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September 15, 2023

Attachment 2: Net Market Benefits

2.1 Executive Summary

The Rules operate to require Basslink Pty Ltd to provide to the AER an assessment of the Net Market Benefits of Basslink. The purpose of this test is to check that customers do not pay more for the services of Basslink than the market benefits they are expected to receive from this service.

Net Market Benefits are determined by:

- Modelling the total market benefits of Basslink having regard to a number of alternative and credible market scenarios. This is the modelled quantification of the benefits to the market as a whole that the operation of Basslink delivers;
- The 'Net Market Benefits' are then determined by deducting the long term operating costs from the market benefits. The long terms costs are the operating costs and the forecast capital expenditure over the life of the asset.
- The Net Market Benefits under each of these scenarios are then compared the proposed initial Regulated Asset Base – with the concept being that if the Net Market Benefits do not exceed the Initial RAB, then the RAB should be adjusted so as to ensure customers do not pay more than the market benefits of the asset.

In this proposal the Net Market Benefits under the credible market scenarios are significantly higher than the Initial Regulatory Asset Base proposed by Basslink Pty Ltd. This can be seen in the table below.

Table 2.1 – Net Market Benefits

Scenario	Market benefits less long term costs (2025$m)
Step change	3,748
Progressive change	4,190
Hydrogen superpower	3,102

Net Market Benefits Assessment

For the purpose of complying with the regulatory test outlined in the Rules, Basslink Pty Ltd is providing the AER with a detailed assessment of market benefits. Basslink Pty Ltd has commissioned EY to perform the independent assessment, with EY's report on market benefits being provided at **Attachment 2.1**.

The process adopted by Basslink Pty Ltd in assessing the market benefits and comparing those benefits with the long term costs is as follows:

- Basslink Pty Ltd commissioned EY to perform an independent study assessing the market benefits attributable to the operation of Basslink in the NEM. Basslink Pty Ltd requested EY to adopt a modelling methodology that largely follows the RIT-T guidelines published by the AER[1] with some adjustments to account for the fact that Basslink is an existing asset, rather than one that is being proposed for development and construction (detailed below).

- As required by the Rules, the EY modelling quantifies the market benefits attributable to Basslink under a number of different credible scenarios. The model is designed to deliver the least-cost dispatch and capacity development plan for the NEM under the specified scenarios.
- The scenarios selected by Basslink Pty Ltd to be modelled by EY are largely aligned with those that are used by AEMO is its 2022 Integrated System Plan (ISP), which are referred to as the 'Step Change', 'Progressive Change' and 'Hydrogen Superpower' scenarios (referred to collectively as **ISP scenarios**). Basslink Pty Ltd also requested that EY model the impact of different Marinus Link (**Marinus**) capacities and operational timings under those ISP scenarios.
- The long term costs are then deducted from the market benefits achieved under these scenarios, with those costs being comprised of:
    - the long term costs based on forecast capex from the asset lifecycle management plan
    - and opex from the forecast operating model.
- This is then compared to the initial Regulatory Base as proposed by Basslink (for more detail see **Attachment 5**).

Additional Modelling

The AER requested Basslink Pty Ltd delay its proposal to take into account the information that AEMO released in its Inputs, Assumptions and Scenario's report released on 28 July. We agreed to do this, noting that the market benefit modelling was complex, and a significant change to the assumptions post-July would potentially impact our ability to submit the full scope of modelling we intended to provide. This task was further complicated when the Federal and Tasmanian governments announced on 3 September 2023 that the structure of the Marinus project was now focussed on the development and construction of the one 750MW cable rather than two 750MW cables[20]. We have therefore not been in a position to provide to the AER at this time the full range of scenarios that we believe will be of assistance to the AER in considering the range of credible scenarios.

We will be providing additional scenarios to both Stakeholders and the AER when they become available.

2.2 Requirement to apply the 'previous regulatory approach

The Rules contains transitional provisions which apply in event that Basslink services cease to be classified as market network services (i.e. in the event of conversion). These include rules that must be followed in determining the RAB for Basslink for the purposes of revenue regulation under Chapter 6A.

[20] *The Hon Chris Bowen,* "Joint media release: Investing in the future of Tasmanian energy with Marinus Link," 3 September 2023. Available at: https://minister.dcceew.gov.au/bowen/media-releases/joint-media-release-investing-future-tasmanian-energy-marinus-link

The relevant parts of the transition rule (NER clause 11.6.20(e)) are as follows (emphasis added):

> *(e) Subject to paragraph (f), the AER must determine the value of the regulatory asset base for the Basslink transmission system for the purposes of paragraph (d) by applying the previous regulatory approach to the circumstances of that transmission system.*
>
> *(f) In the event of an inconsistency between the previous regulatory approach adopted in each of the previous regulatory determinations, the approach adopted in a decision of the AER regarding the Directlink transmission system prevails over the approach adopted in the decision of the ACCC regarding the Murraylink transmission system to the extent of the inconsistency.*

For the purposes of this transitional rule:

- the 'previous regulatory approach' means "the methodologies, objectives and principles for determination of a regulatory asset base applied in the previous regulatory determinations"; and
- the 'previous regulatory determinations' are the decisions of the ACCC and AER respectively in relation to conversion of Murraylink (1 October 2003) and Directlink (3 March 2006), including the reasons for decision in each case.

This transitional provision was included as part of the rule change that inserted the transmission revenue and pricing rules (Chapter 6A). It was inserted at the request of the Tasmanian Government, who had expressed concern around the proposed new rules for setting the RAB for converting MNSPs (specifically cl S6A.2.1(e)).

The Tasmanian Government submission noted that:[21]

> *"The regulatory determinations allowing entrepreneurial investments to become regulated investments [i.e. Murraylink and Directlink] have relied upon the Regulatory Test established by the ACCC pursuant to section 5.6.5A of the NER."*

The Tasmanian Government noted that the proposed new rules for determining the RAB upon conversion (cl S6A.2.1(e)) represented a departure from this previous approach, and could therefore undermine the basis for investments made in merchant interconnectors (specifically Basslink):

[21] Tasmanian Government submission on the Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006, 11 September 2006.

> *"Schedule 6A.2.1(e) with respect to FMNS [former market network services], inappropriately seek to limit the market benefits allowable in the calculation of the regulated asset base (RAB) of a converting market transmission service to a subset of those that were taken into account by the ACCC and AER in the conversion of Murraylink and Directlink, and indeed to a subset of those that would be taken into account in establishing the regulated asset base of a prescribed service...*
>
> *The draft Schedule breaches the clearly expressed policy of the Ministerial Council on Energy (MCE), in its December 2003 Report on Reform of Energy Markets, that code changes in this area should "…recognise and protect the rights of existing investors in market transmission services".*

The AEMC accepted the need for a transitional provision for Basslink, recognising that the original investment was made on the basis of regulatory settings as they were prior to the rule change. The AEMC's final rule determination states:[22]

> *"The Commission… recognises that the existing investment in Basslink was made with a recognition of the previous ACCC treatment of conversion. On that basis, the Commission considers that the most appropriate application of the Revenue Rule in relation to MNSP conversion should be as a signal to new investment rather than to existing MNSPs."*

Thus, the transitional rule (cl 11.6.20(e)) requires the Basslink RAB to be determined using the approach, principles and methods applied to Murraylink and Directlink.

2.3 The framework for assessment of market benefits under the 'previous regulatory approach'

The *'methodologies, objectives and principles'* applied in the previous regulatory determinations relevantly included application of the ACCC's 1999 '*regulatory test*' (**1999 Regulatory Test**).[23] The rationale for applying the 1999 Regulatory Test in determining the RAB value was expressed as follows:[24]

[22] AEMC, Rule Determination: National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006, 16 November 2016, p 78.
[23] AER, Directlink Joint Venture Application for Conversion and Revenue Cap Draft Decision, 8 November 2005 (**Directlink Draft Decision**), p 31.
[24] Directlink Draft Decision, p 38.

The ACCC [in the Murraylink decision] considered that applying the regulatory test ensured an MNSP seeking conversion was treated in the same manner as a proponent seeking approval to construct a new large network asset for the provision of prescribed services.

It was also noted that use of the 1999 Regulatory Test was consistent with the requirements of Chapter 6 of the code (as it then applied) and relevant COAG policy directives.[25]

The 1999 Regulatory Test was used to identify the 'optimal asset' configuration, and then establish a RAB value on that basis. Provided that the market benefits associated with the optimal asset exceeded the efficient cost of its construction, the RAB was set to reflect that efficient cost. In the case of Murraylink, the efficient cost of the optimal project was used to set the RAB. In the case of Directlink, neither Directlink nor any alternative project maximised net present market benefits – and as a result the RAB was set equal to gross market benefits.

As noted by the AER noted in the Directlink decision, the 1999 Regulatory Test provided detail around the methodology and approach to:[26]

- the estimation of market benefits; and
- the selection of market development scenarios.

The AER noted that the 1999 Regulatory Test "prescribes the modelling of a range of reasonable alternative market development scenarios", incorporating:[27]

- demand growth at relevant load centres;
- alternative project commissioning dates;
- potential generator investments and 'realistic operating regimes'; and
- projects at different stages, including:
    - projects that have commenced construction and are expected to be commissioned within three years (referring to in the regulatory test as 'committed projects');
    - projects at an advanced stage of planning that are expected to be commissioned within five years ('anticipated projects'); and
    - projects that are likely to be commissioned in response to growing demand or as substitutes for existing generation ('modelled projects').

Under the 1999 Regulatory Test, the optimal project is the one that maximises the net market benefit in most (although not all) *credible* scenarios. For example in the Directlink decision, the AER's assessment included 40 market development scenarios, of which six scenarios were considered to be 'credible'.[28]

[25] Directlink Draft Decision, p 39.
[26] Directlink Draft Decision, p 32.
[27] Directlink Draft Decision, p 33.
[28] Directlink Draft Decision, p 122.

The 1999 Regulatory Test expressed the relevant principle as follows:[29]

> *A new interconnector or an augmentation option satisfies this test if it maximises the net present value of the market benefit having regard to a number of alternative projects, timings and market development scenarios.*

The notes on the methodology to be applied under the 1999 Regulatory Test included the following:[30]

> *In determining the market benefit, the analysis should include modelling a range of reasonable alternative market development scenarios, incorporating varying levels of demand growth at relevant load centres (reflecting demand side options), alternative project commissioning dates and various potential generator investments and realistic operating regimes. These scenarios may include alternative construction timetables as nominated by the proponent. These scenarios should include projects undertaken to ensure that relevant reliability standards are met..*

It was this methodology and approach – as prescribed in the 1999 Regulatory Test – that was applied in both the Murraylink and Directlink decisions. It is therefore the approach that must be applied in determining the Basslink RAB under the transitional rule.

2.4 Regulatory Test Methodology

This section will discuss the approach taken to calculate the market benefits of the Basslink interconnector. As recommended by the regulatory test process, we will begin by identifying the market need for an interconnector between Victoria and Tasmania. Following this, we will describe the process for calculating the market benefits that would arise from fulfilling that need. Lastly, we will discuss the results of the assessment.

Methodology for Market Benefits Modelling

Basslink Pty Ltd engaged Ernst and Young (EY) to provide an independent analysis of Basslink's market benefits. EY operates an in-house electricity market model that forecasts the costs associated with the energy market in each hourly period using least cost linear programming optimisation. The model forecasts short-term changes such as dispatch and transmission decisions, as well as forecasting long-term decision making such as investment decisions. Following a set of input assumptions, the model will find the least-cost modelling path taking into account constraints such as maximum and minimum loads for each generator in the NEM, transmission and distribution losses, inter-regional transfer capacity, carbon budgets and renewable energy targets. The model tracks the following types of costs:

- New capital expenditure

[29] 1999 Regulatory Test, referred to in the Directlink Draft Decision at p 165.
[30] 1999 Regulatory Test, referred to in the Directlink Draft Decision at p 167.

- Fixed operations and maintenance costs
- Variable operations and maintenance costs
- Fuel costs
- REZ development costs
- Voluntary and involuntary demand curtailment

EY uses this model to calculate market benefits according to the standard market benefits modelling approach used as part of the Regulatory Test, and now used in the RIT-T. As part of each scenario test, the marginal market benefits of a project are calculated on a 'with/without' basis. This means that EY undertakes two model runs for each scenario: one run not including the test subject (in this case Basslink), and one including the test subject. By subtracting the total cost of the NEM under the 'with' scenario from the total cost under the 'without' scenario, EY can calculate the marginal cost reduction (marginal benefit) of the test subject.

In each scenario, EY ran the model from 1 July 2025 (Basslink's proposed conversion date) and 1 July 2046. Many of the key Basslink assets including the undersea cable will come to 'end of life' in an accounting sense in July 2046. While Basslink Pty Ltd considers there to be a strong case could be made given the ongoing assets and the market benefits that a capex program could extend the life of relevant assets, this is speculative at this stage. We have adopted a conservative stance, and have elected to align the modelling with the 2046 end of life.

Other specific assumptions and scenarios tested by EY are discussed in Section 2.5.

Recognising Basslink as an existing asset

Basslink Pty Ltd has applied the Regulatory Test in the manner it has been applied in other processes, and under this approach Basslink delivers significant Net Market Benefits. However, Basslink Pty Ltd notes that if the test were applied in a manner more appropriate for an existing asset, these Net Market Benefits would be even higher.

The approach currently taken, and the one that has formed the basis of the Net Market Benefits outlined in this Proposal, have been calculated on the basis of comparing the market benefits under a particular set of scenarios where Basslink effectively 'ceases' operation on 1 July 2025, with those same scenarios where Basslink continues to operate. In both the 'with' and 'without' scenarios, Marinus provides additional interconnection between Tasmania and Victoria (albeit with some variations on timing and capacity under some specific scenarios).

This standard 'with and without' approach is however designed to consider whether a new asset should be constructed and what is the optimal form that asset should take. Basslink is an existing asset. The methodology that needs to be applied in these circumstances needs to be adjusted to take proper account of the fact Basslink is already in operation – this is particularly important when the modelling is treating Marinus as a 'locked in' project. Unless the modelling is appropriately adjusted, the 'without Basslink' modelling which is designed to set 'base' from which the benefits are calculated, includes Marinus. This means that when the 'with Basslink' case is assessed and compared with the 'without Basslink' base, the standard approach effectively:

- assigns all the benefits of any level of interconnection across the Bass Strait to Marinus, up to a theoretical maximum benefit that Marinus would be able to provide (ie the maximum capacity of Marinus);

- only if there is any residual market benefit once the first portion is assigned, then it is assigned to Basslink. Some variations are expected due to differences in transmission losses, but these are slight and do not materially affect the use of this conception;
- in periods where there is enough transmission required to fully occupy both interconnectors, this has no impact on Basslink's market benefits. This is because each interconnector is maximising the benefits they are able to provide the NEM.
- when there is less demand for transmission between Tasmania and Victoria than available capacity, the market benefits could be distributed between the interconnectors in a way that favours Marinus Link.

This clearly has the potential to lead to a perverse outcome – Basslink is an existing asset that is currently operating, with capex costs that are largely sunk and already producing market benefits today. Any proposed assets should be assessed in the context of existing assets without drawing on the modelled benefits of an already constructed interconnector. The standard test is designed to identify the marginal benefits of a new asset, and this becomes an inappropriate approach when considering an existing asset which is being modelled on the basis a prospective asset already forms part of the status quo.

We are intending to provide to the AER further modelling that we believe addresses this issue and is more reflective of the actual market benefits of Basslink. This market modelling will be aimed at identifying the benefit of Basslink, with Marinus benefits being properly accounted for as those marginal to Basslink benefits.

2.5 Assumptions and scenarios

This section sets out the most important assumptions used in the model and explains the differences between the different scenarios tested. EY's independent report included in this submission provides more detail on the assumptions and scenarios.

General assumptions

The key assumption and data sets that form the basis of the modelling performed by EY are:

- The 2023 AEMO Input assumptions and Scenarios Report (IASR) - this provides much of the data, forecasts, and scenario assumptions for EY's modelling. However, as the ISP process is still ongoing, some inputs and scenarios were taken from the previous ISP.
- The carbon budgets and renewable energy targets announced by State and Federal Governments – these are assumed to be hard constraints on the lowest-cost modelling. To reach these targets, the model uses a linear growth path for renewables and decarbonisation towards the relevant targets. This is consistent with the methodology used as part of the ISP modelling.
- The value of unserved energy is set according to the 2022 ISP's 'Value of Customer Reliability'.

For a full explanation of assumptions and processes, see the EY independent report (**Attachment 2.1**).

ISP scenarios

We have used AEMO's ISP scenarios to guide our initial assessment of market benefits under different scenarios. The 2022 ISP[1] outlines four possible future NEM scenarios: Step Change, Progressive Change, Hydrogen Superpower, and Slow Change. Basslink Pty Ltd instructed EY to model the market benefits under all scenarios apart from the Slow Change scenario – under the Slow change scenario, growth in demand is muted and there is little investment in renewables, which leads to a failure to meet the net zero emissions goals.

Step Change

In the Step Change scenario, the net zero goals are achieved faster, with the bulk of reductions being achieved between 2025 and 2035. This is led by an increase in demand following consumer shifts toward full electrification. Some key assumptions as part of this scenario include:

- NEM carbon budget set at 681 MT CO2e;
- HumeLink commissioned on July 2028;
- VNI West commissioned in July 2031.

Progressive change

In the Progressive Change scenario, the net zero emissions goals are achieved, but over a longer period of time, with the bulk of emissions reductions occurring in the 2040's. Some key assumptions as part of this scenario include:

- NEM carbon budget set at 1,203 MT CO2e;
- HumeLink commissioned on July 2035;
- VNI West commissioned in July 2038.

Hydrogen superpower

In the Hydrogen Superpower scenario, a large hydrogen export industry leads to a quadrupling of energy demand and large-scale investments in renewable energy.

Some key assumptions as part of this scenario include:

- NEM green energy export target: 357 MT CO2e;
- HumeLink commissioned on July 2027;
- VNI West commissioned in July 2030.

Marinus Link scenarios

The timing and capacity of Marinus has a significant impact on the market benefits for Basslink. For this reason, we have commissioned EY to consider various Marinus scenarios. As noted above, due to the timing of announcement in relation to the new project structure of Marinus on 3 September 2023, EY have not had time to model the full set of scenarios that consider the new Marinus project structure of a single cable of 750MW (Marinus Link Single Stage) as the 'base case' assumption. EY did have time to run the Marinus Link Single Stage scenario (detailed below), but most of the scenarios were still predicated on the basis that Marinus would be two cables of 750MW.

In the current set of modelling, EY has calculated the market benefits of Basslink on the basis of three different Marinus scenarios:

- the 'Single Stage' scenario, which was done to reflect the new Marinus project structure. We assumed the same timings are followed for the first 750MW stage as per the ISP Timing scenario above, but no second stage is commissioned.
- the 'ISP Timing' scenario, using those assumptions in relation to Marinus published in the 2022 ISP. The ISP timing assumptions differ according to whether the Step Change, Progressive Change or Hydrogen Superpower scenario is assumed. Under the Step Change and Hydrogen Superpower scenarios, the first 750MW stage of Marinus is commissioned in FY 2030 and the second 750MW stage is commissioned in FY 2032. Under the Progressive Change scenario, the first stage is commissioned in FY 2031 and the second in FY 2033.
- the 'Delay' scenario, which assumes the two cables, with the first stage commissioned in FY 2034 and the second stage in 2036 in all ISP scenario variations.

Basslink Pty Ltd considers the 'Marinus Link Single Stage' scenario to the be the 'base case' scenario, in which Marinus is operational by 1 July 2029 in alignment with the assumptions in the ISP. However, we are of the view that consideration needs to be given to scenarios in which the operation of Marinus is subject to a moderate delay to the early 2030s. We note in this context that:

- This is a complex project – in a development, delivery, and operation sense, and as one that is of significant public interest to communities in both Tasmania and Victoria
- Complex projects of this nature are very often subject to significant delay. We note in this context the global competition for materials and labour to support the development and construction of a project of this size. The recent Infrastructure Australia report into national infrastructure demand and the capacity to deliver discusses the impact of labour shortages and cost of construction materials. The report observes that[31]:

  > *The pressure the industry is experiencing to supply labour and materials in step with demand creates unprecedented uncertainty on project outcomes, and the opportunities to adapt and pivot will take time to realise. As such, it is no longer a question of if a project will slip, but more likely when, by how long and at what cost*

- Aurora Energy Research (Australia) has released in August 2023 its Australian Power and Renewables Market Forecast in which in its Central scenario has assumed that (what was then the first cable) Marinus is delayed until FY2033.

We will submit modelled scenarios that consider the impacts of a delay to the single cable in due course.

2.6 Results – 'with and without' Basslink Market Benefits

The results of the EY 'with and without' modelling are shown in the tables below. All values are shown in both July 2023 and July 2025 dollars. All values have been discounted to July 2025 using a 7% real pre-tax WACC, which is consistent with the Assumptions associated with the 2023 IASR.

[31] Infrastructure Australia, *Infrastructure Market Capacity 2022 Report,* April 2023, p7

The results for the Marinus Link 'Single Stage' scenario are shown below. Basslink Pty Ltd considers this table to present the most likely market scenarios.

Table 2.6.1 - Marinus Link 'Single Stage' Scenarios

Description	Scenario	Marinus Link single stage ($ July 2023)	Marinus Link single stage ($ July 2025)
Step Change	AEMO 2022 ISP Step Change Scenario with changes from 2023 IASR Step Change scenario	$3,846 million	$4,298 million
Progressive Change	AEMO 2022 ISP Progressive Change Scenario with changes from 2023 IASR Progressive Change scenario	$4,241 million	$4,740 million
Hydrogen Superpower	AEMO 2022 ISP Hydrogen Superpower Scenario with changes from 2023 IASR Green Energy Export scenario	$3,268 million	$3,652 million

The following table shows the results of the Marinus Link 'ISP Timing' and 'Delay' scenarios. Following the announcement in relation to the new Marinus' project structure, these are no longer considered the most credible scenarios, however we have included them as we believe they do provide useful context in which to consider the Basslink market benefits.

Table 2.6.2 - Marinus Link 'ISP Timing' and 'Delay' scenarios

Description	Scenario	Marinus Link ISP Timing ($ July 2023)	Marinus Link ISP Timing ($ July 2025)	Marinus Link delay ($ July 2023)	Marinus Link delay ($ July 2025)
Step Change	AEMO 2022 ISP Step Change Scenario with changes from 2023 IASR Step Change scenario	$2,323 million	$2,596 million	$3,823 million	$4,273 million
Progressive Change	AEMO 2022 ISP Progressive Change Scenario with changes from 2023 IASR Progressive Change scenario	$2,872 million	$3,210 million	$3,579 million	$4,000 million
Hydrogen Superpower	AEMO 2022 ISP Hydrogen Superpower Scenario with changes from 2023 IASR Green Energy Export scenario	$2,634 million	$2,944 million	$3,268 million	$3,652 million

2.7 Long Term Costs of Basslink

As covered in **Attachment 5**, the calculation of Net Market Benefits under the Regulatory Test process also requires the assessment of the long-term costs that Basslink will incur in continuing the operation of Basslink. Through the building blocks model, these costs will be on-charged to consumers and as such they must be considered as part of the assessment of consumer benefits. In this section, we consider the precedents set during the Murraylink and Directlink conversions, the process we've used in this application, and the results.

Precedents in the Murraylink and Directlink conversions

In the Murraylink process, the long-term operations and maintenance costs of the Murraylink asset was calculated in the same process and methodology as the calculation of the long-term costs for the

alternative assets under the Regulatory Test. Murraylink contracted an independent contractor to assess the long term costs of the 'alternatives', and it is not clear as to whether Murraylink or the engineering firm conducted the relevant assessment of the actual Murraylink asset. However, as the asset had not yet begun operating when the application was being prepared, we consider it reasonable to presume that this estimate was based on engineering forecasts rather than data from the company.

In the Directlink process, it was made clear that an independent engineering firm to conduct all of the life-cycle operating and maintenance cost calculations.

Basslink's revised approach

Basslink has been in operation for almost 20 years. While Basslink Pty Ltd could have contracted an independent engineering firm to conduct an assessment of the long-term costs, we believe that the historical data available to us provides us with a more robust basis on which to assess the future operating and maintenance costs. We consider this change to provide a clearer assessment of the investment cost borne by consumers. This option was not available to Murraylink, and we note Directlink was converted four years after commissioning.

We have assessed the long-term costs of operation and maintenance for the period between July 2025 and July 2046, to align with the timeframes used in modelling the market benefits. We forecast the expected operating costs and the expected capex to July 2046 as long-term cost of operation. The process we adopted is as follows:

- We used as the starting point the opex and capex values proposed in our Regulated Revenue proposal as part of this submission. Both of these values take into consideration historical costs of Basslink and the expect future step-changes required once Basslink becomes a prescribed service. We consider these values to be as robust as can be reasonably achieved in a forecast of this nature.

- For capex post FY30, our forecasts were developed by APA/Basslink Pty Ltd internal asset management engineers who have assessed the likely required capex over all years to FY 2046. This forecast is consistent with from APA's internal corporate asset forecasting process and represents the most robust estimate of capex forecasts that can be reasonably achieved.

- For opex costs post FY30, we take the forecast for the last year of the regulatory period FY 2030, and apply a CPI and a productivity gains adjustment factor to the values in each year.

We then apply the same discount rate as is used in the modelling of market benefits to arrive at the discounted long-term costs for the operation of Basslink.

Results

The long-term costs of operating Basslink are included in the table below. All values are in July 2025 dollars and are discounted to July 2025.

Table 2.4 - Basslink Long-term costs

Type	Long-term cost
Opex	$375 million
Capex	$213 million
Total	**$589 million**

2.8 Alternative Basslink capacities

As discussed further in **Attachment 5,** Basslink Pty Ltd has also calculated the market benefits of Basslink if it had lower transfer capacities. While this is not required as part of the Regulatory Test, we have included this calculation to test whether consumers would have received more net market benefits from a lower capacity interconnector.

EY's modelling at the lower capacities followed the same process as for the other scenarios. Considering the time and cost required to run the modelling, EY tested the market benefits under one ISP scenario and we then assessed the results. The Step Change scenario was chosen as this was given the highest weighting in the 2022 ISP. In reviewing the results, it became clear that it was highly unlikely that a lower capacity would provide higher Net Market Benefits.

The following table shows the market benefits of the 300MW and 150MW scenarios under the Step Change ISP scenario and the Singe Stage Marinus Link scenario. The values are displayed in both July 2023 and July 2025 dollars and are both discounted to July 2025 according to the discounting rate discussed above.

Table 2.5 - Market benefits of 300MW and 150 MW under Step Change scenarios

Description	Scenario	Marinus Link single stage ($ July 2023)	Marinus Link single stage timing ($ July 2025)
Step Change – 350 MW	AEMO 2022 ISP Step Change Scenario with changes from 2023 IASR Step Change scenario	$3,131 million	$3,499 million
Step Change – 150 MW	AEMO 2022 ISP Step Change Scenario with changes from 2023 IASR Step Change scenario	$1,558 million	$1,741 million

The following table shows the market benefits of the 300MW and 150MW scenarios under the 'Step Change' ISP scenario and the 'ISP timing' and 'Delay' Marinus Link scenarios. As discussed in Section 2.6, we question whether these remain credible options, but we have included them to provide a full picture of the market benefits. The values are displayed in both July 2023 and July 2025 dollars and are both discounted to July 2025 according to the discounting rate discussed above.

Table 2.6 - Market benefits of 300MW and 150 MW under Step Change scenarios

Description	Scenario	Marinus Link ISP timing ($ July 2023)	Marinus Link ISP timing ($ July 2025)	Marinus Link delay ($ July 2023)	Marinus Link delay ($ July 2025)
Step Change – 350 MW	AEMO 2022 ISP Step Change Scenario with changes from 2023 IASR Step Change scenario	$1,883 million	$2,105 million	$3,121 million	$3,488 million
Step Change – 150 MW	AEMO 2022 ISP Step Change Scenario with changes from 2023 IASR Step Change scenario	$938 million	$1,048 million	$1,499 million	$1,675 million