Issues Paper

Basslink Conversion Application and Electricity Transmission Determination

1 July 2025 to 30 June 2030

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AUSTRALIAN ENERGY REGULATOR

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1 Introduction

The Australian Energy Regulator (AER) exists to ensure energy consumers are better off, now and in the future. Consumers are at the heart of our work, and we focus on ensuring a secure, reliable, and affordable energy future for Australia. We regulate electricity networks in all jurisdictions except Western Australia. Our primary role is in setting the maximum revenue that network businesses can recover from users of their networks. Our goal is to make decisions that ensure consumers pay no more than necessary for safe and reliable energy.

APA Group is the owner of Basslink Pty Ltd, the company that owns and operates the Basslink interconnector. For consistency and clarity, we refer to 'Basslink' throughout this Issues Paper. On 19 May 2023 Basslink lodged an application with us:

- to convert Basslink's network services from market network services to prescribed transmission services; and
- requesting us to commence, and specify, the process of making a transmission determination for Basslink.[1]

On 14 July 2023 we published a Commencement and Process Paper where we set out our decision to assess Basslink's application to convert the Basslink interconnector from a Market Network Service Provider (MNSP) to a prescribed Transmission Network Service Provider (TNSP) concurrently with undertaking the transmission determination process.[2] The transmission determination process will review Basslink's revenue proposals including the opening Regulatory Asset Base (RAB), operating expenditure (opex) and capital expenditure (capex). Note that a final revenue determination will only be required if the AER decides to allow Basslink to convert to a regulated asset.

On 15 September 2023 we received a revenue proposal for the Basslink interconnector for the five-year regulatory control period 1 July 2025 to 30 June 2030 (2025-30 period). The revenue proposal also included further information in support of Basslink's application to convert the Basslink interconnector from an MNSP to a prescribed TNSP.[3]

In assessing Basslink's application to convert the Basslink interconnector to a prescribed TNSP, the National Electricity Rules (NER) require us to determine whether regulation of Basslink would, or is likely to, contribute to the National Electricity Objective (NEO). Table 1 below sets out

Our Better Resets Handbook (Handbook), together with the regulatory framework, sets out our expectations for each network's revenue proposal. In addition to expectations on consumer engagement, it sets out our expectations regarding estimation of the key revenue

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1 APA Group, *Basslink: Application for conversion and request to commence the process for making a transmission determination*, 19 May 2023. Available at: Basslink - Determination 2025–30: Initiation

2 AER. *Basslink Decision: Commencement and Process Paper*, July 2023. Available at: Basslink - Determination 2025–30: Decision

3 APA Group, *Basslink Transmission Revenue Proposal,* 15 September 2023. Available at: Basslink – Determination 2025-30: Proposal

components, such as capex and opex. These expectations and the NER provide the framework for our assessment of the revenue components and may help guide stakeholders' submissions on the proposal. As we stated in the Handbook:

> As the economic regulator of energy networks, we are required to make decisions that best advance the long-term interests of consumers, as expressed in the National Electricity Objective and National Gas Objective. If a network business meets our expectations this will increase the likelihood that its regulatory proposal advances the long-term interests of consumers, giving us the confidence to rely on a more targeted assessment to meet our obligations.[4]

This Issues Paper highlights some of the key elements of the conversion application and revenue proposal, and identifies issues that, on preliminary review, are likely to be the focus of our assessment. We have set out several questions throughout this paper. Stakeholders can assist our process by providing their views on these or any other aspect of the proposal.

1.1 How can you get involved?

Stakeholder engagement is a valuable input to our assessment of the conversion application and determination. When we receive stakeholder submissions that articulate consumer preferences, address issues in a revenue proposal, and provide evidence and analysis, our decision-making process is strengthened.

You can contribute to our assessment by:

- making a written submission on Basslink's proposal to ResetCoord@aer.gov.au by 16 February 2024.[5]
- Joining us and Basslink at an online public forum on **22 November 2023**. Details of how to register for this forum are available on the Eventbrite (external link) website.[6]

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4 AER, *Better Resets Handbook*, December 2021, p. 3.

5 See AER website: APA Group Submission page for full details. For further information regarding the AER's use and disclosure of information provided to it, see the ACCC/AER Information Policy.

6 Register for the Basslink public forum through Eventbrite (external link).

Table 1 Key dates for Basslink conversion and 2025-30 revenue determination

Milestone	Date
AER publishes Issues Paper on Basslink's proposal	10 November 2023
AER holds public forum on Issues Paper and Basslink's proposal	22 November 2023
Submissions due on Basslink's proposals and Issues Paper	16 February 2024
AER publishes draft decision	June 2024
AER holds public forum on draft decision (predetermination conference)	June 2024
Basslink submits revised proposal to AER	August 2024
Submissions due on draft decision and Basslink's revised proposal	September 2024
AER publishes final decision	December 2024

Note: Timelines are indicative and subject to change.

2 Initial observations

2.1 Conversion and revenue proposal

If approved, Basslink's application to convert the interconnector from an MNSP to a prescribed TNSP would result in Basslink's transmission services being classified as prescribed services. Once classified as prescribed services Basslink would be regulated like any other TNSP, requiring us to publish a revenue determination and allowing Basslink to derive its revenues from tariffs we set under the NER. If regulated, consumers would pay for transmission services through their electricity bills.

In considering Basslink's conversion application, we are required to determine whether regulation of Basslink would, or is likely to, contribute to the achievement of the NEO. Consequently, whether Basslink should be converted to a regulated TNSP is a 'with or without' regulation question. That is, would the benefits of regulation outweigh the costs to consumers. Key aspects of conversion are discussed in section 4 of this Issues Paper.

Basslink's application contends regulation of the Basslink interconnector would promote the NEO as prescribed transmission services would result in more efficient use of the Basslink interconnector, improved reliability, support system security, contribute to achieving greenhouse emissions targets and have potential price benefits for consumers.[7] We are particularly interested in stakeholder views on the question of conversion.

Basslink's revenue proposal would allow it to recover $561.1 million ($ nominal, smoothed) from consumers over the 2025-30 period.[8] How this would flow through to consumers in Tasmania and Victoria is heavily dependent upon the final cost allocation model. In its application Basslink proposes a market size approach, apportioning 90% of the cost to Victorian consumers and 10% to Tasmanian consumers.[9] We note cost allocation has been identified as a key issue by a number of stakeholders.

Basslink's conversion application is the first step in a 15-month review process. Over the course of this process, as we move from the proposal to draft decision, and then to revised proposal and final decision, aspects of both the conversion application and revenue proposal are likely to change. In addition, a standard part of our process is to update the forecast revenue for movements in market variables such as interest rates, bond rates and inflation. Movements in these market variables can have a material impact on the final allowed revenue and, therefore, consumer bills.

2.2 Key drivers of proposed revenue

The key elements driving Basslink's proposed total revenue of $561.1 million ($ nominal, smoothed) over the 2025-30 period are return on capital, driven by the opening RAB value and proposed capex, and proposed opex.

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7 APA Group, *Basslink Transmission Revenue Proposal*, Chapter 3 - Conversion Application, 15 September 2023, pp. 16-21.

8 APA Group, *Basslink Transmission Revenue Proposal*, Chapter 7 – Revenue, 15 September 2023, p. 42.

9 APA Group, *Basslink Transmission Revenue Proposal*, Chapter 7 – Revenue, 15 September 2023, p. 45.

In a typical revenue determination, we compare revenue from one regulatory period to the next on a like-for-like basis. However, as Basslink is not currently a regulated asset there is no immediate regulatory period to which we can compare, nor is there an established RAB.

Section 5 of this Issues Paper discusses the opening RAB valuation, including Basslink's proposed opening value of $831 million ($ 2025)[10] and the methodology applied to arrive at this value.

Proposed capex for the 2025-30 period is $74.1 million ($ 2024-25)[11] and opex is $182.7 million ($ nominal).[12] Section 7 of this Issues Paper discusses both capex and opex in further detail.

2.3 Marinus Link

Marinus Link is a proposed interconnector that once constructed will provide one 750 MW high voltage direct current (HVDC) cable in the first instance, running 255km undersea and 90km underground connecting Tasmania and Victoria. The proposal includes an option of subsequently adding a second cable.

The Australian Energy Market Operator (AEMO) included the Marinus Link Interconnector in the Optimal Development Path of the 2022 Integrated System Plan, noting that the project was immediately actionable and should progress as urgently as possible. The construction of the Marinus Link interconnector, including the final configuration and delivery date, will have implications for the operation of Basslink. Section 4 of this Issues Paper includes discussion of Marinus Link in the context of Basslink operating as an MNSP, while section 5 includes discussion of Marinus Link in the context of market modelling provided by Basslink in support of its proposal.

10 APA Group, *Basslink Transmission Revenue Proposal*, Chapter 8 – Regulatory Asset Base, 15 September 2023, p. 48.

11 APA Group, *Basslink Transmission Revenue Proposal*, Chapter 9 – Forecast Capital Expenditure, 15 September 2023, p. 50.

12 APA Group, *Basslink Transmission Revenue Proposal*, Chapter 13 – Forecast Capital Expenditure, 15 September 2023, p. 63.

3 Consumer engagement and its impact on the proposal

While consumer engagement is not a substitute for the AER's role in determining whether regulation of Basslink is in the long-term interests of consumers or whether proposed expenditure is prudent and efficient, genuine, high quality consumer engagement by Basslink is essential. High quality consumer engagement will assist in developing a regulatory proposal that is driven by consumer preferences. Further, high quality consumer engagement is critical to developing regulatory proposals that support delivery of services that meet the needs of consumers at a price that is affordable and efficient. We've seen through experience that a regulatory proposal developed through genuine engagement with consumers is likely to be more robust and capable of acceptance in our decisions.

Our framework for considering consumer engagement in network revenue determinations is set out in the Handbook.[13] Used in conjunction with our technical analysis, the framework for our regulatory decision making allows us to place weight on the outcomes of the engagement activities undertaken by networks to assist in providing an overall assessment of a proposal. In this context, consumer engagement undertaken by businesses is important as it may inform, but does not determine, the AER's position on the long-term interests of consumers.

Basslink worked with SEC Newgate during the development of its regulatory proposal. SEC Newgate has separately submitted a report as part of the regulatory proposal that provides key insights into Basslink's engagement objectives, activities, stakeholder evaluation and alignment of the process against the Handbook.[14]

In November 2022, Basslink established the independent Regulatory Reference Group (RRG) to support the development of its regulatory proposal. The RRG's objective was to work collaboratively 'under a principle of co-design on the development and implementation' of the 'regulatory engagement plan for Basslink, including the scope, timing, themes and engagement methodology.'[15]

The RRG has separately submitted a report as part of the proposal submission that provides valuable insights from members on their experience and outcomes of the process.[16]

3.1 Nature of engagement

The nature of engagement is about how networks engage with their consumers. Our expectations are that network businesses will sincerely partner with consumers and equip them to effectively engage in the development of their regulatory proposals.

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13 AER, *Better Resets Handbook*, December 2021.

14 SEC Newgate, *Basslink regulatory reset 2025 to 2030: Engagement Summary Report*, September 2023.

15 APA Group, *Basslink Transmission Revenue Proposal*, Att. 3 – Stakeholder Engagement, 15 September 2023, p. 99.

16 Basslink RRG, *APA Group's 2025-30 Revenue Proposal for Basslink*, August 2023.

In December 2022 a 'co-creation' workshop was held where RRG members, in collaboration with Basslink, identified core issues and priorities for engagement.[17] A further six meetings were held between January and September 2023 to discuss and collaborate on key aspects of the regulatory proposal.

Basslink engaged directly with consumers through a series of workshops and online focus groups. RRG meetings and consumer workshops were supported by senior Basslink staff, and on the evaluation measure of 'displaying genuine interest in your opinion' both RRG members and workshop participants rated Basslink as 'good' or 'excellent'.[18]

The independent RRG report noted Basslink was open and transparent throughout the development of the regulatory proposal and demonstrated both sincerity and accountability in their engagement with the RRG members.

3.2 Breadth and depth of engagement

The breadth and depth of engagement is about the scope of engagement with consumers and the level of detail at which network businesses engage on issues. It also covers the range of avenues used to engage with consumers.

Basslink's engagement activities included RRG input, online focus groups, consumer workshops and an online quantitative survey. According to the RRG's report, the multi-channel approach enabled Basslink to engage with a broad cross-section of consumers in both Victoria and Tasmania.[19]

Basslink's consumer engagement strategy was developed in conjunction with RRG members and SEC Newgate, with SEC Newgate planning and facilitating the consumer workshops and surveys. We note stakeholder engagement is ongoing and that Basslink have broadened their engagement, in part based on RRG advice, with a particular focus on major energy users and government stakeholders.[20]

Basslink's scope of engagement focused on five priority issues, identified in collaboration with the RRG, namely reliability, affordability, capital expenditure, insurance and cost sharing. The RRG found Basslink demonstrated a good understanding of the issues that are important to consumers, particularly those in Tasmania. Four out of five of the RRG members represent Tasmanian interests, resulting in a focus on Tasmanian consumers and businesses.

We note Basslink did not engage with stakeholders on the broader question as to whether conversion is in the long-term interests of consumers, and there was limited consultation on the methodology it adopted to determine the opening RAB value. These are important

17 Basslink RRG, *APA Group's 2025-30 Revenue Proposal for Basslink*, August 2023, p. 4.

18 SEC Newgate, *Basslink regulatory reset 2025 to 2030: Engagement Summary Report*, September 2023, p. 32.

19 APA Group, *Basslink Transmission Revenue Proposal*, Chapter 5 – Stakeholder Engagement, 15 September 2023, p. 30.

20 Basslink RRG, *APA Group's 2025-30 Revenue Proposal for Basslink*, August 2023, p. 4.

aspects in the AER's decisions and we discuss the question of conversion in section 4 of this Issues Paper and determining the RAB value in section 5.

We expect Basslink's stakeholder engagement to continue in the lead up to our draft decision and Basslink's revised regulatory proposal. Central to this will be Basslink's continued engagement to ensure both Tasmanian and Victorian stakeholder views are considered in the context of both the conversion application and revenue determination. We note in its report the RRG recommended Basslink continue to engage with it on complex topics, with Basslink subsequently committing to ongoing engagement.[21]

3.3 Clearly evidenced impact

We look for clear evidence of the impact of engagement, and how a proposal represents and is shown to represent consumer views. Consumers benefit from the shared experience of stakeholder engagement, particularly when that engagement extends to consumers having influence over decisions that affect them.

Basslink worked with the RRG to co-design the engagement process. The RRG noted it has confidence that consumer preferences sought by Basslink on cost allocation, insurance and capital expenditure relating to the upgrade of the control and protection system (CPS) were both well informed and were reflected in the final proposal.[22]

SEC Newgate note feedback from the RRG, consumer workshops and the quantitative study have directly influenced aspects of the regulatory proposal. According to the SEC Newgate report, consumer impact can be considered to have reached the 'collaborate' level of public participation on the IAP2 spectrum in relation to affordability, reliability and insurance issues and 'empower' level with respect timing of the replacement of the control and protection system and how costs should be shared between Victorian and Tasmanian consumers.[23]

While we acknowledge consumer preferences have been influential in particular aspects of Basslink's proposal, there are key issues where further consumer input would be beneficial; including consumer preferences with respect to determining the opening RAB value and whether conversion to a regulated TNSP is in the long-term interests of consumers. We are particularly interested in stakeholders' views as to whether consumers' key priorities, both with respect to the conversion application and revenue proposal, have been adequately consulted on to date.

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21 APA Group, *Basslink Transmission Revenue Proposal* Att. 3 – Stakeholder Engagement, September 2023, p. 107.

22 Basslink RRG, *APA Group's 2025-30 Revenue Proposal for Basslink*, August 2023, p. 12.

23 SEC Newgate, *Basslink regulatory reset 2025 to 2030: Engagement Summary Report*, September 2023, p. 37.

Questions on consumer engagement and how it has impacted the proposal

1) Has Basslink engaged meaningfully with consumers on all key elements of both its conversion application and 2025-30 revenue proposal? Are there any key elements that require further engagement?
2) Has stakeholder engagement adequately captured the views of Victorian consumers?
3) To what extent do you consider consumers were able to influence topics engaged on by Basslink and the outcomes reflected in its proposal? Please give examples.

4 Key elements of conversion proposal

4.1 Basslink as an MNSP

Basslink was built in 2006 by a subsidiary of the UK's National Grid and is owned and operated by the company Basslink Pty Ltd. Basslink derives its revenue by operating as an MNSP.

Basslink is one of three transmission links built to operate as an MNSP along with Murraylink and Directlink. The National Electricity Code (which preceded the National Electricity Rules (NER)) encouraged market-based transmission infrastructure investment. It allowed investors to build unregulated interconnectors and earn revenue from price differentials between the states. It also included 'safe harbour' provisions which allowed MNSPs to convert to regulated status.

Murraylink and Directlink decided to utilise the safe harbour provisions in the National Electricity Code because price differentials between the states were lower than expected. However, conversion to regulation came at a cost to the owners as the RAB adopted in both cases was considerably lower than the original construction cost.

Unlike Murraylink and Directlink, Basslink continued to operate as an MNSP. For most of its life Basslink has derived its revenues from contracts with Hydro Tasmania. In 2006 Basslink entered a 25-year contract with Hydro Tasmania (the Basslink Services Agreement). Hydro Tasmania paid Basslink an annual interconnector facility fee in return for use of the interconnector. The contract allowed Hydro Tasmania to participate directly in the Victorian market and sell electricity into Victoria when prices where high. Hydro Tasmania also purchased electricity from Victoria to support supply during drought conditions, and to optimise dam availability for exports.

In December 2015, a fault on the cable caused a six-month outage. The outage contributed to Basslink incurring financial losses and in 2021 the company went into receivership. In February 2022 the Basslink Services Agreement was terminated. Later in 2022 APA Group acquired Basslink from its administrator for $773 million and entered a new contract with Hydro Tasmania and Basslink (the Network Services Agreement). The Network Services Agreement commenced on 21 October 2022 and expires on the earlier of 30 June 2025 or the day Basslink is regulated (unless extended by mutual agreement between Hydro Tasmania and Basslink).

4.2 Basslink conversion proposal

Basslink now seeks to convert from an MNSP to a TNSP, and to classify the network services Basslink provides as prescribed transmission services so that it derives its revenues from tariffs that we set under the NER. Basslink states that the alternative is for the Basslink interconnector to derive its revenues from price differentials between Victoria and Tasmania, through financial derivatives underpinned by Basslink's capacity or by selling dispatch rights to Basslink to an energy market participant.

If we convert Basslink, it will be regulated like any other TNSP under Chapter 6A of the NER. The NER require us to publish a transmission determination for each TNSP. A transmission determination comprises a revenue determination and a pricing methodology. In a revenue

determination, we must set the maximum allowable revenue a TNSP can recover from consumers during a regulatory control period (typically five years) to cover its efficient costs, and a rate of return for the owner.

Consumers pay for regulated transmission services through their electricity bills. TNSPs recover most of their costs from distribution network service providers (DNSPs). DNSPs in turn recover their costs from retailers and retail customers. Some large businesses are directly connected to the transmission network, rather than a distribution network. They also contribute to recovery of transmission costs.

4.3 Rule requirements

Under clause 11.6.20 of the NER, Basslink may apply to us to determine that the network services it provides should be classified as prescribed transmission services. Specifically, that clause provides:

> If, after the commencement date, a *network service* provided by means of, or in connection with, the Basslink *transmission system* ceases to be classified as a *market network service*, it may at the discretion of the *AER* be determined to be a *prescribed transmission service*, in which case the relevant *total revenue cap* may be adjusted in accordance with Chapter 6A and this clause 11.6.20 to include to an appropriate extent the relevant *network* elements which provide those *network services*.

The NER allows us to classify Basslink's network services as prescribed transmission services (in other words, to convert Basslink to being regulated) if this would, or is likely to, contribute to the achievement of the NEO. We may also take into account the Revenue and Pricing Principles (RPP) in making this determination if we consider that to be appropriate.[24]

The NEO is to:[25]

> promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to—
>
> (a) price, quality, safety, reliability and security of supply of electricity; and

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[24] The revenue and pricing principles set out in section 7A of the NEL. The main points in the principles are that:

- A regulated network service provider should be provided with a reasonable opportunity to recover at least efficient costs in providing prescribed network services and complying with a regulatory obligations or requirements.
- A regulated network service provider should be provided with effective incentives for the efficient investment and provision of electricity network services.
- A price or charge for the provision of a direct control network service should allow for a return commensurate with the regulatory and commercial risks involved in providing the direct control network service to which that price or charge relates.
- Regard should be had to the economic costs and risks of the potential for under and over investment by a regulated network service provider.
- Regard should be had to the economic costs and risks of the potential for under and over utilisation of a distribution system or transmission system.

[25] NEL, section 13

(b) the reliability, safety and security of the national electricity system.

From 21 November 2023 a greenhouse gas emissions objective will be included in the NEO, specifically:

(c) the achievement of targets set by a participating jurisdiction—

(i) for reducing Australia's greenhouse gas emissions; or

(ii) that are likely to contribute to reducing Australia's greenhouse gas emissions.

Consistent with the current approach to applying the NEO, we will consider and balance the emissions reduction objective alongside the other existing objectives, in a way that maximises the achievement of the overall energy objectives in the long-term interest of consumers.

4.4 Discussion

Whether Basslink should be converted is a 'with or without' regulation question. That is, whether the benefits of regulation outweigh the costs to consumers compared to a future without conversion. If we regulate Basslink, consumers will pay additional transmission charges. At the same time regulation may deliver benefits.

The answer to this question will in part be influenced by the value of Basslink's RAB that we may consider appropriate were Basslink to be regulated. The greater the value of the RAB, the greater the regulated transmission charges. In turn, this means the greater the benefits need to be to make conversion worthwhile for consumers.

As part of its application, Basslink provided a RIT-T assessment. This assessment concluded that there are net benefits for consumers from continuing to operate Basslink.

However, the outcome of a RIT-T assessment is only the starting point. Basslink is likely to continue to operate even if it is not regulated. Considering the NEO, and in particular, the considerations of efficiency, price, reliability, emissions and security of supply, there are several scenarios and counterfactuals that must be considered to properly assess whether the benefits outweigh the costs of regulation. This section considers those scenarios.

4.4.1 Counterfactual

The first step to consider is what would happen if Basslink continued to operate as an MNSP. As an MNSP, Basslink earns revenues from price differentials between Victoria and Tasmania and can withhold capacity to optimise returns, and to select the specific combination of flows and price differentials that would maximise revenue.

Specifically, there are three possible scenarios that should be considered. Namely:

1. Basslink earns revenues from electricity price differentials between Victoria and Tasmania, either by participating in spot markets and/or by buying and selling electricity contracts.
2. Basslink contracts capacity to Hydro Tasmania. Hydro Tasmania would then control flows on Basslink and earn revenues from electricity price differentials between Victoria and Tasmania (again either by participating in spot markets and/or by buying and selling electricity contracts).

3. Basslink sells transmission capacity to other third parties (for example, a Victorian energy market participant). The contracting party would make money in a similar way to Basslink in scenario 1.

The second step to consider is the benefits of Basslink operating as a TNSP regulated under the NER. If regulated, AEMO will determine flows on the interconnector using the dispatch algorithms in the National Electricity Market Dispatch Engine (NEMDE). NEMDE selects the least cost combination of generator bids to meet demand for each five-minute dispatch interval.

We discuss the implications of these scenarios for the NEO.

Longer term, if Marinus Link is built, Basslink submitted that there is a prospect of the Basslink interconnector ceasing operation. Marinus Link will increase electricity flows between Victoria and Tasmania, reduce price differentials between the states, and reduce revenue potential from MNSP operations. If Basslink ceases to operate it is likely to have efficiency, security of supply and greenhouse gas emissions implications, though the magnitude of these will depend on the timing and capacity of Marinus Link.

4.4.2 Efficiency

Regulating Basslink could promote efficient use of the interconnector. The potential efficiency benefits fall into two categories:

1. Allocative efficiency. Allocative efficiency refers to the allocation of resources to their highest-valued uses. In the NEM context, allocative efficiency is associated with minimising the cost of dispatch and avoiding the exercise of market power. As flagged by Basslink, the Basslink interconnector as a profit-maximising MNSP would be likely to withhold capacity. Withholding capacity on Basslink could result in sub-optimal generation dispatch with more expensive generation being dispatched over cheaper (inter-state) alternatives. By removing the incentive to withhold capacity on Basslink, regulation has the potential to improve allocative efficiency.
2. Dynamic efficiency. Dynamic efficiency refers to maximising allocative efficiency over time. It involves ensuring the value-maximining pattern of investment and output in the long term. Regulating Basslink could improve the type, location and timing of generation investment and retirement outcomes over time. If regulated, new entrant wind farms should have improved access to Basslink capacity (compared to the scenario where Basslink is operated as an MNSP or is contracted to Hydro Tasmania), providing more scope for Tasmanian plant to export into Victoria. Improved access to Basslink capacity, and greater certainty about access, should allow investors to take advantage of the higher quality wind resources in Tasmania.

In Tasmania, Hydro Tasmania is the dominant generator. If Hydro Tasmania withholds capacity to maximise profits, the benefits of regulation listed above may not materialise.

4.4.3 Price

The efficiency gains to be realised were Basslink regulated will come at a cost to consumers. Basslink has proposed over $100 million per annum in additional transmission charges. The question here is whether the efficiencies to be realised outweigh these additional charges.

Hydro Tasmania's participation in the Victorian market reduces spot and contract prices. It offers contracts to Victorian retailers, providing an additional source of supply and competition for peaking capacity. Similarly in the spot market, Hydro Tasmania's participation when Victorian demand is high can reduce spot prices.

Because regulating Basslink prevents withholding of interconnector capacity, it is likely to increase Hydro Tasmania's participation in the Victorian market and exert downward pressure on prices.

The impact on prices in Tasmania is less clear as wholesale price offerings to Tasmanian retailers are regulated by the Tasmanian Government.

In its conversion application, Basslink described the potential price benefits of regulating Basslink to consumers. However, Basslink did not quantify these benefits.

4.4.4 Reliability

In its submission, Basslink stated:

> The market risk facing an MNSP will likely operate as a disincentive to long-term investment in the asset. As noted by the ACCC, an 'uncontracted' MNSP would be conscious of the impact additional transmission capacity would have on its ability to derive revenue from the price differential between regions, and would need to be careful not to 'over invest' if the asset were to face a reduction in profitability in the future. The timing and capacity of additional generation and transmission, and therefore its impact on the revenue available to an MNSP, will be difficult to assess over the long-term.[26]

If the ongoing investment made by an MNSP is lower than a TNSP is likely to make, there is a greater risk of equipment failure and outages.

4.4.5 Security of supply

Basslink, as a TNSP, would allow Hydro Tasmania to import electricity to manage dam levels. For example, during the drought conditions in the late 2000s and early 2010s, Hydro Tasmania maintained security of supply by importing more electricity from Victoria than it exported, allowing it to reduce water use and conserve the limited water available at the time.

The option of managing drought conditions by importing electricity should be available whether Basslink operates as an MNSP or a TNSP, though the cost to Hydro Tasmania is likely to be lower if the interconnector is regulated.

4.4.6 Greenhouse gas emissions

We accept Basslink's contention that conversion of the Basslink interconnector offers longer term greenhouse gas emissions benefits. It allows Hydro Tasmania to provide peaking capacity in Victoria at periods of high demand. This supports the transition to renewable generation in Victoria by providing additional firming services and reducing reliance on gas as a peaking service. Basslink also offers the potential to export electricity generated by wind farms in Tasmania.

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[26] APA Group, *Basslink Transmission Revenue Proposal* Att. 1 - Conversion, 15 September 2023, p. 79.

In the short term, though, the impact on emissions is less clear. Basslink allows exports to Victoria during Victorian peak times which should avoid gas dispatch, but is likely to mean more imports from Victoria at other times which could mean more (brown) coal dispatch.

Trade between Tasmania and Victoria is available whether Basslink operates as an MNSP or a TNSP, though capacity withholding by an MNSP will limit electricity flows and the impact on greenhouse gas emissions. We are seeking stakeholder views on the impact of conversion on greenhouse gas emissions.

4.4.7 Overall assessment

The benefits of Basslink continuing as an MNSP, compared to being regulated as a TNSP, are illustrated in Table 2. As discussed above, there are likely to be real benefits for consumers by converting Basslink to a regulated service. However, whether these benefits outweigh the costs, in particular, the additional transmission charges that consumers will bear, is less clear.

Table 2 Benefits of Basslink as an MNSP vs a TNSP

National Electricity Objective	Basslink regulated as a TNSP	Basslink as an MNSP
Efficiency	✓ / ?	X
Price	?	?
Reliability	✓	?
System security	✓	✓
Greenhouse targets	?	?

Questions about conversion to a regulated service

4) What is the likely or most realistic counterfactual that should be considered to assess Basslink's proposed conversion?

5) Has Basslink's conversion proposal appropriately captured the benefits and costs of converting Basslink to a regulated service? Are there other benefits and costs, and have some benefits or costs been overstated by Basslink?

6) What evidence and data should we draw on to assess relative costs and benefits of conversion?

7) Hydro Tasmania is the dominant generator in Tasmania. Does this limit the benefits of regulating Basslink?

8) How strong is Basslink's case for conversion based on the material in its proposal?
9) What is the likely impact of Basslink's conversion on greenhouse gas emissions?
10) Do you consider conversion of Basslink to a regulated TNSP to be in the long-term interests of consumers?

5 Determining the opening RAB value

If we decide under clause 11.6.20(c) of the Rules that the network services provided by means of the Basslink transmission system be classified as prescribed transmission services (that is, Basslink would be regulated in accordance with Chapter 6A) then we must also determine the value of the opening RAB for Basslink.

Our determination of the opening RAB for Basslink must be made by applying the previous regulatory approach[27] adopted in our regulatory determinations for Directlink in 2006 and Murraylink in 2003.[28] Both the 2006 Directlink and 2003 Murraylink decisions also required a determination on the conversion of interconnector assets and (if converted) the opening RAB values. The Rules set out that the previous regulatory approach refers to the methodologies, objectives, and principles applied in determining an opening RAB value in the 2006 Directlink and 2003 Murraylink decisions.

To the extent that there is an inconsistency in the approach between these two conversion decisions, the approach adopted in the decision regarding the Directlink transmission system prevails.[29]

Additionally, when implementing the previous regulatory approach, we must have regard to the prudent and efficient value of Basslink's assets (having regard to the matters set out in S6A.2.2 of the Rules).

The remainder of this section is structured as follows:

- Section 5.1 discusses the previous regulatory approach from our 2003 Murraylink and 2006 Directlink decisions.
- Section 5.2 discusses Basslink's proposed opening RAB value for Basslink.

5.1 Our previous regulatory approach to RAB valuation – the RIT-T

As set out above, we must determine the opening RAB for Basslink by applying the previous regulatory approach. This includes the methodologies, objectives, and principles applied in determining an opening RAB value in the 2006 Directlink and 2003 Murraylink decisions. The 2003 Murraylink[30] and 2006 Directlink[31] decisions adopted the Regulatory Test as the

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27 Previous regulatory approach refers to the methodologies, objectives and principles for determination of a RAB.

28 Cl.11.6.20(e) of the Rules requires us to value Basslink's opening RAB using the previous regulatory approach and cl.11.6.20(a) defines the previous regulatory approach for Murraylink and Directlink.

29 Cl.11.6.20(f) of the Rules.

30 ACCC, *Decision: Murraylink Transmission Company Application for Conversion and Maximum Allowed Revenue*, 1 October 2003, p. 48

31 AER, *Directlink joint venture application for conversion and revenue cap - final decision*, 3 March 2006, p. 2. AER, *Directlink joint venture application for conversion and revenue cap - draft decision*, 8 November 2005, p. 42.

approach to determining the opening RABs, after having regard to an optimised deprival value methodology (ODV).[32]

ODV was defined at the time in the National Electricity Code as: [33]

> A value ascribed to assets which is the lower of economic value or optimised depreciated replacement value.

Because Murraylink's and Directlink's assets were both relatively new at the time, the actual cost of construction was an accurate measure of replacement value and formed the starting point for the decisions.

The decisions defined economic value as: [34]

> 'the greater of disposal or salvage value (that is, net realisable value), or its value to users…' (that is, economic benefit).

The decisions went on to say: [35]

> An asset's value to users can be interpreted as the net present value of the future market benefits it provides in its lifetime.
>
> …the application of the 'economic value' limb of the optimised deprival value methodology, where replacement of Directlink would not be economic, allows an asset value to be assigned to Directlink and provides an outcome that is consistent with the objectives of the transmission revenue regulatory regime. It provides an economic valuation of Directlink by setting the asset value to be consistent with the level of its economic market benefits.[36]

The Directlink decision further stated that the regulatory test framework provides an outcome that is consistent with the ODV method.[37] For this reason, amongst others, we decided to adopt the Regulatory Test as the method for determining Directlink's opening RAB value.

The Regulatory Test was used to determine the value of future economic market benefits, and in turn the opening RAB value. However, while the Regulatory Test was the methodology used, there were also further principles and objectives adopted that guided how the Regulatory Test method was implemented to determine an opening RAB value.

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32 In making the Directlink decision the AER was required (under the legislative framework in place at the time) to have regard to the agreement of the Council of Australian Governments of 19 August 1994, that deprival value should be the preferred approach to valuing network assets.

33 National Electricity Code, chapter 10, 'Glossary'—see 'deprival value'.

34 AER, *Directlink joint venture application for conversion and revenue cap - final decision*, 3 March 2006, p. 35.

35 AER, *Directlink joint venture application for conversion and revenue cap – final decision*, 3 March 2006, p. 35 and p. xv1.

36 AER, *Directlink joint venture application for conversion and revenue cap – final decision*, 3 March 2006, p. 35 and p. xv1.

37 AER, Directlink joint venture application for conversion and revenue cap - draft decision, 8 November 2005, pp. 29, 40.

Modelling commissioned by Basslink shows substantial net benefits from the Basslink interconnector. If this proves to be the case, following the framework established for the Directlink conversion decision, the depreciated actual cost of the asset and estimates of the optimised replacement cost would guide us in setting the RAB.

Basslink have proposed using the depreciated actual cost of Basslink to set the RAB. This is consistent with the Murraylink and Directlink decisions and has the advantage that it is based on actual costs rather than estimates.

Relevant considerations for us include:

- Whether depreciated actual cost of the asset should be used to set the RAB
- How to take into account the price paid by APA Group for the asset (which may be lower than APA Group's proposed RAB)
- Whether the RAB should be optimised for Basslink's design limitations (for example its inability to operate at high ambient temperatures).

5.1.1 What is the Regulatory Test and the RIT-T?

The Regulatory Test was a precursor to our Regulatory Investment Test (RIT), and is in substance very similar to the RIT-T. The Regulatory Test was, and the RIT is, a cost-benefit test that regulated network businesses must perform and consult on before making major investments in their networks. There are separate, although fundamentally similar, cost-benefit tests for transmission and distribution networks – the 'RIT-T' and 'RIT-D'.

As the RIT-T is the current cost-benefit framework for new transmission investment, we will use the RIT-T, rather than the Regulatory Test, in this discussion.

The RIT-T (and the Regulatory Test) is a process that reveals information relevant to determining an opening asset value. The RIT-T is a cost-benefit test applied to network investment,[38] and requires the proponents of the future investment to undertake the following assessment:[39]

1. Identify the need that will be addressed by potential investment.
2. Identify credible investment options to address the identified need.
3. Estimate the costs of each credible option.
4. Estimate the benefits provided across all participants in the National Electricity Market (those who produce, consume and transport electricity in the market) by each credible option. This is typically achieved through modelling the National Electricity Market in a state of the world without the option and comparing this against a state of the world with the option. In doing so, this modelling will provide an estimate of the economic value of the option to the market.
5. Rank the options from highest net benefit to lowest.

[38] Network businesses must apply the RIT-T to all investments over the materiality threshold, currently $7m.

[39] AER, *Regulatory Investment Test for Transmission*, 6 October 2023.

5.1.2 The objectives and principles that guide how the RIT-T is used to set a RAB value

In the context of testing potential future investments, the RIT-T is used to determine a ranking of options based on maximising net benefits. This process reduces the risk of inefficient investments occurring.

The context of Basslink (and of Directlink and Murraylink before it) is different. Rather than selecting the efficient option for future investment, the RIT-T is used to value an investment that has already occurred. Therefore, the RIT-T is a method for determining if Basslink represents the most efficient investment option, and to reveal information about other credible investment options that may be more efficient. That is, the RIT-T in this context is a method for revealing information relevant to determining an opening RAB value.

To use this information to determine an opening RAB value the 2006 Directlink and 2003 Murraylink decisions applied further efficiency objectives and principles. These objectives/principles can be summarised as follows:

1. Market participants should not fund[40] a RAB value that is more than they receive in estimated benefits[41]

   This requires considering the following question: does the converting asset provide benefits greater than its costs?

   Applying this objective/principle discourages inefficient investment (that is, investments with costs greater than benefits). The RIT-T provides information on the cost of the converting asset and the market benefits provided by the converting asset.

   This objective/principle is an important first step as it recognises the actual benefits that market participants are estimated to receive from the investment. As noted above, the investment is sunk – while information about alternative investments (see objective/principle #2 below) may inform a determination of a RAB value, market participants may not be able to actually realise the benefits of any alternative investment options.

   In this calculation the benefits available are limited by the remaining life of the asset. As such, the relevant comparison is the available benefits against the asset's depreciated cost, depreciated to reflect that asset's remaining life.

2. Would a different investment option be preferred over the converting asset?

   This objective/principle tests whether the converting asset was built at its lowest efficient cost, and whether the assets built reflect the most efficient means of addressing the identified service need. In the 2003 Murraylink decision, the Regulatory Test identified an alternative option that was preferred over Murraylink as it provided the same benefits as Murraylink but at lower cost.

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40 Through a RAB valuation that informs transmission charges as per regulation of transmission charges under Chapter 6A of the Rules.

41 Over the life of the asset.

This objective/principle also provides consistency between the conversion application and the approval process for other regulated network investments. In doing so it prevents service providers first constructing a merchant interconnector and then converting to regulation once built as a way to bypass the cost-benefit tests within the regulatory framework.

The RIT-T provides information on the costs and benefits of alternatives to converting asset, and a ranking of options from highest net benefit to lowest.

3. An opening RAB value should promote efficient use of existing infrastructure

   As noted above re objective/principle #1, market participants will actually receive the benefits estimated to result from the converting asset, rather than the estimated benefits from alternative investment options. The RAB value should be set at a level that allows these benefits to continue to be provided to market participants.

   In the 2006 Directlink decision the Regulatory Test identified that there were no options that provided a positive net benefit, and therefore the preferred investment option was the 'do-nothing' option. However, the decision noted that the asset already exists and provides benefits to market participants over its operating costs, and it would not promote efficient use of the existing infrastructure to set an asset value of zero.[42]

5.1.3 How to apply information from alternative investment options in determining an opening RAB value

The first objective/principle provides that the opening RAB value should not exceed the value of the market benefits provided by the converting asset. The third objective/principle provides that the opening RAB value should not be set at zero, and must be sufficient to promote efficient use of existing infrastructure. This sets an upper and lower bound for the opening RAB value.

The second objective/principle is more complex to apply. This complexity stems from the multiple means by which an alternative investment option may be preferred over the converting asset – by having a lower cost, providing greater benefits, or both.

If an alternative option outperforms or matches the converting asset on both costs and benefits, and provides positive net benefits, then the alternative option is preferred and the opening RAB value can be set as the cost of the preferred alternative. This was the case in the 2003 Murraylink decision.

However, the RIT-T may identify alternative investment options that are more efficient (that is, provide greater net benefits) than the converting asset, but have either a higher cost or provide lower market benefits.

For example, as shown in the stylised example in Table 3 below:

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[42] AER, *Directlink joint venture application for conversion and revenue cap* - draft decision, 8 November 2005, p. 127.

- Alternative #1 provides greater net benefits than the converting asset but provides less gross benefits than the converting asset (which is the level of benefits that market participants will actually receive).
- Alternative #2 provides greater net benefits than the converting asset but does so at a higher cost than the converting asset.

Table 3 Stylised example of different types of preferred options

Option	Cost	Gross Benefits	Net Benefits
Converting asset	$150m	$200m	$50m
Alternative #1	$100m	$175m	$75m
Alternative #2	$160m	$260m	$100m

In these examples it is not clear how the opening asset value should be determined – whether it should be set at the cost of the preferred alternative, the cost of the converting asset, or via another mechanism that uses the information revealed through the RIT-T about more efficient preferred options.

The previous regulatory approach applied in the 2006 Directlink and 2003 Murraylink decisions did not address these scenarios as they did not apply in those decisions.

One possible method to account for more efficient preferred options was an approach detailed by the Allen Consulting Group (ACG) and considered during our 2006 Directlink decision.[43] ACG submitted that the value of the opening RAB be set at a level that provides a net benefit to market participants that aligns with the net benefit estimated to result from the preferred alternative option.

For example, in Table 3 above, alternative #2 is the preferred option as it provides the highest net benefit of the three options. Alternative #2 provides $100m of net benefits, and market participants will receive gross benefits of $200m resulting from the converting asset. Therefore, under the ACG approach, the opening RAB value for the converting asset should be set as: $200m less $100m = $100m.

A similar method to the ACG approach is set the value of the opening RAB for the converting asset such that the ratio of benefits to costs (RAB) for the converting asset aligns with the benefit-to-cost ratio of the preferred alternative option. For example, alternative #2 from above is the preferred option and provides a benefit:cost ratio of 1:1.625. The converting asset is estimated to provide $200m of benefits, so an opening RAB value of $123.08m would provide an aligning RAB:benefits ratio of 1:1.625.

[43] AER, *Directlink joint venture application for conversion and revenue cap* - draft decision, 8 November 2005, pp. 36-38.

In our Directlink decision we stated that rather than considering the ACG approach in the abstract that we would consider it when applying the Regulatory Test, and then found that the particulars of the Directlink decision made the ACG approach immaterial.[44]

As a consequence, our previous regulatory approach does not set out completely how the information from the RIT-T on more efficient options may ultimately inform an opening RAB value.

5.2 Basslink's proposed opening RAB value

Basslink proposed estimating the opening RAB value as the lower of:

- Basslink's depreciated actual cost (DAC),
- depreciated optimised replacement cost (DORC), and
- gross market benefits (less long-term operating costs).[45]

Following this approach, Basslink estimated that its depreciated actual cost would be the lowest value, and estimated its depreciated actual cost at $831 million.

Basslink estimated the benefits provided by the interconnector to be in the range of $2.271 billion to $3.359 billion.

Basslink estimated the costs and benefits of the following alternative asset configurations to Basslink that address similar service needs to Basslink:

- A modern equivalent construction of Basslink (a 500MW HVDC interconnector with and modular multi-level voltage source converters (MMC VSC).
- A 500MW HVDC interconnector with line-commutated converters (LLC).
- A 500MW HVAC interconnector
- A 300MW HVDC interconnector
- A 150MW HVDC interconnector

The costs and benefits for the various asset options as estimated by Basslink are presented in Table 3 below.

Basslink estimated that none of the alternative options would generate greater net benefits than the Basslink interconnector (at its depreciated actual cost). As a result, Basslink estimated that the interconnector would have passed the RIT-T – that is, none of the alternative options would have been preferred over Basslink in a RIT-T assessment.

Basslink estimated the alternative option with both the greatest net benefits and lowest cost to be the modern equivalent construction of Basslink (500MW HVDC with MMC VSC).

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44 AER, *Directlink joint venture application for conversion and revenue cap* - draft decision, 8 November 2005, pp. 40, 126.

45 APA Group, *Basslink Transmission Revenue Proposal*, Att. 5 – Regulatory Asset Base, 15 September 2023, p. 124.

Basslink estimated the depreciated cost of this best alternative replacement option (DORC) at $1.079 billion.

Table 4 Basslink's proposed asset valuation options

Option	Cost	Benefits	Net Benefits
Basslink	$831m	$3,102m – $4,190m	$2,271m – $3,359m
Modern equivalent Basslink (500MW HVDC MMC VSC)	$1,079m		$2,023m – $3,111m
Alternative cable 500MW HVDC LLC	$1,138m		$1,964m – $3,052m
Alternative cable 500MW HVAC	$3,331m	Not modelled Likely less benefits than Basslink due to lack of directional power transfer control and, combined with higher cost, likely significantly less net benefits	
Alternative cable 300MW	$869m	$3,443m	$1,986m
Alternative cable 150MW	$603m	$1,713m	$521m

Note: 1. Figures sourced from Attachment 5 of APA Group, *Basslink transmission revenue proposal*, 15 September 2023.
2. All values in $2025, escalated to July 2025 to align with APA Group's proposed start of its regulatory control period.
3. Costs are depreciated costs, reflecting Basslink's remaining asset life from July 2025, estimated by APA Group to be 250 months, or 52.1 per cent of a 40-year asset life.
4. Market benefits vary based on different modelling scenarios.
5. Market benefits for the 300MW cable and 150MW cable options estimated under the ISP step change scenario only.

We propose to apply the principles/objectives outlined in section 5.1 to assess the proposed asset valuation options, including the key inputs and assumptions used to derive the estimated costs and benefits of the proposed asset valuation options.

Further details regarding Basslink's approach and key inputs and assumptions are outlined in the sections below.

5.2.1 Actual costs and depreciation

Basslink applied the following process to arrive at its estimate of depreciated actual cost:

1. Identified Basslink's earliest asset values from its fixed asset register at the time Basslink first came into operation (2006).
2. Allocated the initial asset values across the earlier construction period (2000 to 2006) based on a construction profile reported to ASIC.
3. Added financing costs during construction based on an assumed cost of capital raised and transaction cost for raising equity. Basslink submitted that "as Basslink was a commercial service at the time and would have required capital at commercial rates, it is reasonable to consider the appropriate WACC to be a commercial WACC".

Basslink submitted that its assumed cost of capital reflected the risks the service provider faces in providing services in a single-asset unregulated business, subject to the market and the market of its customers.[46] Table 5 below sets out Basslink's cost of capital assumptions.

4. Adjusted the asset values from year to year from 2006 to 2025, using the AER RAB Roll-Forward Model, to account for:
    - Actual capital expenditure and asset disposals as recorded in Basslink's accounts up to 2023
    - Capital expenditure and asset disposals forecast by Basslink to occur from 2023 to 2025
    - Straight-line depreciation based on assumed asset lives for each asset category (average asset life of 40 years)
    - Inflation indexation applied to capital costs based on historical CPI to 2023
    - Inflation indexation applied to capital costs based on Basslink's forecast of inflation from 2023 to 2025.

Table 5 Cost of capital during construction – estimates used by Basslink in its proposed DAC RAB value

		2001	2002	2003	2004	2005	2006
Nominal vanilla WACC		10.75%	10.14%	10.11%	9.90%	9.62%	9.72%
Return on debt		9.6%	9.1%	8.8%	8.6%	8.2%	7.9%
Return on equity		12.5%	11.7%	12.1%	11.8%	11.7%	12.4%
Gearing ratio	60%						
Market risk premium	6.5%						
Equity beta	1.0						
Equity raising costs	3.83%						

To estimate depreciated costs of alternative asset options, the same remaining asset life, straight-line depreciation, and forecasts from 2023 to 2025 (for capex, disposals, inflation, and financing costs) were used.

Basslink also estimated an alternative depreciation method, the recovered capital method (RCM), as an additional means of potential asset valuation. Basslink did not propose using the recovered capital method within its proposed approach to establishing Basslink's opening

[46] APA Group, *Basslink Transmission Revenue Proposal*, Att. 5 – Regulatory Asset Base, 15 September 2023, pp. 125, 141.

RAB, but included the RCM estimate as additional information for stakeholders.[47] Basslink explains the recovered capital method as follows: [48]

> The RCM focuses on the historical capital recovered by the asset owner and calculates a RAB that ensures that the regulated entity will recover the efficient return of and on capital over the life of the asset. The RCM corrects for historical deviations from efficient recovery by increasing the RAB if the asset owner under-recovered its efficient return, and reduces the RAB if the asset owner over-recovered.

For the recovered capital method Basslink adopted the cost of capital from Table 4 above as the benchmark efficient rate of return for Basslink against which over- or under-returns were estimated. Basslink estimated that the recovered capital method results in a RAB value for Basslink of $2.488 billion.[49]

5.2.2 Credible alternative options to Basslink

To compare Basslink's actual costs against the cost of alternative options Basslink considered that non-network options do not provide credible solutions to the identified need serviced by Basslink, submitting:[50]

> We consider it highly unlikely that any non-interconnector project would both fulfil the identified and provide similar net market benefits as the existing asset. Addressing the same identified need without building an interconnector would require a significant cost and a package of investments in Victoria and Tasmania including new generation plants, energy storage options, and ancillary services.
>
> …
>
> Our initial calculations found even when only considering the provision of a similar amount of firm renewable capacity for both states, costs were more than double the actual cost of the interconnector.

In considering alternative network options, Basslink submitted that alternative interconnector routes do not provide credible options, stating: [51]

> We consider the route taken by Basslink to be the only applicable route to consider, both because of construction constraints and how regulatory precedent has been set.
>
> …
>
> When developing the plans for Basslink, the route was carefully negotiated and was optimised around several constraints. The project's designers had to take into account the extensive environmental considerations set out by the Victorian, Tasmanian, and Federal governments.

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47 APA Group, *Basslink Transmission Revenue Proposal*, Att. 5 – Regulatory Asset Base, 15 September 2023, p. 138.

48 APA Group, *Basslink Transmission Revenue Proposal*, Att. 5 – Regulatory Asset Base, 15 September 2023, pp. 138-139.

49 APA Group, *Basslink Transmission Revenue Proposal*, Att. 5 – Regulatory Asset Base, 15 September 2023, p. 142.

50 APA Group, *Basslink Transmission Revenue Proposal*, Att. 5 – Regulatory Asset Base, 15 September 2023, pp. 130,131.

51 APA Group, *Basslink Transmission Revenue Proposal*, Att. 5 – Regulatory Asset Base, 15 September 2023, p. 131.

These included regulations on passing through residential and agricultural communities, protected areas such as Wilsons Promontory, coastal and sea floor habitats.

To consider alternative network options, Basslink considered the following technology options:

- Capacity – APA Group costed Basslink's current 500MW capacity as well as two smaller 300MW and 150MW options
- Both HVDC and HVAC
- For HVDC, both MMC VSC and LLC converter stations
- Symmetric monopole converter station configuration assumed for all HVDC options
- 800mm2 aluminium core cables assumed for all options, with polymeric cable for MMC VSC and mass impregnated cable for LLC

5.2.3 Market benefit modelling

Basslink commissioned Ernst and Young Australia (EY) to undertake market modelling to determine the gross market benefits for Basslink. The approach involved computing the least-cost generation short-run marginal cost dispatch and capacity development plan for the NEM in a state of the world with Basslink as TNSP providing regulated prescribed transmission services and a state of the world without Basslink (that is, assuming Basslink is retired from 2025). The difference between the total system costs with Basslink less the total system costs without Basslink provides the value of the market benefits for a given scenario. This approach was undertaken over three scenarios: Step Change, Progressive Change and Hydrogen Superpower (all adopted from the 2022 ISP).[52]

The market benefits included in the assessment of Basslink are avoided costs of[53]:

- Generation (including capital costs, fixed operation and maintenance costs, variable operation and maintenance costs and fuel costs);
- Voluntary and involuntary load curtailment;
- Transmission expansion associated with REZ development;
- Transmission and storage losses.

The market modelling includes inputs, assumptions and scenarios which have been largely aligned with the 2022 ISP however with some differences, including updates based on the July 2023 AEMO IASR.[54] The inputs that have been updated included:

- Energy policy targets;
- Carbon budgets;

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52 EY, *Gross market benefit assessment of Basslink,* 15 September 2023, p.8.

53 EY, *Gross market benefit assessment of Basslink,* 15 September 2023, p.9.

54 EY, *Gross market benefit assessment of Basslink,* 15 September 2023, p.3.

- Costs: capital expenditure, fixed operation and maintenance, variable operation and maintenance, fuel, involuntary load curtailment and renewable energy zone resource limit violation penalty factors;
- Committed and anticipated generators;
- Thermal retirement dates;
- Discount rates.

The three scenarios modelled contain considerable investment in renewable energy (wind and solar) over the modelling period complemented by large-scale storage and gas.[55] The degree of uptake in solar and wind is higher in the Hydrogen Superpower and Step Change scenarios than in the progressive change scenario which sees a slower transition away from coal generation.

In all three scenarios EY assumed that Marinus Link would be built as a single 750MW interconnector, operational by 1 July 2029 as per the ISP timing, and with no second cable commissioned. However, EY did also model the effect of a second 750MW Marinus Link cable being built, as well as the effect of different timings for both the first and second Marinus Link cables.

In all scenarios avoided capital expenditure in generation investment is found to be the largest source of benefits. EY considers this to be largely due to the requirement in the modelling to meet the federal 82 per cent renewable energy target in 2029-30 and the requirement to meet the Tasmanian Renewable Energy Target (TRET). The latter target requires 150 per cent and 200 per cent available renewable generation as a percentage of demand by 2025 and 2030, respectively. Without Basslink, renewable generation (primarily wind) is built in both Tasmania (to meet the TRET) and in Victoria because of the lack of ability for the mainland to access the Tasmanian wind generation. With Basslink, the mainland can access Tasmanian wind and avoid the need to build some renewable generation on the mainland.

The requirement to meet the federal target also contributes to the avoided capital cost benefit as Basslink enables more efficient use of existing Tasmanian renewable generation along with the new wind capacity built to meet the TRET (which is largely spilt in the without Basslink scenario).

Beyond 2030, Basslink provides access to Tasmanian hydro generation which substitutes some of the gas generation which occurs in the without Basslink scenarios.

Questions on opening RAB value

11) Do you consider that Basslink's approach to estimating the opening RAB – by selecting the lower of the DAC, DORC, or market benefits – correctly applies the previous regulatory approach?

[55] EY, *Gross market benefit assessment of Basslink,* 15 September 2023, p.27.

12) Do you consider Basslink's proposed use of depreciated actual costs to set the proposed opening RAB value is appropriate?

13) Should the RAB be optimised for Basslink's design limitations (for example its inability to operate at high ambient temperatures)?

14) The price paid by APA Group for the asset may be lower than APA Group's proposed RAB. How should this be taken into account?

15) Do you consider Basslink's estimate of the modern equivalent replacement cost is an accurate reflection of the current efficient cost to construct a similar asset?

16) Do you consider that Basslink has, in considering efficient replacement costs, scoped all credible alternatives that can reasonably address the same service needs as those provided by Basslink?

17) What are your views of the market benefits provided by Basslink, and the benefits provided by alternative options to Basslink? Do you consider Basslink's estimated magnitude of the benefits are reasonable, and why? Do you consider Basslink's estimated benefits provide a reasonable reflection of the relativity of benefits across different alternative options? Do you consider that the Basslink interconnector provides benefits greater than its costs?

18) What do you consider are the main types of benefits that are provided by the Basslink interconnector? What market, economic, or technological factors do you think may impact the level of benefits generated by the Basslink interconnector, and how may changes to these factors affect the benefits of Basslink?

19) What are your views on the impact that the proposed Marinus Link interconnector may have on the benefits generated by the Basslink interconnector? What are your views on how we should consider the impact of the Marinus interconnector in our assessment of Basslink's opening RAB value? Do you consider the assumptions for the size and timing of Marinus Link used in the market modelling are reasonable?

20) Do you consider it reasonable to assume that the (gross) market benefits provided by Basslink are equal to the (gross) market benefits provided by a modern equivalent 500MW HVDC cable?

21) What are you views on Basslink's proposed commercial cost of capital used in its estimate of depreciated actual cost, rather than a regulated cost of capital? The use of a commercial cost of capital and regulatory depreciation, all other things being equal, is expected to generate a higher depreciated actual cost than if a regulated rate of return and a regulatory depreciation approach is adopted. Do you consider it reasonable for Basslink to use a commercial cost of capital while also using a regulatory depreciation approach to determine the depreciated actual costs of Basslink as a regulated asset?

6 Revenue allocation

In the event of conversion to a regulated TNSP, the Basslink interconnector will provide prescribed services to Tasmania and Victoria with consumers paying for those services through their electricity bills. Consequently, a key element of our decision will include the allocation of revenue attributable to use of the Basslink interconnector in each of Victoria and Tasmania.

This section of the Issues Paper discusses the Rule requirements on revenue allocation, the methodologies considered by Basslink and the market size approach proposed by in Basslink's regulatory proposal.

6.1 Rule requirements

Under clause 6A.29.1(b) of the NER, the allocation of revenue between both jurisdictions is to be determined according to 'use'. Specifically, that clause provides:

> Each Transmission Network Service Provider must determine the Aggregate Annual Revenue Requirement (AARR) for its own transmission system assets which are used to provide prescribed transmission services within each region.

The Rules do not define the term 'use', nor do they provide for a method of determining the proportions of the use of an interconnector in each region. Consequently, there are multiple revenue allocation methodologies, each based on 'use', that could potentially be considered consistent with the Rules.

In the case of Murraylink and Directlink use was defined geographically, that is revenue allocation was based on the physical location of the assets[56]. Similarly with Project Energy Connect, costs for the South Australian component were recovered by Electranet through its Transmission charges, while the New South Wales component was paid for through TransGrid's transmission charges.

Allocation of revenues for Basslink is more complex as most of Basslink's cable is in Commonwealth waters.

The issue of cost allocation has been the subject of previous discussion and analysis, including in the AEMC's 2013 Rule Determination: National Electricity Amendment (Inter-regional transmission charging). The AEMC's 2013 work considered broadening cost recovery to include generators.

We note the broader discussion on cost allocation for interconnectors is ongoing, including with respect to cost allocation for Marinus Link.

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[56] APA Group, *Basslink Transmission Revenue Proposal* Att. 4 – Revenue and Pricing Methodology, 15 September 2023, p. 112

6.2 Methodologies considered by Basslink

Basslink, in consultation with the RRG, developed three revenue allocation methodologies that were consulted on with stakeholders. These methodologies are:

- Geographic Method: the revenue allocation between Victoria and Tasmania would be based on the value of the interconnector assets geographically located in each region and a 50:50 allocation of assets in Commonwealth waters.
- Energy Flows: revenue allocation between Victoria and Tasmania would be based on the direction of energy flows between each region, measured MWh.
- Market Size: revenue allocation between Victoria and Tasmania would be based on the number of electricity connections in each region.[57]

The proportion of revenue allocation to Tasmania and Victoria relevant to each methodology is set out in Table 6 below.

Table 6 Revenue allocation methodologies and impact

Methodology	Proportion of revenue allocated – Tasmania	Proportion of revenue allocated – Victoria
Geographic	45%	55%
Energy Flows	50%	50%
Market Size	10%	90%

Note: 1. Figures sourced from Attachment 4 of APA Group, Basslink *transmission revenue proposal*, 15 September 2023.

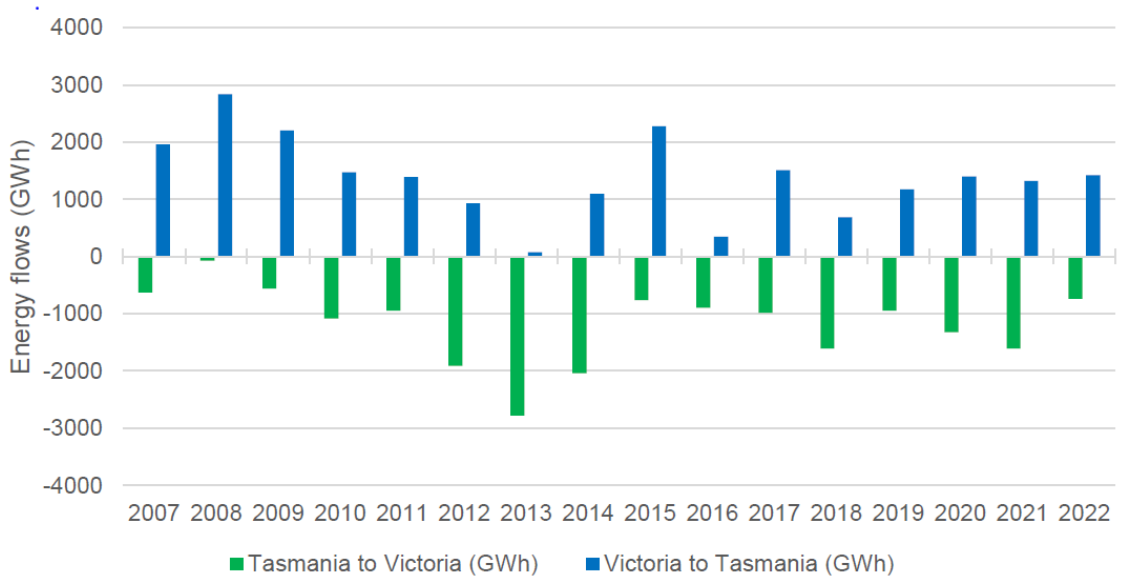
6.2.1 Historical energy flows

Between FY2017 and FY2022 the total energy transported across Basslink each year has averaged 2,300 GWh[58]. According Basslink's proposal, typically flows from Victoria to Tasmania are higher in summer due to low cost solar generation produced in Victoria and reduced water availability in Tasmania. Flows from Tasmania to Victoria are higher winter due to higher rainfall and more hydro electricity generated in Tasmania and less solar generation in Victoria. Figure 1 below shows the direction of energy flows between Tasmania and Victoria between 2007 and 2022.

[57] APA Group, *Basslink Transmission Revenue Proposal* Att. 4 – Revenue and Pricing Methodology, 15 September 2023, p. 114.

[58] APA Group, *Basslink Transmission Revenue Proposal*, 15 September 2023, p. 12

Figure 1 Annual energy flows across Basslink



Note: 1. Figure sourced from APA Group, *Basslink transmission revenue proposal*, 15 September 2023, p. 12.

6.2.2 Results of consumer engagement and bill outcomes

Basslink notes consumer engagement found the market size approach was the most widely supported option. Specifically, 75% of all workshop participants and 44% of all survey participants preferred this option. While support for the market size approach was strongest from Tasmanian participants, Basslink found:

- 53% of Victorian workshop participants preferred the market size approach
- 31% of Victorian survey participants preferred the market size approach, second to energy flows at 36%.[59]

In gauging consumer preferences, Basslink provided indicative bill outcomes for consumers. The Table 7 below shows annual bill outcomes for Victorian and Tasmanian consumers for each the methodologies tested by Basslink.

Table 7 Bill outcomes ($ FY 2025 per year)

Methodology	Residential		Small Business	
	Victoria	Tasmania	Victoria	Tasmania
Geographic	7	35	21	68
Energy Flows	6	39	19	76
Market Size	11	8	35	15

Note: 1. Table data sourced from APA Group, *Basslink transmission revenue proposal*, 15 September 2023, pp. 44-45.

[59] APA Group, *Basslink Transmission Revenue Proposal*, Att. 4 – Revenue and Pricing Methodology, 15 September 2023, p. 115

6.3 Basslink's proposed methodology

Basslink proposes a pricing methodology based on relative market size, while noting it will be subject to further consultation and consideration given the significant level of stakeholder interest. In proposing the market size approach, Basslink contends:

- market size methodology reflects consumer preferences given results of stakeholder engagement
- due to the difficulty in precisely determining relative 'use' of Basslink it is reasonable and appropriate to use a proxy for relative use, namely, to assume that each customer connection point, be it in Victoria or Tasmania, will use and benefit equally on aggregate over the long-term[60]
- market size methodology results in a relatively low bill impact for both Victorian and Tasmanian consumers, $11 a year for the average Victorian residential customer and $8 a year for the average Tasmanian residential customer.[61]

We are particularly interested in stakeholders' views on the issue of revenue allocation, including stakeholder preferences regarding the preferred approach to 'use' and allocation between Tasmania and Victoria.

Questions on revenue allocation

22) How the use by Victoria and Tasmania should be determined in Basslink's circumstances?

23) Do Murraylink and Directlink provide a useful basis for allocating revenues between the states?

24) How should the cost of assets in Commonwealth waters be allocated?

25) Do you have preference for one of the three proposed methodologies? Why?

26) Are the three methodologies referenced in Basslink's application (geographic, energy flows, market size) the most appropriate operations or do you consider there to be a more appropriate revenue allocation methodology?

27) Should 'benefits' be considered when allocating revenue between states? If so, how should 'benefits' be estimated between participants and consumers?

60 APA Group, *Basslink Transmission Revenue Proposal*, Att. 4 – Revenue and Pricing Methodology, 15 September 2023, p.116

61 APA Group, *Basslink Transmission Revenue Proposal*, Att. 4 – Revenue and Pricing Methodology, 15 September 2023, pp. 116-17.

7 Key elements of the revenue proposal

The regulatory framework governing electricity networks and our assessment of Basslink's proposal is set out in the National Electricity Law and Rules (NEL and NER). Our work is guided by the NEO which promotes efficient investment in, and operation and use of, electricity services in the long-term interests of consumers.[62]

The foundation of our regulatory approach is a benchmark incentive framework to setting maximum revenues: once regulated revenues are typically set for a five-year period, a network that keeps its actual costs below the regulatory forecast of costs retains part of the benefit. Service providers have an incentive to become more efficient over time, as they retain part of the financial benefit from improved efficiency. This delivers benefits to consumers as efficient costs are revealed over time and drive lower cost benchmarks in subsequent regulatory periods. By only allowing efficient costs in our approved revenues, we promote delivery of the NEO and ensure consumers pay no more than necessary for the safe and reliable delivery of electricity.

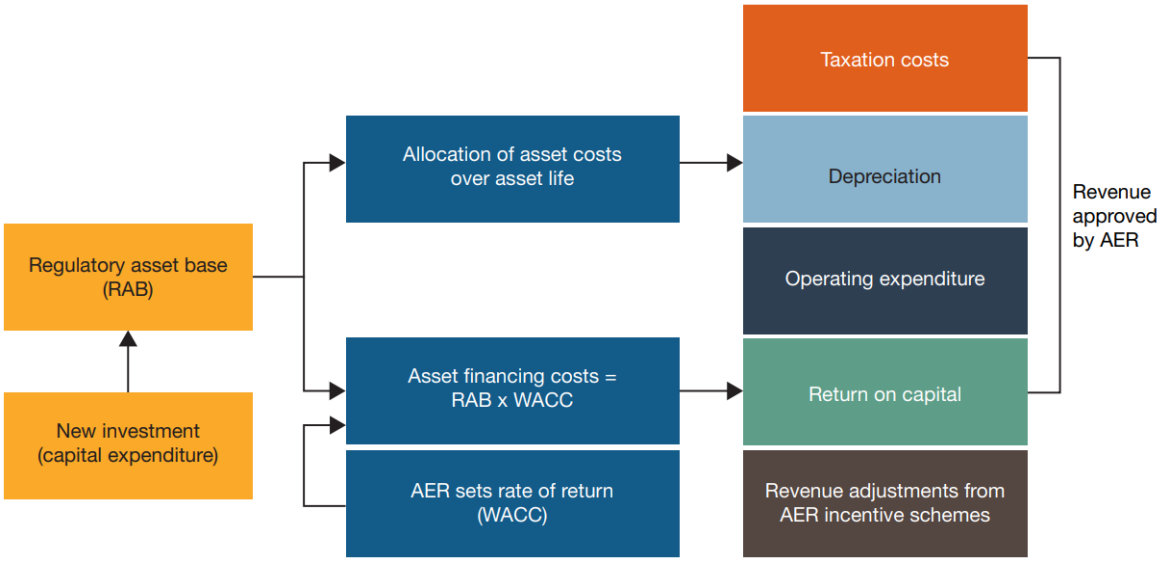
Basslink's proposed revenue reflects its forecast of the efficient cost of providing transmission network services over the 2025–30 period. Its revenue proposal, and our assessment of it under the Law and Rules, are based on a 'building block' approach which looks at five cost components:

- return on the RAB – or return on capital, to compensate investors for the opportunity cost of funds invested in this business
- depreciation of the RAB – or return of capital, to return the initial investment to investors over time - refer to section 5 for discussion of the RAB
- forecast opex – the operating, maintenance and other non-capital expenses, incurred in the provision of network services
- revenue increments/decrements – resulting from the application of incentive schemes, such as the EBSS and CESS
- estimated cost of corporate income tax.

An illustration of the building blocks model is summarised in Figure 2 below.

62 National Electricity Law (NEL or Law), s.7.

Figure 2 The building block model to forecast network revenue



Source: AER, *State of the Energy Market 2022, p.167*

7.1 Rate of return and inflation

The return each business is to receive on its capital base (the 'return on capital') is a key driver of proposed revenues. We calculate the regulated return on capital by applying a rate of return to the RAB value.

We estimate the rate of return by combining the returns on two sources of funds for investment: equity and debt. The allowed rate of return provides the business with a return on capital to service the interest rate on its loans and give a return on equity to investors.

A good estimate of the rate of return is necessary to promote efficient prices in the long-term interests of consumers. If the rate of return is set too low, the network business may not be able to attract sufficient funds to be able to make the required investments in the network and reliability may decline. Alternatively, if the rate of return is set too high, the network business may seek to spend too much, and consumers will pay inefficiently high tariffs.

Basslink proposes a return on capital of $219.9 million for the 2025-30 period.[63] The approach that Basslink, and we, must take to estimate the rate of return, including the return on debt and the return on equity, as well as the value of the imputation credits, is set out in our binding Rate of Return Instrument. For its proposal, Basslink has applied our current, 2022 Rate of Return Instrument. We will also apply the 2022 Instrument in our draft and final decisions on Basslink, along with our usual updates to the placeholder estimates for return on equity and return on debt.

In 2020, we concluded a review of our approach to estimating expected inflation. Basslink has applied the approach established in the review. We note that the estimates provided by

63 APA Group, *Basslink Transmission Revenue Proposal*, Chapter 11 – Return on Capital and Taxation, 15 September 2023, p. 57.

Basslink should be considered indicative because estimates of inflation may change as we move through the process.

7.2 Capital expenditure

Capital expenditure (capex) refers to the capital cost and expenditure incurred in the provision of Basslink's network services. Capex is added to the RAB, and so forms part of the capital costs of the building blocks used to determine total revenue.

We must accept the proposed forecast of total capex if we are satisfied it reasonably reflects the capex criteria set out in the Rules.[64] The capex criteria relate to the efficient costs incurred by a prudent operator in light of realistic demand forecasts and cost inputs. We must have regard to the capex factors in the Rules when making that decision.[65]

If we are satisfied the service provider's proposal reasonably reflects the capex criteria, we accept it. If we are not satisfied, the Rules require us to put in its place a substitute estimate which we are satisfied reasonably reflects the capex criteria taking into account the capex factors.[66]

7.2.1 Basslink capital expenditure from 2020-25

Even though Basslink is not currently regulated, the Rules require that, in order to establish the opening RAB (via the roll forward model), we ensure that the capex undertaken meets the capex rule provisions in relation to prudency and efficiency.[67] Where the capex incurred does not meet the rule requirements we may reduce the value of the opening RAB.[68] We will also be examining the past capex trend in arriving at our RAB valuation for the purposes of comparing it to the valuation provided by Basslink.

Basslink proposes $54.0m ($2024-25) for capex for the 2020-25 period, an average of $10.8m per year over this period (see Table). One third of this total expenditure is attributable to forecast expenditure of $18.0m ($2024-25) in 2023-24 for cable assets.

Table 8 Capital Expenditure ($2024-25) 2020-25

2020-21	2021-22	2022-23	2023-24	2024-25
5.5	6.1	8.1	29.7	4.6

Source: APA Group, Basslink - Attachment 5.1c - RFM - 230915 – Public.xlm, tab 'RFM input', 15 September 2023.

This is a 441 percent increase in annual expenditure over the 2014-20 period[69] compared with the 2020-25 period.

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64 NER, cl. 6A.6.7(c).

65 NER, cl.6A.6.7(e).

66 NER, cl.6A.13.2(b)(4).

67 NER, schedule.6A.2.1(a)(2),(b) and schedule 6A.2.2A.

68 NER, schedule 6A.2.2A.

69 This includes the five years from 2014-15 to 2019-20, excluding 2015-16 when Basslink was subject to a six-month outage.

Questions on Basslink capital expenditure from 2020-25

28) What are your views on the current period expenditure proposed to be included in the opening RAB by Basslink?

7.2.2 Forecast capital expenditure for 2025-30

Basslink proposes $74.1m ($2024-25) in capex for the 2025-30 period, see Table 9 below. This is a 37 percent increase in expenditure over the 2020-25 period.

Table 9 Forecast capital expenditure (millions, $2024-25) 2025-30

	2025-30 total	% of total
Control and protection system	44.2	59.6%
Repair vessel equipment	11.8	15.9%
Physical security and natural hazards	3.5	4.7%
Reactor DC refurbishment	0.8	1.1%
Spares	0.7	0.9%
Minor plant and equipment	0.3	0.4%
Security of Critical Infrastructure	3.8	5.1%
IT/OT	2.1	2.8%
Ambient temperature project	7.0	9.4%
Total	74.1	

Source: APA Group, *Basslink Transmission Revenue Proposal*, Att. 7 – Forecast Capital Expenditure, 15 September 2023, pp.4,11,17-20.

The main driver of this increase is $44.2m of expenditure proposed for the replacement of the Basslink control and protection system (CPS). The majority of the CPS expenditure ($18.4m) is forecast to be incurred in 2029-30. Basslink has justified including this expenditure in the 2025-30 period on the basis of: the CPS having a design life of between 15 and 20 years; wanting to avoid increases in price and availability difficulties due to a bow wave of replacements and new projects in the HVDC industry; and reducing the risk of failure leading to an outage.[70]

In reviewing Basslink's proposed expenditure we will have regard to factors including:

[70] APA Group, *Basslink Transmission Revenue Proposal*, Att. 7 - Forecast Capital Expenditure, 15 September 2023, p.10.

- The timing of the expenditure. We will explore whether it is efficient to replace assets in the 2025-30 period or whether the expenditure is more efficiently deferred to the next period.
- Proposed expenditure for new assets. We will examine whether the proposed expenditure for fitting out an expected new repair vessel under Basslink's South Pacific Marine Maintenance Agreement is justified and good value for money.
- Regulatory requirements. We will review the security requirements that are legislatively imposed in relation to Basslink and assess whether the expenditure proposed meets, but does not exceed, what is required.
- Historical trend in replacement capex. We will compare the forecast for replacement capex (for example, physical security, reactor DC refurbishment, spares, and IT/OT) against historical trends and seek information to justify any variation from the historical trend.
- Justification of asset improvement expenditure. We will assess whether Basslink has met the Rule requirements for inclusion of its proposed ambient temperature upgrade project. Basslink has indicated that due to operational limits (Victorian 40°C and Tasmania 30°C) Basslink has been completely or partially constrained at times of peak demand, correlating with high temperature days. Subject to feasibility studies, which are yet to be submitted, Basslink has proposed this project to address these operational limits.

Questions on forecast capital expenditure

29) What are your views on the timing and efficiency of Basslink's proposed capex?

30) Please provide the areas of capex that you consider that we should focus on and comment on the factors to which we intend to have regard.

31) Who do you consider to be most appropriate to pay for the ambient temperature upgrade project?

7.3 Operating expenditure

Operating expenditure (opex) refers to the operating, maintenance and other non-capital expenditure incurred in the provision of network services. It includes labour costs and other non-capital costs that a prudent service provider is likely to require for the efficient operation of its network. Forecast opex is one of the 'building blocks' used to determine Basslink's total revenue requirement.

We must accept a service provider's forecast of total opex if we are satisfied it reasonably reflects the opex criteria.[71] The opex criteria relate to the efficient costs incurred by a prudent

[71] NER, cl. 6A.6.6(c).

operator in light of realistic expectations of the demand forecast and cost inputs. We must have regard to the opex factors when assessing the service provider's forecast opex.[72]

If we are not satisfied the opex proposal reasonably reflects the opex criteria, we must not accept it. We must estimate the total required opex that, in our view, reasonably reflects the opex criteria, taking into account the opex factors.

7.3.1 Basslink opex proposal

Basslink includes $182.7m in forecast opex for Basslink over the 2025-30 period.

Basslink proposes to apply AER's base-step-trend approach using 2021-22 as the base year. It chose this year as it was the latest full financial year of audited opex.[73]

Costs associated with the arbitration award, Basslink's receivership, and repairs associated with outages in 2018 and 2019 are removed from the base year, on the basis that they are not reflective of the expected business as usual costs.[74]

Basslink proposes to replace its historical overheads with specific Basslink overheads plus a 6.74 percent share of the total APA Group overheads ($3.0m). It has also proposed to replace Basslink's historical insurance costs with APA Group's insurance costs, which are expected to be lower than the current insurance costs. [75]

Basslink proposes to inflate the labour component of the adjusted base year opex by a real wage price index (WPI). This index is derived from the Tasmanian and Victorian WPI for the electricity, gas, water, and waste services sector. It is converted to real terms by deducting the Consumer Price Index from the WPI. Basslink did not describe any application of output growth or productivity growth terms to its base opex forecast. [76]

Three step changes are proposed by Basslink: [77]

- Contracting of a second response vessel in the event of a cable fault ($7.7m per year until Marinus commences operation). This is to speed up a cable repair. Basslink submits that the benefits of the repair outweigh the costs of the response vessel contract.
- An allocation of the APA Group shared costs for complying with the *Security of Critical Infrastructure Act* ($0.8m per year).

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72 NER, cl. 6A.6.6(e).

73 APA Group, *Basslink Transmission Revenue Proposal*, Att. 8 - Forecast Operating Expenditure, 15 September 2023, p.4.

74 APA Group, *Basslink Transmission Revenue Proposal*, Att. 8 – Forecast Operating Expenditure, 15 September 2023, pp.5-7.

75 APA Group, *Basslink Transmission Revenue Proposal*, Att. 8 – Forecast Operating Expenditure, 15 September 2023, pp.9-14.

76 APA Group, *Basslink Transmission Revenue Proposal*, Att. 8 – Forecast Operating Expenditure, 15 September 2023, pp.14-15.

77 APA Group, *Basslink Transmission Revenue Proposal*, Att. 8 – Forecast Operating Expenditure, 15 September 2023, pp.15-18.

- Potential costs associated with a System Protection Scheme (SPS), which protects the Tasmanian network from an outage on Basslink. TasNetworks has included a proposal for SPS costs. To the extent that Basslink is liable for some of these costs, Basslink has proposed a step change to cover them.

Questions on forecast operating expenditure

32) What are your views on Basslink's application of the base-step-trend forecast of opex, noting Basslink have proposed three step changes?

33) What are your views on Basslink's proposed step changes?

34) Please provide your views on the reasonableness of labour escalation applied by Basslink.

7.4 Corporate income tax

The building block approach to calculating the annual revenue includes an amount for the estimated cost of corporate income tax payable by the business. We forecast tax in accordance with the requirements of the Rules.[78]

In December 2018, we completed a review of our regulatory tax approach.[79] Basslink has applied this approach in its proposal, resulting in a $17.6 million tax allowance in its proposed revenue requirement for the regulatory period.

[78] NER, cl. 6A.6.4.

[79] AER, *Final report: Review of regulatory tax approach*, December 2018, p. 76.

8 Incentive schemes to apply in 2025-30

Incentive schemes complement our approach to assessing efficient costs. They provide important balancing incentives within our network determinations, encouraging businesses to pursue expenditure efficiencies while still maintaining the reliability and overall performance of their networks.

Basslink has proposed the following approach to incentive schemes for the 2025–30 period:[80]

- Efficiency benefit sharing scheme (EBSS).[81] This provides an incentive to pursue efficiency improvements in opex.
  - To apply to Basslink for the second Transmission Determination Period (2030-35).
- Capital expenditure sharing scheme (CESS).[82] This incentivises efficient capex throughout the period by rewarding efficiency gains and penalising efficiency losses.
  - To apply to Basslink as per the most recent version published by the AER.
- Service target performance incentive scheme (STPIS).[83] This balances incentives to reduce expenditure with the need to maintain or improve service quality, by providing financial incentives to maintain and improve service performance where consumers are willing to pay for these improvements.
  - To apply to Basslink and to be implemented in the same way as it was for other TNSPs.

In considering whether to apply the above schemes we need to consider the following factors.

With respect to the EBSS and CESS we are conscious of the level of uncertainty as to the efficient level of opex for a newly regulated business. We must consider whether there is a risk of rewarding or penalising Basslink for outcomes unrelated to the efficient operation of the business.

STPIS incentivisation is most effective when a TNSP has significant operational discretion to schedule the timing and duration of planned outages. Where a TNSP has limited operational discretion with respect to planned outages, we must consider whether the application of STPIS provides an effective incentive.

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80 APA Group, *Basslink Transmission Revenue Proposal*, Att. 10 – Incentive Arrangements, 15 September 2023, pp.3-8.

81 NER, cl. 6.8.1(b)(2)(iv),

82 NER, cl. 6.8.1(b)(2)(v),

83 NER, cl. 6.8.1(b)(2)(iii),

Questions on incentive schemes

35) What are your views on whether and how the incentive schemes should apply to Basslink?

36) Basslink notes that the Network Capability Component (NCC) of the STPIS does not currently apply to Directlink and Murraylink. Please provide your views on whether you consider the NCC should apply to Basslink.

9 Cost pass throughs

During the regulatory control period, Basslink can apply to pass through to its customers, in the form of higher or lower network charges, certain material changes in its costs caused by pre-defined exogenous events. These events are called cost pass through events. Such events are limited to circumstances where the business can recover potential costs of defined yet unpredictable, high cost events that are outside the control of the business.[84]

The Rules include the following pass through events for all transmission determinations:[85]

- a regulatory change event,
- a service standard event,
- a tax change event,
- an insurance event, and
- an inertia shortfall event.

In addition to these prescribed events, other (nominated) pass through events may be specified in a determination for a regulatory control period.[86] Our final decision must include a decision on the nominated pass through events that are to apply for the regulatory control period.[87]

In determining whether we accept a nominated pass through event, we must take into account the 'nominated pass through event considerations', which are as follows:[88]

a) whether the event proposed is an event covered by a category of pass through event specified in clause 6A.7.3(a1)(1) to (4) (in the case of a transmission determination);

b) whether the nature or type of event can be clearly identified at the time the determination is made for the service provider;

c) whether a prudent service provider could reasonably prevent an event of that nature or type from occurring or substantially mitigate the cost impact of such an event;

d) whether the relevant service provider could insure against the event, having regard to:

   i) the availability (including the extent of availability in terms of liability limits) of insurance against the event on reasonable commercial terms; or

   ii) whether the event can be self-insured on the basis that: 1. It is possible to calculate the self-insurance premium; and 2. The potential cost to the relevant

84 NER, cl.6A.7.3.

85 NER, cl. 6A.7.3(a1)(1)–(4) and (6). Each of these prescribed events is defined in Chapter 10 (Glossary) of the NER.

86 NER, cl. 6A.7.3(a1)(5).

87 NER, cl. 6A.14.1(9).

88 NER, Chapter 10, definition of nominated pass through event consideration.

service provider would not have a significant impact on the service provider's ability to provide network services; and.

e) any other matter the AER considers relevant and which the AER has notified Network Service Providers is a nominated pass through event consideration.

Basslink proposes six cost pass through events:

- Insurance coverage. This is to protect Basslink from losses if an insurer is not liable to pay all, or part, of a large or catastrophic event that could have a financially significant impact.
- Insurer credit risk. This is to mitigate the risk of an insurer becoming insolvent, and as a result forcing Basslink Pty Ltd to insure with another provider and incurring substantial additional costs beyond Basslink's control.
- Natural disaster. This is to mitigate the risk of unpredictable and extreme events that are beyond an NSP's control.
- Terrorism. This is to mitigate the risk of liability arising from devastating and deliberate damage caused to Basslink which would risk Basslink's ability to deliver prescribed transmission services to customers.
- REZ design report. This is to enable Basslink to recover costs incurred in preparing a REZ design report.
- Offshore project assessment. This is to enable Basslink to recover costs incurred in preparing offshore resource project assessments within a defined radius.[89]

Questions on cost pass throughs

37) Do you consider Basslink's proposed cost pass throughs to conform with the Rule requirements for cost pass throughs?

38) Please provide your views on each of the event definitions.

[89] APA Group, *Basslink Transmission Revenue Proposal*, Att. 11 – Cost Pass Throughs, 15 September 2023, pp. 202-14.

10 Pricing methodology and negotiating framework

Our transmission determination for Basslink must specify a pricing methodology for its prescribed transmission services.[90] We must be satisfied that Basslink's proposed pricing methodology gives effect to the pricing principles for prescribed transmission services.

Its role is to answer the question "who should pay how much" for a transmission business to recover its costs.[91]

Basslink stated its proposed pricing methodology for the 2025–30 period has been developed in accordance with the AER's TNSP Pricing Methodology Guidelines.[92]

Because Basslink would provide prescribed transmission services in Victoria and Tasmania, Basslink notes its regulated revenues will be recovered wholly through AEMO's and TasNetworks' prices for prescribed transmission services.[93]

Questions on pricing methodology

39) Do you consider Basslink's proposed pricing methodology gives effect to the pricing principles for prescribed transmission services?

The provisions for negotiated transmission services in version 109 of the NER[94] continues to apply in Victoria by virtue of clause 11.98.8 of the current NER. This means that as part of our transmission determination for Basslink we must decide on the Negotiating Framework and Negotiated Transmission Service Criteria (NTSC) to be applied by Basslink in negotiating terms and conditions of access for any negotiated transmission services.

Basslink subsequently submitted its proposed negotiating framework for 2025–30 on 25 October 2023. We have also published our proposed NTSC for Basslink with this Issues Paper, and are consistent with those approved in our recent transmission determinations for Victorian electricity transmission network service providers.[95]

Questions on negotiated framework

40) Do you have any comments on Basslink's proposed negotiating framework or our proposed negotiated transmission service criteria?

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90 NER, cl. 6A.2.2(4).

91 AEMC, *Rule determination: National Electricity Amendment (Pricing of Prescribed Transmission Services)*, December 2006.

92 APA Group, Basslink *Attachment 4.1 - Pricing methodology*, 15 September 2023, p. 4.

93 Basslink's proposed pricing methodology notes AEMO is the coordinating network service provider for Victoria, and anticipates TasNetworks will assume this role for Tasmania.

94 Version 109 of the Rules can be accessed on the AEMC website: https://www.aemc.gov.au/energy-rules/national-electricity-rules/national-electricity-rules-version-109

95 These are the Australian Energy Market Operator (AEMO), AusNet Services and Murraylink.

11 Summary of questions

Topic	Question
Consumer engagement	1) Has Basslink engaged meaningfully with consumers on all key elements of both its conversion application and 2025-30 revenue proposal? Are there any key elements that require further engagement?
	2) Has stakeholder engagement adequately captured the views of Victorian consumers?
	3) To what extent do you consider consumers were able to influence topics engaged on by Basslink and the outcomes reflected in its proposal? Please give examples.
Conversion to a regulated service	4) What is the likely or most realistic counterfactual that should be considered to assess Basslink's proposed conversion?
	5) Has Basslink's conversion proposal appropriately captured the benefits and costs of converting Basslink to a regulated service? Are there other benefits and costs, and have some benefits or costs been overstated by Basslink?
	6) What evidence and data should we draw on to assess relative costs and benefits of conversion?
	7) Hydro Tasmania is the dominant generator in Tasmania. Does this limit the benefits of regulating Basslink?
	8) How strong is Basslink's case for conversion based on the material in its proposal?
	9) What is the likely impact of Basslink's conversion on greenhouse gas emissions?
	10) Do you consider conversion of Basslink to a regulated TNSP to be in the long-term interests of consumers?
Opening RAB value	11) Do you consider that Basslink's approach to estimating the opening RAB – by selecting the lower of the DAC, DORC, or market benefits – correctly applies the previous regulatory approach?
	12) Do you consider Basslink's proposed use of depreciated actual costs to set the proposed opening RAB value is appropriate?
	13) Should the RAB be optimised for Basslink's design limitations (for example its ability to operate at high ambient temperatures)?
	14) The price paid by APA Group for the asset may be lower than APA Group's proposed RAB. How should this be taken into account?
	15) Do you consider Basslink's estimate of the modern equivalent replacement cost is an accurate reflection of the current efficient cost to construct a similar asset?
	16) Do you consider that Basslink has, in considering efficient replacement costs, scoped all credible alternatives that can

Topic	Question
	reasonably address the same service needs as those provided by Basslink?
	17) What are your views of the market benefits provided by Basslink, and the benefits provided by alternative options to Basslink? Do you consider Basslink's estimated magnitude of the benefits are reasonable, and why? Do you consider Basslink's estimated benefits provide a reasonable reflection of the relativity of benefits across different alternative options? Do you consider that the Basslink interconnector provides benefits greater than its costs?
	18) What do you consider are the main types of benefits that are provided by the Basslink interconnector? What market, economic, or technological factors do you think may impact the level of benefits generated by the Basslink interconnector, and how may changes to these factors affect the benefits of Basslink?
	19) What are your views on the impact that the proposed Marinus Link interconnector may have on the benefits generated by the Basslink interconnector? What are your views on how we should consider the impact of the Marinus interconnector in our assessment of Basslink's opening RAB value? Do you consider the assumptions for the size and timing of Marinus Link used in the market modelling are reasonable?
	20) Do you consider it reasonable to assume that the (gross) market benefits provided by Basslink are equal to the (gross) market benefits provided by a modern equivalent 500MW HVDC cable?
	21) What are you views on Basslink's proposed commercial cost of capital used in its estimate of depreciated actual cost, rather than a regulated cost of capital? The use of a commercial cost of capital and regulatory depreciation, all other things being equal, is expected to generate a higher depreciated actual cost than if a regulated rate of return and a regulatory depreciation approach is adopted. Do you consider it reasonable for Basslink to use a commercial cost of capital while also using a regulatory depreciation approach to determine the depreciated actual costs of Basslink as a regulated asset?
Revenue allocation	22) How the 'use' by Victoria and Tasmania should be determined in Basslink's circumstances?
	23) Do Murraylink and Directlink provide a useful basis for allocating revenues between the states?
	24) How should the cost of assets in Commonwealth waters be allocated?
	25) Do you have preference for one of the three proposed methodologies? Why?
	26) Are the three methodologies referenced in Basslink's application (geographic, energy flows, market size) the most appropriate operations or do you consider there to be a more appropriate cost allocation methodology?

Topic	Question
	27) Should 'benefits' be considered when allocating revenue between states? If so, how should 'benefits' be estimated between participants and consumers?
Capital expenditure 2020-25	28) What are your views on the current period expenditure proposed to be included in the opening RAB for Basslink?
Forecast capital expenditure	29) What are your views on the timing and efficiency of Basslink's proposed capex?
	30) Please provide the areas of capex that you consider that we should focus on and comment on the factors to which we intend to have regard.
	31) Who do you consider to be most appropriate to pay for the ambient temperature upgrade project?
Forecast operating expenditure	32) What are your views on Basslink's application of the base-step-trend forecast of opex?
	33) What are your views on Basslink's proposed step changes?
	34) Please provide your views on the reasonableness of labour escalation applied by Basslink.
Incentive schemes	35) What are your views on whether and how the incentive schemes should apply to Basslink?
	36) Basslink notes that the Network Capability Component (NCC) of the STPIS does not currently apply to Directlink and Murraylink. Please provide your views on whether you consider the NCC should apply to Basslink.
Cost pass throughs	37) Do you consider Basslink's proposed cost pass throughs conform with the Rule requirements for cost pass throughs?
	38) Please provide your views on each of the event definitions.
Pricing methodology	39) Do you consider Basslink's proposed pricing methodology gives effect to the pricing principles for prescribed transmission services?
Negotiated Framework	40) Do you have any comments on Basslink's proposed negotiating framework or our proposed negotiated transmission service criteria?

Glossary

Term	Definition
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulatory
capex	capital expenditure
CESS	capital expenditure sharing scheme
CPP	Commencement and Process Paper
DAC	depreciated actual cost
DNSP	Distribution Network Service Provider
DORC	depreciated optimised replacement cost
EBSS	efficiency benefit sharing scheme
MNSP	Market Network Service Provider
NEL	National Electricity Laws
NEM	National Electricity Market
NEO	National Electricity Objectives
NER	National Electricity Rules
ODV	optimised deprival value
opex	operating expenditure
RAB	regulated asset base
RCM	recovered capital method
REZ	Renewable Energy Zone
RIT-D	Regulatory Investment Test - Distribution
RIT-T	Regulatory Investment Test - Transmission
RRG	Regulatory Reference Group
RPP	Revenue and Pricing Principles
STPIS	service target performance incentive scheme
TNSP	Transmission Network Service Provider
WACC	weighted average cost of capital