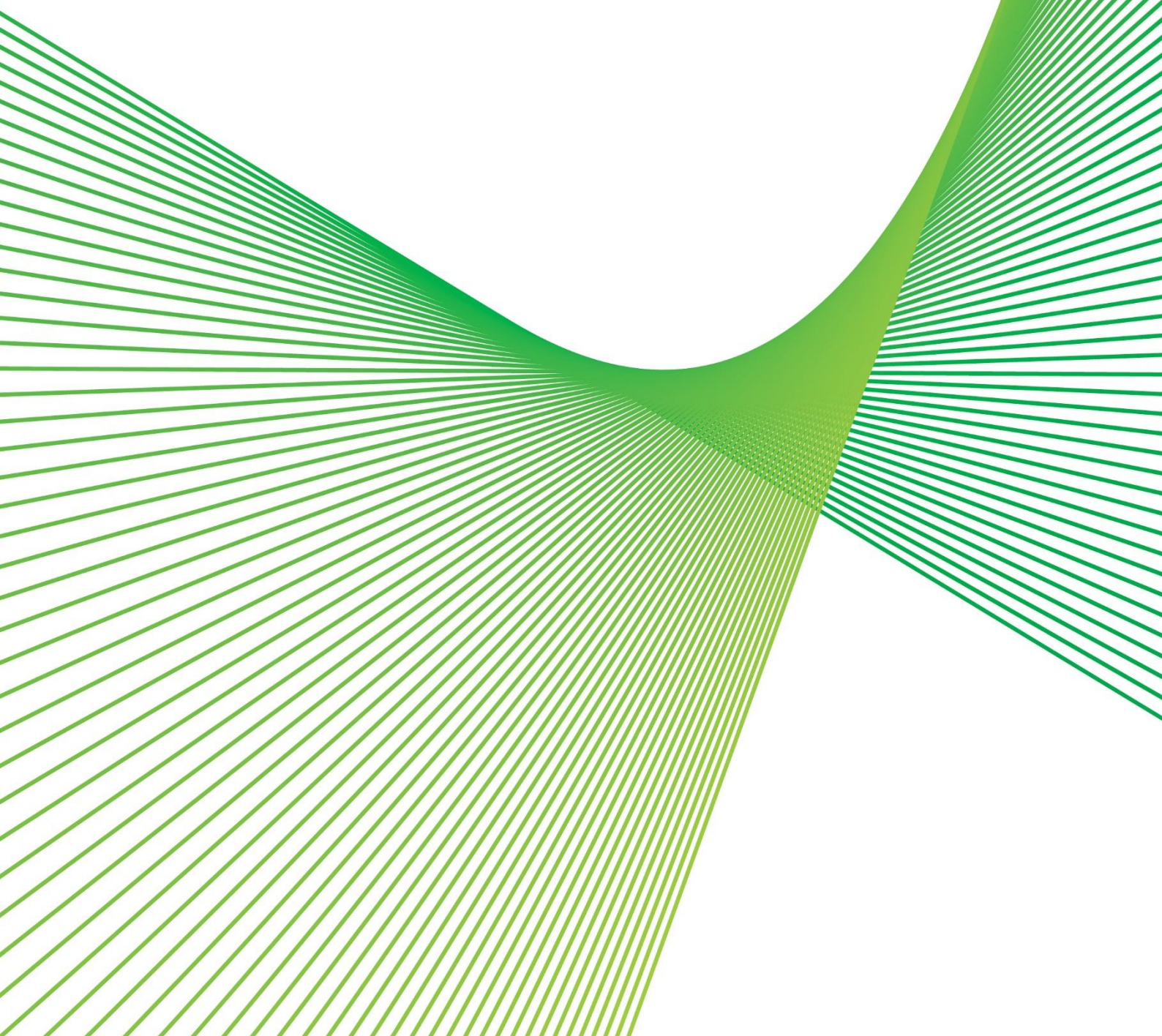




People. Power. Possibilities.

2023-28 Stakeholder Engagement Report

19 January 2021



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Executive summary

Engagement with customers, land owners and stakeholders is part of Transgrid's normal business operations.

Transgrid's Advisory Council (TAC) has been a core part of our engagement approach since it was established in 2016. The TAC provides ongoing support and advice to our business on policy issues, regulatory strategy, customer perspectives and industry insights. We continue to benefit from the ongoing relationship with TAC members.

Transgrid has leveraged the TAC for our 2023-28 revenue reset consultation. This approach reduced the number of new engagements that customer advocates and industry representatives were asked to accommodate which was particularly important to stakeholders who are involved in reset engagement processes being conducted by NSW distributors in parallel with ours. We also expanded the TAC to include some new voices to ensure that discussions were representative of a broad range of players in today's energy market.

Transgrid has a small number of direct customers who we engage with directly. However, as a transmission provider, we do not have a direct relationship with the three million end-use electricity consumers in NSW. To ensure our proposal aligns with end-use customers' needs, we commissioned research with our partner Forethought to identify end-use customers' priorities both today and in the future.

This document outlines our approach to engagement and the activities we have undertaken specifically for the 2023-28 transmission regulatory reset. It outlines how we have leveraged our business as usual engagement activities and summarises the design and findings of our research. Most importantly, this document shows how engagement has influenced our proposal and where the evidence for this can be found.

We are very grateful for the time that our stakeholders have spent with us and the assistance and advice they have provided to help us prepare our regulatory proposal for the 2023-28 period.

1. Purpose of this document

This document sets out Transgrid’s engagement approach for the 2023-28 regulatory reset. It explains the rationale behind the approach to engagement and shows where and how customers and stakeholders have influenced our proposal.

The document focuses on engagement for Transgrid’s 2023-28 reset and provides a self-assessment of its success against the AER’s recent guidance criteria for engagement.







The engagement activities outlined in this document cover the lead up to submission of Transgrid’s regulatory proposal in January 2022. The reset process will continue for a period of 15 months beyond this point as the AER reviews our proposal and supporting information.

We intend to engage with our key stakeholders throughout 2022 in a program to be developed jointly with Transgrid’s Advisory Council (TAC) members.

Our engagement approach

Figure 1 sets out our overall engagement approach. Its core feature is meaningful and well-informed engagement with our stakeholders that we can reflect in our 2023-28 Revenue Proposal.

Figure 1: Our approach to reset engagement

-  Consultation processes should be easily accessible
-  Stakeholders should be given adequate opportunity to participate in regulatory development, implementation and review
-  Stakeholders should be adequately notified of proposed consultation
-  Adequate time should be given for stakeholders to participate in consultation
-  Outcomes of consultation should be reported back to stakeholder
-  Consultation processes should be evaluated

2. 2023-28 reset engagement

2.1. Engagement obligations

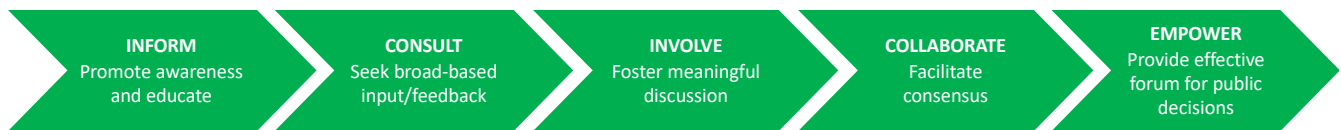
Under the National Electricity Rules (NER or Rules):

- the AER must have regard to forecast opex and capex expenditure that addresses concerns identified by electricity consumers, and
- we must set out how we have engaged with consumers and how we have addressed any relevant concerns.

The AER first produced an engagement guideline in 2013. It provided further guidance in its [2021 to 2026 Determination for AusNet Services](#) and in September 2021, provided a draft of its *Better Resets Handbook – Towards consumer-centric network proposals* designed to incentivise networks to develop high quality proposals that are drive by genuine engagement with consumers.

The AER and network businesses have adopted the IAP2 Spectrum¹ when developing consumer engagement strategies and processes. The IAP2 Spectrum is a framework for consumer engagement based on the influence that consumers should have over a decision or activity.

Figure 2: IAPS Spectrum for public participation



Transgrid has had regard to the AER’s guidance documents as well as the IAP2 framework when designing its engagement process for the 2023-28 reset proposal.

2.2. Engagement approach

Transgrid has utilised the existing Transgrid Advisory Council (TAC) as the primary channel to engage our customer and industry representatives for the 2023-28 regulatory proposal. It has allowed us to build on our existing relationships with TAC members and leverage their knowledge of our operations. It has also streamlined TAC member’s time commitment to the process as it did not establish a separate stream for consultation and engagement on the reset.

Transgrid’s TAC is made up of the following members drawn from customer advocates, customers and industry representatives:

- Australian Industry Group
- City of Sydney Council
- Energy Consumer Australia
- Energy Users Association of Australia
- Public Interest Advocacy Centre
- Snowy Hydro Ltd.
- St Vincent de Paul Society
- Tesla

¹ International Association of Public Participation (IAP2), www.iap2.org.au.

- Ethnic Communities Council NSW
- Goldwind
- Tomago Aluminium Co.

Transgrid expanded the TAC membership in 2021 to include representatives from a broader range of organisations to provide a wider industry context and further depth to discussions.

New members recruited to join the TAC in 2021 include:

- AEMO – to provide valuable insight and content for investments that Transgrid will be required to deliver over the 2023-28 period in support of the Integrated System Plan (ISP) and the NEM's transition to renewable sources of generation;
- Commonwealth Bank – to provide valuable insight into financeability issues and other concerns that debt providers have when assessing when to extend debt finance to infrastructure providers;
- ERM Advisory and the Clean Energy Council who represent independent energy advisors and bring an interest in new technology to the discussions;
- Professor Andrew Blakers from ANU – to provide non-partisan advice on future development needs within Australia's energy markets.

The augmented TAC has met monthly for the duration of the pre-submission reset engagement period (June-Dec 2021). In addition, separate meetings have been held to discuss specific topics of interest on an opt-in basis. These sessions have included shorter feedback sessions on customer research as well as Deep Dive sessions on topics ranging from Transgrid's Energy Vision, regulatory and policy issues and individual projects such as HumeLink. Industry experts such as AEMO, AEMC and EY were invited to present to the TAC where relevant.

Transgrid issued a standing invitation to the AER to attend the TAC meetings as an observer. AER staff attended the majority of meetings, feedback discussions and Deep Dives during the pre-submission reset engagement period.

2.3. TAC consultation in 2021

Transgrid's monthly TAC meetings focused on the 2023-28 regulatory reset. The topics discussed are shown in Table 1.

Table 1 – Transgrid's 2021 TAC meetings focused on the regulatory reset

Date	Focus	Topics discussed
17 June 2021	Setting the 'Reset scene'	<ul style="list-style-type: none"> • Introduction to regulatory reset process • Transgrid's Network Vision • TAC feedback on consultation process
22 July 2021	Deep dive: Expenditure drivers	<ul style="list-style-type: none"> • Expenditure drivers • Customer research
19 August 2021	TAC areas of interest	<ul style="list-style-type: none"> • Rate of Return Instrument (RORI) • Risk and uncertainty • Project cost development
5 October 2021	Deep dive: Reset building blocks	<ul style="list-style-type: none"> • Capex/Opex forecasts • Key expenditure items
3 November 2021	Reset proposal overview	<ul style="list-style-type: none"> • Early insights into draft proposal and TAC feedback
1 December 2021	Deep dive: Draft proposal	<ul style="list-style-type: none"> • Overview of draft proposal

2.4. Topics proposed by TAC members

August TAC meeting

The agenda for the August TAC meeting was proposed by TAC members. The topics that TAC members thought were important to discuss were:

- **RORI** – The Rate of Return instrument was selected for discussion as it is one of the most significant drivers of regulated revenues.
- **Risk & Uncertainty** – The elements of the regulatory framework designed to accommodate uncertainty were discussed including the mechanisms for pass through and contingent projects, as well as our approach to addressing uncertainty produced by parallel development of AEMO's 2022 ISP and NSW Government's plans for Renewable Energy Zones. Both of these plans have significant implications for Transgrid.
- **Project cost development** – We discussed our cost estimating approach including descriptions of models used to determine optimal asset replacement timing through assessment of bushfire, reliability, and safety risks and their consequence which inform decisions.

November TAC meeting

The agenda for this meeting was constructed around issues raised by TAC members in response to the presentation of initial forecasts at the October meeting and comments following the release of Transgrid's preliminary proposal. Topics included:

- ICT
- Revenue and Price sensitivity modelling
- Shared assets and how revenue from non-regulated services will offset regulated revenues
- Capitalised overheads
- Non-network solutions

December TAC meeting

The agenda for the final meeting of 2021 was based on TAC member feedback on areas of interest including major project development and the potential cost impact of the ISP on customers in NSW.

Deep Dives

Deep Dives were held throughout the reset engagement period in response to requests from TAC members, to provide further detail on specific projects or parts of the regulatory proposal, or to discuss policy matters. Deep Dives were held on the following topics:

- **HumeLink, ISP project** (14 September 2021) – The HumeLink project was discussed in detail including options considered in the PACR, the calculation of consumer benefits for the project, project costing, community engagement challenges and the underlying need for the project.
- **Network Vision** (29 September 2021) – Transgrid's Network Vision was presented to the TAC to show how feedback provided in June and subsequent updates to assumptions and modelling have impacts on the possible energy futures outlined in the document

Feedback discussions

We held several feedback discussions with TAC members in relation to customer research. The feedback is outlined in Section 3 of this report.

One on one discussions

- Broken Hill primary supply solution – Transgrid & PIAC

2.5. Impact of COVID-19

Transgrid intended to hold TAC meetings in both Sydney and in Melbourne to ensure we maintained face to face contact with our key stakeholders. Unfortunately, COVID-19 lockdowns in Sydney, Melbourne and the ACT meant that the majority of TAC meetings and Deep Dives during the preparation phase for Transgrid's regulatory proposal were undertaken via Webex.

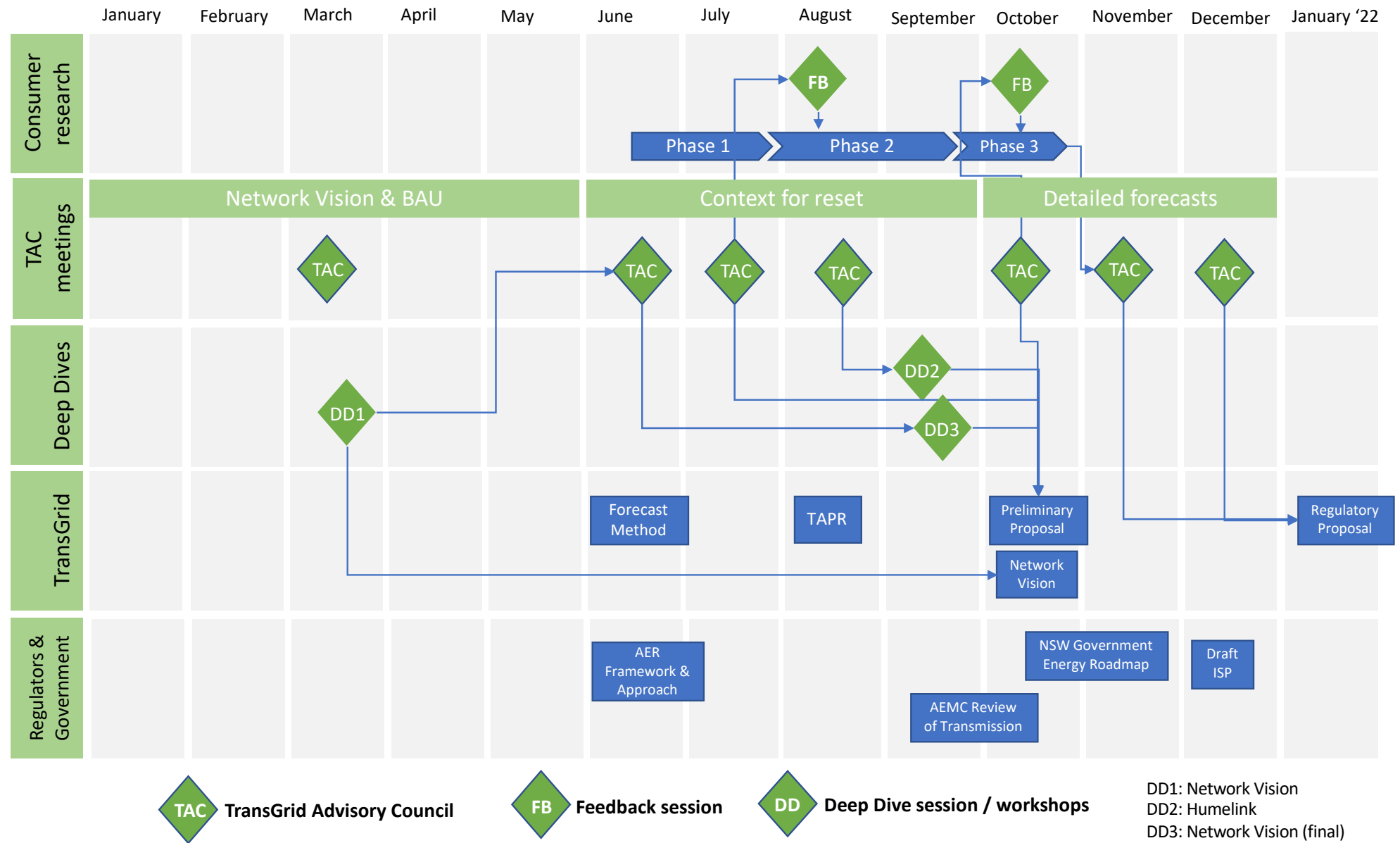
Materials for all TAC meetings and Deep Dive sessions have been made available on our website:

<https://www.Transgrid.com.au/what-we-do/Business-Planning/Regulated-Revenue-Determination/Pages/default.aspx>

2.6. Engagement timeline

Transgrid's engagement activities for the reset are shown in Figure 3. The diagram shows the feedback loops that occurred in relation to our customer research, the Energy Vision, the preliminary proposal released in October, and the final proposal to be submitted in January 2022.

Figure 3 – Transgrid’s engagement 2021 timeline



2.7. Stakeholder feedback on engagement process

TAC members were invited to provide their thoughts and feedback after each meeting via one-on-one telephone calls. This process ensured that subsequent TAC meetings were targeted to areas of members' interest and provided an opportunity for reflections post-meeting to be fed back to Transgrid. The majority of meetings were held over Webex due to COVID restrictions which limited the 'water cooler' discussions that take place when meetings are held face to face. Post-meeting engagement allowed these discussions to take place and ensured quieter members of the forum were able to express their views directly. The process of touching base with individual members not only built rapport during the period, it provided an opportunity for more detailed discussions to take place and a more nuanced understanding of the wide range of views held by TAC members. The feedback was integral to agenda setting for subsequent meetings to ensure that issues raised were addressed.

In addition, TAC members were asked to complete a brief survey at the end of 2021 to gauge stakeholder views as to the effectiveness of TAC meetings and the engagement process more broadly.

The survey results were very positive. All respondents agreed or strongly agreed that Transgrid's engagement for the 2023-28 reset was open and transparent, and all bar one respondent agreed or strongly agreed that Transgrid's process had the appropriate high-level support from the executive and board. The remaining respondent neither agreed nor disagreed with this statement.

All respondents agreed or strongly agreed that TAC members were able to guide consultation on individual components of Transgrid's proposal and all bar one of the respondents agreed or strongly agreed that the 2023-28 reset covered areas that mattered to them.

The majority of respondents agreed or strongly agreed that the regulatory proposal reflected consumer priorities and preferences, with two respondents remaining neutral on this point.

Finally, survey respondents agreed or strongly agreed that Transgrid's engagement approach effectively covered the areas where engagement could influence the revenue proposal with one respondent remaining neutral on this point.

2.8. Evaluation of engagement

Transgrid designed its reset engagement activities to ensure a wide variety of voices were at the table to contribute to discussions.

The AER's guidance in relation to successful engagement practices and outcomes was considered in the design of our engagement process as was the IAP2 Spectrum. This section evaluates the process and outcomes against these two frameworks.

2.8.1. IAP2 Public Participation Spectrum

IAP2's Public Participation Spectrum² is designed to assist with the selection of the level of participation that defines the public's role in any community engagement program. The Spectrum shows that differing levels of participation are legitimate depending on the goals, time frames, resources and levels of concern

² International Association for Public Participation – IAP2 International, www.iap2.org.au

in the decision to be made. Importantly, the Spectrum sets out the implicit promise being made to the public at each participation level.

The IAP2 Spectrum has been widely used by networks within the NEM. We have applied a mix of spectrum levels in our engagement for the regulatory reset.

Table 2 – Applying the IAP2 public participation spectrum to our proposal

IAP2 spectrum level	Promise to the public	Component of our regulatory proposal
Empower To place final decision making in the hands of the public	We will implement what you decide	
Collaborate To work together with stakeholders to formulate alternatives and incorporate their advice into final decisions to the maximum possible extent	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible	Energy Vision Community engagement practices for major projects
Involve To work directly with stakeholders to ensure their concerns and aspirations are directly reflected in the alternatives developed	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how your input influenced the decision	Proposal narrative Customer research
Consult To obtain feedback on alternatives and draft proposals	We will keep you informed, listen to, acknowledge concerns and aspirations, and provide feedback on how your input influenced the decision	Strategic land acquisition Opex step changes
Inform To provide balanced information to keep stakeholders informed	We will keep you informed	Capital forecasts Opex forecasts

Note: The prescription within the AER’s regulatory framework and compliance obligations on network businesses limit the scope for customers to be ‘empowered’ to make final decisions.

2.8.2. AER Better Resets Handbook

In its Better Resets Handbook, the AER sets out its expectations for consumer engagement on a principles basis, covering:

- The nature of engagement
- The breadth and depth of engagement
- Clearly evidenced impact of this engagement

We have used these principles to assess our reset engagement process and outcome.

Table 3 - Self-assessment against the AER's framework for consumer engagement

	AER principles	Transgrid's self-assessment
Nature of engagement	<p>Sincerity of engagement:</p> <ul style="list-style-type: none"> - High level 'buy-in' from network businesses extending from Board level - Openness to new ideas and a willingness to change - Ongoing conversation with consumers about outcomes that matter to them, which allows consumers to 'set the agenda' 	<p>Transgrid's CEO chairs the TAC and board members are regular observers to TAC meetings.</p> <p>Transgrid has shown a willingness to listen to advice and guidance from TAC members. Transgrid amended its research program on the advice of TAC members.</p> <p>The TAC is an established vehicle for consumer engagement that has been in place since 2016. TAC meeting agendas were specifically designed to address issues of concern raised by TAC members both at TAC meetings and during one-on-one follow-up discussions. Survey results from TAC members confirm that engagement covered topics that mattered to them, and they were able to set the agenda.</p>
Breadth and depth of engagement	<p>Accessible, clear and transparent engagement</p> <ul style="list-style-type: none"> - Set out plans and objectives, topics, areas of influence 	<p>Transgrid set a clear plan for engagement with TAC at the beginning of the process. The process itself responded to TAC members request to streamline members' time commitment. A monthly meeting schedule was published with topics to be covered at each meeting at the start of the process. Other meetings were scheduled to address issues raised by the TAC when requested and were attended on an opt-in basis with most TAC members attending.</p> <p>TAC agendas allow time for discussion of issues following presentations and respond directly to issues raised.</p>
	<p>Consultation on outputs, then inputs</p> <ul style="list-style-type: none"> - Consumers should be seen to guide development of proposals i.e. consumers consulted on what they want and how they want businesses to engage - Consumers guide consultation on individual components of a proposal. 	<p>Transgrid consulted TAC members on how they wanted to be engaged prior to the reset engagement process.</p> <p>TAC reset engagement began with discussion of the energy transition and results of analysis in Transgrid's Energy Vision.</p> <p>Discussions continued throughout the reset consultation process on the content of the regulatory proposal and its context, specifically the major projects likely to be triggered by the 2022 ISP including the price implications for customers.</p> <p>TAC feedback in November supported Transgrid's opex step-changes and capital forecasts.</p>
Clearly evidenced impact of engagement	<p>Proposal links to consumer preferences</p> <p>Independent consumer support for the proposal</p>	<p>Transgrid's proposal reflects the balance between customer's priorities for an affordable and reliable energy supply and their priority for a sustainable energy supply in future.</p> <p>The proposal provides savings for customers and is driven almost entirely by compliance requirements ranging from safety to cyber security, thus minimising the cost burden on customers.</p> <p>Customers supported specific expenditure items such as cyber security and higher insurance costs.</p> <p>TAC survey confirmed that the proposal reflects consumer preferences and priorities.</p>

2.9. Consultation in 2022

Transgrid is committed to ongoing engagement as we refine our capital and operating cost forecasts in response to updated market information and feedback from stakeholders and the AER throughout 2022.

We will collaborate with the TAC to design an effective engagement program for the post-submission phase of the AER's assessment of our regulatory proposal. The program will incorporate the AER's key decision milestones as well as other concurrent policy and planning reviews that have implications for Transgrid's regulated revenue.

We are also mindful that several of our TAC members are also representatives on NSW distributors' customer councils and have designed an approach that is streamlined in terms of its time commitment but allows flexibility where detailed discussion are required.

2.9.1. 2022 Integrated System Plan (ISP)

Transgrid's 2023-28 forecast expenditure is being developed in parallel with AEMO's 2022 Integrated System Plan.

The 2022 ISP will have significant implications for Transgrid's investment in the 2023-28 period. Several projects are expected to become actionable projects in the period and will be assessed and approved outside of the AER's five-year regulatory process.

Stakeholders have expressed significant interest in the development and optioneering of the ISP major projects. TAC members have called for a major project update to be provided at every TAC meeting. We are discussing with the TAC the best way to engage on major projects including the option of expanding the existing Stakeholder Monitoring Committee established for Powering Sydney's Future project to incorporate all major projects.

2.9.2. RORI Review

The AER is undertaking its four-yearly review of its Rate of Return instrument and will make its final decision in December 2022. The AER's final decision will be applied to Transgrid's 2023-28 final determination.

The RORI was first discussed with the TAC in August 2021. A Deep Dive on WACC issues will be held with the TAC in early 2022 with updates following decision milestones.

2.9.3. New South Wales Government Electricity Infrastructure Roadmap

The roadmap is designed to deliver infrastructure that will secure NSW's future as an energy superpower. The NSW State Government is aware that substantial investment in modernising the electricity system is required including building transmission, generation, long term storage and firming infrastructure. The government's strategy and roadmap is being supported by regulations and legislation that give effect to its policy objectives. Transgrid is involved in the consultation process underway. It is likely that Transgrid's investment requirements will be impacted by regulations which could include a new regulatory framework within which investments related to the Roadmap are assessed.

3. Transgrid's BAU engagement

3.1. BAU engagement

We engage with key stakeholders as part of our day to day operations. Key stakeholders provide us with insights from the market, from industry and from consumers that are important for us to take into account when making decisions. Transgrid has leveraged its business-as-usual (BAU) processes to engage with stakeholders for this reset. This section outlines some of the BAU engagement that Transgrid undertakes.

Energy Vision - The Energy Vision 2056 Report has been developed in collaboration with external experts and has been the subject of four workshops with the TAC³ to test the modelling assumptions, scenarios and outcomes in the final report. The Energy Vision, released in October 2021 sets out an energy future we can aspire to – one that is built on evidence and analysis and that creates opportunity for Australia. The scenarios in the Energy Vision provide a foundation for Transgrid's long term planning, the beginnings of which underpin our reset proposal.

Transmission Annual Planning Report (TAPR) – The TAPR is the key mechanism through which Transgrid communicates emerging constraints and highlights opportunities for the market to identify potential demand management solutions. The TAPR is based on information shared with AEMO and our network partners with whom we conduct joint planning. Projects in the TAPR are incorporated in our capital forecast for the 2023-28 period.

Energy Charter annual performance – Transgrid is a founding member and active participant in the Energy Charter. Our business is committed to becoming a more customer-centric organisation. In preparing our annual Disclosure Statement, we are guided by recommendations from the Charter's Independent Accountability Panel.

Major projects – Transgrid has established a Stakeholder Monitoring Committee for our Powering Sydney's Future project. This committee oversees the delivery of the project to ensure that customers receive the purported benefit of the project. We are working with customer advocates to expand the Committee's scope to include all major ISP projects.

Regulatory Investment Test – Transgrid follows the requirements of the RIT-T to all its major projects. The RIT-T has strict consultation requirements in it. For a typical project, stakeholders have several opportunities to raise issues in relation to a project before it is finally submitted for approval.

Regulatory policy matters – Transgrid discusses policy issues with the TAC as part of its business as usual operations. TAC members have provided welcome input into our internal policy decisions and inform our position on external policy matters. Significant policy issues such as the AER's review of the Rate of Return for network businesses and the AEMC's Transmission Investment Review have been discussed with the TAC to ensure that we understand stakeholders perspectives before forming our own positions.

3.2. Key stakeholders

In addition to the TAC, Transgrid has a large range of key stakeholders with which it meets regularly.

³ Energy Vision workshops were held in April 2020, November 2020, March 2021 and September 2021.

Government – Transgrid fosters close working relationships with key Ministers and Departmental officials in NSW and in Canberra.

Regulators - We regularly engage with the AER via regular meetings between Transgrid’s CEO and the AER chair, as well as weekly meetings between our Regulation team and AER staff. AER staff have been invited to observe all our reset related engagement activities in 2021.

Transgrid has a close working relationship with AEMO. As a key market participant, we work closely to ensure the efficient operation of the Grid as well as positive development of AEMO’s ISP.

3.3. Joint planning

The three NSW distributors and EVO Energy in the ACT are some of Transgrid’s key customers. These distribution networks connect to our network in multiple locations such that the augmentation and development of the networks need to be jointly planned and outage times coordinated for some projects.

Transgrid holds regular joint planning meetings with Ausgrid, Endeavour Energy, Essential Energy and EVO Energy to facilitate the flow of critical planning information and to ensure the robust operation of the networks, particularly under emergency conditions.

3.4. Major customers

Transgrid’s customers are generally medium to large businesses that have a connection into our transmission network. They consist of our network partners, major load customers and generators.

We have a direct customer relationship with these customers managed by a team of dedicated customer managers. We work closely with them to ensure that we meet their needs and their views are represented within our business.

We provided a copy of our preliminary proposal to our directly connected customers. Feedback from our customers will be taken into account as we refine our forecasts for the Regulatory Proposal.

3.5. Electricity consumers

As a transmission business we do not have direct relationships with end-customers. However, we are acutely aware that it is consumers who are most impacted by our proposal and who ultimately pay for our services.

Transgrid is a founding and active participant in the Energy Charter. Our business is committed to becoming a more customer-centric organisation. Part of this process is to better understand the chief concerns of consumers and to how best to align our own priorities and commitments with those of our customers.

We have engaged an independent research company to help us identify end-customer’s concerns and priorities in relation to energy as we prepare our forecasts for the 2023-28 period. See Section 4 - Customer research.

A lot of research about customer preferences has been undertaken in the NEM. We have leveraged existing public research including the AER’s reliability study into the Value of Customer Reliability (2019),

Energy Consumers' Australia's annual Consumer Sentiment Survey (2021), and the Queensland Household Energy Survey (2019) to inform our inputs to our Revenue Proposal.

3.6. Impacted communities

Our community engagement team consults with landowners and residents across our network and within proposed project areas. We engage early on proposed projects so that landowners and the broader community are informed at all stages of the planning process, have an opportunity to have their say on key issues, and remain safe during construction.

Our team uses a variety of channels to raise awareness and enable meaningful input. Feedback from landowners and local communities helps us identify environmental impacts, integrate local knowledge about land uses into our planning, and improve how we design and operate our network. Much of our engagement takes place in a face-to-face setting at on-property meetings and local community information sessions.

We have established an Office of the Landowner and Community Advocate within our business to help us implement the best possible landowner and community engagement practices across all of our major transmission projects. We also work with the Australian Energy Infrastructure Commissioner to help improve the practices and processes for project consultation within the business and to develop more effective collateral.

Through the Energy Charter, we have collaborated with National and State Farmers Federations, agricultural industry groups and community and landowner representatives to develop a *Better Practice Guide for Landholders and Communities* to help inform farmers and farming communities on what to expect in their engagement with the energy sector. The Guide was published in September 2021.

3.7. Customer and stakeholder sentiment survey

Every year Transgrid commissions a customer and stakeholder sentiment survey, conducted by an independent research company. The survey provides us with important feedback from customers and stakeholders, and from property owners who have easements or transmission towers on their properties. The findings and insights gained through this research help us identify areas for improvement within the business and in the services we provide. Feedback from our annual survey is reported to our board and contributes to the design of our transformation program.

According to survey results, interpersonal relationships based on trust, transparency and performance are important to our customers and we are working to embed this into all engagement with customers and stakeholders through formal consultation processes like the TAC and across the full range of our contact with customers and the community.

3.8. Website

We have a dedicated revenue reset page on our website that contains information on the reset process including the collateral used for our engagement activities (TAC agenda, slide packs and meeting summaries) and our research reports.

4. Customer research

4.1. Objectives

Transgrid commissioned customer research to gain a better understanding of the representative views of both household and small business customers across the wider community on a range of electricity sector issues.

The research objectives were as follows:

- Support Transgrid's 2023-28 Revenue Proposal
- Leverage existing research
- Contribute something new to the body of research and avoid duplication
- Research transmission related issues
- COVID proof

Transgrid partnered with Forethought to design a study that could be used to shape Transgrid's 2023-28 Revenue Proposal and provide qualitative and quantitative validation of key elements in the proposal. The research will help us align our proposal with the needs and priorities of customers who will eventually pay for Transgrid's services.

4.2. Design

Start with the customer

We started with the customer and worked backwards to see how a transmission network like Transgrid could improve its services to customers. We wanted to see how customers valued the current services they received, and identify their preferences and priorities. We were keen to understand how these priorities changed if we compared today with the future, and compared elements of their current service with other factors such as sustainability (reduced emissions).

Common issues with research

There has been a lot of research in the energy industry in the last 5-10 years and many researchers have come across similar issues in directing their research:

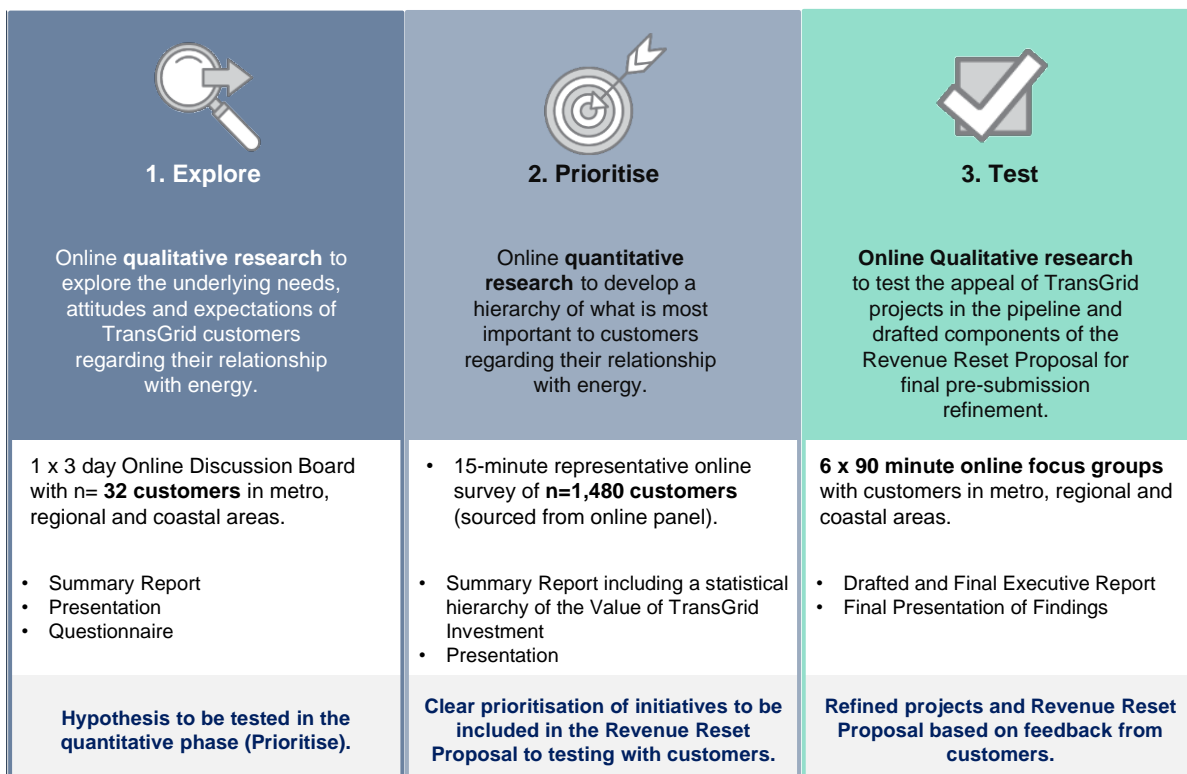
- Previous research has repeatedly shown that customers value affordability and reliability as their highest priorities
- Reliability standards, safety standards, and security of supply standards are stipulated through regulation. Customer feedback on whether current service is appropriate or not is not likely to impact Transgrid's proposal.
- Customers have little visibility and/or understanding about the role of transmission networks within the electricity industry
- Transmission businesses do not have a direct relationship with retail customers. Many of the issues that impact customers' daily experience of energy do not relate to transmission companies but are linked to distribution network performance, distribution network aesthetics, customer service provided by distributors and retailers, affordability concerns (transmission businesses contribute <10% of total bill).

- It is difficult to engage with CALD communities, particularly in an on-line environment, in English. Unfortunately, COVID-19 limited the face-to-face engagement options for this study.

Three-phase program of research

We asked customers what was most important to them. We then tested the priorities customer identified to establish a hierarchy of priorities. Finally, we engaged customers directly through on-line focus groups to test elements of Transgrid’s regulatory proposal.

Figure 4: Three-phase study design



4.3. Collaboration with stakeholders

Transgrid engaged customer advocates ahead of commissioning its research. Advocates were invited to be part of the research design. Findings from each phase of research were presented to the TAC and feedback sessions were held to discuss the findings in detail and to discuss the design of the next phase.

A summary of TAC feedback is included in Appendix 1.

4.4. Findings

The findings of our three-phase research project reiterated what many researchers in the energy industry have found – that affordability and reliability remain key priorities for customers.

Phase 1 findings

Phase 1 was designed to explore the key concerns and priorities of energy consumers, their awareness and sentiment towards Transgrid and the role of transmission networks more generally. We also began to explore consumer preferences for the future of the energy industry.

Study participants joined an on-line discussion board over the course of three days to discuss their concerns and their attitudes towards electricity. We found that:

- Consumers prioritised affordability and reliability of electricity supply. Small business customers particularly valued reliability of supply as losses in power had major implications for productivity of their business.
- Reducing carbon emissions was seen by many as a broader societal issue that should be managed by government, industry and big business.
- Consumers were generally cynical towards the energy industry's decarbonisation efforts and felt powerless to contribute outside of taking up solar.
- There was a high demand for investment in sustainability and innovation, not only in terms of transitioning fuel source, but to improve innovation of assets and infrastructure to keep up with future consumer and environmental demand.

Phase 2 findings

Phase 2 was designed to quantify the sentiments and attitudes of customers' expectations of the electricity industry and prioritise areas for government and industry investment. It was also designed to determine consumers' willingness to pay for carbon emission reduction and understand their preferences for engagement.

A survey of more than 1500 residential and small business customers was conducted across Sydney, Canberra, and regional and coastal areas within Transgrid's network.

Phase 2 findings supported the findings of Phase 1. We found that:

- Consumers prioritised healthcare, cost of living and the economy in the short-term. However, when asked about the future, residential customers prioritised investment in the environment and climate change over other areas. Interestingly, small and medium business customers prioritised cost of living and economic investment in both the short and long-term.
- When asked to prioritise investment in the industry, investment to improve electricity affordability was the first priority for residential and small to medium consumers, with a preference for investment to be frontloaded within the next four years.
- To help carbon emissions, 57% of residential consumers would pay \$25 or more on top of their quarterly bills and 50% of small to medium businesses would pay \$40-\$50 on top of monthly bills. Willingness to pay was highest amongst younger residential age groups, large business and solar power users across consumer groups.

The findings show that there is a balance to be struck between affordable electricity supply and consumers increasing priority for sustainable electricity supply. Emissions reduction and environment were listed as the highest priority for residential customers in future with the majority willing to pay more on their electricity bills to reduce emissions. However, 43% of residential customers indicated they were not willing (or able) to pay more. The survey found that willingness to pay was correlated to income with those who had higher earnings more willing to pay. While business customers prioritised the economy and cost of living

concerns, they too were willing to pay more to reduce emissions. Again, the willingness to pay was linked to business income with larger businesses willing to pay more.

Customers overall supported greater investment in innovation as a means to improve affordability and address climate change.

Phase 3 findings

Phases 1 and 2 were designed to understand customers' experience of energy and their preferences for their energy future. These issues link directly to the energy transition that is underway and which characterise the *context* in which Transgrid is preparing the 2023-28 revenue reset.

In contrast, Phase 3 was designed to focus on the *content* of Transgrid's proposal. A series of six 90-minute focus groups were held during which customers were asked if they supported specific expenditures proposed by Transgrid in its preliminary proposal.

- **Low awareness** - Focus group participants showed low levels of awareness of the electricity supply chain including the role of transmission companies such as Transgrid. However, all participants were engaged during the sessions, with many saying they appreciated the opportunity to learn more about the electricity sector.
- **Opex step changes** - Customers wanted more information about why insurance prices were rising. Customers generally accepted insurance costs as necessary but felt powerless to do anything about the rising costs. In contrast, participants were, without exception, supportive of Transgrid's proposal to increase expenditure on cyber security. Customers would have liked more detail about the drivers behind these expenditure decisions to give them additional comfort in their decision to support these cost increases. Customers were also interested in understanding the impact of these individual cost increases on their bills.
- **Capex** - Customers supported capital expenditure where it underpinned a future renewables-based electricity supply. Customers were concerned that money was spent where it would be utilised by the future grid, and did not support investment that embedded current coal-based fuel sources.
- **Savings** - Customers placed high priority on energy affordability. The savings offered by Transgrid in the preliminary proposal were welcomed, but were not seen as large enough to make a significant difference to electricity affordability. With this in mind, most focus group participants recommended the savings be reinvested in projects that supported the transition to renewables.

4.5. Customer feedback

Our research confirmed that customers remain concerned about reliability and affordability. However, the results show there is a balance to be struck between affordable energy supply and consumers increasing priority for sustainable energy supply. Our Revenue Proposal sets out how we will continue to deliver on these priorities over the 2023–28 period.

Table 5: Customer priorities

Affordability

Customers prioritised affordability and reliability as the most important aspects of their electricity supply. Customers told us that the price of electricity was still a major concern and was the primary driver to invest in technology such as PV and batteries in homes and business.

Customers prioritised healthcare⁴, cost of living and the economy in the short-term, and when asked to prioritise investment, residential and small business customers told us they want us to prioritise investment that improves electricity affordability, particularly in the next four years.

Safety, security and reliability

Reliability of supply was ranked as the highest priority for business customers, particularly those businesses who manufactured products and relied on constant, reliable energy supply to maintain their productivity.

Customers said that the primary benefit of transmission networks to the community was a reliable and affordable electricity supply, with over half of customers seeing investment in the future of energy as a benefit. Customers expressed a strong preference for investment to facilitate renewables but also to increase safety.

Customers accepted our proposed investment in cyber security and insurance. They were interested in more information about these cost increases, and to understand the steps Transgrid has taken to mitigate the costs impact to consumers.

Energy transition

Customers across NSW said that the environment and climate change was their most important priority when they thought about the future. This sentiment was universal across the state and across different age groups.

Climate change was considered to be the area in which Australia's performance was worst. Consumers had a strong preference for the energy industry to reduce emissions and to invest in infrastructure and technologies that increased penetration of renewables but also increased safety and capacity to cater for future demand.

Views were mixed as to whether consumers preferred investment now or phased across a 10-year time period. Some preferred more investment to take place now due to the urgency of climate change response, while others preferred to smooth investment to mitigate the risk of investing in technologies that may become outdated.

More than half of residential consumers and small-medium businesses indicated they would pay more on their quarterly/monthly bills to reduce emissions. Willingness to pay was highest amongst younger residential age groups, larger SMBs and solar power users across consumer groups. Residential consumers with solar panels also showed higher willingness to pay across price points and placed higher importance on climate change.

There was low awareness or reflection by consumers that higher investment in technologies and infrastructure upgrades in the energy industry would have direct implications on energy bills in the short term.

Customers supported the transition to Net Zero but were confused as to how investment in the grid supported renewables. Customers told us they wanted to see a clear plan for the transition of the energy

⁴ The research was conducted during the COVID-19 lockdown in NSW in 2021. As a result, healthcare was a very high priority for most customers.

system. Customers also said that they would like brochures, newsletter and fact sheets about projects in their area, highlighting a need for transparency about major projects.

Technology and innovation

Customers' perception was that Australia lagged other countries in our ability to both combat climate change and invest in research and innovation. Consumers told us that they expected more investment in research and innovation across all industries to ensure competitiveness and a high standard of living was maintained. Overall, there was a feeling that Australia were laggards in innovation and greater priority was required in this area.

Customers expressed a strong preference for focussing on improving the research and innovation capabilities of Australia particularly in mitigating climate change. Consumers saw technological innovation as a means to mitigate climate change and make energy more affordable.

The majority of both residential and small business customers in focus groups in Phase 3 of our research went so far as to suggest that the savings offered as part of our proposal would be better invested in innovation to facilitate the energy transition to renewables. This is consistent with customers' willingness to pay findings in Phase 2.

5. Impact of engagement on the proposal

The purpose of engagement during our reset development has been to understand stakeholders priorities and ensure that our proposal reflects their priorities as much as possible.

Transgrid presented a preliminary proposal to the TAC in October and it was discussed in detail at the November and December meetings.

The TAC was supportive of the preliminary forecasts within the regulatory proposal saying that opex step changes were largely in line with recent cost increases seen for insurance and cyber security in other networks. TAC members noted the proposed efficient starting point for opex and supported the proposed trend factors applied as being consistent with AER guidelines.

The TAC were supportive of Transgrid's proposed capital expenditure where it was justified, but noted that most of the increase in capital was likely to occur outside of the reset.

Customer advocates on the TAC consistently raised concerns about future transmission costs that customers will face when all planned projects that form part of AEMO's Integrated System Plan (ISP) and NSW Energy Roadmap are delivered. These projects are not included in the regulatory proposal because they are subject to a separate approvals process.

Other issues of cost and risk allocation between end-use customers, generators and other market participants were also frequently raised by TAC members. These discussions showed the divergence of views around the table and the different priorities of various stakeholders on the TAC. Despite their importance, solutions to these issues lie outside the scope of the regulatory reset proposal. However, concerns about future costs emphasised the importance of our decision to minimise costs within the proposal as much as possible.

Finally, TAC members also provided helpful suggestions to improve the narrative and tone of the document. Their comments have been incorporated into our revenue proposal.

Much of our proposal is fixed through AER formula, established practice or guidelines. However, there were a range of issues that stakeholders were able to influence. Table 6 shows how stakeholders influenced our proposal and where evidence of their influence can be found.

Table 6: Stakeholder influence on our regulatory proposal

Issue	Raised by	Transgrid response	Location
Energy Vision - suggested updates to modelling	TAC members	Modelling was updated to take account of issues raised by TAC members. TAC members were involved in several meetings on the Energy Vision and the final outcomes represent collaboration with the TAC.	Energy Vision Preliminary proposal Regulatory proposal - context
ISP projects	TAC members	ISP projects fall outside the reset. However, TAC members supported investment to improve engagement with communities, and improve cost estimates. A step change to cover cost of ISP project preparation was supported by the TAC.	Preliminary proposal Regulatory proposal - opex
Engaging with communities impacted by network development	Consumer sentiment survey TAC members	Independent report (Stowe report) outlined 20 recommendations to improve engagement with land owners and communities. We are currently implementing all 20 recommendations. Major project updates are now a standing item on TAC agenda	Stowe Report Transgrid business processes
Strategic land acquisition	Transgrid	The TAC was supportive of acquiring land and easements in advance of when a project is needed in circumstances where there is high likelihood of a significant rate of real cost growth for land, particularly where the costs can be recouped (eg sold and removed from the RAB) if not required in future. Transgrid included a small amount for strategic acquisition of land in the preliminary proposal. Acquisition of land for future Sydney supply was included as a contingent project that will be triggered (if required) by the ISP.	Preliminary proposal Regulatory proposal - capex
Resilience to climate change	TAC members	Transgrid's asset management processes use models to calculate the likelihood and consequence of failure taking into account the condition of the assets based on asset inspections. These models use the expected bushfire, wind and other environmental factors as an input and consider sensitivity to forecast climate and weather changes. To ensure network resilience, assets are replaced where benefits to consumers from risk reduction are demonstrated. All new assets are designed with the expected external environmental factors in mind	Regulatory proposal - capex
Risk and uncertainty	TAC members	The proposal makes use of uncertainty mechanisms within the Rules. Projects with uncertain scope or costs have been excluded from the forecast.	Regulatory proposal
Rate of return	TAC members	Rate of return and issues of financeability were discussed with TAC. Transgrid has applied the current RORI in its regulatory proposal and will participate in the	2022 RORI consultation process, Financeability

		concurrent RORI consultation process outside of the regulatory reset process.	rule change request (2021)
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Glossary

Abbreviations / Acronyms	Definitions
AER	Australian Energy Regulator
AMEC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
ANU	Australian National University
BAU	Business as usual
CALD	Culturally and linguistically diverse
Capex	Capital expenditure
CCP	Customer Challenge Panel
DNSP	Distribution Network Service Provider
IAP2	International Association for Public Participation
ISP	Integrated System Plan
NEM	National Electricity Market
NER	National Electricity Rules
Opex	Operating expenditure
PACR	Project Assessment Conclusions Report
PADR	Project Assessment Draft Report
RIT-T	Regulatory Investment Test for Transmission
RORI	Rate of Return Instrument
TAC	Transgrid Advisory Council
TAPR	Transmission Annual Planning Report

Appendix 1

The TAC provided feedback on design of each Phase of our research.

Feedback on design of Phase 1

- > Trade-offs - TAC supported the examination of trade-offs and cautioned that trade-offs are different to priorities. TransGrid was encouraged to undertake research that was quantitative and could be tested (e.g. willingness to pay). There was support to examine questions around who should pay for de-carbonisation, and grid connections.
- > Reliability - TAC discussed why TransGrid was researching reliability given AER's 2019 study into VCR (Value of Customer Reliability) and suggested that it be used as a baseline from which a change in sentiment might be detected.
- > C&I customers - The research was focused on customers who TransGrid doesn't have a direct relationship with (i.e. residential and small business customers), but whose actions and attitudes (when amalgamated) impact TransGrid's operating environment. TransGrid felt it was more likely to engage directly with C&I customers as part of BAU.

Feedback on design of Phase 2

- Transgrid was encouraged to have a clear view about how the questions in the survey would influence its proposal.
- Transgrid was also encouraged to research impact of network development on communities and to consult on a wider context than just the reset.
- AER's 2019 review of value of reliability was seen as having addressed the issue of how much value customer's place on reliability. Transgrid was encouraged not to re-test this issue so soon after the AER's research had been completed.
- Transgrid was encouraged to engage in face-to-face engagement with our culturally and linguistically diverse (CALD) customers, in language and facilitated by a native language speaker. Unfortunately, COVID restrictions on face-to-face meetings made this level of engagement with CALD communities impossible during the time period during which the research took place.

TAC members provided detailed feedback on the questionnaire and changes were subsequently made to the survey in response. Changes included:

- The survey was limited to bill payers (previously it was anyone over 18 years within household)
- References were changed to electricity industry (previously energy industry) to ensure dual fuel customers were focused on their electricity cost and experience, rather than gas.
- Participants were asked to stipulate the language, other than English, spoken at home so Transgrid could identify which CALD communities were being engaged.
- CALD participants were recruited in the same proportion as CALD customers are represented in the NSW/ACT community.
- Extra care was taken to ensure that customers were customers of Transgrid's network
- Options for participants to explain their energy supply were simplified to avoid confusion
- Participants were asked about the size of their electricity bill to highlight materiality
- Reliability was removed from survey as TAC members did not want Transgrid to re-test customer value of reliability within the survey. Reliability was removed from the question designed to establish a hierarchy of priorities in which customers could choose to invest.

Feedback from TAC on Phase 2 findings

We discussed the findings from Phase 2 with TAC members who provided feedback as follows:

- Willingness to pay indicates both a customer's preference as well as their capacity to pay. For customers with constrained incomes, willingness to pay may reflect their capacity to pay (or lack thereof) rather than their preferences.
- Willingness to pay also reflects a customer's contribution to actions for the whole of the energy industry. As a transmission provider, TransGrid can only lay claim to a portion of this contribution.
- Willingness to pay does not provide enough information to tell us whether customers are willing to pay more forever or whether their 'extra' contribution is time limited.

Feedback on design of Phase 3

- Transgrid was encouraged by AER and customer advocates to focus on specific elements of the regulatory proposal to ensure customers' preferences could be linked specifically to the content.

Appendix 2 – List of stakeholders that received the preliminary proposal

ANU Centre for Sustainable Energy Systems	Ethnic Communities Council of NSW
Australian Energy Regulator	FRV
Australian Energy Market Operator	Global Power Generation
AGL	Goldwind Australia
Australian Industry Group	Idemitsu
APA Group	Iberdrola
Ausgrid	Maeoneng Group
Beijing Jingneng Clean Energy (BJCE)	Meridian Energy
City of Sydney	Neoen Australia
Clean Energy Council	NSW Government
Commonwealth Bank of Australia	Origin Energy
CWP Renewables	Public Interest Advocacy Centre
Delta Electricity	RATCH
Edify Energy	Snowy Hydro Ltd
Endeavour Energy	St Vincent de Paul
Energy Australia	Sydney Trains
Energy Consumers Australia	Tesla
Energy Networks Australia	Tilt Renewables
Energy Users Association of Australia	Tomago Aluminium
ERM Advisory	Transport for NSW (RMS)
Esco Pacific	UPC Renewables
Essential Energy	Visy
Evoenergy	Whitehaven Coal