Draft decision

Application for Basslink's network service to be classified as a prescribed transmission service

December 2024

AUSTRALIAN ENERGY REGULATOR

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Invitation for submissions

Interested stakeholders are invited to make a submission on this draft decision by **31 January 2025**.

We will consider and respond to all submissions received by that date in our final decision.

Submissions should be sent to: ResetCoord@aer.gov.au

Alternatively, submissions can be sent to:

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Submissions should be in Microsoft Word or another text readable document format.

We prefer that all submissions be publicly available to facilitate an informed and transparent consultative process. We will treat submissions as public documents unless otherwise requested.

Parties wishing to submit confidential information should:

1. Clearly identify the information that is the subject of the confidential claim.
2. Provide a non-confidential version of the submission in a form suitable for publication.

All non-confidential submissions will be published on our website.

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1 Draft decision on Basslink's conversion application

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 draft decision.

On 19 May 2023, Basslink lodged an application[1] with us:

- to convert Basslink's network services from market network services (that is, unregulated services) to prescribed transmission services (that is, regulated services); and
- requesting us to commence, and specify, the process of making a transmission determination for Basslink.

If approved, Basslink's application to convert the interconnector would result in Basslink's market network services being classified as prescribed transmission services. Basslink would be regulated like any other Transmission Network Service Provider (TNSP), requiring us to publish a revenue determination and allowing Basslink to derive its revenues from tariffs we set under the National Electricity Rules (NER).

1.1 Our draft conversion decision

Clause 11.6.20(c) of the NER provides us with discretion to determine Basslink's network service to be a prescribed transmission service. In deciding whether to exercise this discretion, we are guided by the National Electricity Objective (NEO).

Our draft decision is not to accept Basslink's application to convert its market network service to a prescribed transmission service. While the draft decision is finely balanced, the uncertainty of benefits in different future scenarios compared to the certainty of cost and risk transfer to consumers means that converting Basslink to a prescribed transmission service is unlikely to support the NEO at this time.

Our draft decision is therefore not to make a determination under clause 11.6.20(c) of the NER that Basslink's market network service would be a prescribed transmission service.

Assessing the merits of conversion requires a comparison of outcomes between different states of the world: one with conversion and the other without conversion. This recognises that the Basslink investment has already been made, the asset is currently in operation, and this situation will most likely continue regardless of conversion. This conversion test requires an analysis of the evidence available on whether conversion of Basslink better supports the NEO against the alternative where Basslink operates as a market network service provider (MNSP), taking into account reasonable future scenarios.

In making our assessment of this, we have considered market impacts in a range of potential future states of the world and counterfactual scenarios. We consider that the development of additional interconnector capacity across Bass Strait (the Marinus Link project), the timing of

[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

delivery of this capacity, and the way Basslink is operated and dispatched should it remain a market network service all have a significant bearing on future outcomes.

We have used economic modelling to inform our assessment of the extent to which the conversion of Basslink is likely to promote the NEO. We have also taken into account stakeholder submissions that have provided information to support our assessment of likely future scenarios for both Basslink and Marinus Link.

Modelling results indicate that we would need to be satisfied that a number of contingent scenarios would occur in order for the market benefits of conversion to be significant. In particular, we would need to be satisfied that there would be no further contractual agreement between Basslink and Hydro Tasmania, and that the development of Marinus Link is limited to a single cable and/or delayed.

There is considerable uncertainty over the likelihood of these future scenarios and associated outcomes. The diversity of views expressed by stakeholders on the possible counterfactuals highlights this. Compelling positions, backed by credible analysis, have been advanced in support of a full variety of counterfactuals and Marinus Link development scenarios. While modelling suggests that benefits are realised in some scenarios, this is balanced against the very real possibility of detriment in others. We have exercised caution in our approach. We cannot discount the possibility that over time the development of Marinus Link erodes any benefits of converting Basslink.

Furthermore, there are potential counterfactuals to conversion, such as the extension of the existing Network Services Agreement between Basslink and Hydro Tasmania, that may deliver similar outcomes to conversion at potentially lower cost to consumers. We cannot discount the possibility that an extension to the existing Network Services Agreement could result in market outcomes similar to conversion but without the impacts associated with the transmission costs and risks transfers explored in sections 3.4 and 3.5.

In coming to our draft decision, we have also considered the direct consumer impacts related to transmission charges and wholesale market price changes. It is certain that conversion would impose additional regulated transmission charges on consumers. Regulated transmission charges reflect the costs consumers pay to continue the operation of the asset while at the same time taking on the economic risks that conversion could deliver lower consumer benefits than costs. We also note that while consumers are certain to pay increased transmission charges, wholesale price reductions as well as offsets to transmission charges from the proceeds of settlement residue auctions are much more uncertain. It is, therefore, unclear whether or not any benefits to consumers from lower wholesale prices or settlement residue auction proceeds would offset the regulated transmission charges that would certainly apply if Basslink is converted.

We also consider that conversion is unlikely to materially affect reliability or other non-price aspects of the quality of electricity services. However, conversion would result in a reallocation of the risk of the Basslink interconnector being underutilised as well as any risk of asset stranding to consumers. Because the benefits of conversion are uncertain, it is unclear whether the market benefits or benefit to consumers of lower wholesale prices would balance this reallocation of risk. We also note that where some potential counterfactuals to conversion, such as the extension of the existing Network Services Agreement, deliver the

same outcomes as conversion, they do so without a transfer of risk to consumers at this time.

In summary, while the draft decision is finely balanced, the high degree of uncertainty associated with achieving benefits when compared against the significance and irreversibility of the decision is a key reason for the draft decision not to accept Basslink's application to convert the interconnector. Given this uncertainty, and the fact that a conversion decision cannot be reversed, we are not convinced that a decision to convert best supports the achievement of the NEO at this time.

Our approach to, and reasons for, the draft decision are outlined in the following chapters.

2 Regulatory framework for assessing conversion

Under clause 11.6.20(c) of the NER, Basslink may apply to us to determine that the network services it provides should be classified as prescribed transmission services (in other words, conversion of Basslink to a regulated service provider). 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 gives us discretion to determine if Basslink will be converted to a prescribed transmission service, and does not provide any further guidance on how to make this determination. However, the NER are made under the National Electricity Law (NEL), which provides that its objective is the National Electricity Objective (NEO). In making this draft decision, we considered whether Basslink's conversion would or would be likely to contribute to the achievement of the NEO.

2.1 The National Electricity Objective

The NEO is to 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

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

(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.[2]

2.2 Our approach to the conversion decision

Assessing the merits of conversion requires a comparison of outcomes between different states of the world: one with conversion and the other without conversion. This recognises that the Basslink investment has already been made, the asset is currently in operation, and this situation will most likely continue regardless of conversion. This is different to the test undertaken in a Regulatory Investment Test, which requires a comparison of outcomes with and without the existence of a particular investment.

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2 Section 7 of the NEL.

This conversion test requires an analysis of the evidence available on whether conversion of Basslink better supports the NEO against the alternative where Basslink operates as a market network service provider (MNSP), taking into account reasonable future scenarios.

In being guided by the NEO, we have had regard to a number of matters to inform our assessment of the conversion decision:

1. Whether or not conversion supports net economic benefits through improvements to economic efficiency
   - The NEO is premised on enhancements to economic efficiency as the mechanism that supports the long-term interests of consumers.
2. Achieving greenhouse gas emissions reductions
   - With a value of emissions reduction now established it is possible to model the benefits to the market resulting from greenhouse gas emissions reductions in different scenarios.
3. The price impacts of conversion
   - The impact on consumers through transmission charges, where there are certain increases to the charges paid by consumers
   - The impact on consumers through wholesale energy price changes and offsets to transmission charges from settlement residue auctions enable us to consider the more immediate price impacts of the decision
4. Reliability and other non-price impacts of conversion
   - We have had regard to the extent to which conversion may impact reliability and security to consumers
   - We have also had regard to how conversion may impact on risk allocation between consumers and market participants.

We have used economic modelling to inform our assessment of the extent to which the conversion of Basslink is likely to deliver net economic benefits through efficiency improvements and reductions to greenhouse gas emissions within the National Electricity Market (NEM). We have also taken into account stakeholder submissions that have provided information to support our assessment of likely future scenarios for both Basslink and Marinus Link.

To estimate potential improvements to economic efficiency we examine the modelled total cost to produce, transport, and consume electricity in the NEM. We compare this total cost outcome that is modelled to occur given a converted Basslink against the total cost outcome that is modelled to occur with an unregulated Basslink. To the extent that costs are lower with a converted Basslink then we can consider that conversion improves productive efficiency. We engaged ACIL Allen to undertake this modelling. Details of ACIL Allen's modelling are set out in Appendix A of its report.[3] The effects we are measuring in this form of modelling are referred to as market benefits in the ACIL Allen report and our documents.

[3] ACIL Allen, Basslink conversion: modelling and analysis of benefits, Report to Australian Energy Regulator, June 2024.

We also asked ACIL Allen to model the impact of conversion on wholesale electricity prices. These impacts are referred to as consumer benefits in ACIL Allen's modelling and our documents.

Basslink submitted that 'fundamental weight must be given to the consumer benefits of conversion'.[4] Basslink also submitted that the consumer benefits are central to the consideration of whether or not conversion achieves the NEO as 'the NEO requires conversion to be in the long-term interest of consumers and identifies price as one of the three key factors relevant to such interest'.[5]

The price changes of conversion are an important consideration, although they are less informative in determining whether the conversion of Basslink will result in efficiency benefits in accordance with the NEO. This is because these price changes largely represent changes in payments between producers, transporters and consumers of electricity. Further, price changes are likely to be small in the context of the overall electricity system and demand for electricity is relatively price inelastic in the short term. Accordingly, we would not expect the price changes to materially shift consumption and drive efficiency improvements. By way of illustration, should Basslink be converted:

- Transmission charges paid by consumers would increase by the amount permitted in the revenue determination (which may be offset to some extent by the proceeds from settlement residues auctions).
- Wholesale energy costs may decrease.
- Consumption may not change significantly to any changes in the consumer price as demand for electricity is relatively inelastic at least in the short-term.[6]

It is unlikely that conversion will alter the level of Basslink's ongoing operating costs required to provide a similar quality service, and it cannot alter the level of sunk capital costs. Therefore, conversion is unlikely to create any productive efficiency gains with respect to Basslink's costs. That said, conversion may result in productive efficiency gains in relation to costs of other market participants, if conversion results in greater utilisation of lower cost generation in the NEM.

This is not to say that consumer prices are immaterial to an assessment of efficiency. Even with limited elasticity of demand, we would expect very large price changes to ultimately impact demand and efficiency. In such a circumstance, we would expect divergent demand forecasts in the conversion state of the world compared to the counterfactual state of the world. Our assessment of efficiency would then take into account not just the impact of conversion on costs of supplying electricity, but also the change in consumption that may also result from the change in electricity prices and transmission charges that may result from conversion.

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4 APA Group, Submission in response to AER Conversion Consultation Paper, 20 September 2024, p. 6.

5 APA Group, Submission in response to AER Conversion Consultation Paper, 20 September 2024, p. 8.

6 Infrastructure Victoria, Lorraine Conway and David Prentice, How Much Do Households Respond To Electricity Prices? Evidence From Australia And Abroad, Technical Paper No. 1/19, September 2019.

We note that the risk of unreasonably high transmission charges is mitigated by the following:

- Firstly, the fact that NER provides that Basslink's opening regulated asset base (RAB) value must be determined by applying the previous regulatory approach, which requires that the opening value of the RAB should not exceed the benefit provided by the asset[7] nor its depreciated cost.
- Secondly, the economic regulation of Basslink's transmission charges would provide discipline to ensure that expenditure allowances are efficient.

Given that the additional transmission charges are not large enough to cause a significant change in retail prices, and that demand is relatively inelastic, we would not expect a significant change in consumption as a result from the additional transmission charges.

In summary, we have concluded that price impacts are unlikely to significantly impact economic efficiency. However, the impacts of certain increases in transmission charges and uncertain price changes from conversion are important considerations.

In our draft decision on conversion, we also carefully considered the reliability and security impacts of a converted Basslink compared to the alternative. Should a decision to convert or otherwise jeopardise security and reliability of supply, this would have significant bearing on the decision. As outlined in section 3, we do not anticipate there will be substantial variations in security and reliability outcomes whether Basslink remains a market network service provider or is converted. However, we note that if converted, the risk of poor performance against security and reliability standards, and the cost necessary to maintain security and reliability standards, would be borne by consumers.

[7] Where the benefits are estimated as the benefits to the market on a with and without asset test (in contrast to the benefits of conversion which are estimated as differences in market operation and development with and without conversion).

3 Estimating the impacts of conversion

This section sets out the possible outcomes of conversion including our consideration of possible future states of the world. These possible states of the world will impact on whether benefits are likely to be realised from conversion as well as the price and reliability effects of conversion compared to the different possible outcomes without conversion. It addresses the likely outcomes against the matters material to our draft decision set out in section 2.

If Basslink is converted it would operate as a fully available interconnector. Flows across the interconnector would be determined by the Australian Energy Market Operator (AEMO) central dispatch without economic constraint from Basslink.[8] In this circumstance we expect flows across the Basslink interconnector to be maximised.[9]

If Basslink is not converted it would remain as a MNSP. Basslink would earn revenue from price differentials between Tasmania and Victoria.[10] In doing so, we expect that Basslink may have an incentive to constrain flows over the interconnector at times by either:

- bidding substantial margins on the transfer of power, or
- economically withdrawing capacity, or pricing capacity at or close to the market price cap.

We expect that if Basslink remained as a MNSP this may result in different dispatch outcomes compared to a converted Basslink. However, any commercial agreement which imposes bidding constraints or protocols for the capacity of Basslink in the interests of market participants, including an extension of the current network services agreement with Hydro Tasmania, is likely to largely eliminate these differences in dispatch.

3.1 Future states of the world

Assessing the likely benefits of conversion requires us to consider potential future states of the world that will have an impact on the realisation of benefits. For the purposes of this draft decision there are two particular issues of relevance.

1. The future development scenarios for Marinus Link.
2. The way in which Basslink is likely to operate should it not be converted – the counterfactuals to conversion.

These issues are discussed in the subsections below.

Marinus Link scenarios

Marinus Link is a proposed interconnector between Tasmania and Victoria with a capacity of 1500MW consisting of two separate cables. It involves approximately 255 kilometres of undersea High Voltage Direct Current (HVDC) cable and approximately 90 kilometres of underground HVDC cable in Victoria. It also includes converter stations in Tasmania and Victoria. The 2024 AEMO Integrated System Plan (ISP) includes the Marinus Link cables as an actionable project that form part of the system's Optimal Development Path (ODP). The

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8 Subject to losses and other system constraints, and outages for planned or unplanned maintenance.

9 To the limit of efficiency, taking into account regional prices and transmission losses.

10 Or from the supply of derivative instruments settled against those differentials.

Marinus Link interconnectors would serve a similar purpose to Basslink, connecting the Tasmanian and Victorian National Electricity Market regions.

The timing and number of cables that are developed as part of the Marinus Link project have an impact on the expected benefits of converting Basslink to a regulated interconnector. In summary, the modelled benefits of converting Basslink are higher in circumstances where the Marinus Link project does not proceed. Where Marinus Link does proceed, there would be slightly higher benefits of converting Basslink in circumstances where only one cable is developed rather than two cables. In essence, this is because the current benefits that the market derives from Basslink are diluted once there is additional capacity from what is essentially a substitute service in the form of Marinus Link.

According to the 2024 ISP, the proponent of Marinus Link has advised that its first cable will be in operation in 2030 with the second coming online in 2032. However, the ACIL Allen modelled scenarios were based on the optimal timing for Marinus Link cables as set out in the Draft 2024 ISP as the final 2024 ISP was not available at the time. In the draft 2024 ISP the optimal timing was for the first cable in 2029 and the second in 2036.[11]

The modelled scenarios act as sensitivities in that the result of a cable becoming operational later than these assumed dates can be estimated by placing more weight on the scenario where that cable is not delivered. In effect, the benefit from the intervening years would be taken from the scenario without the cable.

For the purposes of illustration, Table 3.1 reflects the range of estimated benefits for each of the scenarios for Marinus link, where the range covers the spread of the modelled counterfactuals to conversion.

Table 3.1 Modelled Market Benefits in different Marinus Link development scenarios

$ million (NPV)	Marinus Link does not proceed	1 Marinus Link cable proceeds, operational in 2029	2 Marinus Link Cables proceed, operational in 2029 and 2036
Market Benefit – High end from range of counterfactuals	377	284	238
Market Benefit – Low end from range of counterfactuals	-58	-145	-156

Notes: Benefits include both (1) lower costs to produce, transport, and consume electricity; and (2) lower greenhouse gas emissions.
Range of benefits shown reflects the range of counterfactuals to conversion.
Source: ACIL Allen, *Basslink Conversion: Modelling and Analysis of Benefits*, p. 35

[11] These timings align with the optimal timings outlined in the Draft 2024 Integrated System Plan. The final ISP adjusted these timings slightly with the optimal timing for cable 1 pushed back to 2030. For cable 1, the proponent advised timing in the 2024 ISP is December 2030, while the ISP optimal timing is 2030-31 under all modelled scenarios. For cable 2, the proponent advised timing is December 2032, while the ISP optimal timing is 2036-37 under the progressive change scenario, 2037-38 under the step change scenario, and 2032-33 under the green energy exports scenario. See: AEMO, 2024 Integrated System Plan: Appendix 5 – Network Investments, June 2024, p. 37.

Greater market benefits from conversion are estimated in scenarios where there is less available capacity from Marinus Link. This is because the lower and avoided costs that comprise the majority of the modelled benefits come from more efficient dispatch, which is proportionally more dependent upon the operation of the Basslink interconnector in the absence of Marinus link.

Counterfactuals

The way in which Basslink operates should it not be converted is also an important factor in whether market benefits from conversion may eventuate. Essentially, there are three counterfactuals to conversion that are of particular relevance to the draft decision.

1. Basslink operates as a Market Network Service Provider bidding in its transport capacities to the wholesale market (similar to a generator bidding into the market) on a merchant basis, i.e. without a contract or hedge in place.
2. Basslink operates under a contract with Hydro Tasmania whereby Hydro Tasmania bids the transport capacity and pays a fee to the operator of Basslink in return.
3. Basslink fails to cover its stay-in-business costs and ceases to operate.

A further counterfactual to conversion is that the current network services agreement between Basslink and Hydro Tasmania is extended for a period. We consider that incentives for any extension would be strongest until Marinus Link cable 1 is commissioned and the Tasmanian market is no longer dependent on a single commercial interconnector. An extension of this agreement would be different to the counterfactual of a Hydro Tasmania agreement to dynamically bid the transport capacity as above because it requires that capacity to be bid at no margin except in specific circumstances.[12]

3.2 Role of market modelling

A number of submissions suggested that the modelling results should be considered as one input in the decisions and the results approached with caution.

Renewables, Climate and Future Industries Tasmania (ReCFIT) submitted that:

> *"Whatever decision is made in relation to Basslink's conversion, the counterfactuals to that decision will never actually be experienced. In this context, modelling provides useful insights into potential futures, but can only be used as one source of input into what ultimately is a judgement exercise confronting the AER."*[13]

Other submissions have questioned key assumptions in the modelling most notably around the timing of Marinus Link development. The modelling includes timings for the development of the first and second Marinus Link cables that differ from the timings advised by Marinus Link to AEMO for the final 2024 ISP, but are similar to the optimal timings modelled by AEMO in the ISP. The timing proposed by Marinus Link in the 2024 ISP are for cable 1 to be

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12 See: Hydro Tasmania, Update regarding Basslink contract arrangements, 24 October 2022, available at: https://www.hydro.com.au/docs/default-source/about-us/our-governance/esi-compliance-plan_notices/voluntary-enhancement-compliance-plan-notice-update-regarding-basslink-contract-arrangements_24-oct-2022.pdf?sfvrsn=864e6d29_3

13 Tasmanian Government (Renewables, Climate, and Future Industries Tasmania - ReCFIT), Submission in response to AER Conversion Consultation Paper, 23 September 2024, p. 6.

in place in 2030 with cable 2 in 2032. The timings assumed in ACIL Allen's modelling are instead connected to the optimal timing for the development of Marinus Link in the 2024 Draft ISP, which was the latest version of the ISP that was available when the modelling was commissioned. The optimal timing for cable 1 in the draft 2024 ISP was for delivery in 2029 with cable 2 coming online in 2036. These were adjusted slightly in the final ISP with optimal timing for cable 1 pushed back to 2030.

The Victorian Government Department of Energy, Environment and Climate Action (DEECA) highlighted the challenges of modelling given the complexity of modelling hydroelectric assets in Tasmania and counter price flows (energy price flows from high to low price NEM regions).

Our view is that energy market modelling provides an informative input to our assessment of the effect that converting Basslink would have on economic efficiency. It is widely used for similar regulatory analyses such as in the RIT. We have, therefore, used it to understand the market dynamics that drive efficiency outcomes and consumer impacts in different scenarios. It has supported our consideration of this draft decision by enabling us to explore future states of the world and scenarios.

However, we also acknowledge the inherent uncertainty in modelling and the positions of stakeholders that it should not be the singular determinant of our decision. ReCFIT noted that the decision on conversion "will necessarily be made under considerable uncertainty about the future of the NEM – the AER cannot divine the future. Modelling provides important insights into possible futures and is a useful analytical tool. Almost certainly, time will prove any modelling assumptions made today to be incorrect".[14] Section 3.3 outlines that in the future scenarios where the conversion of Basslink is expected to yield positive market benefits, these market benefits are relatively modest over the 25-year modelling horizon. We have considered the inherent uncertainty as to the likelihood of modelled outcomes and the relatively modest modelled benefits alongside the significance and irreversibility of a decision to convert. Accordingly, we have not relied solely on the possibility of benefits in some modelled future scenarios to underpin our draft decision.

In coming to our draft decision we have also considered the outcomes that are suggested by wholesale price modelling to help us understand the broader impacts of conversion, including the potential for additional efficiency improvements. However, we note that there is greater consistency of results for the market benefit modelling across each of the scenarios compared to wholesale price modelling, which is much more sensitive to input assumptions. As noted by ACIL Allen, "small differences in projected prices are multiplied across large volumes of electricity consumption in some cases to generate large projected consumer benefits".[15] Some of these small differences in projected prices may be associated with, or sensitive to, input assumptions and model simplifications – such as assumed timing of projected generator entry or exit, assumed timing of major network investment, assumed bidding behaviour of Hydro Tasmania, or model specifications for competitive bidding.

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14 Tasmanian Government (Renewables, Climate, and Future Industries Tasmania - ReCFIT), Submission in response to AER Conversion Consultation Paper, 23 September 2024, p. 6

15 ACIL Allen, Basslink conversion Modelling and analysis of benefits, 18 July 2024, p.34.

3.3 Market benefits of conversion

Table 3.2 shows the estimated benefits for the range of possible future states of the world described in section 3.1. The columns are the Marinus Link development scenarios, and the rows are the counterfactuals that make different assumptions about the way in which Basslink operates should it not be converted.

This table illustrates how benefits of conversion to the market as modelled by ACIL Allen are estimated to range from positive to negative values as we consider the range of possible future states of the world, and that the uncertain benefits are further weakened by any move away from only considering a merchant interconnector for the period before Marinus Link cable 1 is commissioned.

Table 3.2 Modelled Market Benefits in different Marinus Link development scenarios and counterfactuals

$ million (NPV)	Marinus Link does not proceed	1 Marinus Link cable proceeds, operational in 2029	2 Marinus Link Cables proceed, operational in 2029 and 2036
Merchant interconnector	380	340	229
HT agreement	-46	-103	-155

Notes: Benefits include both (1) lower costs to produce, transport, and consume electricity; and (2) lower greenhouse gas emissions.
The HT agreement counterfactual is where Basslink operates under a contract with Hydro Tasmania whereby Hydro Tasmania bids the transport capacity and pays a fee to Basslink in return.
The counterfactuals are assumed to be in place over the entire modelled time horizon.

Source: ACIL Allen, *Basslink Conversion: Modelling and Analysis of Benefits*, p. 35

The energy market modelling we commissioned from ACIL Allen estimates the benefits to the market (efficiency gains) of conversion in different reasonable future scenarios. These efficiency gains are measured through more efficient (that is, lower cost) dispatch and reduced greenhouse gas emissions. Analysing the market benefits assists in our assessment of whether conversion will result in economic efficiency improvements and emissions reduction.

In scenarios for which the estimate of market benefits is positive, the benefits are a result of more efficient dispatch in the NEM when more interconnector capacity is available. A regulated link would operate freely without restrictions as dispatched by the market operator, and to respond to any (loss-adjusted) price differentials between the regions. In each of the modelled counterfactuals the capacity of Basslink would be utilised at less than full capacity due to capacity being bid strategically into the market at a positive margin.

Negative benefits (detriments) arise when conversion is assessed against the Hydro Tasmania agreement counterfactual. These negative benefits arise due to Hydro Tasmania's bidding incentives in that counterfactual where it both accesses revenue earned by the Basslink interconnector (under agreement) and has a significant degree of market power within Tasmania. In these circumstances Hydro Tasmania would be indifferent between earning revenue through the settlement of its generation output at the Tasmanian regional reference price or through a Basslink transfer margin.

However, because of the tendency of Basslink to be a price-taker when supplying power to Victoria, Hydro Tasmania would have strong incentives to offer Basslink at a minimal transfer margin when exporting northwards in order to benefit from greater demand for Tasmanian generation and higher Tasmanian spot prices. This brings the level of Basslink's northward flows in the Hydro Tasmania agreement counterfactual up to the level of northward flows in the regulated case. Conversely, a merchant operator of Basslink would have incentives to withhold MNSP capacity at times of northward (as well as southward) flows. Consequently, the Hydro Tasmania agreement counterfactual is likely to result in greater utilisation of the interconnector at times of northward flows compared to the merchant counterfactual, lessening the benefits of conversion.

In addition to the above, the absence of a merchant Basslink to compete with Hydro Tasmania at times of southward flows is likely to result in reduced flows and upward pressure on Tasmanian wholesale prices. In scenarios where the benefits of conversion are likely to be low (for example, if two Marinus Link cables are constructed) the overall result may be negative benefits from conversion when assessed against the Hydro Tasmania agreement counterfactual.[16]

Our assessment of the future scenarios

On the Marinus Link scenarios, we note that Marinus Link is an actionable ISP project and consider that at least one cable is likely to proceed. However, we note that some transmission projects have historically been subject to development delays. As at December 2024 the final investment decision for the first Marinus Link cable has been delayed to May 2025, and the 2024 ISP forecasts the first Marinus Link cable would be in operation in 2030. All stakeholders that commented on the possible timing of Marinus Link submitted that the timings are likely to be later than assumed in ACIL Allen's modelling.[17] Further, Basslink,[18] along with ReCFIT,[19] suggested that some weighting should still be given to the possibility of Marinus Link not proceeding when considering the likely outcomes of conversion, given project delays and the fact that the project had not yet reached the point of a final investment decision.

While Project Marinus is an actionable ISP project for which the RIT-T concluded that 2 cables are preferred over one, the timing of a second Marinus Link cable is relatively less certain. The 2024 ISP forecasts the second cable coming online in 2032, however we note the first cable is a prerequisite for the second cable. Concerns about delays to transmission development apply to the second cable as well as the first cable, and we note that the values for the 'two Marinus Link cables' scenario in Table 3.2 reflect both the first and second cable

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16 See section 4.1.2 of our conversion consultation paper for additional discussion (AER, Basslink conversion application: consultation paper, August 2024, pp. 22-24).

17 APA Group, Submission in response to AER Conversion Consultation Paper, 20 September 2024, pp. 21-23; Tasmanian Government (Renewables, Climate, and Future Industries Tasmania - ReCFIT), Submission in response to AER Conversion Consultation Paper, 23 September 2024, pp. 2-3; Victorian Government Department of Energy, Environment and Climate Action (DEECA), Submission in response to AER Conversion Consultation Paper, 30 September 2024, pp. 2-3; Mr. J Pauley, Submission in response to AER Conversion Consultation Paper, 30 September 2024, pp. 7-8.

18 APA Group, Submission in response to AER Conversion Consultation Paper, 20 September 2024, p. 22.

19 Tasmanian Government (Renewables, Climate, and Future Industries Tasmania - ReCFIT), Submission in response to AER Conversion Consultation Paper, 23 September 2024, pp. 2-3.

coming online by the assumed timings. On this basis we believe that either the one or two Marinus Link cable scenarios are reasonably foreseeable.

We also continue to place some weight on the no Marinus Link scenario given that a final investment decision is yet to be made. The 'no Marinus Link' scenario also helps us consider the impact on modelled benefits of delays to the commissioning of Marinus Link.

The outcomes presented in Table 3.2 also shows the modelled benefits related to the merchant Basslink and Hydro Tasmania agreement counterfactuals. Stakeholders have provided convincing positions that this full range of counterfactuals are reasonable future possibilities should Basslink not be converted.

Hydro Tasmania for example contends that an unhedged merchant Basslink is the most appropriate counterfactual to conversion, while also acknowledging that "Hydro Tasmania and Basslink would have some incentives to contract with each other under continued merchant operation, to increase mutual certainty of market revenues and reduce commercial risks."[20]

The Victorian Government noted that the "Merchant counterfactual is not plausible in the long term, due to the overriding compelling case for both parties to sign another hedge agreement. It is therefore more appropriate to compare costs and benefits under the [Hydro Tasmania] Agreement counterfactual."[21]

ReCFIT on the other hand noted that the Hydro Tasmania agreement scenario was less likely, primarily because the primary drivers of previous agreements – to underpin the original development of Basslink and to provide a path out of administration – no longer apply.[22] ReCFIT also emphasised the potential competition concerns associated with a new agreement that may not be approved by the Australian Competition and Consumer Commission (ACCC).

A further reasonable counterfactual to conversion that we have considered in our assessment of potential benefits of conversion is the possibility that the existing network services agreement between Hydro Tasmania and Basslink is extended. This was raised by the Victorian Government in their February 2024 submission on Basslink's conversion proposal. They submitted that:

> *"the appropriate counterfactual against which to assess the proposal for Basslink regulation is one in which Basslink Pty Ltd signs a contract with Hydro Tasmania, equivalent to the previous BSA or current NSA."*[23]

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20 Hydro Tasmania, Submission in response to AER Conversion Consultation Paper, 30 September 2024, p. 2.

21 Victorian Government Department of Energy, Environment and Climate Action (DEECA), Submission in response to AER Conversion Consultation Paper, 30 September 2024, p. 2.

22 Tasmanian Government (Renewables, Climate, and Future Industries Tasmania - ReCFIT), Submission in response to AER Conversion Consultation Paper, 23 September 2024, p. 4

23 Victorian Government Department of Energy, Environment and Climate Action (DEECA), Submission in response to AER Issues Paper – Basslink Conversion Application and Revenue Determination, p. 3

The type of contract modelled by ACIL Allen in the Hydro Tasmania contract counterfactual differs from the existing network services agreement, under which Basslink is bid in at zero and there is no ability to withhold any capacity.

Assessing the potential benefits of conversion compared to this counterfactual depends on understanding what the possible terms of the extension would be. This is unknown and would be subject to negotiation. However, as noted, a key feature of the current network services agreement is that Hydro Tasmania bids Basslink's capacity in at zero and does not withhold the capacity. We expect that this would result in similar utilisation of the Basslink interconnector as would occur if Basslink were converted.

There are good reasons to believe that these bidding requirements would remain unchanged for the period of the extension, should the agreement be extended. Prior to the existing network services agreement, the same constraints on bidding had been required through the presence of a Ministerial Notice issued in 2014.[24] Should the existing network services agreement be extended it is likely that the Tasmanian Government would have an interest in preserving Tasmania's unrestricted access to the NEM and supporting Tasmania's electricity sector by maximising flows over Basslink, and could potentially intervene to ensure such terms remain in place. Should the existing terms remain in place, the bidding requirements obviate the ability to exercise market power. This interest in maintaining these terms in the agreement would diminish should Marinus Link be commissioned, at which point there would then be a regulated substitute for Basslink providing capacity between the Victorian and Tasmanian regions. From that point on, it would be reasonable to assume that the bidding behaviour of a Hydro Tasmania-controlled Basslink would not need to be constrained.

The effect of an extension of the current agreement on this basis is to make the operation of Basslink match the operation modelled by the assumptions of the regulated case for the period of the extension. This is because the effect of a network services agreement whereby Basslink capacity is not withheld and is bid in at zero is that transfer capacity over Basslink is maximised in a manner similar to what would occur should the connector be regulated.

This means that the market benefits modelled by ACIL Allen can reasonably be set to zero for the period of the agreement extension. Consequently, the market benefits derived from conversion are the sum of the benefits starting from the end of the extension period.[25] The effect of an extension of 6 years, until after the first Marinus Link cable is commissioned, is set out in Table 3.3.

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24 Ministerial Notice under Section 36 of the Electricity Supply Industry Act

25 1 July 2031 in the event of a 6 year extension

Table 3.3 Estimated Market Benefits ($million, NPV) in different scenarios – and impact of an extension of the current agreement by 6 years

$ million (NPV)	Marinus Link does not proceed	1 Marinus Link cable proceeds, operational in 2029	2 Marinus Link Cables proceed, operational in 2029 and 2036
Market benefits under Merchant counterfactual:			
Merchant interconnector – for whole time period (from Table 3.2)	380	340	229
Extension of current agreement by 6 years (to 1 Jul 2031), then merchant interconnector for remainder	268	225	119
Market benefits under HT Agreement counterfactual:			
HT Agreement – for whole time period (from Table 3.2)	-46	-103	-155
Extension of current agreement by 6 years (to 1 Jul 2031), then HT agreement for remainder	125	71	17

Notes: Benefits include both (1) lower costs to produce, transport, and consume electricity; and (2) lower greenhouse gas emissions.
An extension of the current agreement aligns the operation of Basslink with the regulated case, and therefore the benefit of conversion is the sum of the present value of benefits starting after the extension expires.

Source: AER analysis based on modelling by ACIL Allen, see: ACIL Allen, *Basslink Conversion: Modelling and Analysis of Benefits*, p. 35, and AER analysis

Comparing the results in Table 3.2 and Table 3.3 we can see that:

- The modelled benefits of the counterfactual where there is a 6 year extension to the current agreement and Basslink operates as a merchant interconnector afterwards are lower than the modelled benefits if Basslink were a merchant interconnector for the whole time period.
- The modelled benefits for the counterfactual where there is a 6 year extension to the current agreement and Basslink operates under an agreement without bidding protocol afterwards are higher than if Basslink were under an agreement without bidding protocol for the whole time period.

The ACIL Allen market modelling suggests that there may be some market benefits to converting Basslink in most future Marinus Link development scenarios when assessed against the counterfactual where Basslink operates as an unhedged Market Network Service Provider. These benefits are greater in the period before Marinus Link is commissioned, such that the effect of an extension to the current agreement materially reduces the possible benefit.

The market modelling also suggests that there are weaker or no benefits of conversion when the counterfactual to conversion is that Basslink's capacity is dynamically controlled through

a contract with Hydro Tasmania. In many modelled scenarios with the Hydro Tasmania contract counterfactual to conversion, there are negative benefits. These negative benefits are greater in the period before Marinus Link is commissioned, such that the effect of an extension to the current agreement is to reduce the possible detriment. This also weakens the case for conversion.

The diversity of views expressed by stakeholders on the possible counterfactuals highlights the uncertainty associated with the decision on conversion. Compelling positions, backed by credible analysis, have been advanced in support of a full variety of counterfactuals and Marinus Link development scenarios. While benefits are realised in some scenarios these are balanced against the very real possibility of detriment in others. We also cannot entirely discount the possibility that an extension to the existing Network Services Agreement results in market outcomes similar to conversion but without the impacts associated with the transmission costs and risks transfers explored in sections 3.4 and 3.5. In summary, the high degree of uncertainty associated with achieving modest benefits when compared against the significance and irreversibility of the decision is a key reason for the draft decision not to accept Basslink's application to convert the interconnector.

We have also considered the possible counterfactual to conversion that Basslink ceases to operate. The scenario of Basslink ceasing operation is only possible in the unregulated case, and the avoidance of that scenario is therefore a benefit of conversion, to the extent that the additional interconnection provided by Basslink provides efficiency benefits to the market. This benefit is balanced by a transfer of risk from the owners of Basslink to consumers, which if Basslink is converted would become the risk of underutilisation of a regulated asset, as described in section 3.5.

ACIL Allen did not model the possible market benefits of conversion if the counterfactual to conversion is that Basslink ceases to operate. However, in those states of the world we assume that the market loses any of the benefits associated with flows across the interconnector. Further, the consequences for reliability and security of supply under such a counterfactual would become material to the assessment of long-term consumer interests.

We consider it unlikely that Basslink would cease to operate in advance of the commissioning of Marinus Link. As the only interconnector between the Victorian and Tasmanian NEM regions, there will be commercial opportunities for Basslink given the interregional price differences. Beyond this time, the likelihood that Basslink will cease operations is low but cannot be ruled out.

3.4 Price impacts of conversion

Should Basslink be converted, consumers will be faced with increases in regulated transmission charges that are certain, balanced by much less certain decreases in wholesale prices and an uncertain value of proceeds from interregional settlement residue auctions.

ACIL Allen modelled wholesale price outcomes under the same set of scenarios and counterfactuals used in modelling of market benefits. Changes in wholesale prices resulting from conversion that exceed the additional transmission charges arising from a regulated Basslink may be indicative of efficiency gains beyond a re-organisation of payments between consumers, producers, and transporters of electricity. It is also a relevant factor that we have regard to as part of the NEO.

We estimate that the value (over the remaining life of the Basslink interconnector) of additional transmission charges resulting from Basslink's conversion at around $1.341 billion.[26] We note that there is much greater certainty associated with these additional charges than there is associated with market or price benefits modelled against potential Marinus Link operating scenarios or possible counterfactuals to conversion.

Proceeds from settlement residue auctions would act to reduce the amount of transmission charges ultimately paid by consumers. The energy market modelling we commissioned from ACIL Allen estimates the value of inter-regional settlement residue auction proceeds could range from $536 million to $712 million.[27] These auction proceeds could reduce the present value of Basslink's transmission charges faced by consumers from $1.341 billion to between $629 million and $805 million. We note, however, that the market size and concentration may not support proceeds from the settlement residue auctions being this high.

We also note that, if Basslink were converted, the allocation of revenue attributable to the Basslink interconnector in each of Victoria and Tasmania would determine the regulated revenue to be recovered from consumers in each region – that is, the portion of the estimated $1.341 billion of additional transmission charges that would be recovered from consumers in Victoria and Tasmania respectively. The NER does not empower the AER to approve a cost allocation methodology.[28] Rather, if converted, Basslink would determine the allocation of its aggregate annual revenue requirement (and consequently allocation of regulated transmission charges) between Victoria and Tasmania based on the use of the interconnector. In its revenue proposal Basslink revised its initial allocation of revenue between Victoria and Tasmania to allocate 75% of regulated revenue to the Victorian region and 25% to the Tasmanian region.

Table 3.4 reflects the range of estimated value of wholesale price impacts from conversion for each of the scenarios for Marinus Link, where the range covers the spread of the modelled counterfactuals to conversion.

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26 Regulated transmission charges over the life of the asset are based on the repayment of the regulatory asset base (RAB) (via the return on capital and return of capital (depreciation) building blocks) plus ongoing operating costs. For the purposes of considering the costs and benefits of conversion in this draft decision, we have used Basslink's proposed values for its opening asset value ($752m) and ongoing operating costs ($589m). Should the final decision be to convert Basslink, the AER would need to consult on the revenue Basslink would be entitled to as a regulated transmission service.

27 Assuming auction proceeds reflect approximately 75% of the value of the settlement residues.

28 We had previously stated in our issues paper that cost allocation was an important decision we would make in any revenue determination. Further, we considered that Basslink's revenue allocation methodology is permissible and is supported by the NER given it is consistent with allocating based on 'use' of a TNSPs assets to provide prescribed services within a region. In considering this matter further, we now understand that the NER does not empower the AER to approve a cost allocation methodology.

Table 3.4 Modelled effects of conversion on energy costs of wholesale price changes in different Marinus Link development scenarios

$ million (NPV)	Marinus Link does not proceed	1 Marinus Link cable proceeds, operational in 2029	2 Marinus Link Cables proceed, operational in 2029 and 2036
Highest modelled energy cost impact	4,824	3,511	1,677
Lowest modelled energy cost impact	2,578	-164	23

Notes: Energy costs refers to modelled load-weighted price multiplied by regional energy demand.
Source: ACIL Allen, Basslink Conversion: Modelling and Analysis of Benefits.

Greater wholesale price impacts from conversion are estimated when there is less available capacity from Marinus Link. The model results also indicate a wide range of possible wholesale price impacts.

Overall, the market modelling results generally align with the modelling of market benefits of conversion and indicate that:

- The present value of increases in regulated transmission charges, taking into account possible proceeds from settlement residue auctions, ranges from $629 million to $805 million.
- The present value of changes to energy costs (resulting from changes to wholesale prices) ranges from an increase of $164 million to a decrease of $4.82 billion.

However, this modelling of wholesale electricity prices is highly sensitive to changes in inputs and assumptions. Further, while it suggests that consumers may experience price benefits, we have placed considerable weight on the conclusion from ACIL Allen that:

> *"the uncertain consumer [price] benefits should be considered in the context of the highly certain prescribed services costs consumers will be required to pay should Basslink be converted. When risk adjusting the consumer benefits for uncertainty and factoring in the likely cost of regulation, there may be no net consumer benefits from the conversion of Basslink."*

In coming to our draft decision to not approve the application to convert Basslink to a prescribed transmission services we have placed weight on:

- the considerable uncertainty of wholesale energy price changes
- the certainty of future additional transmission charges.

Considering these points, we also acknowledge the limited expected impact of the certain price changes – the transmission charges – have on economic efficiency enhancements.

3.5 Impacts of conversion on risk allocation

In response to our conversion consultation paper the Justice and Equity Centre (JEC) submitted that "the Marinus project produces a risk of Basslink becoming, in a partial sense, a stranded asset. This is particularly the case if both proposed Marinus cables eventuate."

The JEC also submitted that "the performance record of Basslink indicates substantial additional risk".[29]

If an outcome of conversion is that consumers pay transmission charges for an asset that is underutilised or that without conversion may plausibly cease to operate (in other words, it may fail to earn sufficient revenues to meet its stay-in-business costs), that may suggest that both the economic efficiency and wholesale price benefits of conversion are unlikely to be great, or even positive. If so, this could represent an undesirable transfer of risk from the owners of Basslink to consumers.

As noted by the JEC, the total level of interconnection provided by Marinus Link and Basslink impacts the degree to which consumers will be paying transmission charges for interconnection that is ultimately underutilised. These concerns regarding Basslink may also be relevant to Marinus Link, and the implications for Marinus Link will be considered in separate regulatory processes, applying the relevant tests for investment in new interconnector capacity.

In this context the value of Basslink's assets and ongoing operating costs that are then paid for by consumers becomes material to the conversion decision. We have previously acknowledged in the consultation paper the role of the regulatory asset base and ongoing operating costs to consumers in our decision on conversion. Regulated transmission charges reflect the costs consumers pay to continue the operation of the asset while at the same time taking on the economic risks that the conversion of the asset to regulated status will deliver lower consumer benefits than costs. We also note that while consumers are certain to pay increased transmission charges, wholesale price reductions as well as offsets to transmission charges from the proceeds of settlement residue auctions are much more uncertain.

We contrast the certainty of this increase in transmission charges to the uncertainty of the benefits of conversion. There is a degree of uncertainty associated with market modelling, which is the basis for estimates of benefits from lower market costs and greenhouse gas emissions. The market modelling indicated scenarios under which benefits from conversion would not be sufficient to justify a transfer of stranding or underutilisation risk from asset owners to consumers.

In approaching the issue of conversion and the associated risk transfer, we have also been mindful of the permanence of the decision. Should Basslink be converted consumers will pay for the asset over the life of the asset through transmission charges.

The likelihood that Basslink will cease operations is low but cannot be ruled out, since modelled Basslink revenues may be weaker for a time should Basslink remain a merchant link and both Marinus Link cables be commissioned. In making this assessment we have had regard to our consideration of Marinus Link development scenarios that identify both one and two cable scenarios as possible outcomes. Consequently, we have concluded that the transfer of risk to consumers associated with requiring them to pay transmission charges for Basslink's services may be material, given the uncertainty of identified market benefits, and

[29] Justice and Equity Centre, Submission in response to AER Conversion Consultation Paper, 20 September 2024, p. 1

this has informed our draft decision not to approve the application from Basslink on conversion.

3.6 Impacts of conversion on reliability and other non-price aspects of service quality

In addition to price and emissions, consumers also value other aspects of their electricity supply, for example, reduced frequency and duration of supply outages.[30] This is explicitly identified in the NEO. It is possible that conversion of Basslink may affect these non-price aspects of service quality.

The main way that Basslink may affect end user service quality is through reduced availability of the interconnector. We therefore need to consider possible differences in the availability of the interconnector if it were converted compared to if it were not converted.

We consider that if Basslink is not converted it will have incentives to ensure the asset is available – to maximise revenue by taking advantage of interregional price differentials when they arise. We consider that this incentive is likely to persist in both the 'merchant Basslink' and 'Basslink agreement with Hydro Tasmania' counterfactuals, as well as in the shorter term under an extension of the current network services agreement with Hydro Tasmania.

If Basslink were converted, then a service target performance incentive scheme would apply to Basslink. This scheme provides rewards and penalties for improved and deteriorating reliability performance, respectively. This recognises that businesses operating a regulated service do not bear the risks of service performance and so do not face the consequences of poor service performance compared to a business that operates commercially. This is because a regulated business receives a regulated revenue allowance providing revenue certainty associated with the recovery of its costs. The scheme is intended to counteract the incentive for a regulated business to reduce expenditure at the expense of reliable performance.

We also note that if two Marinus Link cables were developed that put into question Basslink's continued operation as a market network service provider, the presence of the two Marinus Link cables would likely overcome any concern with security or reliability of supply. The risk would then be a financial risk of paying for an asset that is underutilised, rather than a risk to security or reliability of supply. This is because Marinus Link would substitute the interconnector capacity currently provided by Basslink.

Overall, we consider that there are unlikely to be material differences in the reliability of supply if Basslink is converted compared to Basslink remaining as a merchant link – so long as revenues exceed stay-in-business costs. It has not been a significant factor in the draft decision not to convert Basslink to a prescribed transmission service.

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30 The frequency and/or duration of outages is often referred to as reliability. The ability of the system to quickly respond and remain stable when unexpected events occur (such as transmission lines failing or generators breaking down), thereby preventing these events from resulting in outages, is often referred to as system security. Increased system security is likely to result in improved reliability.

Glossary

Term	Definition
ACCC	Australian Competition and Consumer Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulatory
DEECA	The Victorian Government Department of Energy, Environment and Climate Action
HVDC	High Voltage, Direct Current
ISP	Integrated System Plan, published by AEMO
MNSP	Market Network Service Provider
MW	Mega-watts (one million watts)
NEL	National Electricity Laws
NEM	National Electricity Market
NEO	National Electricity Objectives
NER	National Electricity Rules
RAB	regulated asset base
ReCFIT	Renewables, Climate and Future Industries Tasmania
RIT	Regulatory Investment Test
RIT-T	Regulatory Investment Test for Transmission
TNSP	Transmission Network Service Provider