



31 January 2023

Attachment 5.5.a: Resilience implementation plan

Ausgrid's 2024-29 Regulatory Proposal

Empowering communities for a resilient,
affordable and net-zero future.



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1. Introduction

1.1 This document's purpose

This document was co-designed by Ausgrid and its Reset Customer Panel and outlines Ausgrid's implementation plan around climate resilience related activities. It is a supporting document for both the Ausgrid Climate Resilience Strategy and Program Justification and *Promoting the long-term interests of consumers in a changing climate: A decision making Framework (Framework)*. It provides context for how Ausgrid proposes to follow the Framework in alignment with customer expectations. This document provides context and a plan for how Ausgrid will implement both the AER's resilience guidance note, and the Framework in alignment with customer expectations.

1.2 This document in context

This document supports the resilience section of the Regulatory Proposal. It outlines the overall implementation plan that supports the Framework, strategy and approach Ausgrid is taking to mitigate the energy related climate change risks on our network and should be read in conjunction with the documents listed below.

1.4 Related documents

Document	Description	Relevant sections
Promoting the long-term interests of customers in a changing climate: A framework	Co-designed investment framework for Ausgrid to follow regarding resilience related expenditure. Document was developed by Ausgrid and relevant customer advocates.	All
Climate Impact Assessment 2022	Future climate modelling and projected impacts on Ausgrid network area and assets.	All
Climate Resilient Strategy and Program Justification	Resilience strategy, work to date, forecast modelling, and program justification	All
Network resilience: A note on key issues	AER released a guidance note on resilience in 2022. The Resilience Implementation Plan is intended to execute the note and the Framework.	All

1.3 Document overview

This document is the implementation plan that is demonstrating how Ausgrid will follow the Framework and AER guidance note over the coming year and the 2024-29 regulatory period.

2. Background

2.1 Background

Climate change is causing more frequent and extreme weather events which increases the risk to our economies and societies. Ausgrid, as a critical infrastructure provider is also exposed to these kinds of events. These events can cause profound loss and inconvenience to communities, especially during prolonged power outages. To meet the expectations of customers, and objectives of the National Energy Objective, Ausgrid is seeking, with communities and other resilience actors, to implement resilience related solutions.

Prior to, and during the 2024-29 regulatory period, Ausgrid will be implementing its co-designed Framework, *Promoting the long-term interests of consumers in a changing climate: A decision making framework*. The Framework takes a forward-looking longer-term perspective to responding to these risks, is evidence based, and customers are central to the formation of Ausgrid's responses and options analysis. This Implementation Plan (Plan) builds on the overall methodology of the Framework and outlines how Ausgrid's approach will align with it.

The work of the Framework and the Plan builds on the AER's 2022 Resilience Guidance note and is intended to provide the AER, stakeholders and Ausgrid's customers with confidence that Ausgrid's actions and responses to extreme weather events are prudent, efficient, and are appropriate and fair to today's customers as well as future generations. The Plan will be guided by robust engagement where the local community will help steer the place-based planning that occurs within their own community.

2.2 Co-design with the Reset Customer Panel

The Reset Customer Panel (**RCP**) was established by Ausgrid in June 2021 to provide independent, customer-focused challenge to Ausgrid as it develops its 2024-29 regulatory proposal and investment forecasts. The RCP has 6 members formed from Ausgrid's Customer Consultative Committee (**CCC**), and an independent Chair. The RCP has worked with Ausgrid to deeply consider how the Framework aligns with the AER's guidance note, while promoting the long-term interests of customers, and how the Plan's overall approach will be informed by the philosophy of the Framework.

2.3 Overview of resilience engagement program

Event	Inputs	Outputs
LGA workshop 1 (February)	<ul style="list-style-type: none"> Who is Ausgrid and scope of what resilience is Local Government Area (LGA) level climate change and impact modelling Why are we here – purpose of engagement – how their views will be used and shared – impacts of their decisions – role of regulation etc. Framework for deciding Ausgrid vs. external funding i.e., Ausgrid funded when we're best placed, and shared or externally funded when someone else is Introduction to the spectrum of network and community-based solutions that can build resilience 	<ul style="list-style-type: none"> Participants understand purpose – their role – Ausgrid's role and scope Participants experiences of extreme events – initial list of LGA vulnerabilities
LGA workshop 2 (March)	<ul style="list-style-type: none"> LGA critical infrastructure and relationship with Ausgrid assets 	<ul style="list-style-type: none"> LGA specific principles for prioritising solutions Communities' own ideas for improving resilience – gaps Identification of potential co-funders / partners Prioritised list of critical infrastructure and communities
Townhall 1 (April)	<ul style="list-style-type: none"> AER issues Potential Ausgrid responses Resilience framework and implementation approach 	<ul style="list-style-type: none"> Customer views on AER issues Customer views on Ausgrid responses (incl their own suggestions)
LGA workshop 3 (May)	<ul style="list-style-type: none"> Anything from Townhall 1 that requires LGA specific consideration Prioritisation principles Response / evaluation of communities' ideas Feasibility of total plan 	<ul style="list-style-type: none"> Prioritised list of solutions (clearly showing Ausgrid funding vs. external funding assumptions)
Townhall 2 (June)	<ul style="list-style-type: none"> Bill impacts of overall resilience program LGA specific principles and prioritised solutions Resilience program investment split by 3 LGAs / all benefit etc. Impacts of resilience investments on customers and how this compares to the experience of other customers e.g., Inner Sydney 	<ul style="list-style-type: none"> L scale of willingness to pay (WTP) across 3 locations Hunter / Central Coast / Sydney
LGA workshop 4 (Sept)	<ul style="list-style-type: none"> AER draft determination Potential Ausgrid responses 	<ul style="list-style-type: none"> Customer reactions to draft determination Customer views on Ausgrid potential responses
Townhall 3 (Oct)	<ul style="list-style-type: none"> AER draft determination Potential Ausgrid responses 	<ul style="list-style-type: none"> Customer reactions to draft determination Customer views on Ausgrid potential responses

2.4 High-level 2023 timeframe

Stream	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
AER	Regulatory proposal submitted		AER issues paper published	AER Regulatory public forum held	Submission on issues papers close		Submit further numbers to AER for draft decision		AER draft decision published			Final regulatory proposal published ★
Voice of Community				Townhall Forum – AER issues paper resilience to be discussed		Townhall Forum test resilience willingness to pay				Townhall - final affordability check in		
Resilience LGA Engagement		Workshop 1	Workshop 2		Workshop 3				Workshop 4			
Resilience General	Modelling and vulnerability index development sprint 1 Continued engagement with other CI and utilities					Integrate updated modelling and feedback from workshops 1-3 into submission for AER draft decision	Modelling and vulnerability index development sprint 2		Integrate changes from workshops/ draft decision into Strategy and BC Early program planning begins based off draft decision and workshop feedback	Integrate changes from deliberative forum into Strategy and BC		

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3. Local Government Area Specific Implementation

3.1 What Ausgrid will do for resilience solutions in specific higher risk local government areas

As outlined in the Framework, Ausgrid has committed to utilising the Framework to aid with the development, co-ordination and delivery of climate resilience focused solutions in higher risk areas of its network area. The section below outlines the steps Ausgrid will follow to implement the Framework in specific LGAs that are considered higher risk to or already experiencing the impacts of climate change.

3.1.1 LGA specific approach

1. Identify LGAs at higher risk to the impacts of climate change
 - a. To identify the highest risk LGAs, Ausgrid will prepare a climate risk base case for each LGA in its network area, which considers:
 - i. Current climate risk, including historical climate induced network performance data (including major event days [MEDs]);
 - ii. Future climate modelling and impacts; and
 - iii. Vulnerability index data e.g. population and socio-economic statistical data.
2. Assess level of local resilience planning
 - a. Ausgrid will undertake a gap analysis of the LGAs in its network area to understand communities' current level of resilience planning. To successfully collaborate with Ausgrid in resilience planning, communities need to have begun resilience planning or demonstrated a commitment to resilience planning.
3. Assess coordination/collaboration with other resilience actors and critical infrastructure in selected LGAs
 - a. Informed by the relationship between the critical service and Ausgrid's network.
 - b. Ausgrid will identify, to the best of their abilities and within the timeframes available for the first application of this Framework, collaborate and where possible partner with other resilience actors in the LGA, to support a coordinated and cost-effective approach to resilience in the LGA. Ausgrid will work with councils / communities to identify resilience actors or partners, which may include communications providers (Telstra, Optus and NBN), water utilities, relevant government agencies, and Minderoo to identify the mutual risks in the area, and disaster response arrangements.

Steps 1- 3 make up the LGA specific resilience stock take which will then be tested with the community.

4. Engagement and resilience discussion with community
 - a. LGA workshops 1-2:
 - how does the community feel about its level of future risk and current base level of preparedness informed by the stocktake?
 - what is the community's experience with past events and lived experience?
 - what is currently working well with Ausgrid and other critical infrastructure providers?

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- introduction to the spectrum of network and community-based initiatives that can build resilience;
 - what are the key weaknesses of current plans or how critical infrastructure is currently configured e.g., key dependencies?
 - whether Ausgrid or another critical infrastructure provider is best placed to address the identified weaknesses in current plans? and
 - Output is understanding the gap and high-level prioritization.
5. Community and Ausgrid to develop potential options and prioritisation principles to address the gap and help mitigate future risk
 - a. Ausgrid will consult with specific community (LGA workshop 2) to understand their proposed resilience options and prioritisation principles. The LGA may be supported by independent community energy experts (e.g. Council employees) to propose options.
 - b. Ausgrid will test with the community network, non-network, collaborative, and community-based solutions. Ausgrid will separately discuss co-funding opportunities with other actors.
 - c. Community and Ausgrid will develop its prioritisation rationale and a list of resilience options.
 6. Develop a potential portfolio of feasible options and trials for the LGA
 - a. The portfolio of options must balance a spectrum of solutions to address risks before, during and after events and include co-funded options (e.g. proactive vs. reactive and build back better).
 - b. Potential trials or research that will need support from an independent advisory committee (e.g. Network Innovation Advisory Committee (**NIAC**)) should be identified.
 - c. Once complete, the portfolio of solutions will be tested with the specific community to ensure that there is consensus on the proposed portfolio of expenditure (LGA workshop 3).
 7. Testing the approach to resilience solutions with broader customer base Townhall (Voice of Community Deliberative Forum 2)
 - a. The portfolio will be tested with the Townhall to ensure comfort with proposed expenditure from a bill impact perspective, the specific community's prioritisation principles, and measures of success.
 8. Refine portfolio for submission as a business case to the AER
 - a. Utilising the inputs from the previous LGA workshops and Townhall meetings to refine the resilience portfolio and Ausgrid's submission to the AER for their draft determination mid-2023.
 9. AER draft determination outcomes
 - a. Ausgrid will respond to feedback from the AER in its draft determination.
 - b. Ausgrid presents how it has responded to AER feedback to the identified communities ahead of final submission (LGA workshop 4).
 - c. Ausgrid to present revised plan of resilience solutions in LGAs to re-test willingness to pay of customers in Townhall setting (Voice of Community Deliberative Forum 3)
 10. Ausgrid final submission and AER final determination
 - a. Ausgrid to detail in final submission to the AER the types of resilience solutions, outlining both opex and capex funded initiatives, including community and co-funded solutions, and the balance between them, the balance between investment before, during, and after an event.
 - b. Ausgrid will demonstrate in its submission how the resilience portfolio will support the higher risk areas on our network, how customers prioritisation principles have influenced its proposal, and how customers are willing to pay for these investments.

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- c. Ausgrid will present portfolio of activities outlining what will be done as an Ausgrid only trial and what will be done in partnership with other resilience actors. If possible, Ausgrid and other resilience actors will document any formal resilience commitments to be done in partnerships or via other means e.g., Memorandum of Understanding.
 - d. This will be submitted to the AER for their final decision.

11. Implementation and Post Implementation Review (PIR)

- a. Ausgrid to present resilience portfolio to NIAC and establish baseline measures of resilience from a community perspective and to measure against these at the end of the regulatory period.
- b. Ausgrid to monitor throughout and to complete a PIR before the end of the regulatory period to understand what has worked well and what needs adjusting and make any changes to Framework and approach for future resilience work.

4. Whole of Network

4.1 What Ausgrid will do for resilience solutions that are broader than a specific LGA

Ausgrid's overall resilience portfolio will also consider solutions that will provide global benefits to its network area. The section below outlines the steps Ausgrid will take to implement the Framework from a whole of network perspective. Whole of network solutions may include community education, mobile solutions, standards, or research.

4.1.1 Whole of network solutions

1. As part of Step 6 in Section 3.1.1, Ausgrid will include whole of network solutions based on feedback from communities from the LGA engagement, Townhalls from 2022, and Resilience Focus Groups from 2021/2022. These activities will also be tested as part of the portfolio with the LGA specific engagement and will also be tested with the broader customer base at the Townhall (Voice of Community Deliberative Forum 1).
 - a. The portfolio of options must balance the greatest net benefits and a spectrum of solutions to address risks before, during and after events (e.g. proactive vs. reactive and build back better trial).
 - c. Potential trials or research that will need support from an independent advisory committee (e.g. NIAC) should be identified.
 - b. This portfolio would need to be tested with the Townhall to ensure comfort with proposed expenditure from a bill impact perspective and measures of success.
2. Refine portfolio for draft determination submission
 - a. Utilising the inputs from the previous LGA workshops and Townhall meetings to refine the resilience portfolio and Ausgrid's submission to the AER mid-2023 for their draft determination.
3. AER draft determination outcomes
 - a. Ausgrid will apply any required adjustments to the portfolio of resilience solutions pending feedback from the AER draft determination.
 - b. Ausgrid to present revised plan for whole of network resilience solutions and re-test willingness to pay of customers in Townhall (Voice of Community Deliberative Forum 2)
4. Ausgrid final submission and AER final determination
 - a. Ausgrid to detail in final submission to the AER the types of resilience solutions, outlining both opex and capex funded initiatives and the balance between them, the balance between investment before, during, and after an event. Specifically what solutions are whole of network or LGA specific will be detailed.

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- b. Ausgrid will demonstrate in its submission how the resilience portfolio will support the higher risk areas on our network, how customers' prioritisation principles have influenced its proposal, and how customers are willing to pay for these investments.
 - c. Ausgrid will present portfolio of activities outlining what will be done as an Ausgrid only trial and what will be done in partnership with other resilience actors. If possible, Ausgrid and other resilience actors will document any formal resilience commitments to be done in partnerships or via other means e.g. Memorandum of Understanding.
 - d. This will be submitted to the AER for their final decision.

5. Implementation and Post Implementation Review (PIR)

- a. Ausgrid to present resilience portfolio to NIAC based off accountability measures in Framework.
- b. Subject to consultation and funding, Ausgrid to increase its resilience support for a broad customer base in some circumstances. An example of this might be an education campaign to empower individuals and communities to increase their preparation and response.
- c. During the 2024-29 regulatory period, after extreme weather events or MEDs, Ausgrid will consult affected customers and disaster response peers to gauge customers' expectations and experience in the event including outage notifications, support, and restoration responses from Ausgrid. This will be documented as learnings for the PIR and future periods. Applicable actionable changes will be implemented e.g. updating of MOUs.
- d. Ausgrid to monitor throughout and to complete a PIR before the end of the regulatory period to understand what has worked well and what needs adjusting and make any changes to Framework and approach for future resilience work.

4.2 Other high risk LGAs

- 1. Ausgrid uses results of its resilience plan gap analysis, climate modelling and vulnerability index to identify other high risk LGAs. If there is a gap in resilience planning, Ausgrid may look to co-fund a resilience plan for the community.
- 2. Ausgrid shares climate risk base cases with Councils of LGAs not being targeted in 2024-29 who are revealed as higher risk and works with those Councils on identifying critical infrastructure and critical communities that need support during an outage.
- 3. Ausgrid works with other support agencies to assist the LGAs to be targeted in 2029-34 to be ready for the LGA specific resilience work.

5. Document Governance

Version control

Name	Title	Updates	Date
Kara Chan/ RCP	Senior Manager, Climate Resilience and Strategy	Version 1.0 Original co-design drafting session	9/12/2022
Kara Chan/ RCP	Senior Manager, Climate Resilience and Strategy Reset Customer Panel	Version 1.1 Co-design updates to document	13/12/2022
Jess Hui Alex McPherson	Director, Strategic Initiatives Head of Regulation	Version 1.2 Review and minor tweaks	16/12/2022
RCP	Reset Customer Panel	Version 1.3 Review and minor tweaks for endorsement	19/12/2022
Jess Hui	Director, Strategic Initiatives	Version 1.3 Endorsement	20/12/2022
Junayd Hollis	EGM Asset Management	Version 1.4 (final) Endorsement	6/01/2023

Document approvals

Who	Name	Title	Date reviewed/approved
Drafted by	Kara Chan/ RCP	Senior Manager, Climate Resilience and Strategy Reset Customer Panel	13/12/2022
Reviewed by	Jess Hui	Director, Strategic Initiatives	20/12/2022

Reviewed by	RCP	Reset Customer Panel	19/12/2022
Approved by	Junayd Hollis	EGM Asset Management	6/01/2023