Consumer
Challenge
Panel

CCP25

Transgrid

Advice to the AER on the 2023 – 28 Electricity Transmission Regulatory Revenue Proposal

AER Consumer Challenge Panel – Sub-Panel CCP25

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Contents

Acknowledgement of country

We recognise the traditional owners of the lands on which Transgrid and Electranet operate, as well as those where this report is being prepared. We respect the elders of these nations, past and present along with their emerging leaders.

Acknowledgements

CCP25 thanks and acknowledges the staff from Transgrid who have included us in their engagement activities following our appointment. We also extend our gratitude to the AER staff for their support and guidance.

Confidentiality

To the best of our knowledge this advice does not present any confidential information.

The Consumer Challenge Panel sub-panel CCP25

The AER established the Consumer Challenge Panel in July 2013 as part of its Better Regulation reforms. These reforms aimed to deliver an improved regulatory framework focused on the long-term interests of consumers.

The CCP assists the AER to make better regulatory determinations by providing input on issues of importance to consumers. The expert members of the CCP bring consumer perspectives to the AER to better balance the range of views considered as part of the AER's decisions.

CCP25 is a sub-panel of the AER's Consumer Challenge Panel (the **CCP**). The AER established the sub-panel to focus specifically on the AER's revenue determination for Transgrid (NSW) and ElectraNet (SA).

CCP25's brief is to provide advice to the AER on:

- whether the proposals are in the long-term interests of consumers, and
- the effectiveness of the businesses' engagement activities with their customers and how this engagement is reflected in the development of the proposals.

1 Executive Summary

This submission responds to the revenue proposal from the Transgrid electricity transmission business in New South Wales for the period 1 July 2023 to 30 June 2028 (the **Revenue Proposal**) and the Issues Paper published by the Australian Energy Regulator on 28 March 2022 (the **Issues Paper**). Transgrid submitted the Revenue Proposal on 31 January 2022 in preparation for the AER to publish a draft decision in September 2022 and a final regulatory determination by 30 April 2023. The Revenue Proposal includes 232 documents, 98 of which are asset replacement project business cases.

The CCP25 was appointed on 19 November 2021. This was shortly before the Revenue Proposal was lodged and after most of the consumer engagement and decision making had occurred. This advice is therefore based primarily on our review of documents, rather than directly observing the engagement as it occurred.

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. We have also queried whether the recently expanded Transgrid Advisory Council (the **TAC**) continues to represent the concerns of electricity consumers. Finally, the CCP is apprehensive about the ways in which Transgrid has reported the views of the TAC members and drawn conclusions from its consumer research in the Revenue Proposal.

1.1 Key issues and themes of the Revenue Proposal for consumers

Introducing its Revenue Proposal, Transgrid states that *"(this next) regulatory period will be one of profound change in the Australian energy market*"; a position with which we agree. Transgrid will play a key role in the changing energy landscape as the move to a low carbon economy gathers momentum. We expect the Revenue Proposal to reflect this regulatory environment. However, we are concerned about the very high level of uncertainty in the proposed capital program. Twelve significant projects that could potentially add $1.9B to the capital program have been excluded from the capital forecasts.

Despite affordability featuring as the key priority of customers, we have observed limited evidence of an aggressive focus on lowering transmission prices. Many stakeholders continue to focus on the ability for transmission investment to facilitate access to lower-priced renewable generation. The CCP sees benefit in looking beyond this trade-off between transmission investment and wholesale prices. In the face of the emerging challenges, we consider that Transgrid should focus on efficiency and productivity.

We are concerned by the increase in 'underlying' regulated costs and revenue. Transgrid is proposing a regulated revenue of $3.92B in the 2023-28 period, which is 4.1% less than that expected in the current period. The predominant influences on the expected price fall are exogenous factors. When considering the more 'controllable' costs of operation (opex), depreciation and revenue adjustments, Transgrid is forecasting a 7% real increase in revenue. Now, more than ever, we would expect a sharp focus on underlying costs and efficiencies. We welcome Transgrid's proposed 0.5% productivity improvement target for operating costs.

In this period of rapid change, material changes in government policy, consumer expectations, market conditions and input costs can occur over the period between the initial stages of engagement and the final decision, then through the actual five-year regulatory period. This uncertainty creates challenges for the utilities, consumers and the AER.

2 Consumer engagement

2.1 The challenges in assessing Transgrid's consumer engagement

There are two significant factors limiting the CCP's ability to provide advice regarding the impact of Transgrid's consumer engagement in the Revenue Proposal.

First, with the CCP only being appointed in the weeks before the Revenue Proposal was lodged, our opportunity to observe the Transgrid's consumer engagement in action was extremely limited. The CCP has accessed publicly available TAC meeting papers and was provided with a copy of the survey of TAC members conducted in late 2021. The CCP discussed Transgrid's consumer engagement with Transgrid on 29 March 2022 and with two members of the TAC on 14 April 2022.

Secondly, as Transgrid is central to so many of the significant new transmission initiatives outside the regulatory reset process, including the Integrated System Plan (the **ISP**) and the New South Wales Energy Infrastructure Roadmap (the **Roadmap**), the regulatory reset itself appears to be taking a back seat to these other major initiatives which play a big role in the new energy landscape. Of the engagement we did observe and were able to research, it was clear that lot of the TAC's time and effort (as well as Transgrid's) has, understandably given their cost and impact on both Transgrid and consumers, been focussed on these larger initiatives and their impact beyond the current 5-year horizon.

While we acknowledge that Transgrid has placed some effort and resources into preparing their Revenue Proposal, we are left with the impression that the reset is not the 'main game' occupying Transgrid's efforts.

By no means do we suggest it is not appropriate for the TAC to consider these significant projects. We wish to highlight the shortcomings of the engagement process in such a fragmented and 'siloed' framework. Of concern is the difficulty in seeing the 'whole picture' and the short- and long-term impacts of all planned transmission investment on consumers, from the required aspects and mechanisms of engagement through to the concerning likely long-term impacts of a rising regulated asset base.

The CCP has not assessed Transgrid's consumer engagement on matters outside of the Regulatory Reset process. Where, for example, Transgrid TAC meetings address a range of different issues, we have only reviewed Regulatory Reset agenda items.

The CCP continues to observe Transgrid's Regulatory Reset consumer engagement activities.

2.1 Key issues with Transgrid's consumer engagement

The CCP's assessment of Transgrid's consumer engagement process leading up to the submission of the Revenue Proposal has identified the following concerns.

- **Electricity consumers views have been diluted by other stakeholders**

In 2021 Transgrid expanded its TAC to included representatives of AEMO, Commonwealth Bank, ERM Advisory and the Clean Energy Council and Professor Andrew Blakers from the Australian National University. Transgrid states that it expanded the TAC to "provide a wider industry context and further depth to discussions".[1] The 2021 expansion of the TAC brought new stakeholders into Transgrid's primary engagement channel who do not represent electricity consumers.

The National Electricity Rules require the AER to have regard to the extent to which the TNSP's operational and capital expenditure addresses the concerns of <u>electricity consumers</u> as identified by the TNSP in the course of its engagement with <u>electricity consumers</u>.[2] The AER's Better Resets Handbook establishes an expectation that Networks will "sincerely partner with consumers".[3] Neither the Rules nor the Handbook prescribe the form of the TNSP's consumer engagement. However, both the Rules and the Handbook focus on ensuring that the views of electricity consumers have a stake in the regulatory process.

The CCP considers that Transgrid's decision to expand the TAC, its primary channel for engagement in the Regulatory Reset, to include non-consumer stakeholders has significantly diluted the genuine views and concerns of electricity consumers in Transgrid's engagement process. By way of example, we note that the survey completed by TAC members[4] paints a different picture of the effectiveness of the engagement process to that presented by TAC member Andrew Richards at the AER Transgrid Public Forum and communicated to the CCP in our meetings with consumer representatives.

We also query whether the engagement outcomes reported by Transgrid reflect the views and interests of stakeholders and interested parties other than electricity consumers, and whether these may be views and interests that are inconsistent with consumer interests. Without the benefit of directly observing the engagement processes we are not able to provide a definitive view on this matter.

- **Transgrid has fallen short of truly partnering with consumers**

In the TAC member presentation to the AER's Transgrid Public Forum, Andrew Richards noted that Transgrid's engagement with the TAC was mostly at the 'inform' and 'consult' level of the IAP2 spectrum.[5] Richards also notes that this approach "is no longer best practice, which now revolves around a co-design (empower) process". Our review of the TAC governing documents and meeting papers, as well as discussions with consumer representatives confirms Richards' assessment. During its engagement with the TAC, Transgrid presented data, analysis and information in good faith to TAC members but there is no evidence that TAC members co-designed the engagement program or played a substantive role beyond providing feedback.

The *Better Resets Handbook* challenges Networks to collaborate with consumers as "partners in forming proposals rather than simply being asked for feedback on a proposal".[6]

The CCP considers that Transgrid has fallen short of the Handbook expectations of truly partnering with consumers in forming its Revenue Proposal. The CCP has not formed a view as to the reasons for this. However, we note that the regulatory framework places the onus on the TNSP to establish, fund and support a credible and trustworthy partnership with consumer representatives.

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[1] 2023-28 Stakeholder Engagement Report, 19 January 2021, p 6.
[2] National Electricity Rules, Rules 6A.6.6 and 6A.6.7 (emphasis added).
[3] *Better Resets Handbook*, p 13.
[4] 2023-2028 Stakeholder Engagement Plan 19 January 2021, p 11.
[5] Transgrid Advisory Council (TAC) – Presentation to Public Forum – April 2022, slide 3.
[6] *Better Resets Handbook*, p 13.

- **Reporting of TAC member engagement is problematic**

Transgrid cites TAC members' support of various aspects of the Revenue Proposal, including capex and opex forecasts. Our discussions with consumer representatives indicated they were not comfortable with their views being presented by Transgrid in this way. There is no evidence that TAC members were asked to vote, or otherwise record a formal position (either as individuals or as a group) on matters that were brought before them during TAC meetings.

The CCP considers that a more accurate reflection of Transgrid's engagement with TAC would indicate the extent and nature of the challenge offered by TAC members. This is an important distinction to make. For example, reporting that TAC members agreed that step changes appeared to be in line with what they had seen in other recent regulatory Revenue Proposals[7], is a different engagement outcome to reporting that TAC members support the opex step changes[8].

An independent report from the TAC could have provided a more transparent mechanism for reporting the outcomes of Transgrid's engagement with the TAC, rather than relying solely on Transgrid's self-assessment. In the absence of such views, and noting the concerns raised by consumer representatives with the CCP, we do not consider it appropriate to place weight on statements of TAC member support reported in the Revenue Proposal.

- **Inappropriate conclusions have been drawn from consumer research**

Transgrid commissioned consumer research to assess consumer preferences, consumer willingness to pay for emissions reductions and consumers views on aspects of proposed operational and capital expenditure.

Good quality consumer research can be an important input into the engagement process, particularly where it adds qualitative insights into diverse consumers perspectives, and where the limitations of the research methodology are clearly understood.

The *Better Resets Handbook* states that "no single avenue of engagement is perfect" and notes that multiple complementary channels are necessary to gain a comprehensive understanding of consumer preferences.[9] The Handbook goes on to note an expectation that networks will engage with consumers beyond those they consulted with in preparing their draft Revenue Proposal.

The CCP agrees that multiple channels can add significantly to the engagement process, but we are concerned about how Transgrid has used its consumer research as conclusive evidence in support of aspects of its Revenue Proposal. For example, despite only interviewing six consumers (4 residential and 2 SME)[10] about their views on proposed expenditure on insurance, cyber security and capital infrastructure, Transgrid has asserted, without any qualification, that:

> *"Customers support our proposed step changes in insurance premiums and cyber and physical security given their importance in maintaining a safe, secure and reliable supply."* [11]

The preferences of millions of consumers cannot be conclusively extrapolated from a such a small sample. Without the benefit of observing the development and execution of the research, the CCP is

[7] TAC Meeting Minutes, 3/11/2021, p 4.
[8] Transgrid 2023-2028 Revenue Proposal, p 39.
[9] *Better Resets Handbook*, p15.
[10] Revenue Reset Stakeholder Engagement, Full Report – Forethought Outcomes, 15 Dec 2021, p 12.
[11] Transgrid 2023-28 Revenue Proposal, p 36.

limited in its ability to comment on the quality of the Forethought research. However, we remain concerned about the way Transgrid has applied its consumer research in its Revenue Proposal.

- **There is limited evidence of the direct impact of consumer engagement**

Transgrid's Stakeholder Engagement Report addresses the impact of consumer engagement on the Revenue Proposal.[12] The report identifies the TAC as the primary forum for engagement. There appears to have been two direct impacts of TAC engagement on the Revenue Proposal:

a) Firstly, to influence the narrative, specifically to reflect the potential bill impact if contingent projects, NSW REZ project and ISP projects proceed.

b) Secondly, because of TAC engagement it appears that some capex projects were redirected to contingent projects.

Altogether, the CCP considers that there is limited evidence on the direct impact of consumer engagement on Transgrid's Revenue Proposal.

3 The long-term interests of consumers

3.1 Key elements of Transgrid's Revenue Proposal

For their regulated activities, Transgrid is forecasting a fall in required revenue by 4% to $3,925M[13], translating to lower prices to households and small business consumers of 13.4%. As is common with several recent revenue proposals, the predominant factor in this reduced revenue is the fall in the Weighted Average Cost of Capital (WACC) from 6.2% to 4.7%, balanced by small rises in the forecast capital and operating expenditure.

- **Prices**

A key outcome of the Revenue Proposal is the expected fall in average prices to consumers. However, when the impacts of the Contingent, REZ and ISP projects are considered – which is not an unlikely scenario – the actual impact to consumers is a small rise in transmission costs. We commend Transgrid for doing this analysis and presenting the issues that are likely to affect the customer's bill. This is set out in Figure 1.

[12] 2023-2028 Stakeholder Engagement Plan 19 January 2021, p 26.
[13] Expressed in $Real 2022-23 unless stated.

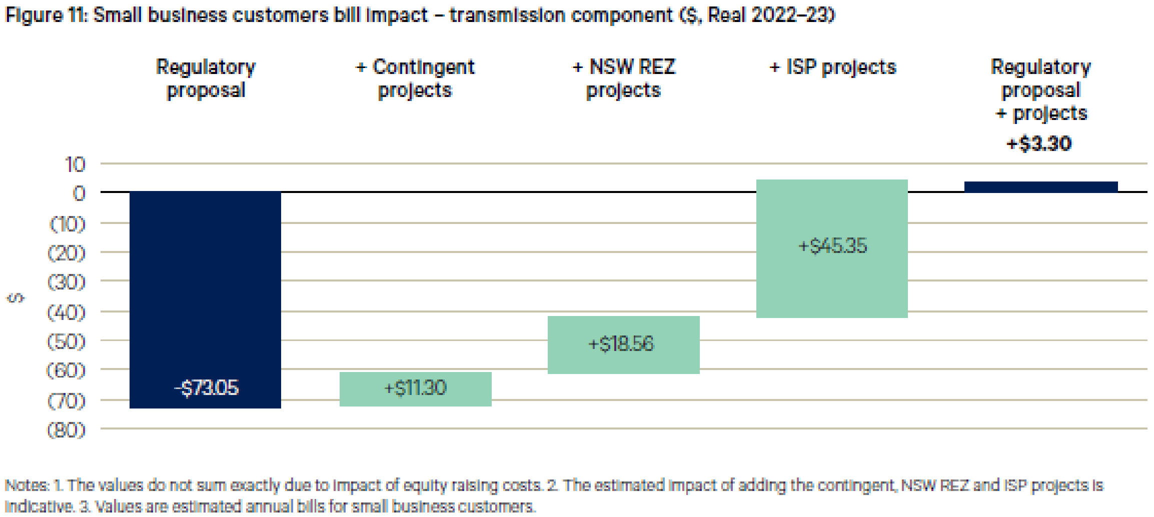

Figure 1: Expected bill impact- transmission component - Small Business customers ($real, 22-23)

Source: Transgrid Revenue Proposal Overview, figure 11

- **Capital Investment and the Regulated Asset Base**

The forecast regulated capital investment for 2023-28 is $1,368M (excluding PEC), 1.7% higher than the estimate investment in the current regulatory period. This excludes the significant capital forecast related to the projects outside the Proposal.

As we note often in this advice, the concern is with the impact of the contingent, REX and ISP projects on the overall consumer electricity bill for years to come.

Regarding the proposed projects, the specific concerns lie with the uncertainty of costs and timing due to the external factors of potentially skyrocketing specialised labour and materials costs and the ability to deliver these projects to schedule as required. This is set out in Figure 2.

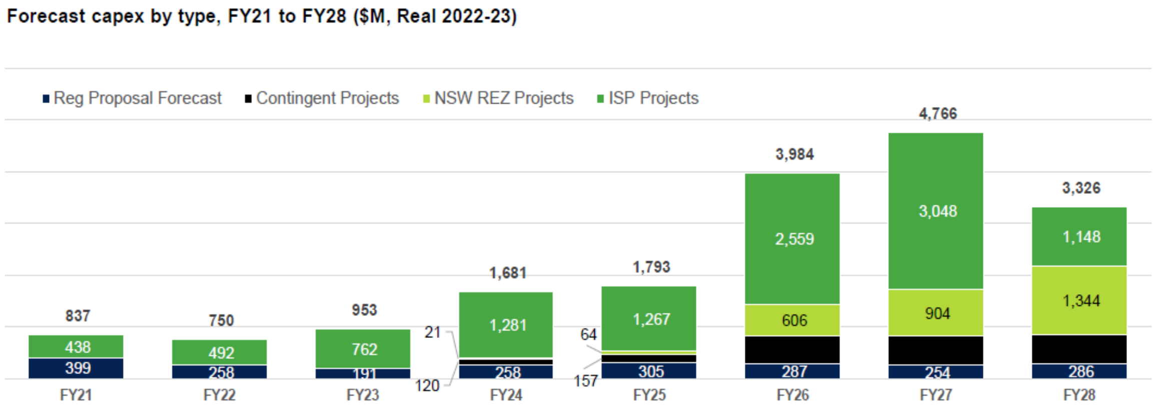

Figure 2: Transgrid forecast capital - regulated proposal and other projects

Source: Transgrid TAC presentation Dec 2021, p20

The Regulated Asset Base, after the planned regulatory investments – excluding the major impact of the forecast and in-progress work under the Integrated System Plan ('ISP projects') and the NSW Electrical Infrastructure Roadmap ('REZ projects') – is expected to rise by approximately $1,213M to $9,926B (nominal), largely because of the initial works for ISP Project EnergyConnect (PEC). This is set out in Figure 3.

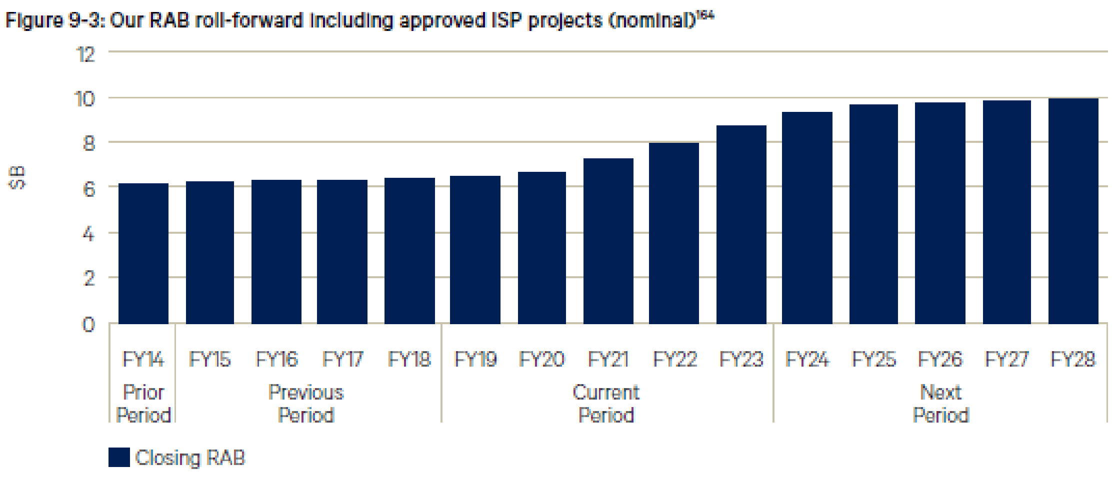

Figure 3: Transgrid Regulated Asset Base trend (nominal) excluding contingent projects, Roadmap and future ISP investment.

Source: Transgrid Revenue Proposal p123

We have little comment on the detail of the capex build-up, mainly as we are unaware of details provided by Transgrid as part of their engagement and deep dives. Our overall observation is that the trends of lower augmentation (excluding the contingent projects) and a slight rise in replacement investment and ICT are consistent with industry trends. We do look forward to the AER's deeper analysis on property investment and capitalised overheads, with the latter rising despite a fairly stable regulated capital works programme.

- **Operating costs**

Transgrid reports a cost saving of almost $60M to customers from operating efficiencies in the current regulatory period.[14] Transgrid is proposing a total operating cost (opex) of $1,015M ($2022-23), which is $65m ($6.8%) more that Transgrid's estimated opex for this period.[15]

Of particular interest to consumers are the drivers of some of the operating cost increases, namely:

a) The output growth factor linked to the increase in circuit line length from Project EnergyConnect.

We look forward to the AER's review of growth factors and the impact these large ISP projects have on operating costs.

b) The justification behind the $25M increase in investment in cyber security.

While we understand the need for a level of confidentiality regarding cybersecurity activities, it would be useful to understand what level of risk reduction and security level Transgrid considered appropriate in respect to government and AER guidelines and wider industry practice.

c) The realistic expectation of growth in input prices and materials cost escalation.

In the Revenue Proposal, Transgrid notes:

[14] Transgrid Revenue Proposal 2023-28, p 79.
[15] AER Issues paper, Transgrid Revenue Proposal, March 2022, p 24.

> *"The scale of investment in the energy sector that is expected to occur in NSW over the next regulatory period under AEMO's ISP and the NSW Electricity Infrastructure Roadmap is substantial. These projects represent a material increase in the expected volume of work and are expected to put upward pressure on real wages over the 2023–28 regulatory period"*

and

> *"At this stage we have not included a real increase in materials costs in our expenditure forecasts, although like Infrastructure Australia and AEMO we forecast that the cost of materials will increase at a rate faster than CPI"* [16]

This suggests that there is a risk that Transgrid's operating cost forecasts are likely to increase by the time of the Revised Proposal. We encourage Transgrid to keep a close eye on these trends and continue to inform their TAC as to the likely impacts on costs and ultimately prices to consumers.

3.2 Considering the Revenue Proposal through the consumers' lens

Our assessment of the Proposal has highlighted the following issues and themes.

- **There is an increase in 'underlying' regulated costs and revenue**

Transgrid is proposing a regulated revenue of $3.92B in the 23-28 period, 4.1% less than that expected in the current 2018-23 period. As has been seen in several recent revenue proposals, the predominant influences on the expected price fall are exogenous factors such as a significant decrease in the forecast return on capital to 4.7% and a fall in corporate income tax using the AER's revised approach to the treatment of regulatory income tax.

When considering the more 'controllable' costs of operation (opex), depreciation and revenue adjustments, Transgrid is forecasting a real 7% increase in revenue for its regulated activities, reflecting the depreciation of an increasing asset base.

This rise is before the significant impact of the large capital projects marked as contingent or still under evaluation are likely to have on the long-term revenue requirements.

- **Capital investment plans show a high level of uncertainty**

Transgrid proposes a modest across the board increase in regulated capital investment of 1.7% to $1369M.

The energy market continues to transition at an unprecedented rate, with changes occurring right across the energy supply chain. Changes in Government policies, the impact of the global pandemic on labour and material availability and prices, and the expected boom in transmission and renewable generation infrastructure projects suggest major challenges lie ahead for the supply of specialised materials and labour.

In this period of rapid change, material changes in conditions and costs can occur over the period between the early stages of engagement and the final decision, then through the actual five-year regulatory period. This uncertainty creates challenges for the utilities, consumers and the AER.

Transgrid has chosen to exclude 12 significant projects from the base capital forecasts and asset base value projections on the basis that they are currently undergoing Regulatory Investment Tests or have been nominated as contingent, based on triggers of demand growth or other system requirements.

[16] Transgrid Revenue Proposal 2023-28, p 88

These projects can potentially add another $1.9BM to the capital programme, more than doubling the capital works programme.

We appreciate that Transgrid has been transparent in their Revenue Proposal by identifying these projects.

Transgrid has also chosen to not include some likely cost escalations and factor in a forecast limited resource availability in the Revenue Proposal.

While the allocation of projects as contingent is not unusual practice, given that the Revenue Proposal suggests that many of these projects may meet their trigger criteria, our concern these works have the potential to significantly increase prices to consumers in both the short and longer term, beyond those presented in the Revenue Proposal.

We note that these investments have featured in the discussion of the TAC, and that the TAC has considered the timing and risks to some extent. We commend Transgrid for the transparent way these projects have been presented in the Revenue Proposal and discussed in their TAC.

We are expecting that Transgrid will be able to incorporate the status of the project triggers and escalated costs more confidently at the time of their Revised Proposal. We encourage Transgrid to continue to use their TAC to update the confidence of the proposed investments to assist reasonable assessment by consumers as better information unfolds.

Cost pass-through arrangements have been updated to include the current insurance situation and the risk of a natural disaster event.

We have no objection to the change and look forward to the AER's analysis of Transgrid's approach to insurance.

- **There is limited evidence of an aggressive focus on lower transmission prices**

Transgrid notes in its Revenue Proposal that affordability is its customers' highest priority[17], however it is difficult to see where a robust and effective culture of driving costs down exists in either the Revenue Proposal or the engagement.

Transgrid proposes it that continues to perform relatively well in operational benchmarking based on its own reports[18], and notes that efficiencies have led to under-allowance performance in the operating costs and capital investment in the current period. This is at odds with the AER benchmarking report that suggests Transgrid is the lowest performing transmission utility in an environment of slow and consistent decline in capital productivity.[19]

Transgrid centres its discussion on affordability on a forecast price reduction to customers of 13.4% for their regulated works, with a reduction in operating costs.

Whilst we welcome the fall in price presented in Revenue Proposal, once the impact of ISP, Roadmap and contingent projects are incorporated, the much more likely outcome for consumers is a modest rise in the TUoS component of bills. The likely significant rise in the value of the regulated asset base and the likely upward price influence of rising interest rates continues to be of significant concern to consumers.

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[17] Transgrid Revenue Proposal 2023-28, Executive Summary, p 1.
[18] Assessment of Transgrid's benchmarking performance – a report for Transgrid, Houston Kemp, 6 December 2021.
[19] Annual Benchmarking Report – Transmission, Australian Energy Regulator, November 2021, p 21.

In our assessment of the Revenue Proposal, we are unable to find clear evidence of a broad based, executive-led and continuous commitment to driving capital and operating efficiency, with a sharp intent to maintain affordability for consumers in the face of upward price pressures over time.

We welcome the fact that Transgrid has proposed a 0.5% productivity improvement target for operating costs.

There is little evidence of any aggressive productivity or innovation measures, nor top town / bottom-up optimisation to consider both detailed project analysis and trend forecasting. Despite this, we see few red flags in the capital proposal as it is largely consistent with consumers' expectations. We look forward to the AER's modelling and assessment of the prudency and efficiency of the proposed investment.

- **Look beyond the trade-off between transmission investment and wholesale prices**

There has been discussion from many quarters, including Transgrid, suggesting further investment in transmission capability will facilitate the access of lower-priced energy from renewable sources. Whilst we do not wish to enter this discussion, there is a view that there are so many variables and moving parts in the constitution of the customer's energy bill, that each contributor to the cost stack should do all they can to drive efficiencies and cost awareness in their own operations.

Transgrid would benefit from the setting of capital productivity improvement targets, particularly in the face of the challenges that will emerge over the next 10 years. Over this period, the energy market will undergo profound changes, and new costs will emerge because of these challenges.

- **Raising concerns of revenue risks and viability**

In their Proposal and engagement with the TAC, Transgrid raises a concern regarding the low levels of return-on-investment and the impact the regulatory allowance has on a network business' credit rating. Transgrid raises the issue of returns on investment in their TAC meeting notes of April 2021 stating:

> "*The current level of returns do not reasonably match the market cost of capital. We are actively participating in the AER's 2022 RORI process to address this matter. (Also,) the regulatory allowance does not enable network businesses to maintain BBB+ investment grade credit rating when investing in major projects."*

Also, in the Revenue Proposal, regarding incentive schemes,

> "*We are concerned that the substantial decline in the WACC since the EBSS was developed, means that the share of the EBSS gains or losses that we retain has substantially fallen and is lower than the share of capex gains or losses retained under the current CESS*"[20]

These statements can create an elevated level of concern in a customer's mind that necessary investments may not be made. In the TAC minutes of September 2021, it was noted that:

> "*Stakeholders highlighted potential conflict in the proposal narrative and narrative put forward by Transgrid in the AEMC Transmission Planning Review / HumeLink discussion which suggests that revenues need to rise in order to support finance ability of future investment*"

[20] Transgrid Revenue Proposal 2023-28, p 138.

Whilst we appreciate that the company is active in conversations with the regulator regarding appropriate rates or return on investments, such statements can create doubt in stakeholders' minds regarding appropriate investment in this Revenue Proposal.

3.3 Themes to explore further

While we agree with the areas of impact nominated in the Revenue Proposal, it would be useful if the Revised Proposal provided greater clarity and transparency on the following key issues impacting energy consumers.

- **Innovation and productivity**

It would be desirable if Transgrid placed a higher priority on innovation and the use of new tools to better approach the utilisation of existing assets. We do trust, however, that such innovative approaches will be evident in the RIT-T processes.

Given the significant capital works programme ahead, including REZ and ISP works, we consider it important that Transgrid have a very transparent and affordability-focussed view on capital productivity.

Please see our response to question 5 below for further discussion on this issue.

- **Asset investment - meeting localised demand growth**

Transgrid notes that:

> "We *have not included in our forecast capex demand driven projects that are the subject of current Regulatory Investment Tests for Transmission (RIT-Ts) where the preferred option has not yet been identified, such as for supply to the North-west Slopes and central west NSW (Bathurst, Orange and Parkes).*
>
> *We will update our capex forecasts for the preferred options, as appropriate, in our Revised Revenue Proposal"* [21]

We look forward to greater clarity in the impact of these contingent projects and costs to consumers in the Revised Proposal and trust the AER will closely scrutinise these proposals.

- **Supporting the energy transition**

From the Forethought research, Transgrid states:

> *"Our customers support the energy transition and investment that lowers emissions. More than half of residential and small to medium business customers surveyed indicated they would be willing to pay more on their bills to reduce emissions."* [22]

We have been unable to adequately research the documentation regarding Transgrid's engagement to validate this statement. However, we agree with sentiments of the TAC regarding this research, where they noted:

> *"Willingness to pay findings – Caution should be applied to using these findings in support of investment because customers have not specified their preference for where in the energy supply chain investment should be targeted, nor whether their willingness to pay has a temporal element (i.e. is time bounded). Stakeholders also cautioned that willingness to pay*

[21] Transgrid Revenue Proposal 2023-28, p 69.
[22] Transgrid Revenue Proposal 2023-28, p 3.

or lack of willingness may not be the same as preferences because a willingness to pay is heavily influenced by a customers' capacity to pay."[23]

- **Technology and Innovation**

Transgrid states:

> *"Our customers have told us they support investment in innovation to improve affordability and address climate change, with the majority of surveyed residential customers willing to forgo savings to invest in innovation and technology to reduce emissions"* [24]

Transgrid commendably notes the application of technology and innovation to improve affordability and address climate change, however it has been difficult to see where this approach has direct impact on the Proposal, other than references to work with industry partners and other stakeholders.

Again, we concur with the sentiments of the TAC regarding this type of research.

- **Resilience - responding to the impacts of climate change**

Nationally, years of extreme weather events have left many rural Australian communities struggling emotionally and financially which has impacted on the capacity of some to be able to meet their electricity costs. The drought impacts were seriously exacerbated in many regions by the disastrous fires over the spring and summer of 2019-20, and the floods in 2022. Energy businesses across Australia, including transmission companies, must demonstrate a multi-faceted commitment to address these emerging and long-term impacts on electricity supply and communities generally.

From a commercial viewpoint, this is to maintain a strong downward pressure on prices to support impacted households, producers and businesses. Technically, effective and efficient ways of identifying, managing and responding to the environmental risk to electricity assets are needed.

- **Electrification – Renewables and towards a low-carbon future**

The growth in renewable generation and energy storage – at the utility scale, distribution level and customer owned – is now the new normal in the energy industry. Whilst the majority of Transgrid's activities are driven by legislative and national agendas, consumers expect transmission companies to continue to demonstrate a commitment to lowest cost solutions and a respect for a low-carbon future in all their operations.

- **Digitalisation – a focus on better asset management and greater utilisation of assets through information and analytics**

As digital tools continue to develop in the electricity industry, it is expected that transmission companies will prudently invest in monitoring, control and analytic capability to optimise the utilisation of existing assets through more dynamic decision making, customer information and innovative approaches, as a preference to new construction.

- **Maintaining a case for restraint**

As we emerge into a post-COVID19 environment, we recognise the significant economic challenges that will be faced by many parts of our community. The long-term benefit of electricity consumers lies not in the provision of the best levels of customer service, or the most elegant response to future

[23] TAC meeting minutes, Oct 21, p 4.
[24] Transgrid Revenue Proposal 2023-28, p 4.

network needs, but in the spirit of regulatory determinations to have affordability and balance as the uppermost priority.

We are also highly aware of the impact of a growing asset base will have on prices as the economy recovers and interest rates, with their influence on the allowable return on asset, will have on prices over the long term, as discussed below.

4 Response to questions from the Issues Paper

Q1. Do the key themes from Transgrid's engagement resonate with your own preferences? Are there additional issues you would like to see influence Transgrid's proposal and our assessment of the proposal?

The headline outcomes for customers are nominated in the Proposal as being:

a) affordability,

b) safety and security,

c) meeting rapid demand growth,

d) supporting the energy transition and

e) supporting technology and innovation.

Overall, we agree that the key themes of the engagement concur with the expectations and requirements of consumers of a transmission entity. The research by Forethought[25] commissioned by Transgrid in 2021 also highlights affordability, safety and reliability, support for the renewable energy transition and investment in technical upgrades and as priorities.

There is some visibility of Transgrid's perspective of these drivers as influencing the energy future, and the themes are consistent with Transgrid's 'business as usual' objectives. It would be preferable that Transgrid take a longer-term view of these themes beyond the 2023-28 regulatory period, however we appreciate that the many external influences and unsurety that prevail make such longer-term analysis difficult.

- **Other issues to explore**

Please refer to section 3.3 above.

Q2. Do you think Transgrid has engaged meaningfully with consumers on all key elements of its 2023–28 proposal? Are there any key elements that require further engagement?

Transgrid's Stakeholder engagement Report states that "*Much of our proposal is fixed through AER formula, established practice or guidelines*".[26]

We agree that there are some matters that despite having a significant impact on the Revenue Proposal, are exogenously determined and therefore are not good candidates for higher order engagement. In our discussions with Transgrid we have observed a prevailing mindset that the AER's approach to Transmission regulation means that there is limited opportunity for consumers to

[25] Revenue Reset Stakeholder Engagement, Full Report – Forethought Outcomes, 15 Dec 2021.

[26] Transgrid 2023-2028 Stakeholder Engagement Report 19 January 2021, p 25.

influence its Revenue Proposal. We note that other Transmission businesses have established successful, effective and award-winning Reset partnerships with consumer representatives.

The Handbook challenges networks and consumers to consult with each other to find the issues over which consumers can have more influence and that these issues should sit at the upper ('empower') end of the IAP2 spectrum.[27] The CCP encourages Transgrid to consult with consumers to find the aspects of its Revenue Proposal where there is an opportunity to influence the outcome and to collaborate with consumer representatives on these matters.

The customer and stakeholder research highlights affordability as the number one outcome for this Proposal. We feel there should be a focussed discussion to explore all options to address affordability, especially given the potential of increasing network costs over time because of significant capital investment and rising allowable returns on investment.

As noted above in section 4, we believe that Transgrid could take a stronger position on how it is driving productivity and pursuing value for consumers in across its investment expenditure and operating cost portfolio.

Q3. To what extent do you consider you were able to influence the topics engaged on by Transgrid? Please give examples.

The CCP was not able to observe this aspect of the engagement process.

Q4. Do you have views on Transgrid's proposed depreciation approach, as set out in its 2023–28 proposal?

The issue of RAB growth and depreciation remain of significant interest to consumers given the significant impact it has on energy prices (TUoS component) in the short and long term.

The Transgrid RAB is forecast to increase significantly, from $6.4B opening in nominal terms in 2018, to a forecast $9.9B by the end of 2028. This growth ***does not*** consider the impact of yet to be approved ISP projects, contingent projects and roadmap projects, the aggregate of which significantly exceeds the forecast regulated investment (see Figure 3 above).

As Transgrid is essentially adopting the same asset lives as those approved in the current reset period and the depreciation is calculated within the AER's PTRM, we have no objection to the methodology applied.

Q5. Do you consider Transgrid's capex proposal addresses the concerns of electricity consumers as identified during its engagement on the proposal?

We have little evidence to see that Transgrid has been responsive to concerns raised by electricity consumers or their representatives. We generally agree with the way Transgrid has approached the needs of consumers in their capital proposal, with a few major caveats.

First, we understand but raise as an improvement opportunity the way that uncertainty has been presented. Whilst we recognise the many variables that will affect the capital investment programme, we would much prefer if Transgrid had presented a 'most likely scenario' for consumers to consider.

[27] *Better Resets Handbook*, p 16.

Secondly, we believe it is critical for Transgrid to take a much more robust, transparent and explicit position on how it will optimise capital productivity in the environment of an expensive capital work s programme.

Customers can only meaningfully view the overall work of Transgrid as a whole.

From the TAC meeting of Oct 21:

> *"Stakeholders were interested to see the price sensitivity to increased capital forecasts (i.e., inclusion of $"540m of capex currently subject of RIT-T)"* [28]

Localised demand and energy growth remains highly variable, in part due to the rapid uptake of distributed energy resources. Our brief observation of the forecasting and planning associated with demand growth appears reasonable, although we defer to the AER's detailed analysis of the business cases and asset replacement modelling.

- **Uncertainty**

We understand that Transgrid is impacted by a considerable number of uncertain events and costs in its capital programme, and that the capital proposal is 'the state of things at this point in time.' It is neither a dependable nor meaningful forecast for consumers to consider. We recognise that Transgrid has little option but to take this course of action.

Considering forecasting as an example, Transgrid states:

> *"… given the economic effects of the COVID-19 pandemic are still highly uncertain, we have not included any costs associated with the long-term impacts in our capex forecasts. We will continue to assess the impact of the COVID-19 pandemic on our proposed 2023–28 capital program and will incorporate any changes arising from the pandemic's effect in our Revised Revenue Proposal.*

and

> *"Our forecast capex does not include the costs that we may incur if we are required to ready our network for 100 per cent renewables by 2025. We are currently examining the nature and scope of these costs and will work closely with AEMO, our industry peers and our customers to understand and quantify the investment required to facilitate an orderly transition towards this future state. Subject to this work, we propose either to include the forecast costs, or a further cost pass through event, in our Revised Revenue Proposal."* [29]

Similarly, regarding costs for several projects,

> *"We have not included in our forecast capex demand driven projects that are the subject of current Regulatory Investment Tests for Transmission (RIT-Ts) where the preferred option has not yet been identified, such as for supply to the North-west Slopes and central west NSW (Bathurst, Orange and Parkes). We will update our capex forecasts for the preferred options, as appropriate, in our Revised Revenue Proposal"* [30]

And for productivity and materials costs,

[28] TAC meeting minutes, Oct 21, p 3.
[29] Transgrid Proposal Executive Summary, p 8.
[30] Transgrid Proposal Executive Summary, p 2.

"At this stage we have not included a real increase in materials costs in our expenditure forecasts, although like Infrastructure Australia and AEMO we forecast that the cost of materials will increase at a rate faster than CPI:"[31]

The Transgrid TAC noted the unsurety of the capital forecast in their meeting of Nov 21, 2021,

"TAC members are concerned that during the period, there will be other capex that is approved through the Contingent Projects and Actionable ISP process which will be additional to the capex included in the Reset, and hence the Reset does not capture all the costs that will be incurred over this period." [32]

Our preference would be for Transgrid to present a 'most likely forecast' rather that hold all uncertain projects to one side from its engagement and Proposal.

- **Capex productivity**

Transgrid is planning to undertake a huge capital works programme. We are aware of the challenges Transgrid will face in the next decade balancing investment and utilisation with rapidly developing demands on transmission networks. We strongly encourage Transgrid to develop and communicate, in conjunction with its stakeholders, a discussion on opportunities to address the input cost risks and project efficiency.

The AER Annual Benchmarking Report 2021 notes Transgrid's declining capital efficiency index (Figure 4). We see the role of a clear productivity and efficiency programme as being integral to developing any level of consumer trust and support of the upcoming programme of work.

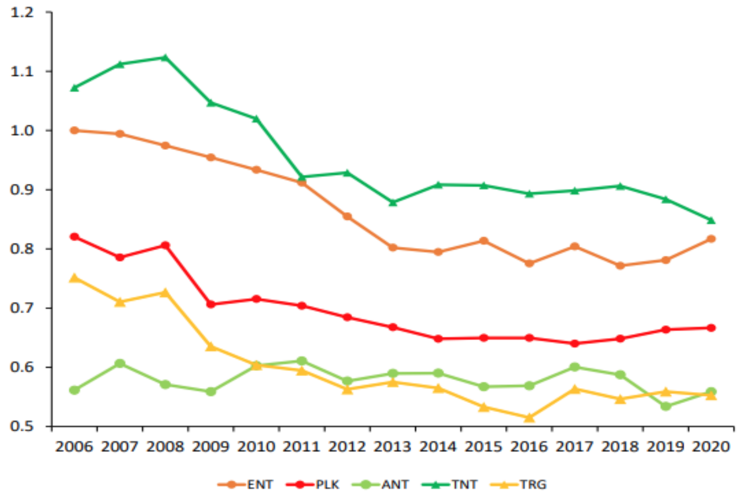

Figure 4: Capital multifactor productivity benchmarking

Source: AER Annual Benchmarking Report, November 2021, Figure 10

Q6. Has Transgrid engaged constructively with its stakeholders on its capex proposal?

As we have noted, the broader capital works programme (including Contingent, REZ and ISP projects) features in all TAC conversations we have examined. However, whilst the scope, timing and impact of the projects are highlighted, it is difficult to see where the key themes of affordability, capital productivity and consumer risk have featured.

[31] Transgrid Revenue Proposal 2023-28, p 88.
[32] TAC minutes Nov 21, p 4.

Please refer to our comments in Questions 5 and 7, and in section 2 of this advice.

Q7. Are there particular areas of Transgrid's capex proposal that you would expect further engagement on?

We qualify our comments in this section of the advice by advising that there may have been engagement with the TAC on some issues that we have not been able to discover to date.

This matter is considered in general in question 5 and section 3.3 above. However, there are several matters related to capital investment that would benefit from further engagement should the opportunity arise.

- **Better information as it becomes available is important**

We look forward to further information becoming available, most likely through the TAC, as the many input variables become clearer, and on the findings of the Regulated Investment Tests (RIT-Ts) as they progress.

- **ICT and digitalisation strategy for network optimisation**

Many utilities are turning to advanced information tools to improve asset management systems with the view of better addressing the issue of ageing assets and optimal maintenance strategies. Transgrid has raised the plans for ICT investment and network protection systems in their Proposal in the context of 'refreshing and replacing legacy applications.'

Given the growing industry focus on the use of digitalisation to better monitor, operate and maintain networks for more efficient investment and optimal use of assets, but it would be timely for Transgrid to be a more transparent and present customers with a longer-term ICT and data analytics plan to highlight opportunities to optimise investment and operating costs and to reduce risks in the future.

We recommend further engagement on an IT benefits realisation framework.

- **Network utilisation risks and response**

Transgrid mentions in several places in the Proposal the challenge of decreasing system strength and inertia and the decreasing minimum demand. This challenge has had significant impacts on transmission utilities in some other states and relates to a marked reduction in load factors and utilisation rates of large, expensive, long-lived assets.

Transgrid notes the planned expenditure of $39M in the Proposal to meet compliance requirements including voltage management [33], but is silent on meeting the challenge of falling asset utilisation or demand response opportunities other than references to the RIT-T process of generic intent of the Demand management Innovation Allowance Mechanism.

- **Application of the Demand Management Innovation Allowance Mechanism**

Transgrid has proposed an allowance of $4.1M under the AER's DMIAM scheme. We support this proposal in general but note that Transgrid will need to further engage with stakeholders and consumers, and in particular the DNSPs, to develop projects that justify this allocation.

[33] Transgrid Revenue Proposal 2023-28, p 113.

Q9. Do you consider Transgrid's opex proposal addresses the concerns of electricity consumers as identified in the course of its engagement on the 2023–28 proposal?

In section 2 we have discussed the overall observations of Transgrid's engagement. We did not observe any specific engagement regarding operating costs. In its preliminary Revenue Proposal of October 2021, Transgrid noted the support from its stakeholders for its opex approach, including the step changes.

We note that Transgrid benchmarks in strong position as one of most efficient transmission utilities. [34]

We reiterate our concern that labour and materials cost escalations are subject to a high degree of sensitivity to emerging market conditions and look forward to updates on the assumptions during the AER's assessment of the Proposal.

Again, on the condition of further analysis by the AER, we present no issue with the proposed step changes.

Q10. Do you consider Transgrid's forecast opex for the 2023–28 period reasonably reflects the efficient costs of a prudent operator?

We present no opinion on this issue.

Q 11. Given 2021–22 is expected to include significant one-off costs, do you consider it reflects 'a realistic expectation of the efficient and sustainable on-going opex'? If not, do you consider it would be more appropriate to use a different base year?

We present no opinion on this issue.

Q12. Do you have views on the approach to corporate income tax in Transgrid's 2023–28 proposal?

Transgrid have calculated their income tax allowance using the AER's revised approach to the treatment of regulatory tax published in 2018 and subsequently reflected in its PTRM, and that the value of capital contributions is expected to be small.

Therefore, we do not present any view on the treatment of tax.

Q13. Do you consider Transgrid's proposed EBSS carryover amounts provide for a fair sharing of the efficiency gains and losses it has achieved in the 2018–23 period?

Transgrid proposes EBSS carryover amounts totalling $34.9 million for the 2023–28 period, based on its estimate of the opex it will incur in 2020–21.

Overall, we accept Transgrid's position on EBSS and commend the efficiency this situation presents.

Q14. Do you consider applying the EBSS to Transgrid in the 2023–28 period would provide it a continuous incentive to reduce its opex?

We support application of the version 2 of the EBSS on the basis that it is genuinely based on business' revealed efficient opex costs and will fairly share efficiency gains and losses between the business and consumers. The AER should apply the EBSS if and only if it is satisfied that this is the case.

[34] AER Annual Benchmarking Report 2021, figure 12.

Q15. Do you consider Transgrid's proposed CESS carryover amounts provide for a fair sharing of the efficiency gains and losses it has achieved in the 2018–23 period?

We note the adjustment applied by Transgrid to reflect the deferral of capex related to Project EnergyConnect. In that case, we are supportive of the proposed CESS benefit to Transgrid.

Q16. Do you consider applying the CESS to Transgrid in the 2023–28 period would provide it a continuous incentive to reduce its capex?

There are many concerns about the reliability and variability of Transgrid's capital forecast, particularly around contingent projects and cost escalation factors. We would like to see more clarity and surety regarding these projects before we could confidently comment on the CESS scheme application.

We trust that the current review into incentive schemes by the AER will assist in resolving this concern.

Q17. Do you consider the application of the STPIS will provide a balanced incentive to ensure that Transgrid achieves reductions in its expenditures without degrading its service quality?

We support the application of the current version 5 of the STPIS to Transgrid.

We also agree that the application of the Market Impact Component (MIC) of the transmission STPIS calculation needs review. Due to of the large number of variable renewable energy (VRE) generators, Transgrid's ability to reasonably forecast when transmission network capacity is of most value to network users, and to plan network outages around these times, is becoming challenging.

Q18. What are your views on Transgrid's proposed alternative methodology for calculating the target for the large loss of supply event frequency parameter? Do you consider Transgrid's methodology meets clause 3.2(i) of the Scheme?

We note the similarities between Transgrid's Revenue Proposal and that of Powerlink in January 2021 and note the AER's response. We agree with the reasoning from CCP23 regarding the calculation of the service component (SC) and the risk of consumers paying twice. For these reasons, we do not support the alternative methodology.

Q19. Do you consider that the application of the DMIAM to Transgrid will deliver long term benefits to consumers?

Transgrid supports the application of the AER's Demand Management Innovation Allowance Mechanism (DMIAM) in the 2023–28 regulatory period. The DMIAM provides funding for research and development in demand management projects that have the potential to reduce long-term network costs by reducing ongoing or peak demand.

Transgrid estimates a DMIAM allowance of $4.1 million for the 2023-28 regulatory period and will use this to promote innovation in non-network solutions to improve affordability and address climate change.

We have no evidence as to where the DMIAM was discussed or influenced by any consumer engagement. Transgrid notes the intention to engage with stakeholders on how best to utilise DMIA funding and are considering a range of potential projects.

We agree with Transgrid's approach to provide information to the AER as part of its Revised Proposal. This will provide time for Transgrid to firm up its proposals, informed by further targeted stakeholder engagement. This further engagement has been raised in Q7.

Q20. Do you consider Transgrid's proposed changes to its pricing methodology for the 2023–28 period are appropriate and give effect to the pricing principles for prescribed transmission services?

We have no comment on the proposed changes to Transgrid's pricing methodology.

Q21. What are your views on Transgrid's consumer engagement in developing its proposed pricing methodology for the 2023–28 period?

The CCP was not able to observe this aspect of the engagement process.

Q22. More generally, do you have any comments on Transgrid's proposed pricing methodology for the 2023–28 period?

We have no further comments.

Appendix 1 – Acronyms and abbreviations

Acronym/Abbreviation	Meaning
$ nominal	These are nominal dollars of the day
real $2023	These are dollar terms as at 30 June 2023 unless noted otherwise
Regulatory control period	the period commencing 1 July 2023 and ending 30 Jun 2028
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ARR	Annual Revenue Requirement
Augex	Augmentation expenditure
CAM	Cost allocation method
capex	Capital expenditure
CBD	Central business district
CCP	Consumer Challenge Panel
CESS	Capital efficiency sharing scheme
CPI	Consumer Price Index
DER	Distributed energy resources
TNSP	Transmission Network Service Provider
DM / DR	Demand Management / Demand Response
EBSS	Efficiency benefits sharing scheme
F&A	Framework and Approach
GWh	gigawatt hours
HV	High voltage
ICT	Information and Communication Technologies
MW	megawatt
NEL	National Electricity Law
NEO	National Electricity Objective
NER	National Electricity Rules (or Rules)
Next regulatory period	the period commencing 1 July 2023 and ending 30 Jun 2028
Opex	Operating and Maintenance Expenditure
PTRM	Post-tax revenue model
PV	Photovoltaic (Solar PV)
RAB	Regulatory Asset Base
Revenue Proposal	regulatory proposal submitted under clause 6.8 of the NER
Repex	Replacement capital expenditure
Revised Revenue Proposal	revised proposal submitted under clause 6.10.3 of the NER
RFM	Roll Forward Model
RIN	Regulatory Information Notice
TUOS	Transmission Use of System
WACC	Weighted Average Cost of Capital (also known as Rate of Return)