)⁶. These assumptions are outlined below.

4.2.1. Failure rate and repair time

GIS is a mature technology and comparative failure rate trends of GIS over the years has been studied thoroughly and published within GIGRE. Both quantitative and qualitative analysis is used to assess the condition of the asset so that an estimate of how long an asset can remain in service can be made. Table 1 and Table 2 below show the failure rates applied in this analysis.

² Australian Energy Market Operator (AEMO), [Integrated System Plan \(ISP\)](#)

³ Australian Energy Market Operator (AEMO), ["Victorian Annual Planning Report"](#)

⁴ VicGrid, ["2025 Victorian Transmission Plan"](#)

⁵ Victorian Electricity Distribution Businesses, ["2024 Transmission Connection Planning Report"](#)

⁶ Australian Energy Market Operator (AEMO), ["2025-26 Inputs, Assumptions and Scenarios"](#)

Table 1 - Probability of failure of 500 kV GIS

Circuit	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
SYTS NO.1 500KV LINE NO.1 BUS CB	8.5%	9.0%	9.4%	9.9%	10.3%	10.8%	11.3%	11.8%	12.3%	12.8%
HWTS NO.1 500KV LINE NO.2 BUS CB	8.5%	9.0%	9.4%	9.9%	10.3%	10.8%	11.3%	11.8%	12.3%	12.8%
HWTS NO.1 LINE/SYTS NO.1 LINE 500KV CB	8.5%	9.0%	9.4%	9.9%	10.3%	10.8%	11.3%	11.8%	12.3%	12.8%
SYTS NO.2 500KV LINE NO.1 BUS CB	6.9%	7.2%	7.6%	8.1%	8.5%	8.9%	9.4%	9.8%	10.3%	10.8%
HWTS NO.2 500KV LINE NO.2 BUS CB	5.6%	5.9%	6.3%	6.7%	7.1%	7.4%	7.8%	8.3%	8.7%	9.1%
HWTS NO.2 LINE/SYTS NO.2 LINE 500KV CB	6.2%	6.6%	7.0%	7.4%	7.8%	8.2%	8.6%	9.0%	9.5%	9.9%
KTS 500KV LINE NO.1 BUS CB	5.3%	5.6%	6.0%	6.3%	6.7%	7.1%	7.5%	7.9%	8.3%	8.7%
ROTS NO.3 500KV LINE NO.2 BUS CB	7.9%	8.3%	8.7%	9.2%	9.6%	10.1%	10.6%	11.0%	11.5%	12.1%
ROTS NO.3 LINE/KTS LINE 500KV CB	7.6%	8.0%	8.4%	8.9%	9.3%	9.8%	10.2%	10.7%	11.2%	11.7%
F1 TRANS/F2 TRANS 500KV CB	7.9%	8.3%	8.7%	9.2%	9.6%	10.1%	10.6%	11.0%	11.5%	12.1%
F2 TRANS NO.1 BUS 500KV CB	6.8%	7.2%	7.6%	8.0%	8.4%	8.9%	9.3%	9.8%	10.2%	10.7%
F1 TRANS NO.2 BUS 500KV CB	8.5%	9.0%	9.4%	9.9%	10.3%	10.8%	11.3%	11.8%	12.3%	12.8%
SPARE BBC 500KV GIS CB POLE	6.2%	6.5%	6.9%	7.3%	7.7%	8.1%	8.5%	9.0%	9.4%	9.9%

Table 2 - Probability of failure of F2 and spare 500/330 kV transformers

Transformers	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
F2 TRANSFORMER BANK	4.8%	4.9%	5.0%	5.2%	5.3%	5.5%	5.6%	5.7%	5.9%	6.0%

The mean time to repair a single circuit breaker GIS module is assumed to be one month, considering the age of the technology and the availability of spares. The mean time to repair for two or more circuit breaker GIS modules simultaneously is assumed to be one year⁷ due to the necessity of procuring additional equipment, given the limited availability of spares.

The mean time to repair a single transformer unit is assumed to be six weeks, utilising the available spare transformer unit at SMTS. The mean time to repair two or more transformer units simultaneously is assumed to be two years⁷, considering the lead-time needed to procure additional transformer units.

4.2.2. Market impact costs

Market modelling and network studies are used to assess the market impact of GIS and transformer failures at SMTS. These studies use the latest assumptions from AEMO's Inputs Assumptions and Scenarios Report (IASR)⁸ which includes demand forecasts, generation cost forecasts, generation retirement schedules, and forecast transmission developments.

Involuntary load shedding is valued at the latest Value of Customer Reliability (VCR)⁹.

4.2.3. Safety risk costs

The Electricity Safety Act 1998¹⁰ requires AusNet to design, construct, operate, maintain, and decommission the network to minimise hazards and risks to the safety of any person as far as reasonably practicable or until the costs become disproportionate to the benefits from managing those risks.

By implementing this principle for assessing safety risks from explosive failure of the affected switchgear, AusNet uses:

- a value of statistical life¹¹ to estimate the benefits of reducing the risk of death;
- a value of lost time injury¹²; and
- a disproportionality factor¹³.

⁷ Although the mean time to repair multiple simultaneous GIS module or transformer failures can be substantial, the likelihood of such an event occurring is low

⁸ Australian Energy Market Operator (AEMO), "2025-26 Inputs, Assumptions and Scenarios"

⁹ In dollar terms, the Value of Customer Reliability (VCR) represents a customer's willingness to pay for the reliable supply of electricity.

¹⁰ Victorian State Government, Victorian Legislation and Parliamentary Documents, "Energy Safe Act 1998"

¹¹ Department of the Prime Minister and Cabinet, Australian Government, "Best Practice Regulation Guidance Note: Value of statistical life"

¹² Safe Work Australia, "The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community: 2012-13"

¹³ Health and Safety Executive's submission to the 1987 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 a public inquiry conducted between January 1983 and March 1985 into a proposal to construct a nuclear power station in the UK.

AusNet notes that this approach, including the use of a disproportionality factor, is consistent with the RIT-T Industry Practice Notes¹⁴ provided by the AER.

4.2.4. Financial risk costs

There is an ongoing need for the services provided by SMTS, and asset replacement or repairs would be required to continue the service should the switchgear or a transformer fail. An emergency asset replacement of the 500 kV GIS would require immediate diagnosis and an emergency replacement with AIS for major failures where no spares are available, as the GIS is no longer supported by the supplier. The failure rate weighted emergency asset replacement cost (or undertaking reactive maintenance) is included in the assessment.¹⁵

4.2.5. Environmental risk costs

Environmental risks from plant that contains large volumes of oil, which may be released in an event of asset failure, is valued at \$100,000 per event.

Changes in Australia's greenhouse gas emissions have been assessed based on variations in the leakage of Sulphur Hexafluoride (SF₆), an insulation gas used in 500 kV Gas-Insulated Switchgear (GIS). A Global Warming Potential (GWP) factor of 24,300¹⁶—relative to carbon dioxide (CO₂)—has been applied to quantify the equivalent CO₂ emissions (CO₂-e). These emissions have been monetised using the Value of Emissions Reduction (VER), in accordance with guidance published by the AER¹⁷.

4.2.6. Approach to estimating option costs

The costs for each option have been calculated by AusNet's cost estimation team based on recent similar project costs and scope. Costs are expected to be within +/-25 per cent of the actual cost.

The costs presented are comprehensive including escalations, overheads and financing charges. All cost estimates are escalated to real 2025 dollars based on the information available at the time of preparing this report.

No contingency allowance has been included in the cost estimates.

We note that social license costs have not been included as they are not expected to be material for this RIT-T.

Operating and maintenance costs are negligible as far as this RIT-T is concerned.

Where capital components have asset lives greater than ten years, we have adopted a residual value approach to incorporating capital costs in the assessment, which ensures that the capital costs of long-lived options are appropriately captured in the assessment period.

¹⁴ Australian Energy Regulator, ["Industry practice application note for asset replacement planning"](#)

¹⁵ The assets are assumed to have survived and their condition-based age increases throughout the analysis period.

¹⁶ Greenhouse Gas Protocol, ["IPCC Global Warming Potential Values"](#)

¹⁷ Australian Energy Regulator, ["Valuing Emissions Reductions Final Guidance – May 2024"](#)

5. Credible Options

This section describes the credible options that have been considered to address the identified need, including:

- the technical characteristics of each option;
- the estimated construction time and commissioning date; and
- the total indicative capital and operating and maintenance costs.

The purpose of the RIT-T is to identify the credible option that maximises the net market benefit. An important aspect of this task is to consider non-network and network options on an equal footing, so that the optimal solution can be identified.

5.1. Option 1: Replacement of the 500kV GIS with AIS and like-for-like replacement of the F2 500/330 kV transformer

Option 1 includes the replacement of the 500 kV outdoor GIS with a modern AIS solution, and the replacement of the F2 transformer with a like-for-like 1000 MVA 500/330 kV transformer by 2032. The estimated capital cost of this option is \$300 million and the change in operating and maintenance cost is negligible. The estimated project delivery time is 7 years.

5.2. Option 2: Deferred replacement of the 500kV GIS with AIS and like for like replacement of the F2 500/330kV transformer

Option 2 includes the replacement of the 500 kV outdoor GIS with a modern AIS solution, and the replacement of the F2 transformer with a like-for-like 1000 MVA 500/330 kV transformer by 2036. The estimated capital cost of this option is \$300 million and the change in operating and maintenance cost is negligible. The estimated project delivery time is 7 years.

Both options involve replacing the GIS with outdoor AIS, replacement with a new GIS system was considered but not progressed as it would not add benefit and due to complexities involved during installing, potential issues with on-going manufacturer support and environmental damage considerations.

5.3. Material inter-regional network impact

The proposed asset replacements at SMTS 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."

6. Assessment approach

Consistent with the RIT-T requirements and practice notes on risk-cost assessment methodology¹⁸, AusNet Services undertook a cost-benefit analysis to evaluate and rank the net economic benefits of all credible options over a 45-year period.

All options considered have been assessed against a business-as-usual case 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 benefit from implementing the option exceeds the annualised investment costs.

6.1. Sensitivity analysis and input assumptions

The robustness of the investment decision and the optimal timing of the preferred option have been tested by a sensitivity analysis. This analysis involves variation of assumptions from those employed for the central (most likely) scenario as shown in Table 3.

Table 3 - Input assumptions used for the sensitivity studies

Parameter	Lower Bound	Most likely (central) assumption or scenario	Upper Bound
VCR	75% of central assumption	Latest AER published VCR	125% of central assumption
Asset failure rate	75% of central assumption	Assessed failure rate	125% of central assumption
Demand growth	90% of central assumption	AEMO Connection Point Forecast	110% of central assumption
Discount rate ¹⁹	Lower bound from IASR (3.0%)	Latest commercial discount rate from IASR (7%)	Upper bound from IASR (10%)
Project capital cost	75% of estimated cost	Estimated cost	125% of estimated cost

6.2. Material classes of market benefits

Clause 5.16.4(k) of the NER requires the RIT-T proponent to consider whether each credible option provides the classes of market benefits described in clause 5.15A.2(b)(4). To address this requirement, the table below discusses our approach to each of the market benefits listed in that clause for each credible option.

Table 4 - Analysis of Market Benefits

Class of Market Benefit	Analysis
(i) changes in fuel consumption arising through different patterns of generation dispatch;	Market modelling has been conducted to assess changes in fuel consumption arising through different patterns of generation dispatch. The options assessed do not influence the costs of dispatch materially.
(ii) changes in voluntary load curtailment;	Any changes in voluntary load curtailment have been valued in accordance with any applicable network support agreements.
(iii) changes in involuntary load shedding with the market benefit to be considered using a reasonable forecast of the value of electricity to consumers;	All options considered reduce involuntary load shedding by removing asset failure risk. Our approach to estimating this market benefit is explained in Section 4.2.

¹⁸ Australian Energy Regulator, "[Industry practice application note for asset replacement planning](#)"

¹⁹ Discount rates as recommended in the [AEMO Inputs, Assumptions and Scenarios Report \(IASR\)](#)

(iv) changes in costs for parties, other than the RIT-T proponent, due to differences in: (A) the timing of new plant; (B) capital costs; and (C) the operating and maintenance costs;	There is not expected to be any difference between the credible options.
(v) differences in the timing of expenditure;	There is not expected to be any difference in timing of expenditure
(vi) changes in network losses;	The credible options are not expected to result in material changes to electrical energy losses.
(vii) changes in ancillary services costs	The credible options will not have any impact on ancillary service costs.
(viii) changes in Australia's greenhouse gas emissions	All options considered reduce Australia's greenhouse gas emissions. Our approach to estimating this market benefit is explained in Section 4.2.
(ix) competition benefits	The credible options will not provide any competition benefits.
(x) any additional option value (where this value has not already been included in the other classes of market benefits) gained or foregone from implementing the credible option with respect to the likely future investment needs of the National Electricity Market;	There will be no impact on the option value in respect of the likely future investment needs of the NEM.
(xi) any other class of market benefit determined to be relevant by the AER.	There are no other classes of market benefit that are relevant to the credible options.

6.3. Other classes of benefits

Although not formally classified as classes of market benefits under the NER, AusNet Services expects reduction in safety risks from potential explosive failure of deteriorated assets, environmental risks from possible oil spillage, 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 one of the options considered in this RIT-T.

7. Economic assessment of options

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 market impact risk (including supply risk), safety risk, environmental risk, collateral risk, risk cost of emergency replacement in the event of asset failure and Australia's greenhouse gas emissions.

Presented in Figure 4, the total risk cost reduction or project benefits outweighs the investment cost for all options for all the sensitivities where input variables are varied one at a time. The uptake of new data centers has not been considered in the demand forecast and the low demand growth sensitivity is hence considered unlikely to occur.

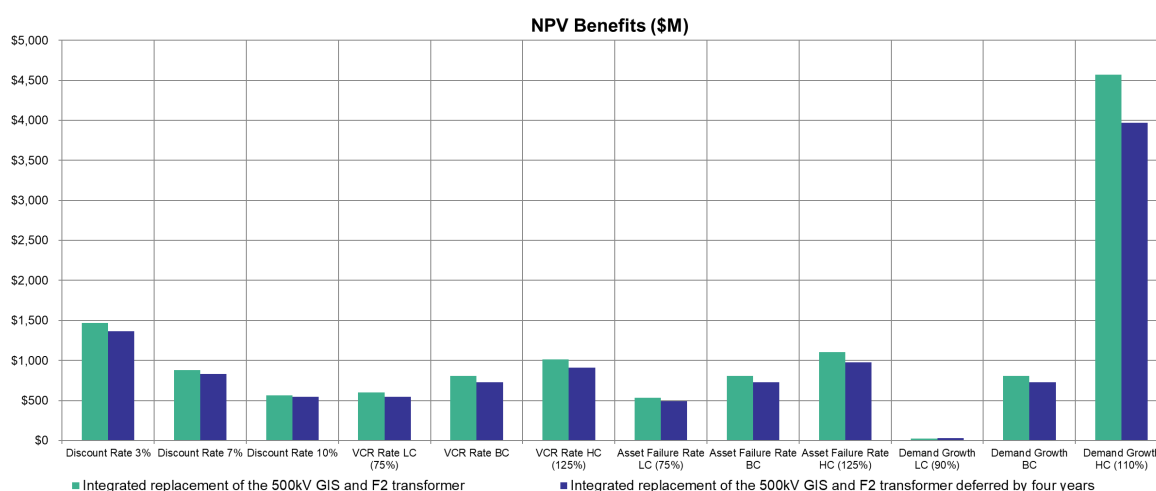


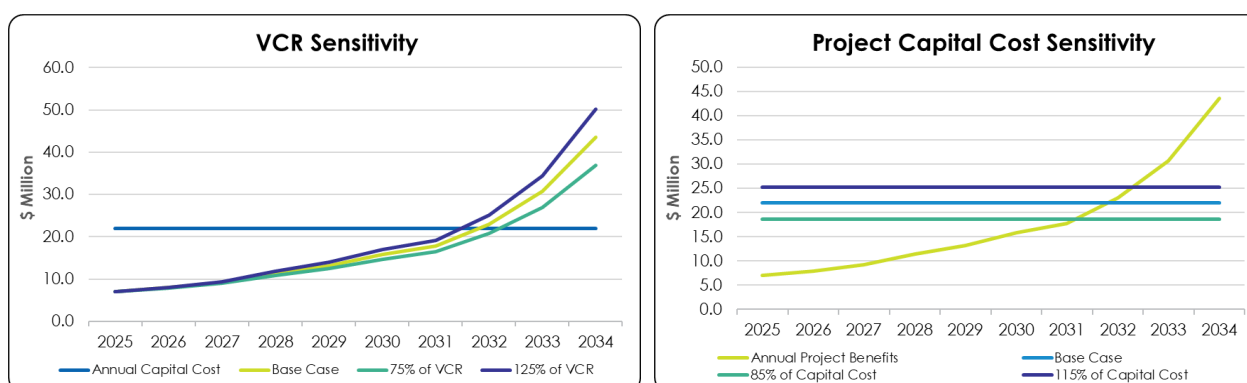
Figure 4 – Option selection and sensitivity study

7.1. Preferred Option

Option 1 (replacement of the 500kV GIS with AIS and like-for-like replacement of the F2 500/330 kV transformer) has the highest net economic benefit for all the scenarios and sensitivities considered except the low demand growth scenario and is therefore the preferred option. Scenario weighting will not make a difference to the preferred option as Option 2 has the highest net benefits for 11 of the 12 sensitivity studies considered.

7.2. 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 1) is 2032, and that the majority of the investment is needed within the 2027 to 2032 regulatory control period, with some expenditure in the current regulatory period to initiate the project.



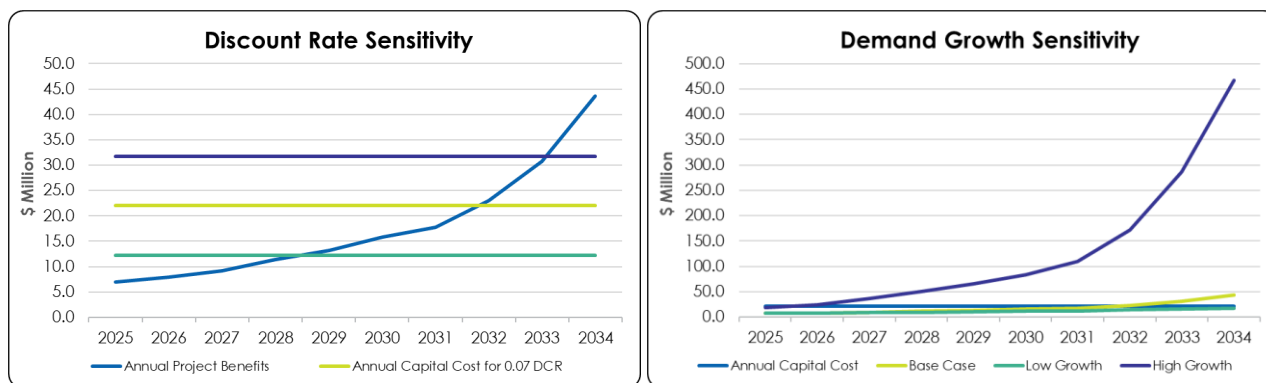


Figure 5 - Optimal investment timing sensitivity study

Figure 6 shows that the investment economic timing is only one year later for a 25% increase in asset failure rates.

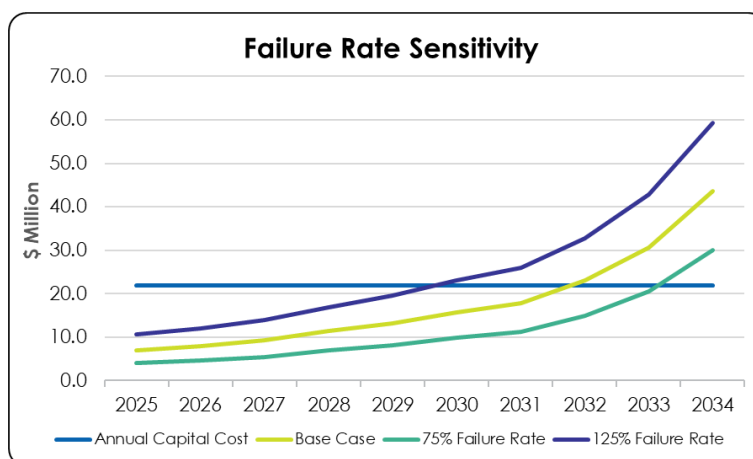


Figure 6 - Optimal investment timing sensitivity study – asset failure rates

7.3. Capital and operating cost of the preferred option

The direct capital expenditure of the preferred option (Option 1) is \$300M and the main elements are as follows:

- Design and studies \$9.9M
- Internal labour \$18.4M
- Materials \$63.1M
- Plant and equipment \$4.6M
- Contracts \$175.1M
- Other including overheads and finance charges \$28.5M

7.4. Proposed re-opening triggers

Under the updated Rules relating to a Material Change in Circumstance (MCC), AusNet is required to set out re-opening triggers for this RIT-T. Consistent with these new requirements and drawing on the results of the sensitivity assessments outlined, AusNet considered the impact of changes in key underlying assumptions to identify reopening triggers. The only assumption that will result in a change in the preferred options is when a low demand growth scenario eventuates. The low demand scenario used in the sensitivity study is based on demand being 10% lower than the AEMO 2025 Connection point demand forecast for each one and all the years in the ten-year forecast period for the supply area downstream from SMTS 500 kV. The re-opening triggers for this RIT-T are proposed to be:

- AusNet will use the 2025 Distribution Business (DB) demand forecasts once published in 2025 to assess whether the DB forecasts are materially lower (more than 10%) than the AEMO 2025 Connection Point Forecast for each year over the ten-year forecast period.

Should these occur, AusNet would prepare a letter to the AER advising of actions proposed to take in response and timeframes to take such actions. Consideration will also be given to any committed and sunk costs should the updated forecasts not be available before the project starts and costs are committed and whether new step loads such as data centres are probable but not included as committed projects in the official demand forecasts. This project plans to execute contracts for the replacement 500kV AIS and F2 transformer by February 2026 (after the RIT-T process is expected to be finalised) by which time a change in the preferred option can no longer be made without incurring sunk costs.

8. Draft conclusion and next steps

Amongst the options considered in this RIT-T, Option 1 is the most economical option to maintain reliable transmission network services at SMTS and manage safety, environmental, collateral and emergency replacement risks. The preferred option involves replacement of the 500 kV outdoor GIS with a modern AIS solution, and the replacement of the F2 transformer with a like-for-like 1000 MVA 500/330 kV transformer.

The estimated capital cost of this option is \$300 million with no material change in operating and maintenance cost. The project is economic by 2032 based on a total investment cost of \$300 million and AusNet is targeting a commissioning date of end of 2032.

8.1. Submissions

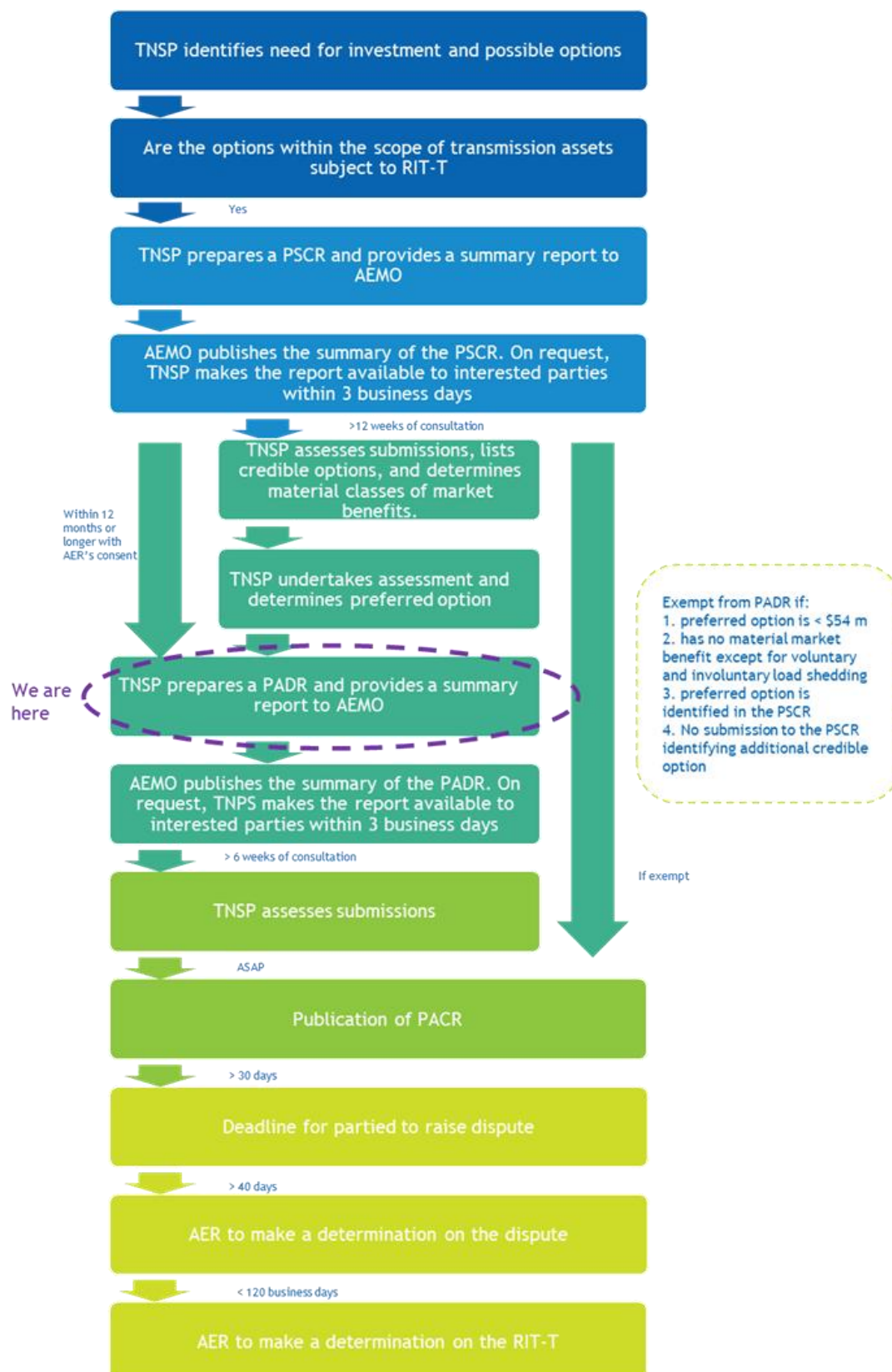
AusNet Services welcomes written submissions on the topics and the credible options presented in this PADR. Submissions should be emailed to ritconsultations@ausnetservices.com.au on or before 24 October 2025. In the subject field, please reference 'RIT-T - Maintaining Reliable Transmission Network Services at SMTS'.

Submissions will be published on AusNet Services' and AEMO's websites. Please clearly stipulate at the time of lodgement should you wish for the submission not to be made public.

Appendix A – Asset probability of failure methodology

Likelihood Estimation - Assessment Categories		
Category	Description	Data Source
Asset Life	Ratio of current service age to normal expected Life	Design, Maintenance records
Asset Utilisation/Duty factor	Loading, strength, capacity, number of operations	Maintenance records
Location factor	Corrosivity, geographic climate, environment	Design/Operations
Asset Physical Condition	Observed conditions, measured conditions	Inspections/Testing

Appendix B – RIT-T assessment and consultation process



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