Draft Decision

Transgrid Transmission Determination 2023 to 2028

(1 July 2023 to 30 June 2028)

Overview

September 2022

AUSTRALIAN ENERGY REGULATOR

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601
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AER reference: 202187

Invitation for submissions

Transgrid has the opportunity to submit a revised proposal in response to this draft decision by **2 December 2022**.

Interested stakeholders are invited to make a submission on both our draft decision and Transgrid's revised proposal (once submitted) by **20 January 2023**.

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

Submissions should be sent to: Transgrid2023@aer.gov.au

Alternatively, submissions can be sent to:

Warwick Anderson
General Manager
Australian Energy Regulator
GPO Box 1313
Canberra ACT 2601

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

The AER prefers 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 confidentiality claim
2. provide a non-confidential version of the submission in a form suitable for publication.

All non-confidential submissions will be placed on the AER's website.[1]

[1] For further information regarding our use and disclosure of information provided to us, see the *ACCC/AER Information Policy* (June 2014), which is available on our website: https://www.aer.gov.au/publications/corporate-documents/accc-and-aer-information-policy-collection-and-disclosure-of-information.

Note

This Overview forms part of the AER's draft decision on Transgrid's 2023–28 transmission determination. It should be read with all other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 – Maximum allowed revenue

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

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Executive summary

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).

A regulated network business must periodically apply to us for a determination of the revenue it can recover from consumers using its network. On 31 January 2022, we received a revenue proposal from NSW and ACT electricity transmission network service provider, Transgrid, for the period 1 July 2023 to 30 June 2028 (2023–28 period).

This draft decision, if implemented, would currently allow Transgrid to recover an estimated $4,758.1 million ($ nominal) from consumers over the 2023–28 period. While we have accepted some elements of the proposal, Transgrid has not satisfied us at this stage that its total forecasts for capital expenditure (capex) and operating expenditure (opex), in particular, are appropriate. As a result, we have substituted alternative forecasts for these key items.

In addition to these changes, movements in market variables in recent months, such as interest rates, bond rates and expected inflation, are key factors in explaining the difference in total revenue between approved under this draft decision and Transgrid's proposal for the 2023–28 period. These market variables are currently acting to increase the return on Transgrid's regulatory asset base. Updates for these movements are a standard part of our determination process and will be made, again, in Transgrid's upcoming revised proposal and our final decision. Their impact, at the time of this decision, is to increase total revenue by $550.0 million (13.1%) compared with Transgrid's proposal.

This draft decision is the mid-point in our assessment of Transgrid's proposal. In addition to future updates to market variables, Transgrid now has the opportunity to respond in a revised proposal that incorporates the substance of the changes required by, and addresses matters raised in, this draft decision. Transgrid has also signalled that it may propose new expenditure following our draft decision and seek further increases to its proposed forecast capex and opex. We consider these should be limited to externally driven changes that Transgrid was not in a reasonable position to respond to at the time of its initial proposal. They should also be subject to further engagement with consumers.

The role of consumer engagement in driving regulatory proposals

We've seen through experience that a regulatory proposal developed through genuine engagement with consumers is more likely to be largely, or wholly, accepted in our decisions.

Five key priorities influenced Transgrid's 2023–28 proposal through its engagement with consumers and its key stakeholder engagement group, the Transgrid Advisory Council (TAC): affordability; safety, security and reliability; rapid localised demand growth; energy transition; and technology and innovation.

So far in this review, submitting stakeholders have told us that Transgrid's consumer engagement could have started sooner than it did, that it has regressed in terms of continuity and quality from past attainable benchmarks, and that it fell short of partnering to develop the

proposal that was ultimately lodged. We have heard that consumer voices were not balanced against non-consumer voices on Transgrid's TAC. Stakeholders also told us that Transgrid's proposal presented consolidated TAC positions on matters based on small samples and/or without disaggregation to identify consumer and non-consumer positions.

Stakeholder feedback has been strong, consistent and constructive. It sends a clear message to Transgrid on the limited remaining opportunities it has in this review to address the concerns identified by stakeholders and who are also genuinely committed to helping Transgrid bring forth an improved revised proposal that is in the long term interest of consumers.

Energy Users Association of Australia (EUAA) said:[2]

> 'Perhaps the most striking aspect of engagement to date (and initial revenue proposals seen by the TAC) was not what was included but what was not included in the engagement process…TAC members had expressed concerns that much of what will drive future costs was excluded. Unfortunately, when questions were raised by consumer representatives, they were more often than not 'parked' and not dealt with in any meaningful way.'

Public Interest Advocacy Centre (PIAC) added:[3]

> 'It is PIAC's view that due to fundamental flaws in Transgrid's stakeholder engagement, the proposal as it stands cannot be relied on to reflect consumer preferences…Transgrid's engagement on the revenue proposal was inadequate…[and] commenced unacceptably late…Transgrid's TAC includes household and business energy users. However, Transgrid does not appear to have captured the views of these stakeholders separately to the views of other stakeholders.'

Our Consumer Challenge Panel (CCP25) observed:[4]

> 'Our assessment of Transgrid's consumer engagement is that the network has fallen short of truly partnering with consumers in the development of its revenue proposal. As a consequence, there is limited evidence of the direct impact of consumer engagement on the Revenue Proposal.'

Our review of Transgrid's proposal includes consideration of stakeholders' submissions and our observation of the consumer engagement process to date. In summary, we consider there is scope and opportunity for Transgrid to improve the way in which it engages with consumers, and provide clear evidence of where it has listened to and has allowed consumers to influence its revised proposal.

Stakeholders have told us that Transgrid has previously demonstrated in a revenue determination setting that it is capable of strong consumer engagement, citing Transgrid's past co-design and collaborative efforts on its *Powering Sydney's Future* project. More recently in this review, we are encouraged by the positive steps that Transgrid has undertaken in response to the constructive feedback provided by stakeholders, including co-designing workshop topics with stakeholders to help inform the revised proposal and

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2 EUAA, *Submission, Transgrid 2023–2028 revenue determination*, May 2022, p. 4.

3 PIAC, *Submission on Transgrid 2023–2028 revenue proposal*, May 2022, pp. 1-2.

4 CCP25, *Transgrid, Advice to the AER on the 2023–28 electricity transmission regulatory revenue proposal*, May 2022, p. 1.

rebalancing the TAC's membership. At this stage of the revenue determination process, time is of the essence.

Ensuring consumers pay no more than necessary for safe and reliable energy

Our decision on Transgrid's proposal will set the revenue allowance that forms the major component of Transgrid's transmission charges for the 2023–28 period. It provides a baseline or starting point for those 5 years.

For illustrative purposes, the potential impact of Transgrid's proposal at the time it was submitted would have been no change in nominal terms (or an 11.0% real decrease) to average transmission charges in 2027–28 compared to 2022–23 levels. Since then, we have seen significant movement in underlying economic variables, such as inflation and interest rates that, as noted above, have a material impact on Transgrid's total revenue. Whilst it is not possible to forecast how these economic variables might change before our final decision, they are currently acting to increase Transgrid's regulated revenue. Using the most recent economic data, the estimated impact of this draft decision, if implemented, would currently be an 13.7% increase in nominal terms (or a 1.9% real decrease) to average transmission charges for the same period.

In considering the outcomes of this review, it is important to remember that over the 2023–28 period, there are a number of additional mechanisms under the NER that may operate to increase or decrease Transgrid's approved revenue and its transmission charges.

We have seen the impact of these uncertainty mechanisms during the current period. For example, a large transmission project, *Project EnergyConnect*, driven by the Australian Energy Market Operator's (AEMO) Integrated System Plan (ISP) was not initially included in forecast revenue for the 2018–23 period. Such projects provide benefits to consumers over the long term by allowing for additional renewables and low-cost generation, improving security and diversity of supply, strengthening the electricity system, and reducing the amount consumers are required to pay as a result of market directions. Expenditure required for the project's delivery was added through a revenue adjustment following further consultation and assessment during the period. This impacted pricing outcomes for consumers in the current period and, as the new assets are added to Transgrid's regulatory asset base, are a significant contributor to the expected increase in its revenue and tariffs for 2023–28.

Transmission networks will continue to play an important role in the energy market transition. This has been a key driver of Transgrid's investment in the current period. While Transgrid's proposal notes the potential benefits of this investment in facilitating access to lower cost renewable generation, it is important that it looks beyond this to its own contribution to energy costs. In the face of current, upward pressures on costs and prices in all elements of the supply chain, submissions to this review have highlighted the importance of Transgrid continuing to seek efficiencies in its underlying expenditure over and above any project-based variations in expenditure from period-to-period that may drive changes in forecast expenditure.

Additional projects of this nature may be added throughout the 2023–28 period. These could include projects defined by the AEMO as necessary to action its ISP. We also note that our draft decision accepts 1 of the 8 proposed contingent projects put forward by Transgrid as

part of its capex proposal and establishes triggers that, if met, would allow Transgrid to apply for additional revenue in the 2023–28 period.

The potential impact of uncertainty mechanisms provides important context to this decision and the weight that stakeholders should place on projected price outcomes in considering their comfort with it.

Aside from one submitting stakeholder that supported Transgrid's capex proposal, all other stakeholders told us that Transgrid should have allowed for greater consideration of the options and potential consequences for consumers from large capex projects.

Our draft decision does not accept Transgrid's proposed total capex forecast. Replacement capex (repex) is the main driver of our reduction to Transgrid's forecast capex, followed by augmentation capex (augex) and information and communications technology (ICT) capex. Our substitute capex estimate is 12% lower than proposed by Transgrid on a like-for-like basis, or 8% lower after updating for rises in consumer price inflation and labour escalation. Our substitute capex estimate does not include an amount for Transgrid's capex projects that are subject to the regulatory investment test for transmission (RIT-T) projects. We undertook a top-down and bottom-up review of Transgrid's forecast capex. Both reviews indicated that Transgrid's forecast is not prudent and efficient. In particular, our bottom-up review found insufficient evidence provided by Transgrid to support the prudency and efficiency of its forecast. Lack of supporting information also contributed to our draft decision not to accept 7 of the 8 proposed contingent projects put forward by Transgrid.

Our draft decision also does not accept Transgrid's proposed total opex forecast. Based on the information before us at this time, we are concerned that Transgrid may be overstating what it will need to recover from consumers in order to pay higher insurance premiums and uplift its critical infrastructure and cyber security. We have also incorporated a slightly higher wage price index compared with Transgrid's proposal to account for superannuation guarantee increases for 2023–24 to 2025–26. Similar to the capex comparison above, our use of updated inflation data for the purpose of this draft decision masks the magnitude of the difference between our alternative estimate of total opex and Transgrid's proposal. If we apply our updated inflation numbers to Transgrid's proposal to compare the two on like-for-like terms, our draft decision on forecast opex is 2.9% lower than Transgrid's proposal. This compares to a headline 2.3% increase where no adjustment has been made.

Transgrid has the opportunity to provide better and further information in its revised proposal which substantiates those aspects of its capex and opex proposals that we have not accepted at this stage.

In this Overview and the accompanying detailed attachments, we have set out the assessment approaches applied, and enquiries made, in the course of our review, with the benefit of which we have been able to arrive at this draft decision.

1 Our draft decision

In the sections below, we briefly outline what is driving Transgrid's revenue, and the key differences between our draft decision revenue of $4,758.1 million ($ nominal, smoothed) compared to its proposed $4,208.1 million. We also outline the estimated impact of our draft decision on network charges and our assessment of Transgrid's consumer engagement approach.

On face value, it may seem peculiar that we are determining a revenue allowance that is higher than Transgrid initially proposed. We have carefully reviewed Transgrid's proposal. Our draft decision does not accept Transgrid's proposed forecasts for capex and opex. However, since Transgrid lodged its proposal, we have seen increases in interest rates. In this draft decision, we have employed current interest rates rather than the placeholder values in Transgrid's proposal. It is important that we update for the latest market data so that our decision reflects current financial market conditions. This enables Transgrid to attract the capital it needs to provide the services that consumers want.

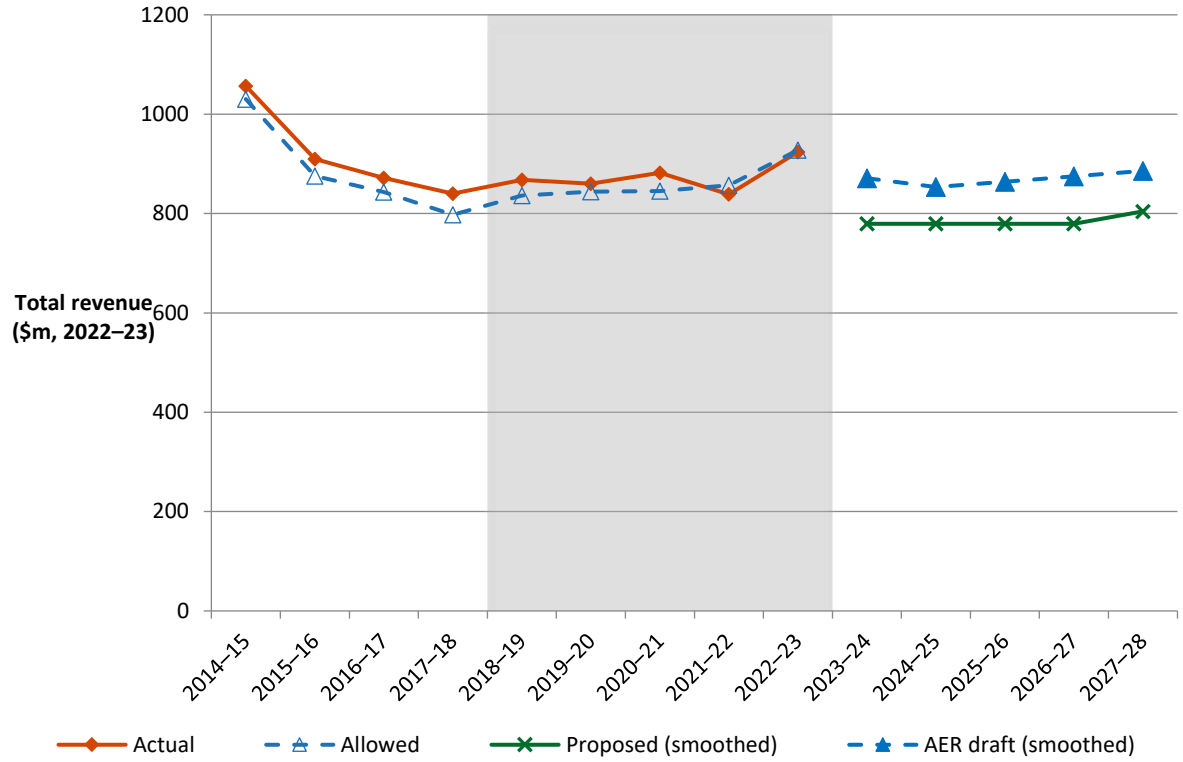
Moreover, the return investors receive on their assets should reflect the risks of their investment. These risks include the prospect of inflation eroding the investor's purchasing power. An allowance for expected inflation provides compensation for this risk.

- The 'return on capital' building block applies a nominal rate of return to the regulatory asset base (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' (depreciation) 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 capital gain (through the indexation of the RAB). Higher expected inflation, therefore, reduces the regulatory depreciation allowance.
- Other building blocks (such as 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.

1.1 What is driving revenue?

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 (2022–23) that have been adjusted for the impact of inflation. Figure 1 shows how revenue would change over the next 5 years under Transgrid's proposal and this draft decision. Where the assumptions in its proposal would have resulted in total revenue that was $388.7 million (9.0%) lower than approved for the current period, the modelled impact of our draft decision is currently an increase of $38.7 million (0.9%).

Figure 1 Changes in regulated revenue over time ($million, 2022–23)



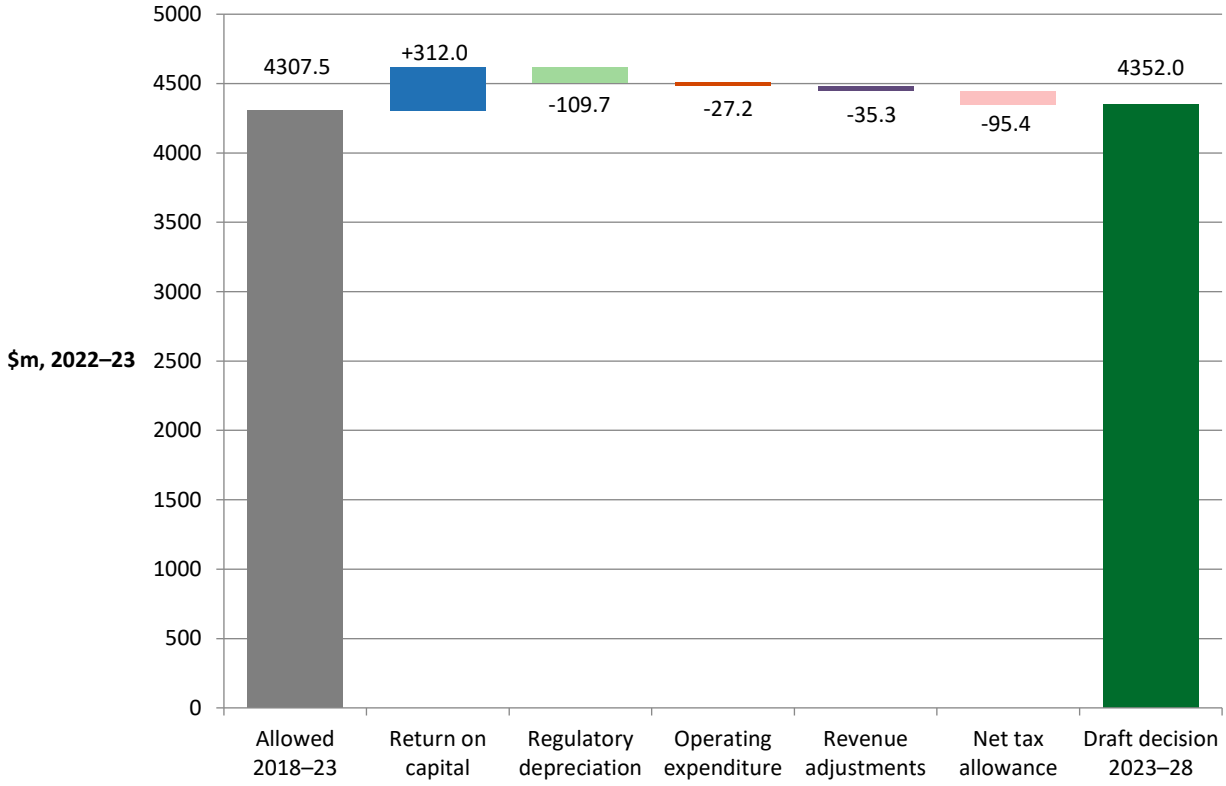
Source: AER, *Final decision PTRM* for Transgrid for 2018–23 and 2014–18; Transgrid, *2023–28 Post tax revenue model*, January 2022; AER, *2023–28 Draft decision – PTRM*, September 2022.

Figure 2 highlights the key drivers of the change between the revenue approved for Transgrid for the 2018–23 period and in this draft decision for the 2023–28 period. It shows that our draft decision provides for reductions in the building blocks for:

- return of capital (depreciation), which is $109.7 million (17.3%) lower than the 2018–23 period, driven primarily by a higher indexation of the regulatory asset base (RAB)
- operating expenditure (opex), which is $27.2 million (2.6%) lower than the 2018–23 period, driven primarily by Transgrid opex productivity improvements over time
- revenue adjustments, which are $35.3 million (69.8%) lower than the 2018–23 period, due to capital expenditure sharing scheme (CESS) and shared asset reductions more than offsetting efficiency benefit sharing scheme (EBSS) and demand management innovation allowance mechanism (DMIAM) increases
- net tax allowance, which is $95.4 million (49.8%) lower than the 2018–23 period, primarily due to applying our regulatory tax approach following our 2018 tax review.

Figure 2 also shows that our draft decision provides for an increase in the building block for the return on capital, which includes capex and its financing costs. This is $312.0 million (13.2%) higher than the 2018–23 period, driven largely by a higher rate of return being applied in the 2023–28 period, in accordance with our 2018 Rate of Return Instrument. Our final decision will be determined in accordance with the 2022 Rate of Return Instrument, as well as taking into account the most recent information available.

Figure 2 Change in building block revenue 2018–23 to 2023–28 ($ million, 2022–23, unsmoothed)



Source: AER, *Transgrid – Post-tax revenue model – 2022–23 return on debt update*, January 2022; AER, *2023–28 Draft decision – PTRM,* September 2022.

The impact of the higher return on capital is further magnified by major capital project investments in the 2018–23 period—*Project EnergyConnect (PEC)*, *HumeLink*, *QNI* and *VNI minor*—which have increased Transgrid's RAB. Current period investment in these projects has already been scrutinised through contingent project assessments and is outside the scope of this determination that we are making for the 2023–28 period.

RAB growth over the next 5 years is expected to be slower under this draft decision. Forecast capex for the 2023–28 period is lower than approved for the 2018–23 period. We consider that the forecast is sufficient expenditure for Transgrid to maintain its network as top-down network performance metrics indicate that Transgrid's network performance is improving over time compared with its peers and itself. We commend Transgrid on this improvement, although this result suggests that less capex investment in the 2023–28 period is required for network maintenance.

1.2 Key differences between our draft decision and Transgrid's proposal

Movements in market variables, including expected inflation and interest rates, have led to revenue outcomes for the 2023–28 period that are materially higher in our draft decision than Transgrid's proposal.

When looking at the 2023–28 period, the key differences between our draft decision and Transgrid's proposal relate to our:

- higher return on capital, driven by our higher rate of return and opening RAB (as at 1 July 2023)
- higher opex forecast, primarily driven by higher inflation forecasts, partially offset by our reductions to Transgrid's proposed opex step changes for insurance, and cyber and critical infrastructure security
- higher estimated cost of corporate income tax, driven primarily by our rate of return on equity which increases taxable revenue
- lower return of capital (depreciation), driven primarily by higher estimates of inflation than at the time of Transgrid's proposal
- lower capex forecast, driven by a lack of supporting evidence to justify that Transgrid's forecast is prudent and efficient.

1.3 Estimated impact of our draft decision on network charges

Transgrid recovers its regulated revenue through transmission charges. These are determined annually by Transgrid, in accordance with the pricing methodology we have approved as part of this decision subject to Transgrid making editorial amendments in its revised proposal.[5] Our decision on Transgrid's proposal will set the revenue allowance that forms the major component of Transgrid's transmission charges for the 2023–28 period. It provides a baseline or starting point for those 5 years.

For illustrative purposes, we estimate the modelled impact of this draft decision would currently be a 1.9% decrease in real terms to average transmission charges in 2027–28 compared to 2022–23 levels.[6] This estimate is subject to ongoing revenue adjustments and changes in consumer energy consumption. Final decision outcomes will potentially be higher again. Figure 3 compares this indicative price path for the 2023–28 period to the 2018–23 period.

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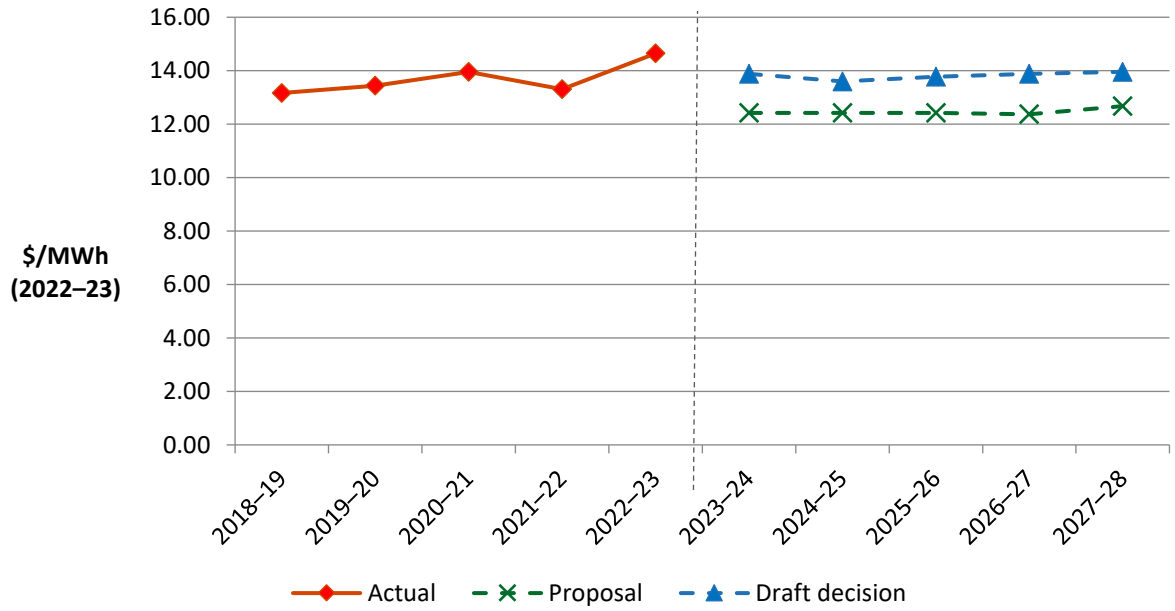
5 AER, *Draft decision, Transgrid transmission determination 2023 to 2028, Attachment 12, Pricing Methodology*, September 2022.

6 The estimated decrease in average transmission charges in real terms in 2027–28 contrasts against an estimated increase in average annual electricity bills for consumers by 2027–28.

Figure 3 Change in indicative transmission tariffs 2018–23 to 2023–28 per MWh ($2022–23)



Source: AER analysis.

Notes; The price path for the transmission network is based on actual or forecast energy throughput amounts for Transgrid's transmission network across NSW and ACT.
Revenue used to calculate the 'Actual' indicative price path over the 2018–23 period includes revenue from Inter- and Intra-Regional Settlements Residue collections and may not fully reflect the price path experienced by end-users.

These charges flow through to NSW / ACT consumers as part of retail electricity bills, which combine costs associated with operating and maintaining the transmission (9% / 7%)[7] and distribution (34% / 24%) networks, and also costs of generation (40% / 41%), environmental schemes (6% / 21%) and costs incurred by retailers in selling electricity (9% / 8%).[8]

While final decision outcomes will change, for illustrative purposes, the modelled impact of this draft decision on the average annual electricity bill for:[9]

- NSW residential and small business consumers would be an increase of $21 (1.2%) and $45 (1.0%), respectively, by 2027–28
- ACT residential and small business consumers would be an increase of $17 (0.9%) and $26 (0.9%), respectively, by 2027–28.

In considering the potential outcomes of this determination process, however, it is important to remember that over the 2023–28 period there are several additional mechanisms under the NER that may operate to increase or decrease Transgrid's approved revenue. These could include projects defined by the Australian Energy Market Operator (AEMO) as necessary to action its Integrated System Plan (ISP). Our draft decision also accepts

7 In this section, '(9% / 7%)', for example, indicates a 9% share of retail electricity bills for NSW consumers, and 7% share of retail electricity bills for ACT consumers.

8 AEMC, *Data Portal, Trends in NSW supply chain components 2022/23.*

9 These bill impacts are in nominal terms, which includes the impact of inflation over the 2023–28 period.

1 contingent project put forward by Transgrid as part of its 2023–28 capex proposal and sets out triggers that, if met, will allow it to apply for additional revenue for this project, subject to further consultation and assessment, throughout the period.

Other components of the electricity supply chain—the cost of purchasing energy from the wholesale market, distribution network charges, and the costs and margins applied by electricity retailers in determining the prices they will charge consumers for supply—make up the remaining portions of the prices ultimately paid by consumers. These sit outside the decision we are making here, but will also continue to change throughout the period.

1.4 Transgrid's consumer engagement

Genuine, high quality consumer engagement by Transgrid is essential to ensuring that its proposal is driven by consumer preferences, supports delivery of services that meet the needs of its consumers, and does so at a price that is affordable and efficient. We've seen through experience that a regulatory proposal developed through genuine engagement with consumers is more likely to be largely, or wholly, accepted in our decisions.

Our framework for considering consumer engagement in network revenue determinations is set out in the Better Resets Handbook.[10] Used in conjunction with our technical analysis, the framework for our regulatory decision-making allows us to place weight on the outcomes of the engagement activities undertaken by a business to assist in providing an overall assessment of a proposal. We are also guided in our consideration of a business's consumer engagement by our Consumer Challenge Panel (CCP25).[11]

Transgrid commenced engaging on its 2023–28 proposal's development around mid-2021. This included consulting its key stakeholder engagement group, the Transgrid Advisory Council (TAC), on a draft Stakeholder Engagement Plan in May 2021.[12] We have been observing Transgrid's monthly engagement with its TAC since this time, which has included deep-dive discussions of regulatory and policy issues and research on consumer priorities and preferences. Transgrid also consulted stakeholders on a preliminary revenue proposal in October 2021, prior to lodgement of its finalised proposal with us in January 2022.

Five key priorities influenced Transgrid's proposal through its engagement with consumers and its TAC:[13] affordability; safety, security and reliability; rapid localised demand growth; energy transition; and technology and innovation. Transgrid said its engagement objectives focussed on:[14]

> '…addressing customer and other stakeholders' priorities and preferences in our Revenue Proposal so we continue to deliver the services they want, need and willing to pay for in the rapidly changing energy system.'

Although network businesses will tailor their engagement programs based on issues that are relevant to their own consumers and networks, our early take-out from observing Transgrid's

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

11 CCP25 comprises Rob Nicholls (until August 2022), Elissa Freeman and Mike Swanston.

12 Transgrid, *2023–28 Revenue Proposal*, p. 28.

13 Transgrid, *2023–28 Revenue Proposal*, pp. 1, 33–38.

14 Transgrid, *2023–28 Stakeholder Engagement Plan*, p. 27.

engagement process, as set out in our March 2022 Issues Paper[15], was that Transgrid's proposal may have benefitted from earlier engagement with its consumers. More recently, and in summary, submitting stakeholders told us that:[16]

- Transgrid's engagement with consumers could have started sooner than it did and that it fell short of partnering to develop the proposal that was lodged
- consumer voices were not balanced against non-consumer voices on the TAC
- Transgrid's proposal presented consolidated TAC positions based on small samples and/or without disaggregation to identify consumer and non-consumer positions.

Public Interest Advocacy Centre (PIAC) said:[17]

> 'In PIAC's experience, good practice engagement for Network Service Provider regulatory proposals commences at least 18 months before the initial revenue proposal to the AER.'

Energy Users Association of Australia (EUAA) added:[18]

> 'We consider the engagement process was largely at the inform/consult end of the IAP2 spectrum. Traditionally, not an uncommon approach, but progressively not best practice or fit for purpose in such a dynamic environment.'

CCP25 observed:[19]

> 'Despite affordability featuring as the key priority of consumers, we have observed limited evidence of an aggressive focus on lowering transmission prices…In the face of the emerging challenges, we consider that Transgrid should focus on efficiency and productivity.'

Transgrid has since responded with a monthly series of independently-facilitated stakeholder meetings, based on deep-dive topics co-designed with its TAC, to inform its upcoming revised proposal. Transgrid also revised its TAC membership in response to stakeholder feedback. Stakeholders have welcomed Transgrid's improved engagement approach.

In responding to our draft decision, Transgrid needs to demonstrate how it has improved the way in which it engages with consumers, and provide clear evidence of where it has listened to and has allowed consumers to influence its revised proposal.

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15 AER, *Issues Paper, Transgrid electricity transmission revenue proposal, 1 July 2023 to 30 June 2028*, March 2022.

16 CCP25, *Transgrid, Advice to the AER on the 2023–28 electricity transmission regulatory revenue proposal*, May 2022; EUAA, *Submission, Transgrid 2023–2028 revenue determination*, May 2022; PIAC, *Submission on Transgrid 2023–2028 revenue proposal*, May 2022.

17 PIAC, *Submission on Transgrid 2023–2028 revenue proposal*, May 2022, p. 1.

18 EUAA, *Submission, Transgrid 2023–2028 revenue determination*, May 2022, p. 3.

19 CCP25, *Transgrid: Advice to the AER on the 2023–28 electricity transmission regulatory revenue proposal*, p. 1.

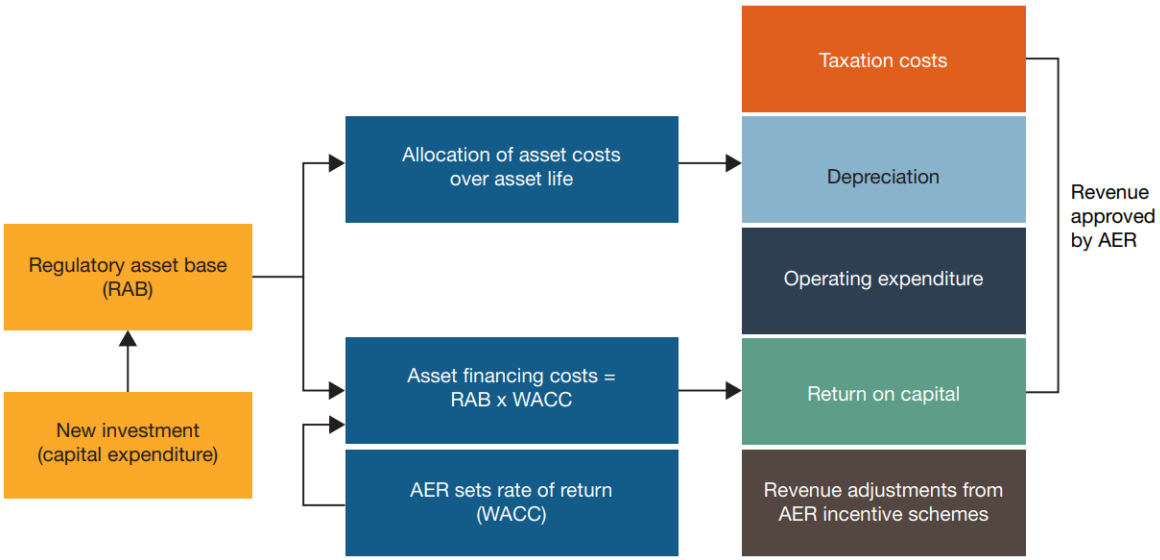
2 Key components of our draft decision on revenue

The foundation of our regulatory approach is a benchmark incentive framework to setting maximum revenues: once regulated revenues are set for the 5-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 over time and drive lower cost benchmarks in subsequent regulatory control periods. By only allowing efficient costs in our approved revenues, we promote delivery of the National Electricity Objective and ensure consumers pay no more than necessary for the safe and reliable delivery of electricity.

Transgrid's proposed revenue reflects its forecast of the efficient cost of providing transmission network services over the 2023–28 period. The revenue proposal, and our assessment of it under the National Electricity Law and Rules, are based on a 'building block' approach which looks at five cost components, as set out in Figure 4:

- return on the regulatory asset base (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 efficiency benefit sharing scheme (EBSS), capital expenditure sharing scheme (CESS) and demand management innovation allowance mechanism (DMIAM).
- estimated cost of corporate income tax.

Figure 4 The building block model to forecast network revenue



Source: AER.

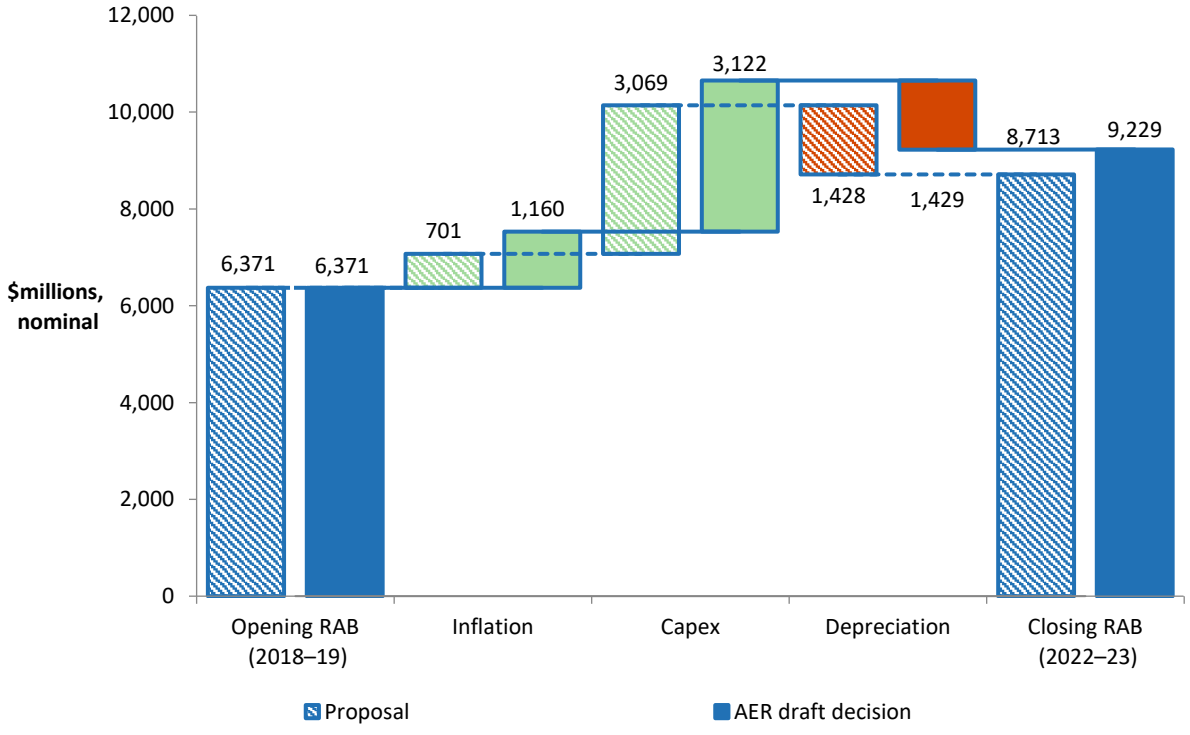
2.1 Regulatory asset base

The regulatory asset base (RAB) accounts for the value of regulated assets over time. To set revenue for a new regulatory period, we take the opening value of the RAB from the end of the last period and roll it forward year-by-year by indexing it for inflation, adding new 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 regulatory period.

The value of the RAB is used to determine the return on capital and depreciation building blocks, and substantially impacts Transgrid's revenue requirement and the price consumers ultimately pay. Other things being equal, a higher RAB would increase both the return on capital and depreciation components of the revenue determination.

For this draft decision, we have determined an opening RAB value of $9,228.7 million ($ nominal), as at 1 July 2023. This value is $515.7 million (5.9%) higher than Transgrid's proposed opening RAB of $8,713.0 million. While we largely accept Transgrid's proposed method for calculating the opening RAB, we have made a number of input corrections and updates, primarily inflation, to Transgrid's proposed roll forward model (RFM). These are not areas of disagreement between us and Transgrid. Figure 5 shows the key drivers of the change in Transgrid's RAB over the 2018–23 period compared with Transgrid's proposal.

Figure 5 Key drivers of changes in the RAB over the 2018–23 period – Transgrid's proposal compared with the AER's draft decision ($ million, nominal)



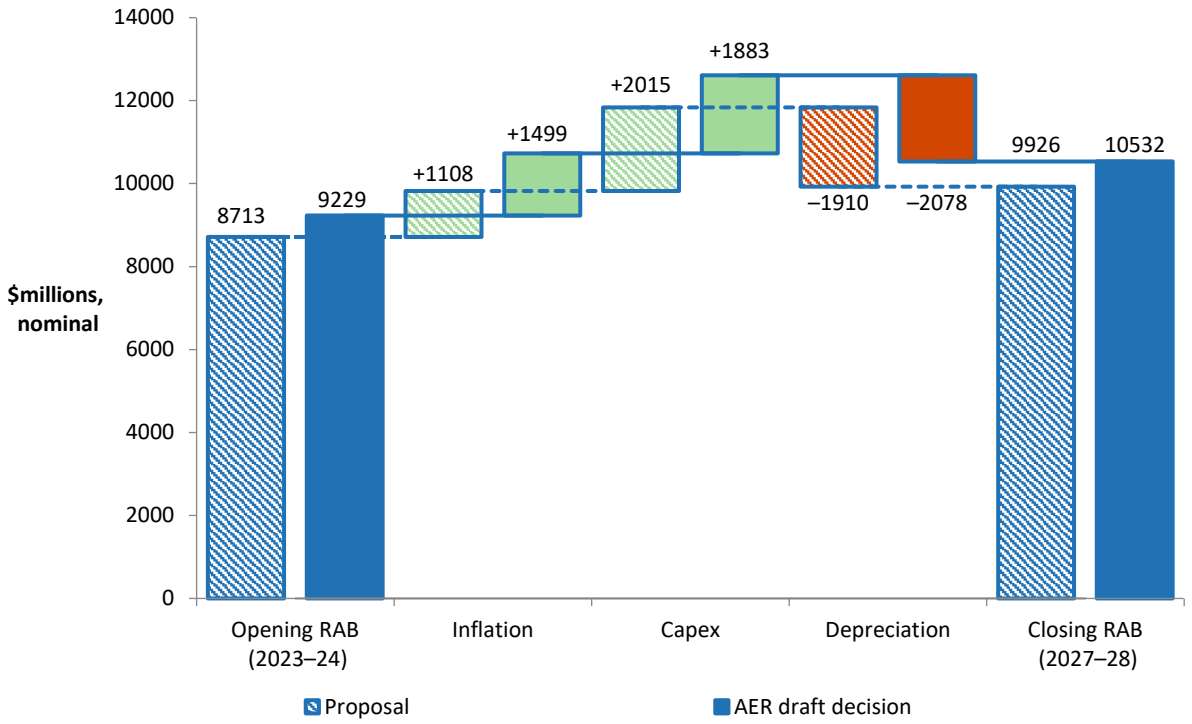
Note: The closing RAB value as at 2022–23 may not reflect the sum of the opening RAB and net additions, as it also includes some amounts for end of period RAB adjustments (not shown).

Source: Transgrid, *2023–28 Roll forward model*, January 2022; AER, *2023–28 Draft decision – RFM*, September 2022.

Figure 6, likewise, shows the key drivers of the change in Transgrid's RAB over the 2023–28 period compared with Transgrid's proposal. Our draft decision projects an increase of

$1,303.5 million (14.1%) to the RAB by the end of the 2023–28 period, compared to the $1,212.9 million (13.9%) increase from Transgrid's proposal.

Figure 6 Key drivers of changes in the RAB over the 2023–28 period – Transgrid's proposal compared with the AER's draft decision ($ million, nominal)



Source: Transgrid, *2023–28 Post-tax revenue* model, January 2022; AER, *2023–28 Draft decision – PTRM,* September 2022.

We have determined a projected closing RAB of $10,532.2 million, as at 30 June 2028. This value is $606.3 million (6.1%) higher than Transgrid's proposed closing RAB of $9,925.8 million. This increase is mainly due to our draft decision on the opening RAB as at 1 July 2023, but also reflects our draft decisions on the expected inflation rate, forecast straight-line depreciation, and our lower forecast capex than proposed by Transgrid (discussed in the sections below).

2.2 Rate of return and value of imputation credits

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

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.

We have applied our 2018 Rate of Return Instrument to estimate the rate of return for this draft decision.[20] For our upcoming final decision, we will apply the 2022 Rate of Return Instrument which is scheduled to be published in December 2022. This may affect the estimate of the rate of return as well as the value of imputation credits.

For this draft decision, the placeholder rate of return is 5.77% (nominal vanilla). Updates to the risk-free rate and return on debt have resulted in an increase of 1.07 percentage points from the placeholder estimate of 4.70% in Transgrid's proposal.

Our estimate of expected inflation for this draft decision is 3.00% per annum. It is an estimate of the average annual rate of inflation expected over a 5-year period based on the approach adopted in our 2020 Inflation Review[21] and the forecast from the Reserve Bank of Australia's (RBA) August 2022 Statement on Monetary Policy. This is higher than the estimate of 2.30% in Transgrid's proposal.

These variables will be updated, again, in Transgrid's revised proposal and in our final decision, which is part of our standard process.

Both Transgrid's proposal and our draft decision apply a value of imputation credits (gamma) of 0.585 as set out in the 2018 Rate of Return Instrument.[22]

2.3 Regulatory depreciation

Depreciation is a method used in our decision to allocate the cost of an asset over its useful life. It is the amount provided so that capital investors can recover their investment over the economic life of the asset (otherwise referred to as the 'return of capital'). When determining Transgrid's total revenue, we include an amount for the depreciation of the projected RAB. The regulatory depreciation amount is the net total of the straight-line depreciation less the indexation of the RAB.

Our draft decision determines a regulatory depreciation amount of $579.1 million ($ nominal) for the 2023–28 period. This is a reduction of $222.7 million (27.8%) from Transgrid's proposal of $801.8 million. The key reason for the reduction is our higher expected inflation rate for the 2023–28 period, which increases the adjustment for indexation of the RAB that is offset against straight-line depreciation in determining regulatory depreciation.

Forecasts of expected inflation and components that make up the projected RAB will be updated, again, in Transgrid's revised proposal and in our final decision.

2.4 Capital expenditure

Capital expenditure (capex)—the capital costs and expenditure incurred in the provision of prescribed transmission services—mostly relates to assets with long lives, the costs of which are recovered over several regulatory control periods. Forecast capex directly affects the

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20 AER, *Rate of return Instrument*, December 2018. See https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/rate-of-return-guideline-2018/final-decision.

21 AER, *Final position – Regulatory treatment of inflation*, December 2020.

22 AER, *Rate of return Instrument, Explanatory Statement*, December 2018, pp. 307–382.

size of the RAB and the revenue generated from the return on capital and depreciation building blocks.

Our draft decision is to not accept Transgrid's total forecast capex of $1,883.0 million ($2022–23) for the 2023-28 period. Our substitute forecast is $1,729.3 million, or around 8% lower than Transgrid's proposal. On a like-for-like basis, that is, without updates for rises in consumer price inflation and labour escalation, our substitute forecast is $1,659.8 million, or around 12% lower than Transgrid's proposal. We consider our substitute forecast provides for a prudent and efficient service provider in Transgrid's circumstances to maintain the safety, reliability and security of electricity supply on the transmission network.

Figure 7 shows Transgrid's historical and forecast capex, our previous decisions, and our 2023–28 draft decision.

Transgrid has several major planned capex investments over the next 5 years, which is estimated at approximately $14 billion. We note that Transgrid's forecast capex in its proposal (excluding standard contingent projects) is a much smaller proportion of its total planned capex over the 2023–28 period. The same observation was made by CCP25 and our consultant, EMCa, that there is a high degree of uncertainty associated with these major capex investments that are outside of this 2023–28 revenue determination process.

We undertook a top-down and bottom-up review of Transgrid's forecast capex. Overall, we found a lack of supporting evidence that Transgrid's proposed forecast was prudent and efficient.

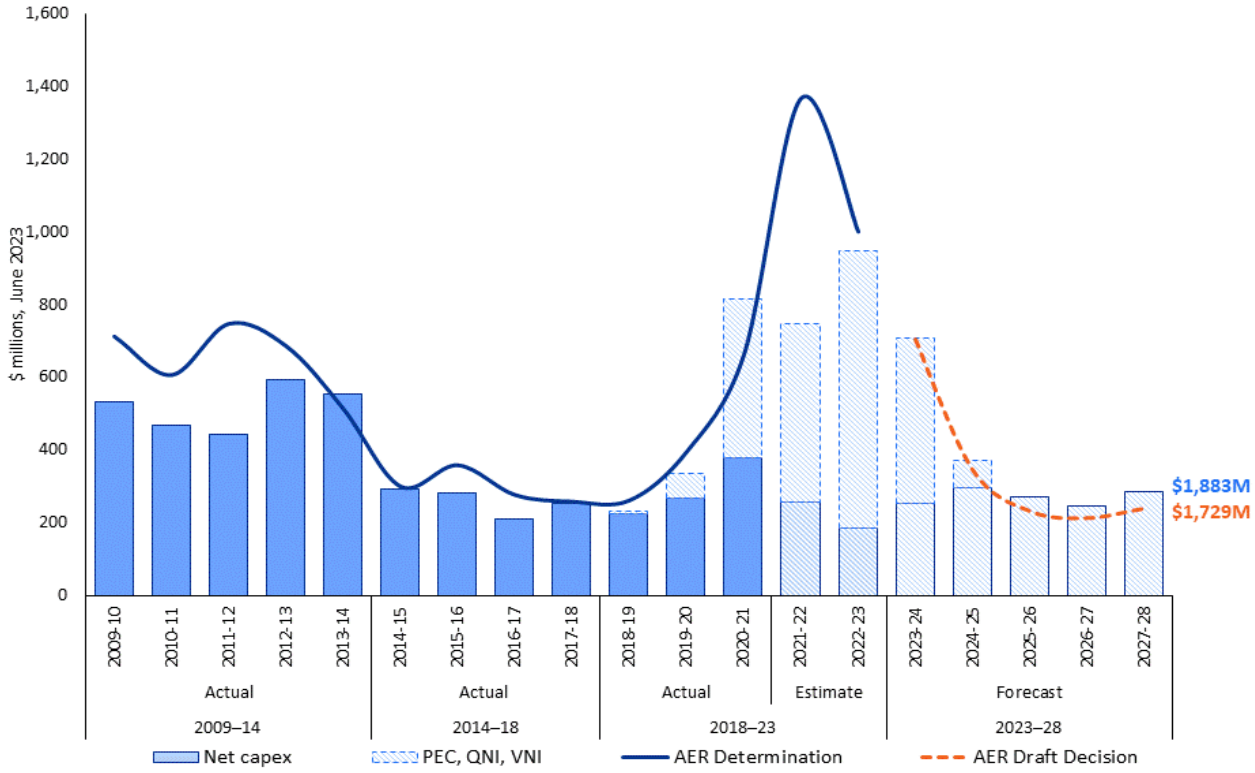
Typically, we undertake a top-down review to test whether a regulated business' capex proposal as a whole could be prudent and efficient. We do this using a number of high-level metrics and information. Having regard to the results from our top-down review, we then determine the degree to which a targeted bottom-up review is required. In this case, we are not satisfied based on the information before us that, at the top-down level, Transgrid's capex proposal as a whole is prudent and efficient. We, therefore, undertook a thorough bottom-up review of Transgrid's proposal.

From a top-down perspective, there is a lack of clarity on what Transgrid is actually proposing as its capex forecast for the 2023–28 period. Transgrid has indicated that the projects undergoing a regulatory investment test for transmission (RIT-T) are likely to be included in its revised proposal. Once these projects are included in the forecast, Transgrid's forecast is between 20.8% to 55.6% higher than its actual/estimated capex in the current period. The step up is a range of possible values given the uncertainty on the inclusion and the cost of the projects subject to the RIT-T in Transgrid's total forecast. We have not been provided with evidence to justify that step up. More generally, we consider the lack of transparency of the capex forecast for stakeholder review has reduced our confidence about the prudency and efficiency of the forecast at the top-down level.

Transgrid noted in its proposal that it may submit new additional expenditure in its revised proposal. This includes possible capex for COVID-19 impacts, network readiness for 100% renewable generation, and technology and innovation. Since submission of its proposal, Transgrid has discussed this potential new additional expenditure with its key stakeholder engagement group (the TAC), which we understand is likely to be material. We will be

especially interested in consumers' views on the extent to which Transgrid has sought to inform, and have regard to, consumers' views about any changes to its proposal.

Figure 7 Historical and forecast capital expenditure ($ million, 2022–23)



Source: AER analysis of Transgrid's proposal, RINs, and responses to information requests. Figures remove asset disposals.
Notes: For the 2018–23 period, we have separated out the base/net capex from the capex for large Integrated System Plan (ISP) projects for Project EnergyConnect (PEC), Queensland-NSW interconnector minor upgrade (QNI), and Victoria-NSW interconnector (VNI).

Our concerns about the prudency and efficiency of Transgrid's forecast capex are compounded by stakeholder submissions in response to our Issues Paper and Transgrid's initial proposal.[23] We note that, in submissions received, consumer representatives and CCP25 did not support Transgrid's forecast capex. Instead, submissions raised concerns about the lack of genuine consumer engagement on Transgrid's capex proposal.

Other top-down findings suggests that Transgrid's forecast capex is more than required for it to maintain its network over the 2023–28. Top-down testing of Transgrid's network performance revealed that its network performance is improving, suggesting forecast capex lower than actual/estimated capex in the current period may be sufficient for Transgrid to maintain its network. Also, our consultant, EMCa, while noting the improvements in Transgrid's governance and management framework since the previous review, found issues with the application of the framework which is likely to result in an overstated forecast.

23 AER, *Issues Paper, Transgrid electricity transmission revenue proposal, 1 July 2023 to 30 June 2028*, March 2022.

Our bottom-up assessment revealed an overall lack of justification for Transgrid's overstated forecast. Key drivers of our reduction to Transgrid's forecast were to replacement capex (repex), augmentation capex (augex), and information and communication technology (ICT) capex , where our main concerns were:

- for repex, overstatement of the risk assumed, which inflated the capex required to mitigate the risk
- for augex, lack of evidence of the ability to deliver the entire proposed augex program, especially in light of the upcoming major capex programs set out in Transgrid's proposal which include NSW Renewable Energy Zone and Integrated System Plan (ISP) projects. We note that Transgrid has deferred several augex projects in the current period, and has identified non-network solutions in its recent RIT-T projects
- for ICT capex, lack of justification for the significant step up in ICT capex. Our consultant's top-down and bottom-up review reinforces the concerns about the prudency and efficiency of Transgrid's forecast ICT capex.

Our draft decision is to accept only 1 of the 8 contingent projects proposed by Transgrid, as:

- there was a high probability that the 7 projects would not occur in the 2023–28 period, and/or
- other triggers were unlikely to occur.

The 1 contingent project that we have accepted relates to managing increased fault levels in Southern NSW. Convincing evidence was provided by Transgrid to support the probability of the contingent project occurring in the 2023–28 period. Also, after further engagement with us, Transgrid provided updated triggers which we consider to be workable.

2.5 Operating expenditure

Operating expenditure (opex) is the operating, maintenance and other non-capital expenses incurred in the provision of Transgrid's prescribed transmission services.

Our draft decision is to not accept Transgrid's proposed opex forecast of $1,015.0 million ($2022–23) for the 2023–28 period, as we are not satisfied that it reasonably reflects the opex criteria.[24]

Our alternative estimate of total opex is $1,038.5 million. This is $23.5 million (2.3%) higher than Transgrid's proposal. We are satisfied that our alternative estimate reasonably reflects the opex criteria. Our inflation updates mask the magnitude of the difference between our alternative estimate of total opex and Transgrid's proposal. If we apply our updated inflation numbers to Transgrid's proposal to compare the two on like-for-like terms, our alternative estimate of total opex is 2.9% lower than Transgrid's proposal. The key drivers of our higher alternative estimate of total opex compared to Transgrid's proposal, are that we have:

- used the latest available actual and forecast inflation inputs for 2021–22 and 2022–23, which were not available at the time of Transgrid's proposal. Accordingly, we have

[24] NER, cll. 6A.6.6(c)-(d).

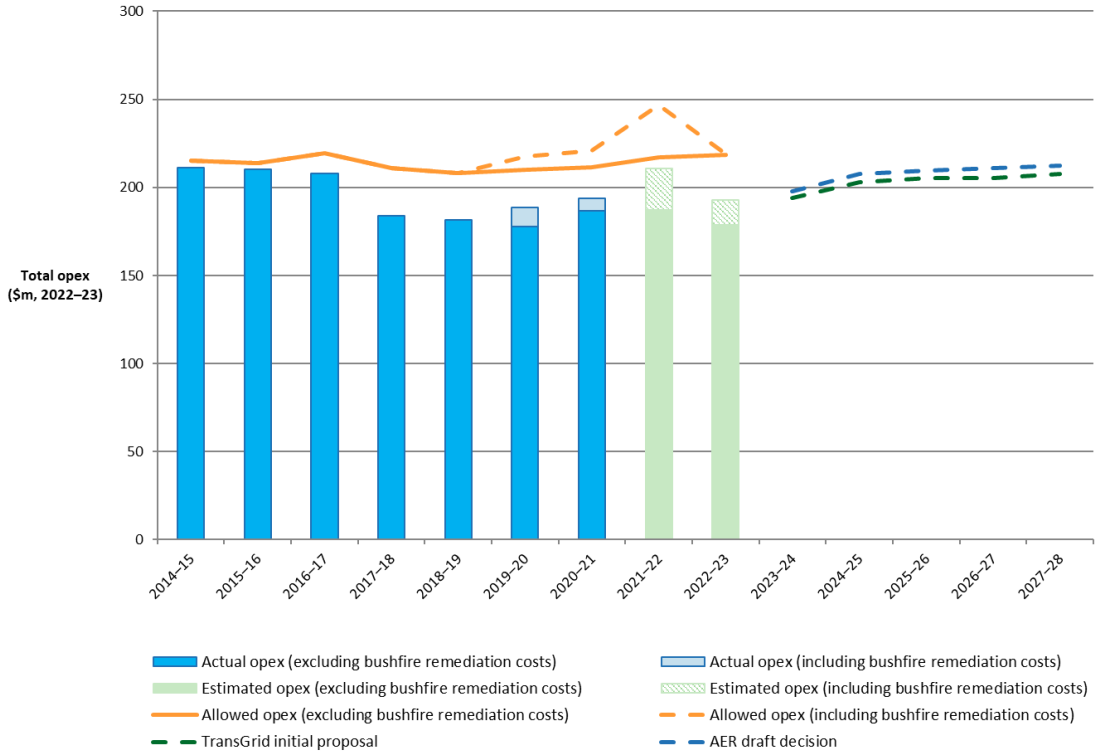
applied inflation inputs of 6.1%[25] and 6.2%[26] for 2021–22 and 2023–23, respectively. This compares with Transgrid's inflation inputs of 2.8% and 2.3% for 2021–22 and 2022–23, respectively. These updates increased our alternative estimate by $52.7 million

- forecast a higher wage price index of 0.7% compared to Transgrid's proposed 0.5%, as we have applied superannuation guarantee increases for 2023–24 to 2025–26 which were not accounted for in Transgrid's proposal.[27]

However, the above increases have been partially offset by our alternative estimate of opex step changes, which are $30.1 million lower than Transgrid's proposal. We have not included Transgrid's proposed ISP preparatory activities step change in our alternative estimate. Further, we have included lower forecasts for the insurance premiums and cyber and critical infrastructure security step changes.

Figure 8 compares Transgrid's opex forecast to its past actual opex, our previous decisions, and our 2023–28 draft decision.

Figure 8 Historical and forecast operating expenditure ($ million, 2022–23)



Note: Includes debt raising costs and movements in provisions. We have removed software as a service opex and added capitalised leases to estimated opex for 2021–22 and 2022–23 to align with accounting standards applied in the 2018–23 final determination.

Source: Transgrid, *Regulatory accounts 2014–15 to 2020–21*; Transgrid, *Transgrid - 2023-28 Opex Forecast model - Public*, 31 January 2022; AER, *Transgrid revenue determination, PTRM (multiple periods 2014–18, 2018–22, 2023–28);* AER analysis

25 Australian Bureau of Statistics, *Consumer Price Index, Australia*, released on 27 July 2022 (accessed on 28 July 2022).

26 Reserve Bank of Australia, *Statement on monetary policy - Forecast table*, August 2022.

27 Transgrid, *Transgrid - 2023-28 Opex Forecast model - Public*, 31 January 2022.

2.6 Revenue adjustments

Our calculation of Transgrid's total revenue includes adjustments under the efficiency benefit sharing scheme (EBSS) and capital expenditure sharing scheme (CESS) that apply for the 2018–23 period. These mechanisms provide a continuous incentive for Transgrid to pursue efficiency improvements in opex and capex, respectively, and a fair sharing of these between Transgrid and its users. Our draft decision also determines an amount for the demand management innovation allowance mechanism (DMIAM)[28] and shared asset revenue reductions.[29]

Our draft decision is to approve carryover amounts (increases to forecast revenue) totalling $21.3 million ($2022–23) from the application of the EBSS and CESS in the 2018–23 period, including:

- an EBSS adjustment of $19.3 million from the application of the EBSS in the 2018–23 period. This is $15.6 million less than Transgrid's proposal of $34.9 million. The difference reflects adjustments we have made to account for bushfire remediation work undertaken in 2022–23, and to align the accounting treatment of actual and estimated leases and software-as-a-service expenditure to be consistent with approved expenditure in our 2018–23 decision
- a CESS adjustment of $2.0 million from the application of the CESS in the 2018–23 period. This is $3.1 million less than Transgrid's proposal of $5.1 million. Our decision includes a CESS payment of $0.9 million by Transgrid, or $4.2 million less than proposed, due to Transgrid disclosing it deferred capex (additional to deferred *Project EnergyConnect* expenditure).

Our draft decision includes an allowance of $4.6 million ($2022–23) for the DMIAM, which will apply to Transgrid for the first time in the 2023–28 period. This is $0.5 million (10.9%) more than Transgrid's proposal of $4.1 million, reflecting the higher total revenue we have determined in this draft decision. In each year of the 2023–28 period, Transgrid will submit demand management projects for approval under the DMIAM. Any part of the $4.6 million that is not spent on approved projects will be returned to consumers in the next period.

Our draft decision also estimates that Transgrid's unregulated revenues from shared assets exceed the materiality threshold in all years of the 2023–28 period. As a result, we have determined an adjustment of –$10.6 million ($2022–23) to be returned to consumers over the 2023–28 period. This is the same amount as proposed by Transgrid.

2.7 Corporate income tax

Our determination of the total revenue requirement includes the estimated cost of corporate income tax for the 2023–28 period. Under the post-tax framework, this amount is calculated as part of the building blocks assessment using our post-tax revenue model (PTRM).

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28 The purpose of the DMIAM is to encourage Transgrid to expand and share its knowledge and understanding of innovative demand management projects that may reduce long-term network costs.

29 Shared assets arise when a business may use assets to provide both prescribed transmission services we regulate and unregulated services. If the revenue from shared assets is material, 10% of the unregulated revenues that a service provider earns from shared assets will be used to reduce the service provider's revenue for prescribed transmission services.

Our draft decision determines an estimated cost of corporate income tax amount of $105.3 million ($ nominal) for Transgrid over the 2023–28 period. This is an increase of $34.9 million (49.6%) compared with Transgrid's proposal of $70.4 million, primarily due to our draft decision on the rate of return on equity. This increases Transgrid's taxable revenue and, therefore, the cost of corporate income tax.[30]

[30] All else being equal, a higher rate of return on equity will increase the cost of corporate income tax because it increases the return on equity, a component of taxable revenue.

3 Incentive schemes and allowances

Incentive schemes are a component of incentive-based regulation and complement our approach to assessing efficient costs. They provide important balancing incentives under network determinations, encouraging businesses to pursue expenditure efficiencies while maintaining the reliability and overall performance of its network.

Our draft decision is that the following incentive schemes and allowances will apply to Transgrid in the 2023–28 period:

- Efficiency benefit sharing scheme (EBSS) – this provides a continuous incentive to pursue efficiency improvements in opex and provide for a fair sharing of these between Transgrid and network users. Consumers benefit from improved efficiencies through lower opex in regulated revenues for future periods
- Capital expenditure sharing scheme (CESS) – this incentivises efficient capex throughout the period by rewarding efficiency gains and penalising efficiency losses, each measured by reference to the difference between forecast and actual capex. Consumers benefit from improved efficiencies through a lower regulatory asset base, which is reflected in regulated revenues for future periods
- Service target performance incentive scheme (STPIS) – this balances incentives to reduce expenditure with the need to maintain or improve service quality, by providing financial incentives to maintain and improve service performance where consumers are willing to pay for these improvements. Once improvements are made, consumers benefit as the benchmark performance targets will be tightened in future years
- Demand management innovation allowance mechanism (DMIAM) – this funds research and development in demand management projects that have the potential to reduce long term network costs.

Our draft decision on the application of these schemes and allowances is consistent with the position taken in our Framework and Approach paper[31] and is set out in Attachments 8–11 of this draft decision.

At the time of this draft decision, we have not fully resolved the application of the service (SC) and market impact component (MIC) of the STPIS to Transgrid.

- The SC provides an incentive to Transgrid to improve network reliability by focussing on unplanned outages. It encourages Transgrid to seek to reduce the number of unplanned network outages and to promptly restore the network in the event of unplanned outages that result in supply interruptions. Transgrid proposes that the SC's loss of supply parameter should be amended to incentivise it to further improve network reliability, but it did not consult stakeholders on its proposal.[32]

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31 AER, *Framework and Approach Transgrid, regulatory control period commencing 1 July 2023*, July 2021.

32 Transgrid, *Revenue Proposal 2023–28*, 31 January 2022, p. 152.

  - Our draft decision on the SC requires Transgrid to consult with stakeholders, providing analysis and reasons, on why it will be in the long term interests of consumers to accept its proposed change to the SC parameter.

- The MIC provides an incentive to Transgrid to minimise the impact of transmission outages that can affect wholesale market outcomes. It measures performance against the number of dispatch intervals where an outage on Transgrid's network results in a network outrage constraint[33] with a marginal value greater than $10/MWh.[34]
  - Our January 2022 final decision on the transmission determination for AusNet Services considered the impact changes in the energy mix in the National Electricity Market have had on the way semi-dispatch generators bid into the market. We recognised the potential for generator bidding behaviour to appear as a constraint when this is not within a transmission network service provider's control. In such cases, we considered these should be excluded from MIC performance.[35]
  - In its response to our information request, Transgrid found no data that matched the AusNet clarification. However, Transgrid considered that the exclusion clarification should also apply to scheduled and non-scheduled renewable generators because Transgrid also has no control over the bidding behaviour of these generators.[36]
  - Our draft decision on the MIC is to defer this issue until stakeholders are consulted on whether constraints caused by scheduled and non-scheduled renewable generators should also be excluded from the MIC performance measure.

33 Network outage constraints are constraint sets that are applied in AEMO's market systems to manage power flows during outages so that the power system remains secure during an outage.

34 AER, *Final – STPIS, Appendix C*, October 2015.

35 AER, *Final decision, Ausnet Services transmission determination 2022 to 2027, Attachment 10, STPIS*, January 2022, pp. 12-19.

36 AER, Information request IR#015, STPIS - MIC target setting, 17 February 2022; AER, Information request IR#038 - STPIS - MIC target setting, 1 July 2022.

A Constituent decisions

Our draft decision on Transgrid's transmission revenue determination for the 2023–28 regulatory control period includes the following constituent components:[37]

Constituent component
In accordance with clause 6A.14.1(1)(i) of the NER, the AER's draft decision is not to approve the total revenue cap set out in Transgrid's building block proposal. Our decision on Transgrid's total revenue cap is $4,758.1 million ($ nominal, smoothed) for the 2023–28 regulatory control period. This decision is discussed in Attachment 1 of this draft decision.
In accordance with clause 6A.14.1(1)(ii) of the NER, the AER's draft decision is not to approve the maximum allowed revenue (MAR) for each regulatory year of the regulatory control period set out in Transgrid's building block proposal. Our decision on Transgrid's MAR for each year of the 2023–28 regulatory control period is set out in Attachment 1 of this draft decision.
In accordance with clause 6A.14.1(1)(iii) of the NER, the AER's draft decision is to apply the service component, network capability component and market impact component of Version 5 of the service target performance incentive scheme (STPIS) to Transgrid for the 2023–28 regulatory control period. The values and parameters of the STPIS that are approved by the AER are set out in Attachment 10 of this draft decision.
In accordance with clause 6A.14.1(1)(iv) of the NER, the AER's draft decision on the values that are to be attributed to the parameters for the efficiency benefit sharing scheme (EBSS) that will apply to Transgrid in respect of the 2023–28 regulatory control period are set out in Attachment 8 of this draft decision.
In accordance with clause 6A.14.1(1)(v) of the NER, the AER's draft decision is to approve the commencement and length of the regulatory control period as Transgrid proposed in its revenue proposal. The regulatory control period will commence on 1 July 2023 and the length of this period is five years, expiring on 30 June 2028.
In accordance with clause 6A.14.1(2)(ii) of the NER and acting in accordance with clause 6A.6.7(d), the AER's draft decision is to not accept Transgrid's proposed total forecast capital expenditure of $1,883.0 million ($2022). Our draft decision therefore includes a substitute estimate of Transgrid's total forecast capital expenditure for the 2023–28 regulatory control period of $1,729.3 million ($2022). The reasons for our decision are set out in Attachment 5 of this draft decision.
In accordance with clause 6A.14.1(3)(ii) of the NER and acting in accordance with clause 6A.6.6(d), the AER's draft decision is to not accept Transgrid's proposed total forecast operating expenditure inclusive of debt raising costs of $1,015.0 million ($2022). Our draft decision therefore includes a substitute estimate of Transgrid's total forecast operating expenditure for the 2023–28 regulatory control period of $1,038.5 million ($2022). The reasons for our decision are set out in Attachment 6 of this draft decision.
In accordance with clause 6A.14.1(4)(i) of the NER, the AER's draft decision is that the following project is a contingent project for the purpose of this revenue determination for Transgrid: • Manage increased fault levels in Southern NSW This is set out in Attachment 5 of this draft decision.
In accordance with clause 6A.14.1(4)(ii) of the NER, the AER's draft decision is that it is satisfied that the capital expenditure of $51.1 million ($2022) for the Manage increased fault levels in Southern NSW contingent project as described in Transgrid's revenue proposal reasonably reflects the capital expenditure criteria, taking into account the capital expenditure factors. This is set out in Attachment 5 of this draft decision.
In accordance with clause 6A.14.1(4)(iii) of the NER, the AER's draft decision on the trigger events for the Manage increased fault levels in Southern NSW contingent project is set out in Attachment 5 of this draft decision, and includes an amendment to the triggers proposed by Transgrid.

37 NEL, s. 16(1)(c).

In accordance with clause 6A.14.1(5A) of the NER, the AER's draft decision is that version 1 of the capital expenditure sharing scheme (CESS) as set out in the Capital Expenditure Incentives Guideline will apply to Transgrid in the 2023–28 regulatory control period. This is set out in Attachment 9 of this draft decision.
In accordance with clause 6A.14.1(5A) of the NER, the AER's draft decision is that the demand management innovation allowance mechanism (DMIAM) for electricity transmission networks will apply to Transgrid in the 2023–28 regulatory control period. This is set out in Attachment 11 of this draft decision.
In accordance with clause 6A.14.1(5B) and 6A.6.2 of the NER, the AER's draft decision is that the allowed rate of return for the 2022–23 regulatory year is 5.77% (nominal vanilla), as set out in Attachment 3 of this draft decision. The rate of return for the remaining regulatory years 2024–28 will be updated annually because our decision is to apply a trailing average portfolio approach to estimating debt which incorporates annual updating of the allowed return on debt.
In accordance with clause 6A.14.1(5C) of the NER, the AER's draft decision is that the value of imputation credits as referred to in clause 6A.6.4 is 0.585. This is set out in Attachment 3 of this draft decision.
In accordance with clause 6A.14.1(5D) of the NER, the AER's draft decision, in accordance with clause 6A.6.1 and schedule 6A.2, is that the opening regulatory asset base as at the commencement of the 2023–28 regulatory control period, being 1 July 2023, is $9,228.7 million ($ nominal). This is set out in Attachment 2 of this draft decision.
In accordance with clause 6A.14.1(5E) of the NER, the AER's draft decision is that the depreciation approach based on forecast capital expenditure (forecast depreciation) is to be used to establish the regulatory asset base at the commencement of Transgrid's regulatory control period as at 1 July 2028. This is set out in Attachment 2 of this draft decision. We also note that the regulatory depreciation amount that is approved in this decision is $579.1 million ($ nominal) for the 2023–28 regulatory control period.
In accordance with clause 6A.14.1(8) of the NER, the AER's draft decision is to approve Transgrid's proposed pricing methodology, subject to Transgrid making editorial amendments in its revised proposal. This is set out in Attachment 12 of this draft decision.
In accordance with clause 6A.14.1(9) of the NER, the AER's draft decision is to apply the following nominated pass through events to Transgrid for the 2023–28 regulatory control period in accordance with clause 6A.7.3(a1)(5): • Insurance coverage event • Insurer's credit risk event • Natural disaster event • Terrorism event. These events have the definitions set out in Attachment 13 of this draft decision.

B List of submissions

We received 4 submissions in response to the AER's issues paper and Transgrid's 2023–28 transmission revenue proposal.

Stakeholder	Date
AER Consumer Challenge Panel, sub-panel 25 (CCP25)	11 May 2022
Energy Users Association of Australia (EUAA)	11 May 2022
Neoen Australia	11 May 2022
Public Interest Advocacy Centre (PIAC)	15 May 2022

Glossary

Term	Definition
ABS	Australian Bureau of Statistics
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
Augex	Augmentation expenditure
Capex	Capital expenditure
CESS	Capital expenditure sharing scheme
CPI	Consumer price index
CCP25	Consumer Challenge Panel, sub-panel 25
DMIAM	Demand management innovation allowance mechanism
EBSS	Efficiency benefit sharing scheme
Gamma	Value of imputation credits
ICT	Information and communications technology
ISP	Integrated System Plan
MAR	Maximum allowed revenue
MWh	Megawatt hours
NEL	National Electricity Law
NEO	National Electricity Objective
NER	National Electricity Rules
Opex	Operating expenditure
PTRM	Post-tax revenue model
RAB	Regulatory asset base
RBA	Reserve Bank of Australia
Repex	Replacement expenditure
RIN	Regulatory information notice
RIT-T	Regulatory investment test – transmission
RFM	Roll forward model
STPIS	Service target performance incentive scheme
WACC	Weighted average cost of capital