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Meeting demand growth in the Western Sydney Aerotropolis 'Priority Growth Area'

Notification of MCC Assessment

Date of issue: 16 July 2026

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2. Executive Summary

The ‘meeting demand growth in the Western Sydney Aerotropolis 'Priority Growth Area' Regulatory Investment Test for Transmission (RIT-T) was completed on 1 August 2025. This RIT-T was the outcome of joint planning by Transgrid and Endeavour Energy.

Transgrid has performed this Material Change in Circumstances (MCC) Assessment, in consultation with Endeavour Energy, as Transgrid’s estimated capital costs for Option 1 have increased.

The RIT-T considered two credible options:

- Option 1 – New Bulk Supply Point (BSP) next to the Kemps Creek substation
- Option 2 – New Airport South BSP supplied from cut-in to Line 39.

The RIT-T identified Option 1 as the preferred option, as it maximises the net present value of the net economic benefit.

Since completion of the RIT-T, Transgrid has run its competitive tender process for both the transformers and contractor under Option 1, which has resulted in the Transgrid estimated capital costs increasing by approximately 56 per cent (from $111.7 million to $174.3 million, in 2024/25 dollars). The cost estimates used in the RIT-T were based on earlier general tender processes and so are now considered out-of-date.

Transgrid did not run a tender process for Option 2 as it was not considered preferred at the conclusion of the RIT-T and has therefore not been progressed. However, we consider that the percentage increase in the expected cost of Option 1 is also applicable for Option 2 given the general cost drivers that have affected the estimate. Endeavour Energy has advised [1] there are no material changes in costs from those presented in the PACR, noting a similar cost sensitivity applies as for Transgrid (Section 4.3).

We have therefore performed a Material Change in Circumstance (MCC) Assessment to ascertain whether these increases constitute an MCC as contemplated in the National Electricity Rules (NER).[2] Specifically, given the cost increase is outside of the 50 per cent increase tested in the Project Assessment Conclusions Report (PACR) capital cost sensitivity, we consider it prudent to undertake an MCC Assessment in order to determine whether the preferred option has changed. In this MCC Assessment, we refer to this as whether an ‘MCC event’ has occurred.

Section 3.2 of this MCC Assessment outlines the underlying factors affecting the cost estimates.

The Net Present Value (NPV) results (which determine which option is preferred) are presented below. Option 1 remains the preferred option as it delivers the highest net economic benefit. Overall, Option 1 is expected to deliver a positive net economic benefit of $396.0 million (in NPV terms).

[1] As this MCC Assessment has been performed by Transgrid, ‘us’ and ‘we’ throughout this document refers to Transgrid (rather than Transgrid and Endeavour Energy), unless otherwise specified.
[2] As per clause 5.16.4(z3) of the NER.

In preparing this MCC Assessment, we identified a minor discounting error in the PACR analysis that under-reported the expected net benefits of both options.[3] This error is not material to the PACR conclusion.

The table below summarises the original PACR, corrected PACR and revised MCC Assessment net economic benefits, in present value terms, weighted across all scenarios. For comparison purposes, all costs and net benefits in this MCC Assessment are presented in 2024/25 dollars, consistent with the PACR. Option 1 is the strongly preferred option in all cases.

Table 2-1 Original and revised NPV of net economic benefits – weighted across all scenarios ($m, 2024/25)

Assessment	Option 1	Option 2	Preferred Option
Original (as presented in the PACR)[4]	377.0	278.6	Option 1
Original (corrected from the PACR)	403.4	298.1	Option 1
Revised (MCC Assessment)	396.0	272.9	Option 1

The net benefit for Option 1 has fallen slightly since the (corrected) PACR assessment, due to the increase in estimated capital expenditure for Option 1 and a minor reduction to the load-weighted Value of Customer Reliability (VCR), to reflect the latest AER VCR estimates.[5]

This MCC Assessment confirms that Option 1 remains the preferred option for meeting demand growth in the Western Sydney Aerotropolis 'Priority Growth Area'. We have therefore concluded that an MCC event has not occurred, and the preferred option remains the same as in the PACR. This MCC Assessment sets out the supporting information necessary to demonstrate that the preferred option identified in the RIT-T remains the same, in section 5 (‘MCC Assessment results’).

Transgrid expects to reach the point of Financial Investment Decision (FID) for its components of the project within the next six months, and no further material Transgrid cost increases are expected. Given this, Transgrid does not expect to release a subsequent MCC Assessment for this project.

[3] For example, the $377 million figure in the PACR for Option 1 was incorrectly discounted to 2023/24 dollars and should have instead been $403.4 million in 2024/25 dollars.

[4] These figures are actually $2023/24 and not $2024/25 as suggested in the table's caption.

[5] The VCR estimate has been updated to align with the AER’s most recently published VCR estimates – see: AER, 2025 Values of customer reliability annual adjustment, December 2025.

3. Context and purpose of this report

The ‘Meeting demand growth in the Western Sydney Aerotropolis 'Priority Growth Area' Regulatory Investment Test for Transmission (RIT-T) was completed on 1 August 2025. This RIT-T was the outcome of joint planning by Transgrid and Endeavour Energy and considered two credible options:

- Option 1 – New BSP next to the Kemps Creek substation
- Option 2 – New Airport South BSP supplied from cut-in to Line 39.

The RIT-T identified Option 1 as the preferred option.

3.1. Background to the RIT-T

The RIT-T covered options for ensuring reliable supply to the Western Sydney Aerotropolis ‘Priority Growth Area’ in light of demand growth from the development of the Western Sydney International (Nancy Bird Walton) Airport and surrounding metropolitan, commercial and industrial precincts (collectively referred to as the ‘Aerotropolis precinct’).

Endeavour Energy completed a Regulatory Investment Test for Distribution (RIT-D) in January 2022 to address network limitations caused by increasing demand in the Aerotropolis area. This RIT-D identified the construction of a 26.5 km 132 kV underground feeder with 275 MVA capacity that spans between South Erskine Park zone substation (ZS) to the Bringelly ZS as the preferred option.

Transgrid worked with Endeavour Energy and determined that the expected increase in demand from developments in the Aerotropolis precinct will result in power flows exceeding the capacity of the Macarthur 132 kV transmission BSP potentially from 2026/27 under system normal conditions. This may require load shedding under both system normal and contingency conditions at the Macarthur 132 kV BSP after Endeavour Energy completes the first phase of its supply network upgrades in the area.

The identified need for the RIT-T was therefore to increase overall net economic benefits in the National Electricity Market (NEM) through avoiding load shedding that would otherwise be required if action is not taken, due to the network being constrained as a result of demand growth. The RIT-T assessment indicated that the market benefits from relieving these constraints are expected to far exceed the cost of doing so.

3.2. Capital cost changes since completion of the RIT-T

Since completion of the RIT-T, Transgrid has run its competitive tender process for both the transformers and contractor, which has resulted in the Transgrid estimated capital costs for Option 1 increasing by approximately 56 per cent (from $111.7 million to $174.3 million in 2024/25 dollars). The cost estimates used in the RIT-T were based on earlier general tender processes and so are now considered out-of-date.

While Transgrid has not run a tender process for Option 2[6], we consider that the percentage increase in the expected cost of Transgrid’s costs for Option 1 is also applicable for Option 2 given the general cost drivers

[6] Transgrid did not run a competitive tender process for Option 2 as it was not the preferred option at the conclusion of the RIT-T and therefore has not been progressed.

that have affected the estimate. Endeavour Energy does not expect any change in their estimates, noting a similar cost sensitivity applies to both parties (Section 4.3).

The table below shows how the estimated capital costs for the options have changed since completion of the RIT-T.

Table 3-1 Original and revised expected capital cost ($m, 2024/25)

Option	Description	Capital cost ($m)		
		Transgrid	Endeavour Energy	Total
Original (as presented in the PACR)				
Option 1	New BSP next to the Kemps Creek substation	111.7	25.0	136.7
Option 2	New Airport South BSP supplied from cut-in to Line 39	161.0	102.1	263.1
MCC Assessment (May 2026)				
Option 1	New BSP next to the Kemps Creek substation	174.3	25.0	199.3
Option 2	New Airport South BSP supplied from cut-in to Line 39	251.3	102.1	353.4

For comparison purposes, the costs are presented in $2024/25, which is what was used in the PACR.

Labour, plant, and other contractual costs were significantly higher in responses to Transgrid's competitive tender than those forecast in the PACR. The primary contributors to these increases were procurement costs and construction contract costs. The key drivers behind these increases are outlined below:

- Power transformer costs have increased significantly, as have equipment pricing. This is driven by market forces due to international supply chain demands.
- Design and Construct (D&C) contract pricing has increased driven by market forces and wider global pressures.
- Additional enabling scopes such as installing a new double circuit tower, rearranging conductors, Optical Ground Wire (OPGW) and Underground Fibre Cable (UGFC), modification to transmission line bays, new surge arrestor and new joint boxes.
- A number of works associated with the ultimate substation arrangement has been included to gain overall efficiencies – this includes earth grid, drainage, lighting, security and fire systems.

3.3. Material change in circumstance provisions in the NER

The NER covers the situation where there has been a material change in circumstance following the publication of a PACR. It is important to note that the increase in the capital cost estimate for the project, whilst substantial, does not in itself mean that an MCC event has occurred for the purposes of the NER. The NER defines a *material change in circumstance* as including, but not being limited to:[7]

[7] As per clause 5.16.4(z4) of the NER.

- a change to the key assumptions used in identifying the identified need described in the PACR;
- one or more reopening triggers have been triggered; or
- a change in circumstances which, in the reasonable opinion of the RIT-T proponent, means that the preferred option identified in the PACR may no longer be the preferred option.

In the PACR assessment, Option 1 was found to provide a strongly positive net benefit and to remain ranked ahead of Option 2 if capital costs were increased by 50 per cent. The PACR also found that capital costs would have to increase by a factor of approximately 5.5 in order for Option 1 to have zero expected net benefits. Notwithstanding, given that the cost increase of 56 per cent is above the 50 per cent sensitivity, Transgrid has undertaken this MCC Assessment to confirm that there has not been an MCC event.

4. Approach to the MCC Assessment

This section outlines the inputs and assumptions used to complete the MCC Assessment with the updated capital cost estimates.

4.1. Assessment against the base case

The costs and benefits of each option are compared against a 'do nothing' base case.

Under the base case, no proactive investment is made to address supply capacity in the Western Sydney Aerotropolis Priority Growth Area in accordance with expected demand growth. This is expected to increasingly require Transgrid to load shed during system normal conditions and contingency events due to the large increase in demand expected from the development in the area.

While in the PACR Transgrid & Endeavour Energy noted that the forecast unserved energy is not expected to breach the IPART reliability standards by the proposed date for investment, they would be breached over the longer-term under the base case if action is not taken, due to the exponential demand growth forecast. While Transgrid & Endeavour Energy would never plan for this situation to eventuate, the RIT-T framework requires the credible options to be assessed against a common base case representing a state of the world where action is not taken to address the long-term need. In reality, Transgrid & Endeavour Energy are planning to have the most efficient long-term solution (i.e., Option 1) to continue to provide reliable supply to the load in question.

As in the RIT-T, in performing this MCC Assessment Transgrid has capped the future Expected Unserved Energy (EUE) in the assessment because the uncapped value will otherwise become unrealistically high (since, in reality, we would undertake investment to avoid widespread customer outages) and this will distort the comparison of the *differences* in net benefits between credible options. We have capped the EUE by 99 per cent, i.e., we only include 1 per cent of expected future unserved energy in each year. Capping the expected unserved energy in the base case is in-line with other RIT-Ts and does not affect the overall ranking of the options.

4.2. Assessment period and discount rate

The analysis applies a 20-year assessment period from 2025/26 to 2044/45 (i.e., the same length of time as the RIT-T assessment period).

Where the capital components of the credible options have asset lives extending beyond the end of the assessment period, the NPV modelling in the RIT-T included a terminal value to capture the remaining functional asset life. This ensures that the capital cost of long-lived options over the assessment period is appropriately captured, and that all options have their costs and benefits assessed over a consistent period, irrespective of option type, technology or serviceable asset life. The same approach has been adopted in this MCC Assessment, for consistency with the earlier RIT-T. The terminal values have been calculated as the undepreciated value of capital costs at the end of the analysis period, in line with the earlier PACR assessment.

A real, pre-tax discount rate of 7 per cent has been adopted as the central assumption for the NPV analysis, consistent with AEMO's latest Input Assumptions and Scenarios Report (IASR).

4.3. Approach to estimating option costs

Since completion of the RIT-T, Transgrid has run its competitive tender process for both the transformers and contractor under Option 1, which has resulted in the Transgrid estimated capital costs increasing by approximately 56 per cent, from $111.7 million to $174.3, in 2024/25 dollars). The cost estimates used in the RIT-T were based on earlier general tender processes and so are now considered out-of-date.

While Transgrid has not run a tender process for Option 2, we consider that the percentage increase in the expected cost of Option 1 is also applicable for Option 2 given the general cost drivers. In addition, Endeavour Energy has informed us their costs have remained the same for Option 2. We have reflected this information in the MCC Assessment.

While we have not explicitly applied the Association for the Advancement of Cost Engineering (AACE) international cost estimate classification system, we note that the current estimates are considered to be at an accuracy of +/- 25 per cent and align with the accuracy range of a 'Class 4' estimate, as defined in the AACE cost estimate classification system.

4.4. Uncertainty has been captured by way of three scenarios

The RIT-T is focused on identifying the top ranked credible option in terms of expected net benefits. However, uncertainty exists in terms of estimating future inputs and variables (termed future 'states of the world').

To deal with this uncertainty, the NER requires that costs and market benefits for each credible option are estimated under reasonable scenarios and then weighted based on the likelihood of each scenario to determine a weighted ('expected') net benefit. It is this 'expected' net benefit that is used to rank credible options and identify the preferred option.

The credible options are assessed under three scenarios as part of this MCC Assessment, consistent with the PACR assessment. The only market benefit considered to be material is changes in involuntary load shedding. As a result, the three scenarios differ only through their assumed local demand forecasts, as this is the key parameter influencing the ranking of the credible options.

Given that wholesale market benefits are not relevant, the three scenarios implicitly assume the expected most likely scenario for the 2026 ISP (i.e., the 'Step Change' scenario).

Table 4-1 Summary of scenarios

Variable/Scenario	Central scenario	Low demand scenario	High demand scenario
Scenario weighting	45%	45%	10%
Demand growth	Central forecast (from the PACR)	Low forecast (from the PACR)	High forecast (from the PACR)
Discount rate	7.0%	7.0%	7.0%
Load-weighted VCR	$36.177/kWh	$36.177/kWh	$36.177/kWh
Network capital costs	Base estimate	Base estimate	Base estimate

Besides the assumed capital costs, the only other key change to the scenario assumptions since the PACR has been the minor update to the load-weighted VCR to align with the latest VCR estimates released by

the AER at the end of 2025.[8] Specifically, the load-weighted VCR has been updated from $36.892/kWh in the PACR to $36.177/kWh in this MCC Assessment.

[8] AER, *2025 Values of customer reliability annual adjustment*, December 2025. We have de-escalated the AER estimates (which are in October 2025 dollars) to June 2025 dollars using actual monthly CPI reported by the ABS.

5. MCC Assessment results

5.1. NPV results from the PACR

The NPV results presented in the PACR are shown in the table below. As noted in Section 2, in preparing this MCC Assessment, we identified a minor discounting error in the PACR analysis which under-reported the expected net benefits.[9] This error affected both options in the PACR and is not material to its conclusion. We have presented both the original and corrected PACR results in this MCC Assessment.

Table 5-1 NPV of net economic benefits relative to the base case ($m, 2024/25), as presented in the PACR

Option	Weighted Outcome (Original)	Weighted Outcome (Corrected)
Option 1	377.0	403.4
Option 2	278.6	298.1

5.2. NPV results from this MCC Assessment

The NPV results from this MCC Assessment are shown in the table below.

Table 5-2 NPV of net economic benefits relative to the base case ($m, 2024/25), as presented in this MCC Assessment

Option	Weighted Outcome
Option 1	396.0
Option 2	272.9

The reduction in NPV for both options in this MCC Assessment compared to the corrected PACR assessment is driven by the increase in the capital expenditure estimates for both options and the reduction in the load-weighted VCR.

5.3. Sensitivity testing

We have undertaken sensitivity testing to understand the robustness of the MCC Assessment to underlying assumptions about key variables. We have undertaken two sets of sensitivity tests:

- Step 1 – testing the sensitivity of the optimal timing of the project ('trigger year') to different assumptions in relation to key variables; and
- Step 2 – once a trigger year has been determined, testing the sensitivity of the total NPV benefit associated with the investment proceeding in that year, if actual circumstances turn out to be different.

The application of the two steps to test the sensitivity of the key findings is outlined below.

5.3.1. Step 1 – Optimal timing of the project

This section outlines the sensitivity of the identification of the commissioning year to changes in the underlying assumptions.

[9] Specifically, the net economic benefit amounts were incorrectly discounted to 2023/24 dollars and should have instead been discounted to 2024/25 dollars.

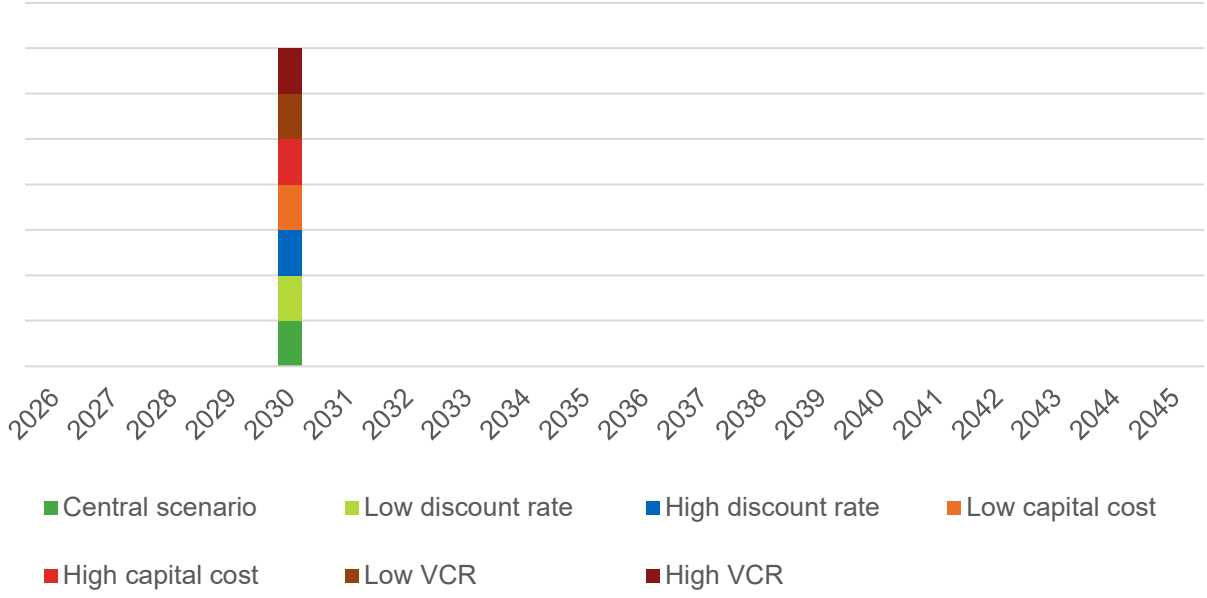
The optimal timing of an investment is the year in which the annual benefits from implementing the option become greater than the annualised investment costs. The purpose of this analysis is to examine the sensitivity of the commissioning year to changes in the underlying assumptions. This analysis was undertaken under the central set of assumptions and using a range of alternative assumptions of key variables. Because this analysis involves calculation of the point where annual benefits become greater than annual costs, we use the full estimate of EUE (as opposed to the capped value).

We find that the optimal timing of Option 1 is invariant to the following assumptions:

- a lower discount rate of 4.68 per cent[10] and a higher discount rate of 10.0 per cent;[11]
- a 30 per cent increase / decrease in the VCR;[12] and
- a 50 per cent increase / decrease in capital costs.[13]

Specifically, Figure 5-1 below outlines the impact on the optimal commissioning year, under a range of alternative assumptions. It illustrates that for Option 1 the optimal commissioning date remains 2029/30 for all sensitivities investigated.

Figure 5-1 Distribution of optimal timing of Option 1 under a range of different key assumptions



5.3.2. Step 2 – Sensitivity of overall benefit

We have conducted sensitivity analysis on the present value of the net benefit, based on undertaking the project by 2029/30 for both options and using the capped EUE values. Specifically, we have investigated the same sensitivities under this step as in the first step:

[10] This is equal to WACC (pre-tax, real) in the latest final decision for a transmission business in the NEM (Basslink) as of the date of this analysis, see: AER, Feb 2026, Basslink - Determination 2026–30 – Final decision – PTRM.
[11] Consistent with the upper bound in the latest 2025 IASR.
[12] Consistent with the AER's most recent specified +/- 30% confidence interval – see: AER, Values of Customer Reliability – Final Report on VCR values, December 2019, p 84.
[13] While Transgrid capital costs are expected to be within +/- 25 per cent of the central capital cost estimate, we test using +/- 50 per cent because Endeavour Energy's capital costs are expected to be within +/- 50 per cent of the central capital cost estimate (as in the PACR).

- a lower discount rate of 4.68 per cent and a higher discount rate of 10.0 per cent;
- a 30 per cent increase / decrease in the VCR; and
- a 50 per cent increase / decrease in capital costs.

Option 1 is always found to deliver strongly positive net benefits and to be ranked ahead of Option 2.

Figure 5-2 Discount rate sensitivity

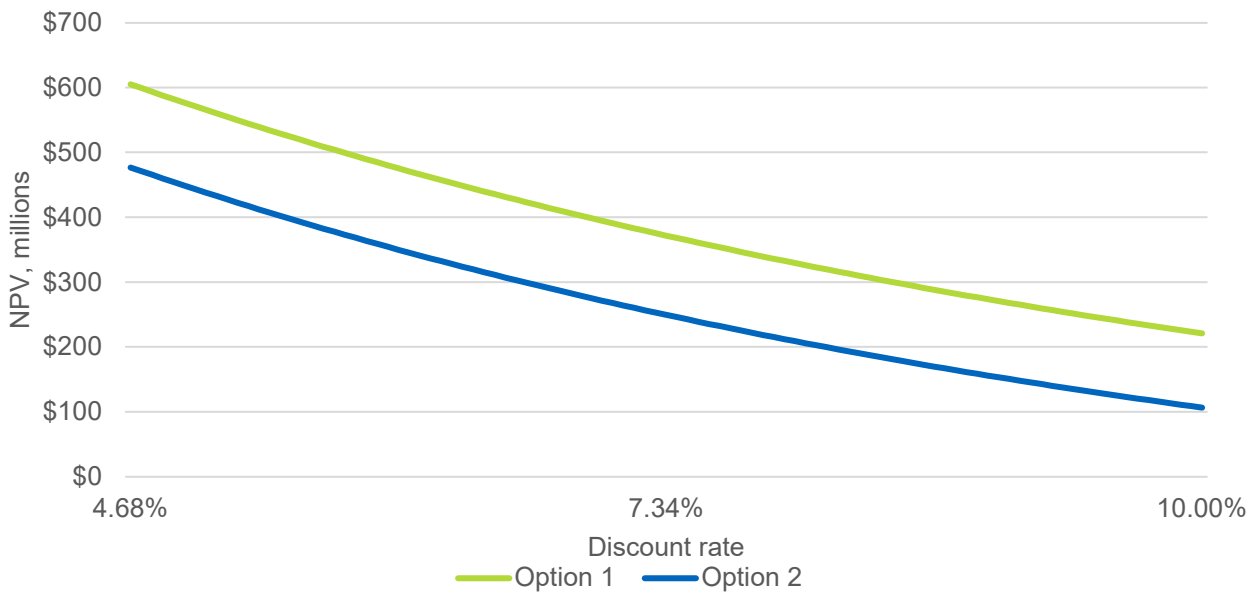


Figure 5-3 VCR sensitivity

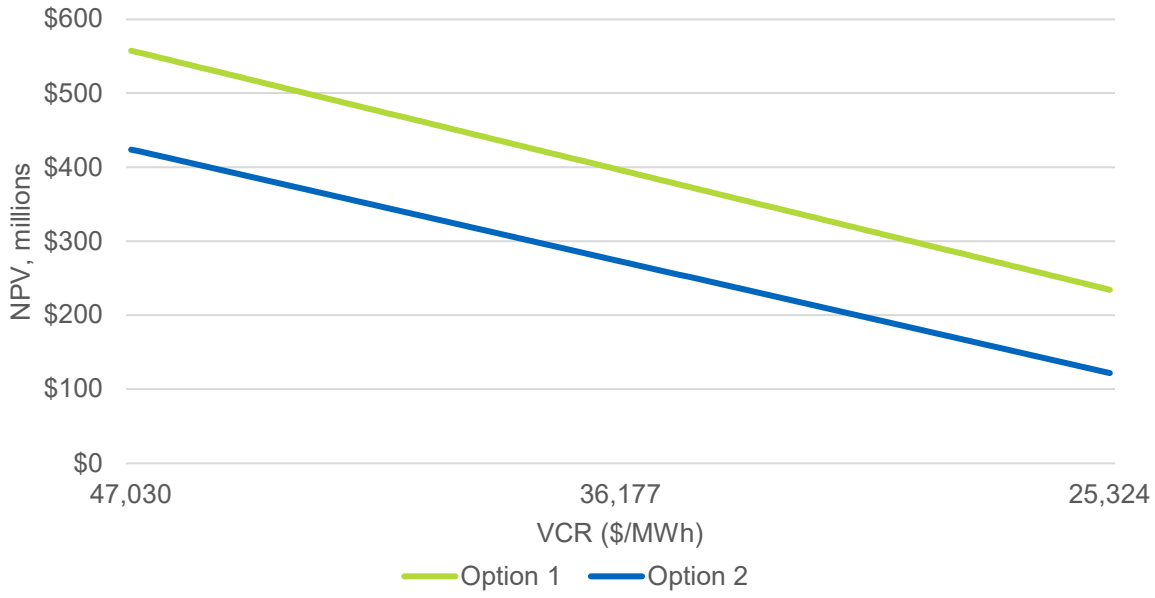
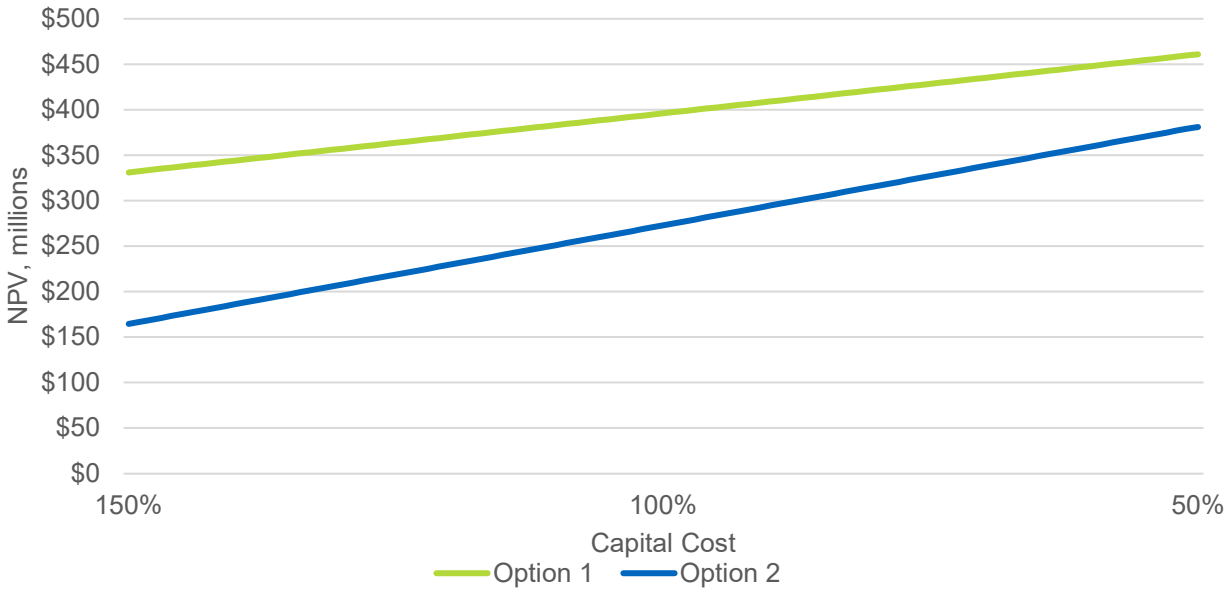


Figure 5-4 Capital cost sensitivity



In terms of boundary testing, we find that the following would need to occur for Option 1 to have zero net benefits:

- the discount rate would need to be greater than 19.1 per cent;
- the VCR value would need to be less than $9,587/MWh; or
- assumed network capital costs would need to increase by a factor of approximately 4.1.

However, these boundaries have been undertaken on the capped EUE and so we do not consider there are realistic alternate assumptions regarding the discount rate, VCR or capital costs that would result in Option 1 having negative estimated net benefits.

We also find that no alternate discount rate, assumed VCR or capital costs would result in Option 1 having the same or less net benefits relative to Option 2.

6. Conclusion

This MCC Assessment has found that Option 1 (commissioning of a new BSP next to the existing Kemps Creek substation) remains the preferred option, despite its estimated capital costs having increased.

The updated NPV assessment shows that Option 1 is still expected to deliver a positive net economic benefit (now estimated at $396.0 million in NPV terms), which remains greater than that estimated for Option 2.

As a result, an MCC event has not occurred.

Transgrid and Endeavour Energy will therefore continue to deliver the project in line with Option 1.

Transgrid expects to reach the point of FID for its components of the project within the next six months, and no further material Transgrid cost increases are expected.

The sensitivity analysis in section 5.3 has shown that if the overall costs of the project (both Transgrid's and Endeavour's) increased by 50% above the latest forecast (ie, which are already 56% higher for Transgrid), Option 1 remains the preferred option. The MCC Assessment also reports the boundary test for capex – which shows that Option 1 remains preferred even where overall project costs increase by 410%.

Even if Endeavour Energy's costs were to increase by more than 25 per cent, it would not increase the costs for the overall project by 50%, and certainly not by 410%. Given this, Transgrid does not expect to release a subsequent MCC Assessment for this project.