

Issues Paper

Directlink electricity transmission determination
2025–30

March 2024

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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. The regulatory framework governing electricity transmission and distribution networks is the National Electricity Law and Rules (NEL and NER). Our work is guided by the National Electricity Objective (NEO).

Regulated network businesses must periodically apply to us to determine the maximum allowed revenue they can recover from consumers for using their networks. On 31 January 2024 we received a revenue proposal from Queensland-NSW electricity transmission interconnector Directlink, for the period 1 July 2025 to 30 June 2030 (2025–30 period).

The proposal would allow Directlink to recover \$138.5 million (\$nominal, smoothed) over the 2025–30 period. This proposal is only the start of a 15 month process and final decision outcomes will be different. However, for illustrative purposes the indicative impact of the proposal is expected to increase the typical annual residential electricity bill by about \$1.30 in total between now and 2029–30.¹

In assessing this proposal, we want to ensure customers are better off now and in the future. We will look to balance the need for prudent and efficient investment to maintain the network and prepare it to manage risks of asset obsolescence, while at the same time ensuring consumers facing cost-of-living pressures pay no more than necessary for electricity services that meets their current and future needs.

In this Issues Paper we explore the key drivers of Directlink’s proposed revenue.

We have framed this discussion by reference to our Better Resets Handbook, which sets out a number of expectations for how a network business can engage with consumers and, importantly, our expectations (consistent with the NER framework) in topic areas such as capex, opex and regulatory depreciation, which tend to have the most significant impact on consumers. Proposals that reflect consumer preferences, and which meet our expectations, are more likely to be largely or wholly accepted at the draft decision stage, creating a more effective and efficient regulatory process for all stakeholders.

In making this assessment we will have regard to the extent to which the proposal has been driven by, and now reflects, the preferences and priorities that have been put to Directlink through its engagement with stakeholders.

Consumer engagement is an important factor in our assessment; however, we are still required to ensure we are satisfied that the proposed revenues reasonably reflect prudent and efficient costs and a realistic expectation of future demand and cost inputs. Together, these considerations support a decision that will ensure New South Wales customers are paying no more than necessary for safe, reliable and secure delivery of electricity services.

¹ Directlink, *Attachment 2 – Overview*, January, p. 21.

1.1 Our process

The first stage in our process is to make a draft decision, setting out what parts of the proposal we consider can be accepted, and those that we consider cannot. If we disagree with Directlink on elements of its proposal, our draft decision will substitute alternatives of our own and explain what we consider is required to address our concerns in revised proposal.

To help us make our draft decision, we are seeking stakeholder views on the proposal submitted by Directlink and where we should focus our efforts in assessing it. This issue paper sets out our initial observations on the proposal and some areas in which we are particularly interested to hear from stakeholders. The next step in our process is a public forum on 10 April 2025.

We also call out areas in which our discretion in making decisions on the proposal is limited and there is little (if any) room to make changes through this process.

An indicative timeline for our assessment of, and decision on, the proposals is set out below.

Table 1 **Indicative timeline – Directlink transmission determination 2025–30**

Milestone	Date
Issues Paper	26 March 2024
Public forum	10 April 2024
Submissions close	15 May 2024
Draft decision	September 2024
Revised proposals due	December 2024
Submissions close	January 2025
Final decision	April 2025
Final decision takes effect	1 July 2025

Note: The timing of these milestones is subject to change, but our process will ensure stakeholders are afforded all consultation periods required under cl. 6A.11 and 6A.12 of the NER.

Submissions in response to this Issues Paper will inform our draft decision in September. Directlink then have an opportunity to submit a revised proposal incorporating any changes, or addressing any matters, raised by the draft decision. Both the draft decision and revised proposal will be open to consultation before we make our final decision in April 2025.

1.2 Have your say

Consumer engagement is a valuable input to our determination. We have set out a number of questions throughout this paper. Stakeholders can assist in our process by providing their views on these or any other aspects of the proposal.

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 the proposal by close of business, 15 May 2024
- Joining us at an online public forum on 10 April 2024. Registration details are available on our website and through [Eventbrite](#).

Written submissions should be sent electronically to Directlink2025@aer.gov.au and addressed to Gavin Fox, General Manager. Alternatively, you can mail submissions to GPO Box 3131, Canberra ACT 2601.

We ask that all submissions sent in an electronic format are in Microsoft Word or other text readable document form.

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. All non-confidential submissions will be placed on the AER's website.

We request parties wishing to submit confidential information:

- clearly identify the information that is the subject of the confidentiality claim.
- provide a non-confidential version of the submission in a form suitable for publication.

For further information regarding the AER's use and disclosure of information provided to it, see the [ACCC/AER Information Policy](#).

2 Initial observations

The Directlink interconnector is the smallest regulated network in the National Electricity Market (NEM). Located in Northeast New South Wales, it connects at both ends to the Essential Energy network and is dispatched by AEMO to support the transfer of electricity between New South Wales and Queensland, and to help meet the electricity needs of growing population centre south of the Gold Coast. It has no directly connected customers. The power flowing through the link is determined by the price differential between the two regions and other network constraint factors at the time of generation dispatch by AEMO.

Directlink’s proposal would allow it to recover \$138.5 million (\$nominal, smoothed) from its customers over the 2025–30 period. This is \$60.7 million (78.1%) higher than what we approved for the 2020–25 period.²

Directlink recovers its revenue allowance through transmission charges which are set each year in accordance with its approved pricing methodology. These charges reflect the transmission network component of the electricity bill only.³ Directlink estimates its transmission component to be about 0.1% of the average electricity bill for its residential customers.⁴ For illustrative purposes, Directlink estimates this would flow through to customers as an increase to the annual residential electricity bill by about \$1.30 in total between now and 2029–30.⁵

As a network built on older technology and scheduled for full depreciation by 2042, we acknowledge the unique challenges facing Directlink. These challenges include maintaining reliability, coming up with a spare parts strategy to mitigate the risk of equipment and spares obsolescence and balancing an appropriate rate of accelerated depreciation with the cost-of-living pressures facing consumers.

2.1 Key drivers of proposed revenue

Revenue is driven by changes in real costs and inflation. We assess costs (such as capital and operating expenditures) in real terms.

Over time, inflation impacts the spending power of money. To compare revenue from one period to the next on a like-for-like basis, in this section we use ‘real’ values based on a common year (2024–25) that have been adjusted for the impact of inflation.

In real terms, as Figure 1 shows, Directlink’s proposal, if accepted would allow it to recover \$127.8 million (\$2024–25, smoothed) from its consumers over the 2025–30 period. This is \$39.4 million (44.6%) higher compared to the current 2020–25 period.

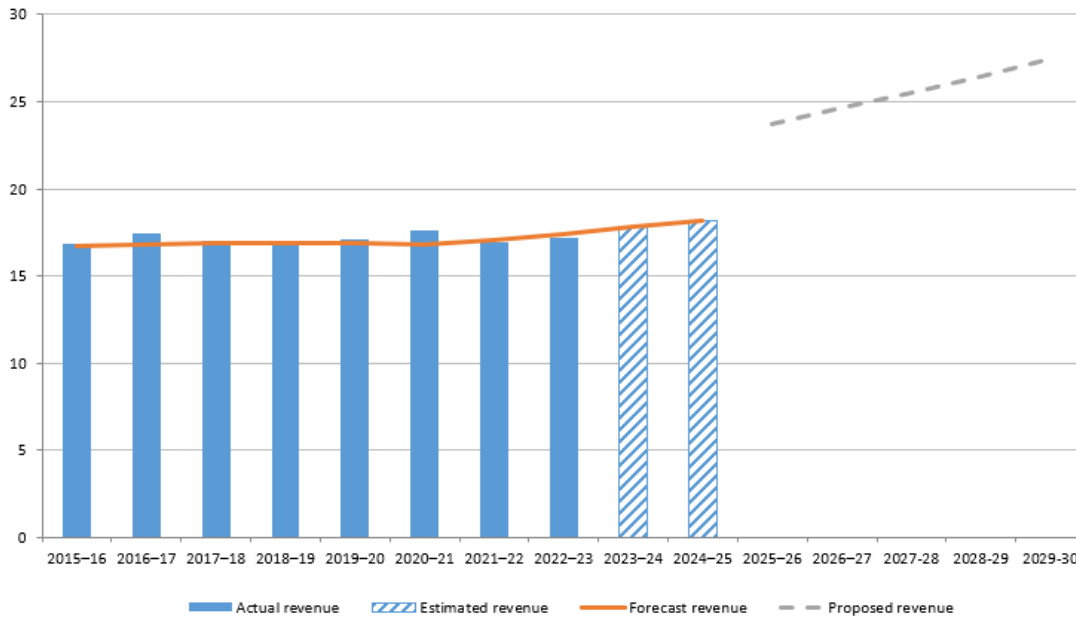
² In real terms (\$2024–25), proposed total revenue is \$39.4 million (44.6%) higher than approved for 2020–25 period.

³ The annual electricity bill reflects the combined cost of all the electricity supply chain components—wholesale energy generation, transmission, distribution, metering, and retail costs.

⁴ We will assess the appropriateness of Directlink’s proposed transmission bill assumptions and update where necessary for the draft decision.

⁵ Directlink, *Attachment 2 – Overview*, 31 January, p. 21.

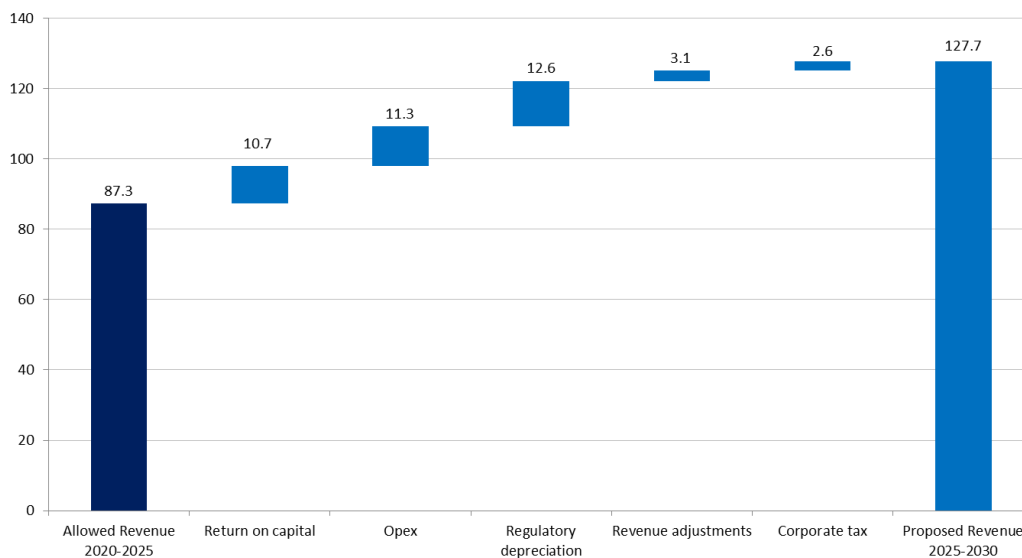
Figure 1 Changes in regulated revenue over time (\$million, 2024–25)



Source: AER analysis.

Figure 2 shows the broad changes in revenue at the ‘building block’ level to illustrate what is driving Directlink’s proposed total revenue increase from 2020–25 to 2025–30. Much of the proposed increase in revenue relative to the current period is driven by a combination of economic factors such as a higher forecast rate of return and accelerated recovery of depreciation costs associated with the expected winding down of the interconnector by 2041–42, in conjunction with additional end-of-life opex costs.

Figure 2 Changes in Directlink’s revenue building blocks: 2020–25 to 2025–30 (\$million, 2024–25)



Source: AER analysis.

The overall trend in building block revenue is primarily driven by:

- Higher return on capital amount due to an increase in the forecast rate of return. Despite Directlink’s proposed forecast capex for the 2025–30 period remaining in line with the current 2020–25 period capex allowance, Directlink’s forecast closing RAB at the end of the 2025–30 period is projected to be lower than the estimated closing RAB at the end of the 2020–25 period.⁶ All else being equal, the impact of the lower RAB over the 2025–30 period results in a lower return on capital. However, this has been more than offset by the higher forecast rate of return.
- Higher regulatory depreciation primarily driven by higher straight-line depreciation of Directlink’s existing assets in its opening RAB and to a lesser extent, higher straight-line depreciation associated with new capex for the 2025–30 period. This is due to the reductions to both the remaining and standard asset lives to coincide with when Directlink is expected to cease operation in 2041–42. Directlink’s unique circumstances as an interconnector with a finite life means both the remaining and standard asset life of its RAB is reduced by 5 years at the start of each regulatory period to ensure the entire asset base is fully depreciated by 2041–42.⁷ This means the regulatory depreciation allowance is likely to continue increasing for each subsequent regulatory period as the existing RAB and new capex continues to be recovered over a declining number of years between now and 2041–42.
- Higher opex which includes a new end-of-life cost allowance of \$4.7 million for activities once the asset ceases operation.⁸
- Higher revenue adjustments due to lower EBSS and CESS penalties for the 2025–30 period relative to the current period.

⁶ Directlink, *Attachment 02 – Overview*, 31 January 2024, p. 25.

⁷ Directlink, *Attachment 03 – Revenue proposal 2020–25*, 31 January 2024, p. 68.

⁸ Directlink, *Attachment 02 – Overview*, 31 January 2024, p. 13 and 20.

3 Consumer engagement

Our framework for considering consumer engagement in network revenue determinations is set out in the Handbook and looks at three elements – the nature of engagement; the breadth and depth of engagement; and clearly evidenced impact from this engagement.

The framework for our regulatory decision-making allows us to consider the outcomes of the engagement activities undertaken by a business to assist in providing an overall assessment of a proposal that is prudent and efficient.

Our role in understanding consumer engagement is not to validate or invalidate the engagement undertaken by a business. The Handbook does not prescribe a process, it asks that engagement is undertaken sincerely with consumers to understand and reflect their preferences in proposals. Diversity of views will always be common between stakeholders and a business should seek to find mutually acceptable solutions where there are divergent consumer views.

Directlink began its consumer engagement with a co-creation workshop on 31 August 2023. This was followed by monthly meetings with different stakeholder groups. The last consumer consultation was in January 2024, when stakeholders had a final opportunity to give input on the draft proposal before lodgement on 31 January 2024.

Our observation was that, although short and targeted, Directlink’s consumer engagement was broadly in line with expectations in the Handbook, particularly when the size of the business and the forecast bill impacts for consumers are considered.

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 proposals.

Directlink made an effort to equip customers to engage with their proposal. The consultation was prefaced by scene-setting, openness about the network’s challenges and discussion around how to manage assets with a limited life span and risk of obsolescence.

3.2 Breadth and depth of engagement

Breadth and depth relate to the scope of engagement with consumers and the level of detail at which network businesses engage on issues. The breadth and depth of engagement also covers the variety of avenues used to engage with consumers.

Directlink’s consultations offered a reasonable reflection of issues that were subject to influence from consumers. This included genuine choices on capex coupled with more limited discussions on opex step changes and other category specific forecasts.

3.3 Clearly evidenced impact

Clearly evidenced impact is about how a proposal represents and is shown to represent consumer views. It is still too early to form a comprehensive conclusion on consumers’

impact on Directlink's proposal. We do, however, look forward to seeing how consumer feedback to the Issues Paper is incorporated into the revised proposal.

Questions on consumer engagement and how it has impacted the proposals

- 1) Has Directlink engaged meaningfully with consumers on the key elements of the proposal?
- 2) To what extent do you consider consumers were able to influence the topics Directlink engaged on?
- 3) How well has Directlink captured and acted on consumer preferences in the proposal?

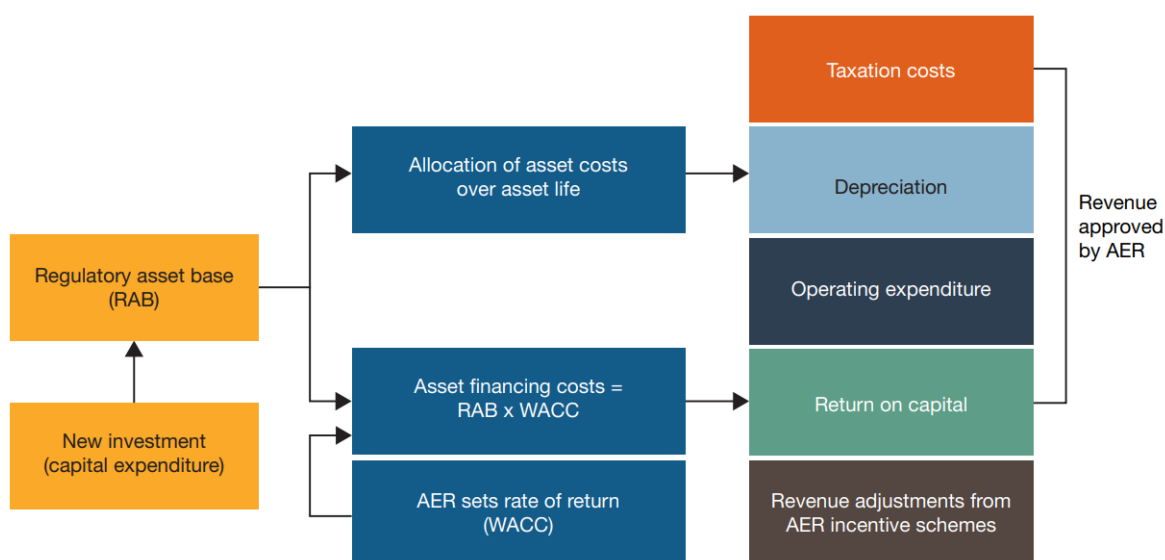
4 Key elements of the revenue proposal

The foundation of our regulatory approach is a benchmark incentive framework to setting maximum revenues: once regulated revenues are set for a five-year period, a network that keeps its actual costs below the regulatory forecast of costs retains part of the benefit. This provides an incentive for service providers to become more efficient over time. It delivers benefits to consumers as efficient costs are revealed 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.

Directlink’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 (see Figure 3):

- 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.
- 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.

Figure 3 The building block model to forecast network revenue



Source: AER.

4.1 Rate of return and inflation

The return each business is to receive on its capital base (“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 of 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.

The approach that will be taken to estimate the rate of return that applies to Directlink, including the return on debt, return on equity, and the value of imputation credits, is set out in our binding Rate of Return Instrument. We consult on and publish a new Rate of Return Instrument every 4 years. The current Rate of Return Instrument was published in February 2023.⁹

Directlink’s proposal for 2025–30 includes a rate of return of 6.02% compared to 4.53% in our 2020–25 decision. The increase in the rate of return is driven by the rise in the interest rates since the last decision.

Directlink’s proposal also includes a higher expected inflation estimate for the 2025–30 period (2.62%) compared to the estimate applied in our 2020–25 decision (2.27%).

Together, these elements of our revenue determination are a significant contributor to the proposed revenue and add to the impact of higher past and forecast expenditure on the return on and of capital.

At this stage, these values are placeholders only. It is important that the proposal, and our decision, updates for the latest market data at each stage of the revenue determination process. By setting a rate of return that reflects current financial market conditions, our determinations will enable Directlink to attract the capital it needs to provide the services that consumers want.

Moreover, the return investors receive on their assets should reflect the risks of their investment. These risks include the prospect of inflation eroding the investor’s purchasing power. An allowance for expected inflation provides compensation for the risk to investors for the prospect of inflation eroding the investor’s purchasing power. Figure 4 shows the interaction of expected inflation on the forecast building block revenue.

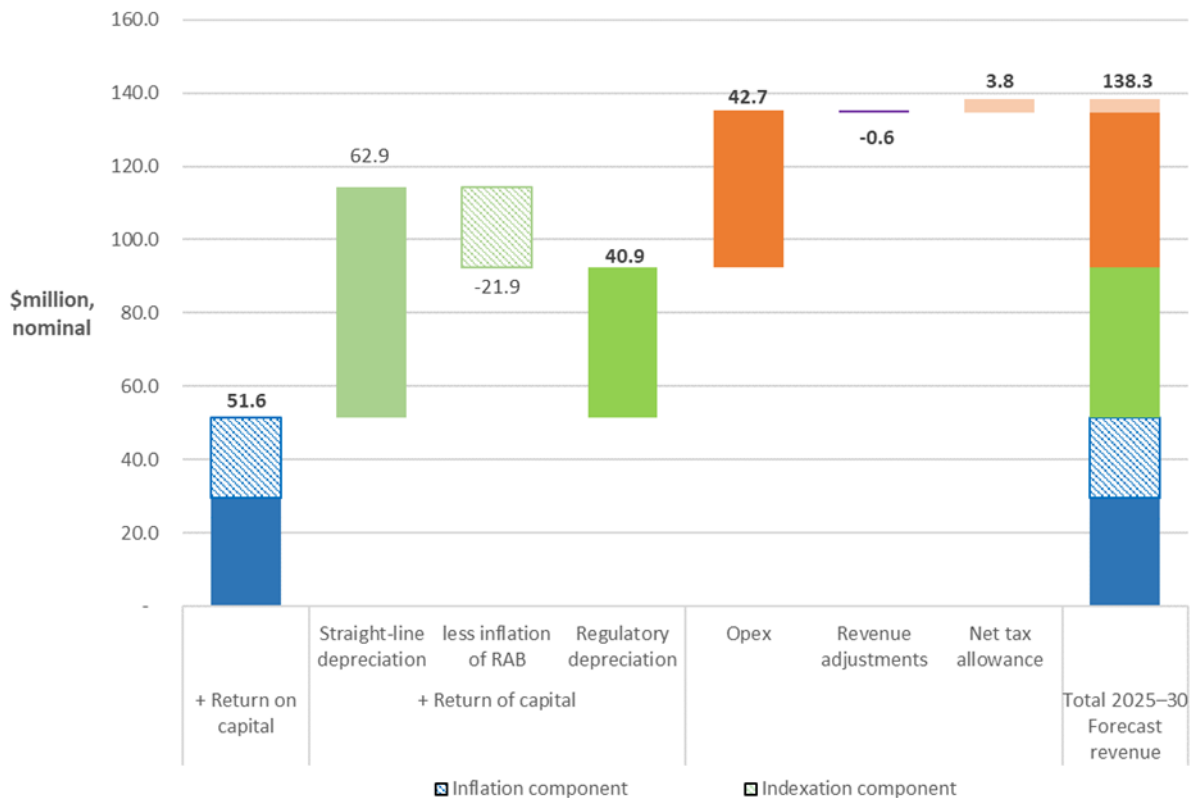
- The return on capital building block applies a nominal rate of return to the RAB. As the nominal rate of return includes expected inflation, part of that building block compensates for expected inflation. Higher expected inflation increases the return on capital mainly due to RAB and capex.
- The return of capital building block removes expected inflation indexation of the RAB from forecast depreciation. This avoids compensation arising from the effects of inflation being double counted by including it in the return on capital building block and also as a

⁹ [AER - Rate of Return Instrument \(Version 1.1\) – August 2023](#)

capital gain (through the indexation of the RAB). Higher expected inflation therefore reduces the regulatory depreciation allowance.

- Other building blocks (such as operating expenditure or opex, and revenue adjustments) include an inflation component, as the costs forecast in real dollar terms are escalated to nominal dollars using expected inflation in determining the required nominal revenues. Higher expected inflation will increase opex and revenue adjustments.

Figure 4 Inflation components in revenue building blocks (\$million, nominal)



Source: AER analysis.

4.2 Regulatory asset base and depreciation

The RAB is the value of assets used by Directlink to provide transmission network services. The value of the RAB substantially impacts the total revenue requirement, and the price consumers ultimately pay:

- The return on the RAB—or return on capital—applies the rate of return discussed above to the RAB. It is included in regulated revenue to compensate investors for the opportunity cost of funds invested in this business
- Depreciation of the RAB—or return of capital— is included in regulated revenue to allocate the cost of assets making up the RAB over their useful lives. It is the amount provided so capital investors recover their investment over the economic life of the asset.

Other things being equal, a higher RAB would increase both the return on capital and depreciation components of the revenue determination.

To set the maximum allowed revenue for 2025–30, we take the opening value of the RAB from the end of the current 2020–25 period and roll it forward annually by indexing it for expected inflation, adding new forecast capex and subtracting depreciation and other possible factors (such as disposals). This gives us a closing value for the RAB at the end of each year of the 2025–30 period.

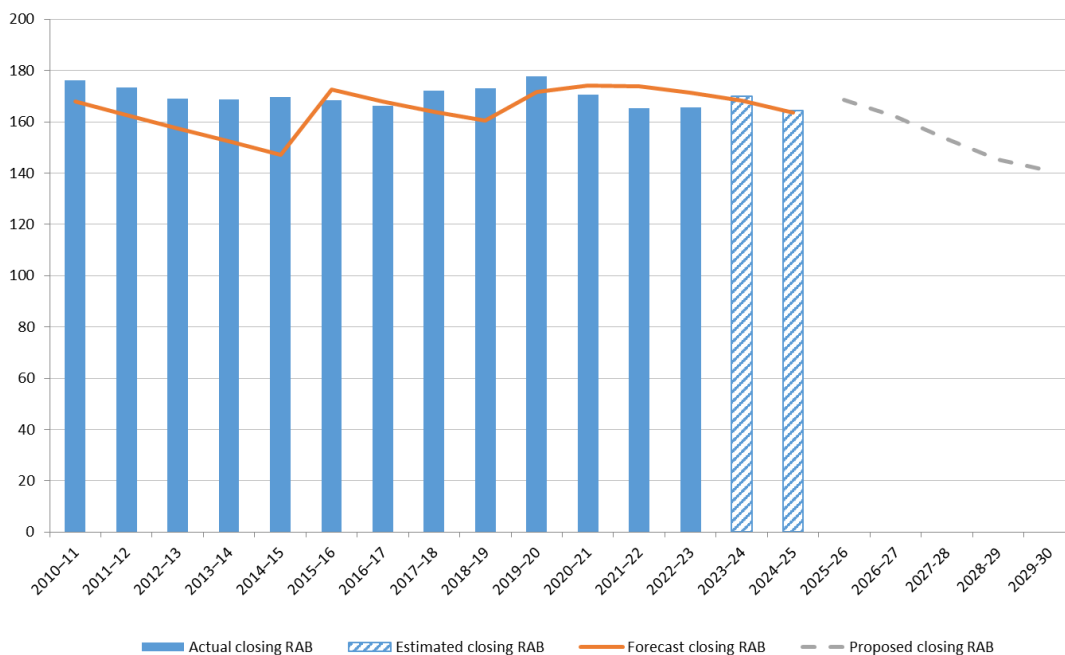
We expect a network business:¹⁰

- To use the post-tax revenue model (PTRM), roll forward model (RFM), and depreciation tracking module (where relevant) we have published under the NER without amendments.
- To apply the same asset classes from the last regulatory determination, and asset lives that reflect those approved in previous decisions.

Directlink proposed a forecast RAB of \$160.3 million (\$ nominal) by the end of the 2025–30 period, which is \$4.2 million lower than the estimated RAB at the end of the 2020–25 period. This follows an increase of \$17.6 million (\$ nominal) in the estimated RAB over the 2020–25 period.

In real terms (\$2024–25), Directlink’s proposed RAB will be \$23.6 million lower by the end of the 2025–30 period, largely driven by higher depreciation of its existing asset base relative to the 2020–25 period. Figure 5 shows the value of Directlink’s RAB over time.

Figure 5 Directlink’s closing RAB value over time (\$million, 2024–25)



Source: AER analysis.

¹⁰ The Handbook records these expectations for depreciation proposals along with those for capex, opex and tariff structure statements. Proposals that meet these expectations are more likely to be largely or wholly accepted at the draft decision stage, creating a more effective and efficient regulatory process for all stakeholders.

Directlink proposed regulatory depreciation of \$37.7 million (\$2024–25) for the 2025–30 period, which is \$12.3 million (48.6%) higher than the 2020–25 period. The higher regulatory depreciation is primarily driven by higher straight-line depreciation of its existing assets in its opening RAB and to a lesser extent, straight-line depreciation associated with new capex for the 2025–30 period. This is due to the reductions to both the remaining and standard asset lives of the asset base to coincide with when Directlink is expected to cease operation in 2041–42.

Consistent with the expectations set out in the Handbook we note Directlink’s proposal has:

- Used our standard regulatory models which includes the PTRM, RFM and depreciation tracking module without amendments.
- Not propose any new asset classes for the 2025–30 period.

Our Handbook also expects the proposed standard asset lives to be consistent with the approved asset classes in previous determinations. However, consistent with the current 2020–25 determination, Directlink proposed to reduce both its standard and remaining asset lives for its existing asset classes by 5 years to 16.2 years as at the start of the 2025–30 period. This is to reflect Directlink’s unique circumstances as an interconnector with a finite life that is expected to cease operation in 2041–42. We therefore consider Directlink’s approach is reasonable as it is consistent with that approved in our 2020–25 determination to align the asset lives with Directlink’s remaining technical life in determining the forecast straight-line depreciation of its existing assets and new capex for the 2025–30 period.¹¹

Overall, based on our initial assessment, we consider Directlink has performed well against the depreciation expectations as set out in the Handbook.

¹¹ AER, *Directlink 2020–25 Final Decision: Attachment 4 Regulatory Depreciation*, June 2020, p. 5.

4.3 Capital expenditure

Capital expenditure (capex) refers to the money required to build, maintain or improve the physical assets needed to provide transmission services. Generally, these assets have long lives, and a Network Service Provider (NSP) will recover capex from customers over several regulatory control periods. A businesses' capex forecast contributes to the return of and return on capital building blocks that form part of its total revenue requirement.

Directlink is required to propose the total forecast capex it considers is required to meet or manage expected demand, comply with all applicable regulatory obligations, and to maintain the safety, reliability, quality, and security of each of its networks (the capex objectives).¹² We must decide whether or not we are satisfied that this forecast reasonably reflects prudent and efficient costs and a realistic expectation of future demand and cost inputs (the capex criteria).¹³ We must make our decision in a manner that will, or is likely to, deliver efficient outcomes that benefit consumers in the long term (as required under the NEO).¹⁴ Our *Capital expenditure assessment outline for electricity distribution determinations*¹⁵ explains our and distributors' obligations under the NEL and NER in more detail. It also describes the techniques we use to assess distributors' capex proposals against the capex criteria and objectives.

Directlink proposed forecast capex of \$33.97 million (\$2024–25) for the 2025–30 period.¹⁶ This is a \$2.59 million (8.3%) increase from its actual/estimated expenditure for the 2020–2025 period.¹⁷ Directlink's capex for the forecast regulatory period is solely driven by replacement projects. This includes expenditure for the replacement of obsolete insulated gate bipolar transistors (IGBTs) which was originally proposed for the current period.¹⁸

Figure 6 shows Directlink's proposed capex forecast compared to historic levels.

¹² NER, cl. 6.5.7(a).

¹³ NER, cl. 6.5.7(c).

¹⁴ NEL, ss. 7, 16(1)(a).

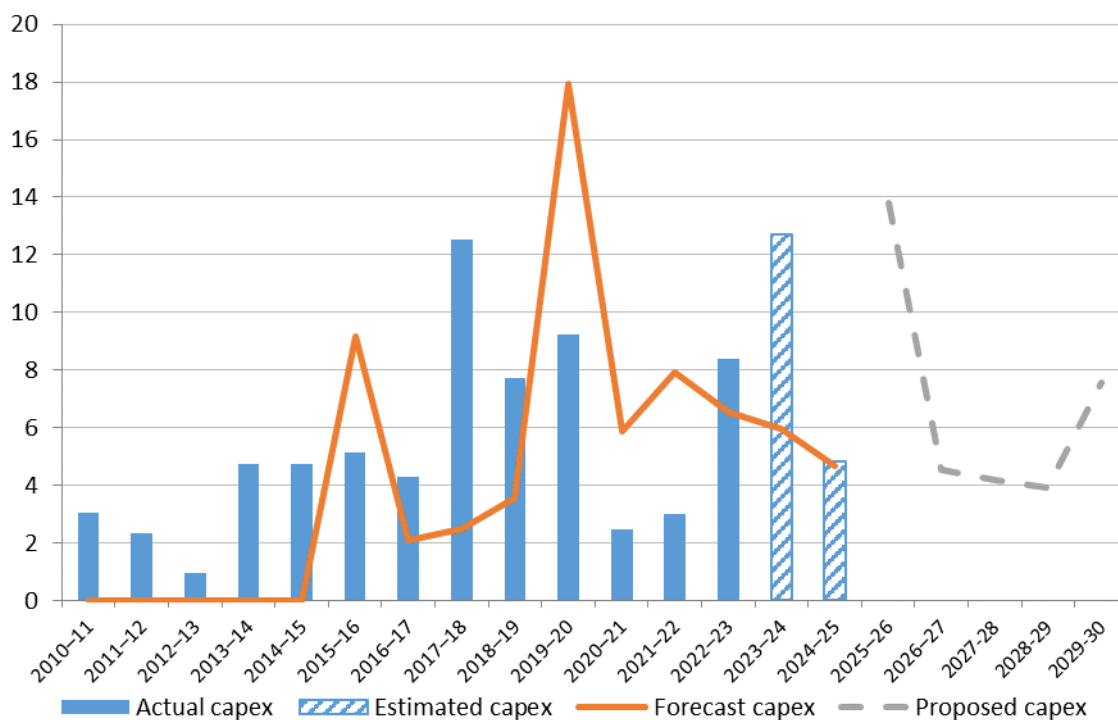
¹⁵ [AER - AER capital expenditure assessment outline for electricity distribution determinations - February 2020](#)

¹⁶ Directlink, *Directlink - Attachment 09a – PTRM*, 31 January 2024.

¹⁷ Directlink, *Directlink - Attachment 09b – Roll Forward Model*, 31 January 2024.

¹⁸ Directlink, *Directlink – Attachment 04 – Capital Expenditure*, 31 January 2024, p. 5.

Figure 6 Directlink’s forecast and actual capex over time (\$2024–25, million)



Source: AER analysis, Directlink, Directlink - Attachment 09a – PTRM, 31 January 2024, Directlink, Directlink - Attachment 09b – Roll Forward Model, 31 January 2024.

In considering how to prioritise our review we will have regard to how Directlink has performed against the Better Resets Handbook expectations for capex. These expectations guide our assessment and identify which areas we consider may require a more in-depth assessment:

- Top-down testing of the total capital expenditure forecast and at the category level.
- Evidence of prudent and efficient decision making on key projects and programs.
- Evidence of alignment with asset and risk management standards.
- Genuine consumer engagement on capital expenditure proposals.

Questions on forecast capital expenditure

- 4) Do you consider Directlink’s capex proposal addresses the concerns of electricity consumers as identified in the course of its engagement on the proposal?
- 5) Do you consider Directlink’s approach to forecasting replacement capex is appropriate and likely to produce a forecast of efficient replacement capex?
- 6) Do you consider Directlink’s economic assessment framework and project documentation provide appropriate justification for its proposed capex projects and programs?

4.4 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 the total revenue requirement.

Our role is to decide whether to accept the total opex forecast proposed by Directlink. We are to form a view about whether its forecast of total opex reasonably reflect the opex criteria.¹⁹ In doing so, we must have regard to the opex factors specified in the National Electricity Rules (NER).²⁰

The *Expenditure forecast assessment guideline* (the Guideline), together with an explanatory statement, sets out our assessment approach in detail.²¹ Our approach is to assess the business's forecast opex over the regulatory control period at a total level, rather than to assess individual opex projects. To do so, we develop an alternative estimate of total opex using a 'top-down' forecasting method, known as the 'base-step-trend' approach.²² We compare our alternative estimate with the business's total opex forecast to form a view on the reasonableness of the business's proposal:

- If we are satisfied the business's forecast reasonably reflects the opex criteria, we must accept the forecast.²³
- If we are not satisfied, we substitute the business's forecast with our alternative estimate that we are satisfied reasonably reflects the opex criteria.²⁴

In making this decision, we take into account the reasons for the difference between our alternative estimate and the business's proposal, and the materiality of the difference. We also consider the interrelationships between opex and the other building block components of our decision.²⁵

Directlink's proposed total opex is \$39.5 million (\$2024–25) for the 2025–30 period, which is:

- 8.4 million (27.2%) more than Directlink's actual/estimated opex for the 2020–25 period.
- \$10.1 million (34.5%) more than the opex forecast we approved for the 2020–25 period.

¹⁹ NER, cl. 6A.6.6(c).

²⁰ NER, cl. 6A.6.6(e).

²¹ AER, Expenditure forecast assessment guideline for electricity transmission, November 2013; AER, Explanatory statement – Expenditure forecast assessment guideline, November 2013.

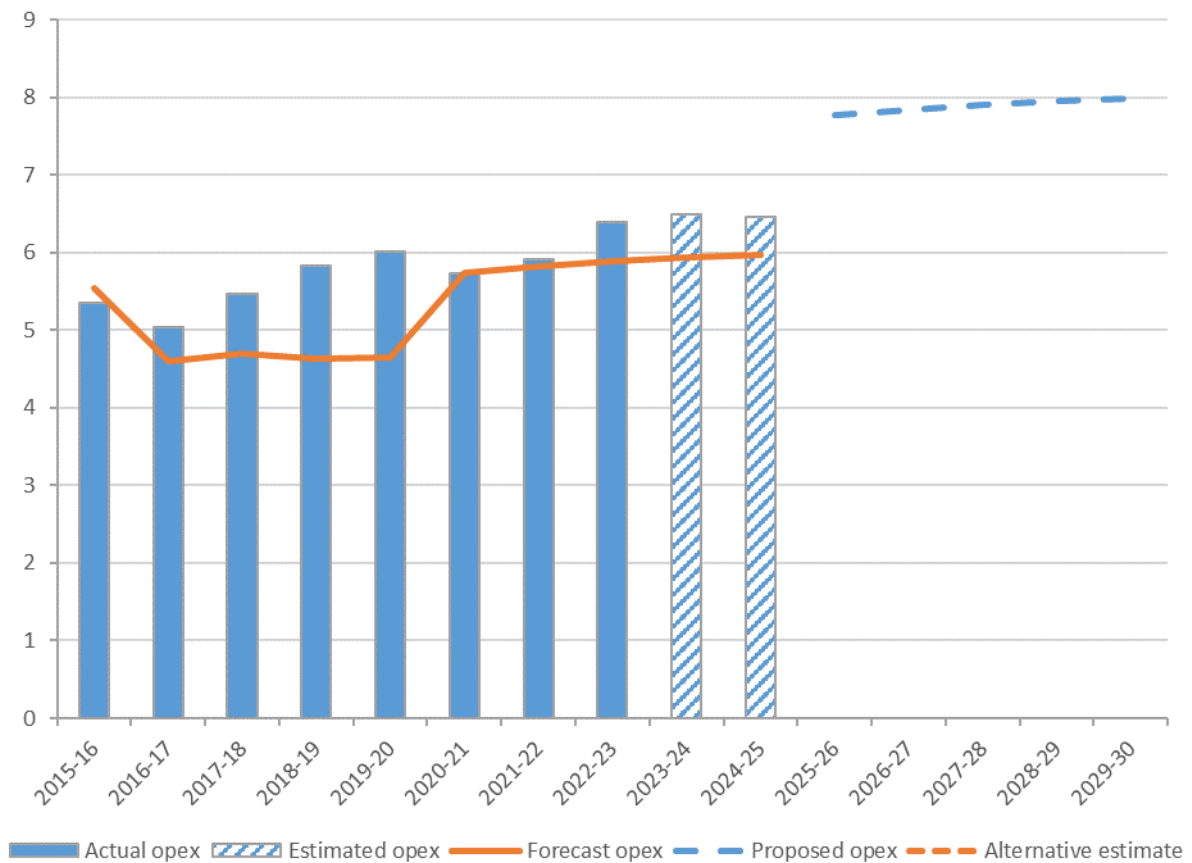
²² A 'top-down' approach forecasts total opex at an aggregate level, rather than forecasting individual projects or categories to build a total opex forecast from the 'bottom up.'

²³ NER, cl. 6A.6.6(c).

²⁴ NER, cl. 6A.6.6(d) and cl. 6A.14.1(3)(ii).

²⁵ NEL, s. 16(1)(c).

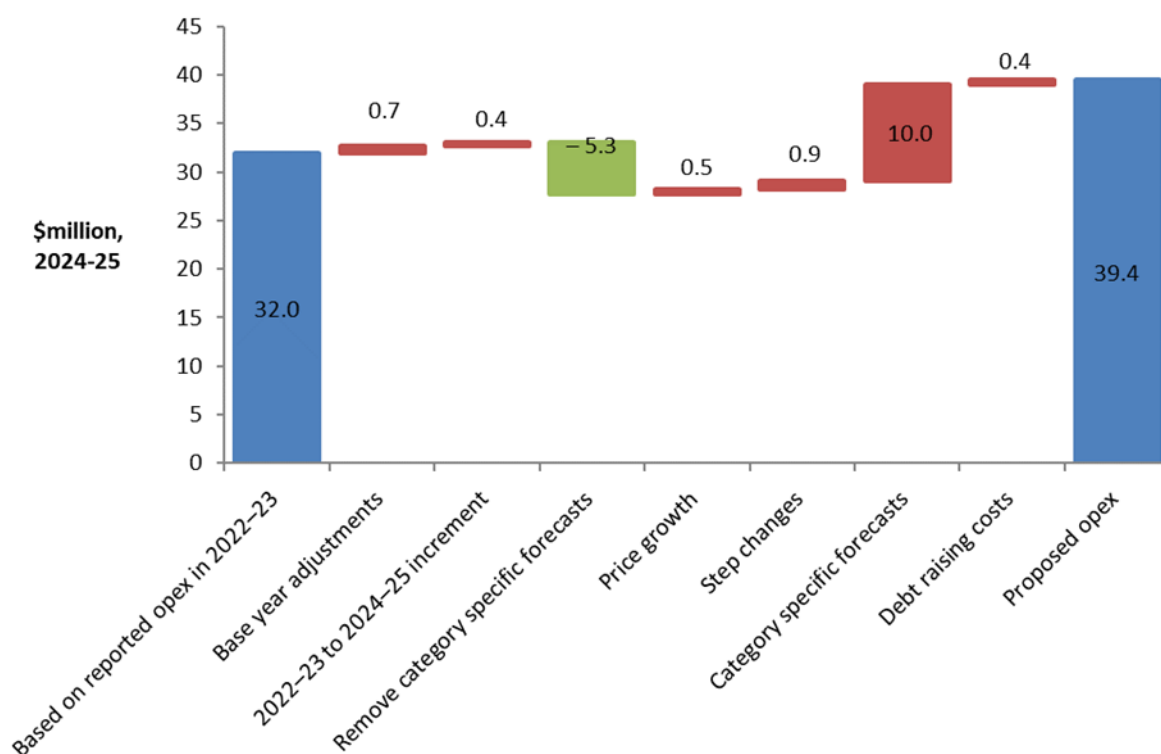
Figure 7 Directlink’s forecast and actual opex over time (\$2024–25, million)



Source: Directlink, *Regulatory accounts*; AER, *Directlink 2020-25 Post-tax revenue model*; Directlink, *2025–30 Proposal*; AER analysis.

This increase in Directlink’s proposed total opex can be primarily attributed to:

- a positive adjustment to base year opex to include costs attributable to reforms to the Security of Critical Infrastructure (SoCI) Act, increasing total opex by \$0.7 million (\$2024–25).
- a new proposed step change for an apprenticeship program, increasing total opex by \$0.9 million (\$2024–25).
- a proposed category specific forecast to set aside end of life costs, increasing total opex by \$4.7 million (\$2024–25).
- higher proposed insurance costs (category specific forecast), increasing total opex by \$0.7 million (\$2024–25).

Figure 8 Breakdown of Directlink’s opex forecast (\$2024–25, million)

Source: Directlink, *Forecast Opex model*; AER analysis.

As with capex, the following Better Resets Handbook expectations for opex will guide our assessment and identify which areas of the opex forecast we consider may require a more in-depth assessment:

- the business should use our base-trend-step approach, including our standard assumptions.
- any step changes will be small in number and well-justified.
- any category specific costs will be small in number and well-justified.
- there should be evidence of genuine consumer engagement.

4.4.1 Base opex

The starting point for our base-step-trend forecasting approach is selection of a base year of recent, actual expenditure (revealed opex). We assess the revealed opex in the base year (e.g., through benchmarking) to test whether it is efficient. If we find it to be efficient, we accept it. If we find it to be materially inefficient, we may make an efficiency adjustment.

Directlink has selected the 2022–23 financial year as the base year for its forecast of operating expenditure, as:

- it is the most recent completed financial year.
- it is most reflective of current conditions and a typical year of operations on the Directlink interconnector.
- no adjustments are required for non-recurrent expenditure or for inefficient recurrent operating expenditure; and

- it reflects a ‘revealed cost’ approach as preferred by the AER.

Base year adjustments

The 2022–23 base year included only six months of Security of Critical Infrastructure (SoCI) Act related costs. Directlink have included an adjustment to its base year to reflect the full costs attributable to reforms to the SoCI Act.²⁶

Consequently, Directlink has proposed a positive base adjustment of \$0.65 million to its base year to reflect a full year of its SoCI costs.

4.4.2 Rate of change

Having determined an efficient starting point, or base opex, we trend it forward to account for forecast growth in prices, output and productivity. We refer to this as the rate of change.²⁷

Directlink has largely applied our standard approach to forecasting the rate of change. It has proposed:

- Price growth:
 - Directlink has used CPI to escalate non-labour costs (consistent with the AER’s standard approach).
 - In order to forecast changes to labour costs, Directlink has relied on recent forecasts of BIS Oxford Economics, which in real terms, amounts to an average WPI forecast of 1.1% p.a. Directlink has not applied the AER’s standard approach of averaging Directlink’s and the AER consultant’s WPI forecasts.
- Output growth: 0%, consistent with the AER’s standard approach for interconnectors.
- Productivity growth: 0% - our standard approach is to apply the industry average opex productivity growth for electricity transmission. However, no productivity factor was applied in Directlink’s 2020–25 revenue determination.

4.4.3 Step changes

We add or subtract any step changes for changes in costs that are not already compensated by base opex and the rate of change (e.g. costs associated with changes to regulatory obligation changes, or capex/opex substitutions). Directlink proposed one step change.

Labour resilience - Apprenticeship program

Directlink submitted that it has been affected by a skills shortage of technicians and trade workers, and maintaining access to skilled labour for the life of the asset is therefore a risk for Directlink. It has been considering ways to improve its labour resilience and access to replacement labour, one of which is to access the APA apprenticeship program to develop

²⁶ Directlink, *Attachment 5 – Operating Expenditure*, 31 January 2024, p.10.

²⁷ Expenditure forecast assessment guideline for electricity transmission, November 2013; AER, Explanatory statement – Expenditure forecast assessment guideline, November 2013.

skilled workers to enable the operation and maintenance of the Directlink Interconnector for its technical life.²⁸

Directlink has therefore proposed a step change for the costs of participating in this apprenticeship program, which amount to \$0.17 million (\$2024-25) per year, or \$0.85 million over the regulatory period for one apprentice. This estimate is based on the current average cost of the APA apprenticeship program of \$156,000 per apprentice in 2022–23.

4.4.4 Category specific forecasts

In addition to the base-step-trend methodology, Directlink has proposed two category specific forecasts for deriving its operating expenditure forecast, namely:

Insurance premiums

Insurance premium costs were separately forecast in Directlink’s 2020–25 revenue determination as we found that insurance costs represented a higher proportion of opex for Directlink than other network service providers, and so its total opex was sensitive to changes in the insurance market.

Directlink considers this reasoning still holds and is therefore proposing to continue to forecast insurance costs separately as a category specific forecast.

Directlink has estimated its insurance costs to be \$1.05 million (\$2024–25) per year, or \$5.3 million over the regulatory period. This is an increase of \$0.7 million (\$2024–25) from actual and estimated expenditure in the current period. Directlink’s forecast is based on a report from Marsh which provided insurance premium projections in relation to Directlink for the period from 1 July 2025 to 30 June 2030.

End of life costs

Directlink has also included an allowance for ‘end of life’ costs in its forecast operating expenditure. It submitted that this would start the process of recovering the future costs that will be necessary to remove the Directlink assets when they reach end of life. Directlink is currently expected to operate until 2042.

Directlink has included this allowance as a separate category specific forecast, as it has no connection with Directlink’s current operating expenditure.

In its previous, 2020–25 revenue determination process, Directlink proposed recovery of end of life costs, but this was not accepted by the AER at that time as the AER considered that there was too much uncertainty regarding the likelihood and timing of these costs being incurred. Nonetheless, Directlink considers an appropriate method for handling end of life costs is required and should be considered in the operating expenditure forecast for the 2025–30 revenue determination as end of life costs will be incurred, and customers will be required to pay these costs, either now or in the future. Directlink considers it is in the long-term interest of customers to start recovering these costs from this regulatory period as:

- extending the payment over a longer period reduces the price impact on consumers;

²⁸ Directlink, *Attachment 5 – Operating Expenditure*, 31 January 2024, pp.12-13.

- it harnesses the time value of money with the accumulated interest reducing the direct payments that need to be made by consumers; and
- the customers who benefit from the operation of Directlink are paying the end of life costs, rather than future customers.²⁹

Directlink has estimated the end of life costs to be \$0.9 million (\$2024–25) per year, or \$4.7 million over the regulatory period. Directlink’s forecast is based on an estimate of end of life costs for asset removal prepared by GHD in 2019. The estimate of future costs taken from the GHD report has then been converted into an annuity to derive an annual revenue stream that would recover the expected end of life liability.

Questions on forecast operating expenditure

- 7) End of life costs: Should Directlink commence recovery of the anticipated (but uncertain) end of life costs in the 2025–30 regulatory period? If so, is Directlink’s proposed methodology for estimating these costs appropriate?
- 8) Labour resilience: Is Directlink’s proposed step change for apprenticeship costs reasonable, noting in general that labour costs are typically considered business as usual activities for network service providers and accounted for through the price growth factor in the rate of change?
- 9) Do you consider Directlink’s opex proposal addresses the concerns identified by electricity consumers during its engagement on the 2025–30 proposal?

4.5 Revenue adjustments under AER incentive schemes

Our calculation of total revenue for Directlink for the 2025–30 period will include adjustments for incentive schemes that applied in its determination for the current, 2020–25 period.

As set out in the proposal, these would include:

- A revenue reduction under the EBSS, to provide a fair sharing of opex spent in excess of our approved forecast for 2020–25 between Directlink and consumers. Directlink’s proposed reduction to 2025–30 revenue is \$0.6 million.

4.6 Corporate income tax

Our determination of regulated revenue must include an allowance for Directlink to recover the costs associated with the estimated corporate income tax payable during the 2025–30 period. We forecast the cost of corporate income tax in accordance with the requirements of the NER.³⁰

²⁹ Directlink, *Attachment 5 – Operating Expenditure*, 31 January 2024, p.17.

³⁰ Clause 6A.6.4 of the NER sets out the formula we must use to estimate corporate income tax, which is applied in the PTRM.

Using the approach set out in the PTRM, Directlink proposed a forecast corporate income tax amount of \$3.4 million (\$2024–25) for the 2025–30 period. We note that Directlink has:

- Proposed zero forecast immediate expensing of capex for the 2025–30 period, consistent with its current tax policy.
- Adopted the diminishing value method for tax depreciation to all forecast capex, except for a limited number of assets which must be depreciated using the straight-line depreciation method under the tax law.

We will assess the appropriateness of the proposed amounts of immediate expensing and capex allocated for straight-line depreciation, based on the approach we have taken in recent revenue determinations.

5 Incentive schemes to apply in 2025–30

Incentive schemes form an important part of our regulatory toolkit. They provide financial rewards and penalties to network service providers, encouraging them to improve the efficiency of running their business over time and provide levels of service performance that are valued by customers. 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.

Directlink has proposed the following incentive schemes continue to apply under our transmission determination for the 2025–30 period:

- Efficiency benefit sharing scheme (EBSS)³¹. This provides Directlink with a continuous incentive to pursue efficiency improvements in opex and provide for a fair sharing of these between Directlink and network users. Consumers benefit from improved efficiencies through lower opex in regulated revenues for future periods. Directlink proposed to apply the EBSS in the 2025–30 regulatory control period without adjustment.³²
- Capital expenditure sharing scheme (CESS)³³. This incentivises efficient capex throughout the period, by providing incentives to improve efficiency by rewarding networks when expenditure lower than forecast and penalising them when expenditure is higher than forecast. Following a review in 2023, the version of the CESS that will apply to Directlink in 2025–30 reduces the rewards when a network business outperforms against its approved forecast by more than 10% but maintains the same penalties for underperformance. This means that that in future periods the penalties to networks for overspending could be higher than the rewards for underspending. This asymmetry will reduce the costs of the CESS to consumers while maintaining strong incentives for efficiency.³⁴

The CESS applies to Directlink for the 2020–25 period. Directlink forecast a capex overspend of \$0.44 million (\$2024–25) for the 2020–25 period. This results in a proposed CESS penalty totalling \$0.04 million for the 2020–25 regulatory control period. Directlink have not proposed any deferral of capex in its CESS calculations.

Directlink has proposed \$15.55 million in replacement capex to be excluded from the CESS. Directlink cited contractual changes with its supplier as the reason for the overspend.³⁵

- Service target performance incentive scheme (STPIS).³⁶ The STPIS provides incentives for network businesses to maintain and improve network reliability performance, to the

³¹ [AER - Efficiency benefit sharing scheme \(Version 2\) - November 2013](#)

³² Directlink, *2025–2030 Revenue Proposal Overview*, 31 January 2024, p.28.

³³ [AER - Capital expenditure incentive guideline for electricity network service providers \(Version 2\) - April 2023](#), p. 15.

³⁴ [AER - Final decision - Review of incentive schemes for networks - April 2023](#)

³⁵ Directlink, *Directlink – Attachment 03 – Revenue Proposal*, 31 January 2024, p. 62.

³⁶ [AER - Electricity transmission service target performance incentive scheme \(Version 5\) - October 2015](#)

extent that consumers are willing to pay for such improvements. The STPIS acts as a balance to our expenditure incentive schemes, ensuring businesses focus on genuine efficiency gains and do not compromise service levels when reducing expenditure.

The proposal that these schemes continue to apply in 2025–30 is consistent with our own proposed approach for that period, which we set out in our Framework and Approach (F&A) paper for this determination in July 2023.³⁷

Our STPIS, version 5, provides a financial incentive to TNSPs to maintain and improve service performance. There are three STPIS components of the STPIS but only two are applicable to Directlink:

- the Service Component provides a reward/penalty to improve network reliability, by focussing on unplanned outages.
- the Market Impact Component provides an incentive to TNSPs to minimise the impact of transmission outages that can affect wholesale market outcomes.³⁸

In the F&A³⁹ we said, “A review of the Market Impact Component of the transmission STPIS planned for the second half of 2023 may mean that a new version of the STPIS will apply to Directlink in 2025–30.” Our review, which began with an Issues Paper on 8 December 2023, focuses on assessing what aspects of the STPIS remain fit for purpose in light of the transition to renewable energy sources which is changing the way the transmission networks operate and invest. Submissions on our Issues Paper are due by Friday, 5 April 2024. The AER will publish its draft decision in September 2024 and finalise the review by the end of 2024.

Since our last determination for Directlink, we have introduced a new Demand management innovation allowance mechanism (DMIAM) for transmission network service providers.⁴⁰ The DMIAM funds research and development into innovative demand management projects that have the potential to reduce long term network costs. The proposed approach we set out in our F&A Paper was not to apply the DMIAM to Directlink.⁴¹ Both we and Directlink⁴² concluded there would be very limited utility to energy users were Directlink to invest in researching demand management opportunities through the DMIAM, and the application of the DMIAM to an interconnector not deliver any benefit to consumers.

Demand management is typically achieved through load shifting, increasing the level of embedded generation sources, and to a lesser extent minimising energy losses. Directlink is a point-to-point interconnector between New South Wales and Queensland. The power flowing through this link is determined by the price differential between the two regions and other network constraint factors at the time of generation dispatch by AEMO. There is no scope for Directlink to manage the power flow volume by load shifting or to connect new

³⁷ [AER - Final framework and approach - Directlink 2025-30 - July 2023](#), p. 6.

³⁸ AER, *Electricity transmission network service provider Service Target Performance Incentive Scheme Version 5*, September 2015, clause 2.2, p. 3.

³⁹ [AER - Final framework and approach - Directlink 2025-30 - July 2023](#), p.7

⁴⁰ [AER - Demand management innovation allowance mechanism for transmission network service providers - May 2021](#)

⁴¹ [AER - Final framework and approach - Directlink 2025-30 - July 2023](#), p. 7.

⁴² [Directlink - Request for a revised Framework and Approach - October 2022](#)

embedded generators. Nor can it reduce losses within the link without some sort of capital investment. Given the DMIAM does not allow recovery of capex, the scope for loss reduction under the DMIAM is limited.

Questions on incentive schemes

- 10) Are there any forward looking CESS, or EBSS exclusions you think the AER should consider? If so, please provide a short explanation. (cross reference to capex, opex)?
- 11) Do you have any views on the proposed application of any of the above incentive mechanisms?

6 Pricing methodology

Our determination for Directlink must specify a transmission pricing methodology for its prescribed transmission services.⁴³

Its role is to answer the question “who should pay how much” in order for a business to recover its costs.⁴⁴

Directlink’s proposed pricing methodology for the 2025–30 period is largely identical to the 2020–25 period’s pricing methodology. On this basis, and subject to any issues we may identify during the transmission determination, we consider this proposed pricing methodology is capable of acceptance.

Question on pricing methodology

12) Do you have any comments on Directlink’s proposed pricing methodology for the 2025–30 period?

⁴³ NER, cl. 6A.2.2(4).

⁴⁴ AEMC, Rule determination: National Electricity Amendment (Pricing of Prescribed Transmission Services), 21 December 2006.

7 Summary of questions

Consumer Engagement

- 1) Has Directlink engaged meaningfully with consumers on the key elements of the proposal?
- 2) To what extent do you consider consumers were able to influence the topics Directlink engaged on?
- 3) How well has Directlink captured and acted on consumer preferences in the proposal?

Capital Expenditure

- 4) Do you consider Directlink’s capex proposal addresses the concerns of electricity consumers as identified in the course of its engagement on the proposal?
- 5) Do you consider Directlink’s approach to forecasting replacement capex is appropriate and likely to produce a forecast of efficient replacement capex?
- 6) Do you consider Directlink’s economic assessment framework and project documentation provide appropriate justification for its proposed capex projects and programs?

Operating Expenditure

- 7) End of life costs: Should Directlink commence recovery of the anticipated (but uncertain) end of life costs in the 2025–30 regulatory period? If so, is Directlink’s proposed methodology for estimating these costs appropriate?
- 8) Labour resilience: Is Directlink’s proposed step change for apprenticeship costs reasonable, noting in general that labour costs are typically considered business as usual activities for network service providers and accounted for through the price growth factor in the rate of change?
- 9) Do you consider Directlink’s opex proposal addresses the concerns identified by electricity consumers during its engagement on the 2025–30 proposal?

Incentive Schemes

- 10) Are there any forward looking CESS, or EBSS exclusions you think the AER should consider? If so, please provide a short explanation. (cross reference to capex, opex)?
- 11) Do you have any views on the proposed application of any of the above incentive mechanisms?

Pricing

- 12) Do you have any comments on Directlink’s proposed pricing methodology for the 2025–30 period?

8 Glossary

Term	Definition
ADMS	Advanced Distribution Management Systems
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
augex	augmentation capital expenditure
CAB	Consumer Advisory Board
capex	capital expenditure
CCP30	Consumer Challenge Panel, sub-panel 30
CER	consumer energy resources
CESS	capital expenditure sharing scheme
CSIS	customer service incentive scheme
DMIAM	demand management innovation allowance mechanism
DMIS	demand management incentive scheme
DNISP or distributor	Distribution Network Service provider
EBSS	efficiency benefit sharing scheme
F&A	framework and approach
GSL	guaranteed service level
ICT	Information and communication technologies
NEL	National Electricity Laws
NEM	National Electricity Market
NEO	National Electricity Objectives
NER	National Electricity Rules
opex	operating expenditure
RAB	regulated asset base
repex	replacement expenditure
SAIDI	system average interruption duration index
SAIFI	system average interruption frequency index
STPIS	service target performance incentive scheme