INCENTIVES

INNOVATION ALLOWANCE

UE BUS 10.01 – PUBLIC
2026–31 REGULATORY PROPOSAL

Table of contents

1. Overview

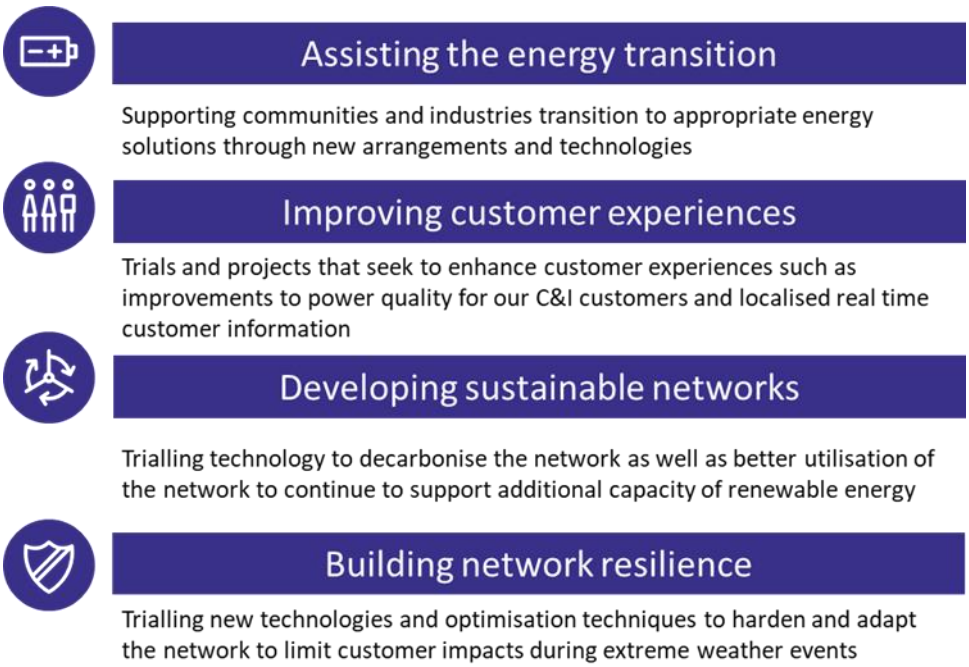
The transformation of the electricity system is underway, and with it, the transition toward a decarbonised and decentralised two-way flow of electricity. Increasing investments and behavioural changes in relation to consumer energy resources (CER) such as solar, battery technologies electric vehicles (EV) and commercial vehicles (farming or transport) is changing the way customers interact with the distribution network.

In addition, the decarbonisation towards zero emissions is being led by customers as they seek to reduce electricity bills and achieve greater energy independence. We expect customers will continue installing CER as their dependency increases on these technologies and they become increasingly more affordable. This will consequently result in a more complex, technologically driven and digitised distribution network.[1]

In this environment of changing customer expectations around distribution networks, innovation is fundamental to ensuring we are able to keep costs down in the long run while still providing the new services that customers will expect to receive.

Our innovation has historically been targeted at internal productivity improvements or limited to specific areas such as demand management, given the incentives provided by the regulatory framework. However, there is a need to expand innovation to areas not traditionally invested in by distribution networks that have the potential to reduce the long-term costs of the energy transition.

We are proposing to include a $15 million innovation allowance that focuses on delivering research, pilots and trials that will drive innovation to benefit customers. We have identified four key focus areas where we consider additional innovation expenditure will deliver customer value.



[1] See UE ATT SE.10 – Monash University - Future home demand – Jul2023 – Public

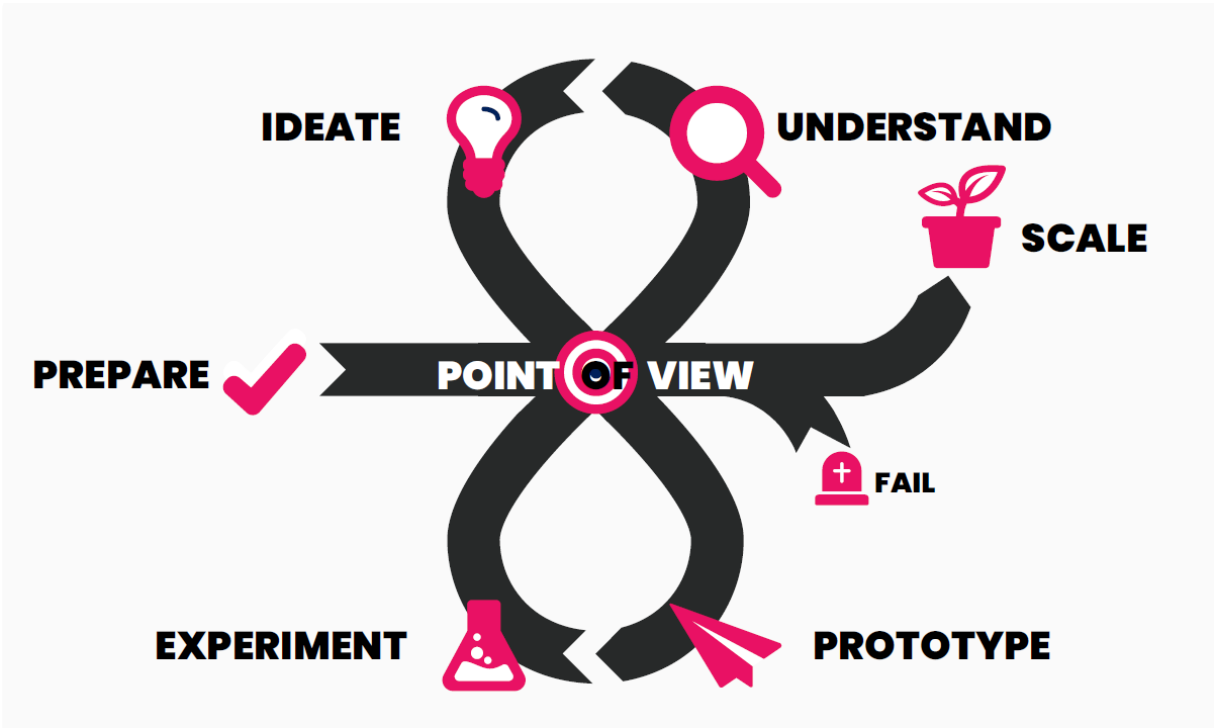
2. Innovation during the 2021-26 regulatory period

The section below outlines the various pathways we have used to improve services and reduce costs to customers through innovation during the 2021-26 regulatory period.

We have a proven track record of being innovative, having undertaken programs and adopted and developed technologies that have changed the way we operate the distribution network. We have a strong internal governance structure around innovation as well as a 'fail fast' mentality that has contributed to the success of our innovation program. These innovative projects have assisted us in responding to challenges and opportunities facing distribution networks, with trials and pilots focused on new and emerging technologies and services.

Our approach to innovation is outlined in Figure . The 'double-loop' approach allows us to undertake the various stages of an innovation project, but in a format that regularly returns to a central 'point of view'. Each time we arrive at our point of view, we have an opportunity to continue on with the next step of the project, pivot the project in a new direction based on what we have learnt, or take key learnings from the process and move on to a new opportunity. Using this approach ensures that we are always returning to the key outcomes we are trying to achieve and utilising resources where we consider the highest chances of success are. The ultimate goal of these innovation projects is to deliver a solution that we can than scale into our business-as-usual activities.[2]

FIGURE 1 OUR APPROACH TO INNOVATION



[2] Our full innovation research and design framework is provided in Appendix B.

2.1 Internally funded innovation

The majority of our innovation to date has been focused on internal innovation, which have predominately focused on reducing costs. This innovation has been fundamental in keeping costs down for customers and contributing to continuous productivity gains. Where reductions can be made we are able to earn revenue through the capital expenditure sharing scheme (CESS) and Efficiency Benefit Sharing Scheme (EBSS).

Key internal innovation projects that we have undertaken during the 2021-26 regulatory period include:

FIGURE 2 INTERNAL INNOVATION PROJECTS

PROJECT	DESCRIPTION	OUTCOMES
Light detection and raging (LiDAR) analytics	By using LiDAR we are able to assess the condition of our network more frequently, quickly allowing assets to be inspected for safety and reliability. The analytics is able to assist with vegetation inspections, conductor clearances issues, and high load routing for heavy load vehicles.	• more frequent vegetation clearance inspection can reduce the risk of fire starts and reduces conductor clearance issues. • the productivity and efficiency of high load transportation items such as wind turbines across our network are improved through suggested routes for vehicles carrying high loads, avoiding any asset damage.
Automated drone inspection of poles	We used automated drones to generate aerial imagery of poles that allows us to inspect the poles remotely. This process is performed through an automated application, reducing subjectivity and human bias.	• reduced inconsistencies between inspectors undertaking planned works • decreased the time taken to inspect hard to access poles
Fault patrol AI	An AI system was developed to assist fault crews to identify faults during patrolling. This is done through the installation of a camera on a fault truck, using artificial intelligence (AI) to look at the assets and automatically identify faults even when the vehicle is still travelling.	• feeder faults are detected faster, allowing power to be restored sooner • fault crews do not have to travel lengthy distances locating faults, allowing them to address a greater number of faults
Virtual reality training environments	We have deployed virtual reality training environments to provide a better training experience for our field staff. Training can be undertaken in the safety of virtual reality rather than real assets.	• service quality is improved as a result of versatile training practices. This was undertaken without any delay or disruption to field work • safety incidents can be reduced by using virtual reality rather than real assets

Termite deterrent	Our wooden poles are at risk of faster deterioration due to termites eating the wood and making the poles structurally unsound. This initiative replicates the vibration sounds that ants make in our wooden poles, deterring the termites, due to ants being a natural predator to termites.	• the rate at which poles deteriorate is reduced deferring the need to replace poles • there may be less planned outages for customers due to a reduction in pole maintenance work

2.2 Alternative sources of innovation funding

Where possible we have used alternative innovation funding sources to undertake customer focused innovation, either by using specific incentive schemes such as the DMIAM, or through external funding such as government grants.

2.2.1 Funding using DMIAM

Similar to our use of innovation internally, the regulatory framework has also incentivised innovation in relation to demand management through the Demand Management Innovation Allowance Mechanism (DMIAM). Historically, distribution business have often been focused on meeting demand on the networks through supply side solutions. However, due to the increase in CER uptake, there has been an increasing focus on demand-side management to address network constraints.

The DMIAM provides financial incentives to assist in undertaking efficient expenditure on non-network solutions to manage peak electricity demand. To receive the innovation allowance, we must report on our projects including the amount of the allowance spent, a list and description of each eligible project on which the allowance was spent and a summary of how and why each eligible project complies with the project criteria.

We have undertaken a number of successful projects through the DMIAM in the 2021-26 regulatory period which are set out in Figure 3.

FIGURE 3 INNOVATIVE PROJECTS FUNDED THROUGH THE DMIAM

PROJECT	DESCRIPTION	CUSTOMER BENEFIT
Trial tariff program (summer saver tariff)	A behavioural demand response program that incentivised customers to reduce their power usage during times of maximum demand. The program targeted high constrained areas that were at an elevated risk of overload outages during summer, to defer network augmentation.	Customers who lowered their energy consumption when notified in advance were provided with financial rewards. Managing demand from demand side action helped defer augmentation and lead to less costs being passed down to customers.
Electric vehicle hotspots trial	This project looked at demand management capabilities through research and smart algorithms to identify and understand the impact of EV charging on our network, gaining insights into the EV load and how we can manage it both now and into the future	This trial has the potential to reduce long term network costs. We can now more accurately determine the frequency of charging on the network, particularly during peak periods, which will aid in making informed decisions regarding network planning.

2.2.2 Externally funded innovation

In addition to innovation funding provided under the regulatory framework we have, where possible, we have utilised external innovation funding such as through the Australian Renewable Energy Agency (ARENA) and the Department of Energy, Environment and Climate Action (DEECA).

Projects where we have sought external funding include:

FIGURE 4 EXTERNALLY FUNDED INNOVATION PROJECTS

PROJECT	DESCRIPTION	CUSTOMER BENEFITS
Hot water load control trial (ARENA)	By using our smart metering system, there is an increased capability to coordinate and schedule the timing of our controlled hot water loads to align with periods of low demand and high solar production	Customers are able to heat their hot water using renewable energy getting the most value from our controlled load tariff. These better utilities the available network and defers the need for augmentation.
Pole top batteries (ARENA)	Investigated the technical and commercial feasibility of using pole-mounted batteries connecting to the low voltage network to manage constraints and increase the hosting capacity of rooftop solar	This trial has the potential to reduce long term network costs by understanding the impact of increasing hosting capacity of local PV systems, to support management of peak demand and defer cost of network augmentation.
Low voltage DERMS and flexible exports trial (ARENA)	Involves the procurement, mapping and installation of a utility server to support the flexible export of electricity to customers and the recruitment and testing of dynamic operating envelopes with customers who have been curtailed	Customers are rewarded when they export more electricity during times of high demand, while exports will be reduced during periods when demand is low and there is excess power in the grid.

2.3 Innovation failures

While we consider our innovation program to date has been overwhelmingly successful, innovation projects are by nature uncertain, which may mean that even with our best endeavours, projects will not lead to intended outcomes. Often the costs and benefits generated during a pilot or trial can be significantly different from what we anticipated, or manufacturers have suggested, due to a whole range of conditions that can only be established when trials are undertaken on our network. This is where our 'fail-fast' mentality is incredibly important, ensuring we gain valuable lessons and insights from the failed project, but quickly move on to projects with higher chances of delivering successful outcomes.

Below are some examples of innovative projects where we were not able to deliver anticipated outcomes.

FIGURE 5 UNSUCCESSFUL INNOVATION PROJECTS

PROJECT	DESCRIPTION	REASON
Fuse blowing prevention device	We conducted a trial with a device that is installed on power lines to avoid fuses blowing caused by transient faults. The purpose of this device was to improve reliability on the network and to eliminate the impacts of faults to a large volume of customers whilst also reducing maintenance costs on the network.	The project rollout was unsuccessful due to discrepancies between manufacturer's claimed performance and infield testing. Specifically, the battery life expectancy was lower than expected and the integration of the device to our systems was more costly and complicated than anticipated.
Early fault detection devices for pole top batteries	We undertook a trial installing early fault detection devices (EFD's) to monitor the condition of pole top batteries. The purpose of the EFD's was to identify faults before they became customer outages, allowing us to address the faults prior to customers being impacted.	In practice the device did not accurately detect faults as promoted by manufacturers. It was found that the communications from the field to the device could not function in the specific conditions of our network. For example, factors such as high humidity caused the device to falsely alarm when there were no issues.
Single wire earth return (SWER) broken conductor detection	We explored a SWER broken conductor detection device to mitigate the bushfire risks associated with SWER powerlines. The purpose of this project was to produce a cost-effective method to significantly reduce fire starts that are caused by SWER conductor breakage	The device was tested at a variety of trial sites and successfully demonstrated bushfire mitigation outcomes. However, delivery of the project proved more difficult and costly than expected with issues integrating the devices with our switching devices and IT systems.

3. Innovation funding is needed to drive the energy transition

In the absence of regulated funding, there are limited pathways for distribution networks to fund innovation focused on delivering long-term customer benefits. Without an explicit source of funding, it is likely that only known solutions will be deployed (given the higher risks of deploying un-tested and un-proven technology at scale) to meet network problems and constraints, which may cost customers more in the long-term. Now more than ever, there is an imperative to trial and pilot new ideas and processes to meet customers changing expectations around the energy transition and the network challenges the transition is bringing.

Strong incentives exist for us to seek reliability improvements and short-term productivity gains, as we earn a reward for these (which is shared with customers) under the service target performance incentive scheme (STPIS), CESS and EBSS.

However, many customer focused innovation opportunities carry significant levels of uncertainty or provide benefits that only arise in future regulatory periods. The regulatory framework does not provide strong incentives for networks to pursue these types of opportunities, even though these types of projects will likely bring down medium or longer-term costs for customers.

Currently innovation funding beyond what is incentivised under our expenditure incentive schemes is either narrow in scope or uncertain:

- The demand management innovation allowance mechanism (DMIAM) is valuable to encourage innovative solutions for demand management issues. However, the DMIAM is narrow in scope and small in scale.
- External funding, such as from government grants, is also available. However, the process to receive funding is slow and there is uncertainty as to whether funding will be received for a specific project (which limits structured planning). This results in an ad-hoc approach to innovation.

There is a need within the regulatory framework to better incentivise and remove innovation barriers more broadly, where such innovation has the ability to provide long-term value to customers.

This gap has been recognised in jurisdictions such as the United Kingdom, where the Office of Gas and Electricity Markets (OFGEM) has introduced a network innovation allowance (NIA). The NIA was introduced to allow distribution businesses to carry out innovative projects which focus on the energy transition and/or address consumer vulnerability.[3] This allowance is provided to distribution businesses without the need to specify each innovation project that will be undertaken during the regulatory period, utilising in-period reporting and knowledge sharing to allow for greater flexibility.

3.1 Changing the approach to innovation funding

The AER similarly have identified the need for additional innovation and has provided a number of distribution businesses with innovation funds focused on delivering long-term customer benefits. It has also been proactive in creating a regulatory sandbox, where businesses can access trial ring-fencing

[3] For more details see RIIO-2 NIA Governance Document

waivers and trial rule changes to accelerate the testing of innovative solutions. However to date, the sandbox has not been utilised to its fullest potential.

We consider improvements could be made to the AER's approach to innovation funding that would remove barriers to broader innovation and in doing so contribute to a greater utilisation of the regulatory sandbox.

Given the inherent uncertainty in undertaking projects that have not been attempted previously, there are a number of key criteria that are needed to deliver a successful innovation program. This includes:

- a strong governance framework to ensure funding is being used prudently and efficiently
- a highly flexible approach to take advantage of new technologies and processes
- strong communication channels to share knowledge with industry
- having a 'fail-fast mentality' where unsuccessful innovation projects are quickly learnt from and let go, allowing focus to shift to the next innovative solution
- a short project lifecycle (ideally 2 years or less) recognising that these are meant to be proof of concepts and not BAU activities.

We consider that some of the AER's requirements around innovation expenditure, as set out in recent decision determinations[4], are not consistent with innovation in practice. Specifically, requirements:

- that every innovation project expected to be undertaken during the regulatory period be set out in the regulatory proposal, and
- that for each project detailed cost build ups and input assumptions along with quantified benefits and efficiencies are provided.

While we can forecast with some certainty the innovation projects we are looking to undertake over the next two years, we typically do not forecast innovation projects beyond this timeframe. This is consistent with our two year or less project lifecycle approach and corresponds with the speed at which problems, technologies and solutions can change. Such is the dynamic nature of innovation that predicting up to seven years in advance (as is required to forecast a full five-year regulatory period) with any degree of certainty is near impossible, with innovation projects undertaken in the back half of a regulatory period likely to differ substantively from what is forecast in a regulatory proposal. For this reason we consider longer-term forecasting of innovation projects should be avoided, with a focus instead on the desired level of spending in the future based on a shorter forecastable timeframe. We also consider that given the small scale of innovation projects (almost all of which are below $1m), there may be a mis-match between the size of innovation projects and the level of ex-ante detail required.

We agree that the level of funding should be informed by projects likely to be undertaken by a distribution business, such as those identified by businesses over the first two years of the regulatory period. Such an approach could be supported with in-period project identification and selection, allowing for an innovation program that has the flexibility to pivot to take advantage of technological advancements as they occur. We consider the use of strong governance frameworks and innovation committees with representatives from across the industry will provide the necessary scrutiny to ensure that within period investment decisions are incurred prudently and efficiently.

[4] AER, Draft decision SA Power Networks Electricity Distribution Determination 2025 to 2030 – Attachment 5 Capital Expenditure, September 2024, p. 40-42

Recognising that the regulatory framework in its current state may not support a broader innovation incentive scheme, we have included our proposed innovation expenditure in our capital and operating expenditure forecasts, consistent with other distribution businesses. However, our expenditure is established using identified projects from the initial two years of the regulatory period. Based on the timing of our submission, this includes projects up to three and a half years in advance. We consider that including projects beyond this timeframe would create significant risk that our actual innovation projects will not match those put forward in our regulatory submission. We have instead conservatively included innovation expenditure totalling 50 per cent of the full expenditure profile for years 3-5 of the regulatory period. This reduction in annual spending for the latter years acknowledges the inherent uncertainty of predicting innovation expenditure long term.

Our proposed approach to our innovation allowance is expanded upon further in section 4.

4. Our proposed innovation allowance

We are seeking an innovation allowance that would allow us to research, test and implement innovative ideas that have the potential to drive long-term value to customers, but are not currently funded under the regulatory framework. Through our test and validate phase of our customer engagement we received strong customer support to our proposed innovation allowance both in terms of the amount of expenditure and the key focus areas for investment.

We are proposing an innovation allowance for projects that can deliver long term customer value. The allowance has been set using the innovation projects that are foreseeable at the time of writing this regulatory proposal. This includes:

- setting the expenditure based on projects across the initial 2 years of the period, with expenditure extrapolated across years 3-5 at a reduced rate. This is due to the high levels of uncertainty related to innovation projects in the latter part of the regulatory period.
- including qualitative information around potential benefits of projects ex-ante with more detailed quantitative assessment of benefits undertaken ex-post.
- use-it or lose-it funding with exclusions from expenditure incentive schemes with any underspends returned to customers.[5]
- final decisions on innovation projects made by an innovation committee. This committee will be appointed once funding has been approved and will consist of a range of stakeholders both internally and across the industry, including members from other DNSPs to enable the sharing of project learnings.[6]

The DMIAM will continue to operate separately from the innovation allowance due to requirements within the National Electricity Rules, which requires a stand-alone DMIAM. All demand management innovation would remain in the DMIAM.

We propose to include an innovation allowance of $15M that would be drawn upon across the regulatory period made up of both capital and operating expenditure. We are requesting 10% less than our proposed innovation expenditure as we will be funding this internally to account for any residual internal productivity benefits that may be associated with our customer focused innovation projects. The proposed funding we are seeking across the 2026-31 regulatory period represents just 0.6% of proposed capex and 0.6% of proposed opex. Our proposed expenditure is set out in Figure 6 and
Figure 7.

[5] See section **Error! Reference source not found.** for further details on how this funding will be returned to customers
[6] See section 14.3 for further details on our proposed governance arrangements

FIGURE 6 INNOVATION ALLOWANCE CAPITAL EXPENDITURE FORECAST ($M, 2026)

EXPENDITURE	FY27	FY28	FY29	FY30	FY31	TOTAL
Capex	2.5	2.5	1.65	1.65	1.65	10.0
Less 10% self-funding	-0.25	-0.25	-0.15	-0.15	-0.15	-1.0
Total	**2.25**	**2.25**	**1.5**	**1.5**	**1.5**	**9.0**

FIGURE 7 INNOVATION ALLOWANCE OPERATING EXPENDITURE FORECAST ($M, 2026)

EXPENDITURE	FY27	FY28	FY29	FY30	FY31	TOTAL
Opex	1.7	1.7	1.1	1.1	1.1	6.7
Less 10% self funding	-0.2	-0.2	-0.1	-0.1	-0.1	-0.7
Total	**1.5**	**1.5**	**1.0**	**1.0**	**1.0**	**6.0**

4.1 Customer feedback

We tested both the size of proposed innovation allowance and our proposed focus areas with customers through our test and validate phase of our engagement program. Customer's strongly supported the inclusion of an innovation allowance.

Customer's recognised the need for long-term investment in new technologies to assist with the energy transition, improve customer experiences and create more sustainable networks. Customer's also noted the need for targeted innovation for regional and rural customers, particularly in relation to making the network more resilient, as the impacts of network outages were often overwhelming felt by the most vulnerable in rural and regional communities.

There was mixed feedback in relation to our proposed investment level, most considered that given this was a first-time initiative the size of the investment was appropriate, however others considered additional investment was required given the scale of change occurring through the energy transition. We consider that are proposed investment level balances both the need for innovation investment while maintaining affordability for customers.

Customer's highlighted the need for collaboration to maximise impact, with customer's expecting that we would collaborate with other utilities, government bodies, councils and research institutions. We consider that knowledge sharing across the industry is a key pillar of a successful innovation program and have committed to sharing outcomes and learnings with a broad range of industry participants.

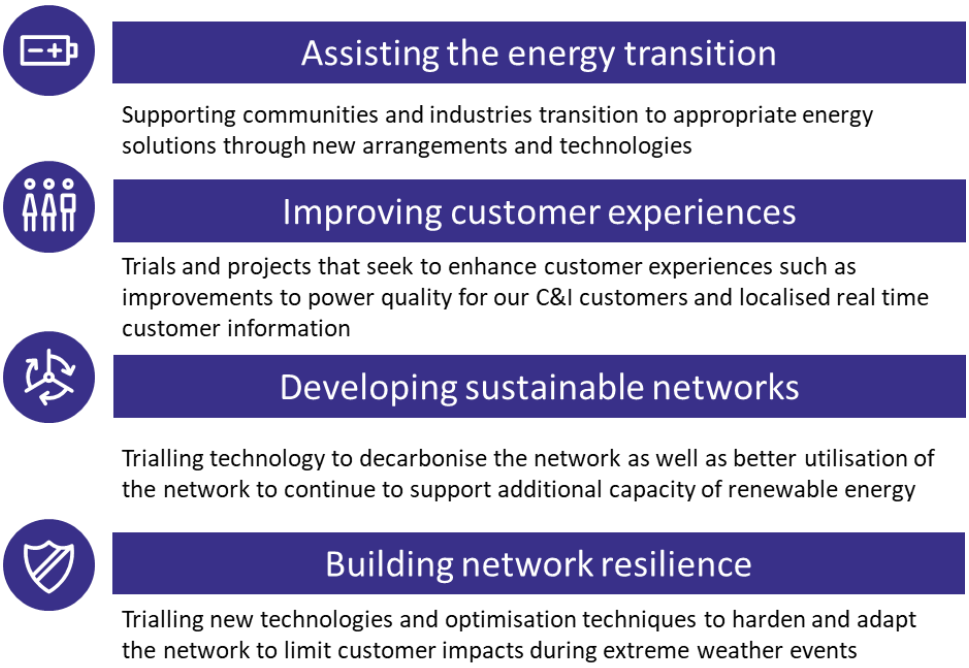
Accountability in relation to the allowance was also seen as a key criteria and customers were particularly supportive of the use-it or lose-it nature of the expenditure. Customer's noted that it was important that real value was delivered by these investments and that clear benefits are generated. They considered an advisory panel should be created to allocate the funding and that communities should have visibility over the progress of innovation investments. We are committed to establishing a

diverse innovation committee to oversee our innovation expenditure and ensure that we are investing in projects that are most likely to deliver customer benefits.

4.2 Innovation allowance focus areas

The innovation allowance will focus on four key areas as set out in Figure 8. As discussed, we have provided innovation projects for only the initial two years of the regulatory period. This is consistent with our internal approach to innovation and the need to remain flexible and adaptive to new innovation opportunities throughout the regulatory period.

FIGURE 8 INNOVATION ALLOWANCE FOCUS AREAS



4.2.1 Assisting the energy transition

There is an increasing need to support communities and industries during the energy transition. Customers are becoming more dependent on electricity, and we must ensure our network is equipped to support customers through this change. It is important to consider the appropriate energy solutions for customers via new technologies, arrangements and processes whilst ensuring our network have the capabilities to support this.

Trialling innovative technologies will assist the integration and utilisation of CER connected to our network. This will ensure that customers are able to get the most value from their assets and utilise our network safely and efficiently. Supporting customer energy solutions will also contribute to reducing greenhouse gas emissions.

Customer benefits

Customers will be provided with additional support when transitioning to full electrification, ensuring they are well-informed and prepared. Customers will be provided with a better understanding of what solution best fits their needs and circumstances to allow them to maximise the value of their CER and associated electrification decisions.

FIGURE 9 ASSISTING THE ENERGY TRANSITION FY27-28 ($M, 2026)

PROJECT	SUMMARY	CAPEX	OPEX	TOTAL
Supporting hard to abate industries in their electrification transition	opportunities will be explored to support local communities and industries to transition hard to abate technologies for electrification.	0.1	0.4	0.5
Dynamic tariffs trial	customers will be incentivised to manage load during critical demand and respond to real time signalling from the network and wholesale prices.	0.75	0.25	1.0
Flexible, behind the meter customer solutions	new home energy management and EV systems will be trialled to support integration of consumer energy resources (CER) to our network	0.4	0.4	0.8
Electrifying farming trials	research and trials associated with electrifying agriculture will be undertaken to understand different pinch points for types of agriculture and how our network may support this electrification process	0.15	0.15	0.3
EV load product trial	through smart chargers, this trial will ensure customers' EV load is managed via smart chargers during periods of high and /or minimum demand.	0.05	0.15	0.2
Total		1.45	1.35	2.8
Total less 10% self-funding		**1.3**	**1.2**	**2.5**

Note: Totals may not add correctly due to rounding errors

4.2.2 Improving customer experiences

As the journey towards net-zero continues customers are becoming increasingly dependent on or network. We need to ensure that we are considering how we will best address customers' needs and expectations during this rapid change and ensure they are receiving the most ideal experience. It is important to address how we can continuously to improve customer experience when they are interacting with our services.

As a result, we must consider innovative ways to improve our customer service to effectively meet and respond to the changes in customer needs and expectation. This involves trialling new innovative technologies and capabilities related to our network, whilst ensuring this aligns with our network planning and operations.

Customer benefits

Customers will be receiving improved customer service when interacting with us as a result of our improved network processes. For instance, customers will be able to more easily access useful network data in relation to connection processes, network tariffs and CER installations, allowing them to make more informed decisions.

FIGURE 10 IMPROVING CUSTOMER EXPERIENCES FY27-28 ($M, 2026)

PROJECT	SUMMARY	CAPEX	OPEX	TOTAL
Supporting sensitive customers with new technologies	trialling new technologies for customers who are vulnerable to higher levels of disruptions due to voltage imbalances	0.5	0.3	0.8
Network tariff information tool	customers will have access to tariff look-up information, to compare tariffs instantly to assessment different types of tariffs on their energy consumption	0.4	0.2	0.6
Portable protection systems	a portable protection system will be tested, that can be utilised across the network when there are areas of storm forecast leading to expected outages	0.6	0.2	0.8
Smart cable guard	sections of line and identified weak points or defects will be monitored via a smart cable device before they result in faults.	0.25	0.05	0.3
Improving customer communications	speed and accuracy of information transferred to customers such as data, local outages and network information will be achieved through AI	0.25	0.15	0.4
Smart connection processes	customers are provided with accessible information to scenario plan their connection agreements based on their import and export load.	0.25	0.15	0.4
Quality management tool for renewable energy installations	an AI-assisted tool will be developed for real time quality assessment of solar and battery system installations	0.2	0.4	0.6
Total		2.45	1.45	3.9
Total less 10% self-funding		**2.2**	**1.3**	**3.5**

Note: Totals may not add correctly due to rounding errors

4.2.3 Developing sustainable networks

Emission reductions have become an objective in the National Electricity Rules as well as being a desired preference by our stakeholders, increasing the need for networks to decarbonise. Networks are assisted in decarbonisation process by improving the performance of renewable energy sources and technologies to better utilise the network and support grid stability and additional capacity, as well as reducing our own sources of greenhouse gas emissions.

Customer benefits

By developing a sustainable network, we are able to address customer concerns on reducing greenhouse gas emissions and noise pollution.

FIGURE 11 DEVELOPING SUSTAINABLE NETWORKS FY27-28 ($M, 2026)

PROJECT	SUMMARY	CAPEX	OPEX	TOTAL
Trial new sustainable fleet options	trialling new electric only heavy vehicles and elevated platform vehicles	0.45	0.1	0.55
Total less 10% self-funding		**0.4**	**0.1**	**0.5**

Note: Totals may not add correctly due to rounding errors

4.2.4 Building network resilience

As the climate continues to change, we can expect more frequent and severe weather events such as fires, floods and storms. This is likely to lead to increasingly poor outcomes for customers due to the associated outages linked to these events. Innovation related to building a resilient network gives us the opportunity to explore, experiment and understand the limitations and barriers of our network when exposed to extreme weather conditions.

Customer benefits

By making our network more resilient we can reduce the impact to customers and communities, particularly those that are in rural and regional areas. This can occur through new technologies that harden our existing infrastructure, better protecting our assets during these events and ensuring customers remain on supply, as well as new technologies that allow us to develop new solutions.

Ensuring customers do not spend extended periods of time off supply will only become more important as customer dependency on electricity increases.

FIGURE 12 BUILDING NETWORK RESILIENCE FY27-28 ($M, 2026)

PROJECT	SUMMARY	CAPEX	OPEX	TOTAL
Stand-alone power systems (SAPS) technologies	trialling SAP technologies to understand what technologies work best in different locations and under different conditions	0.2	0.1	0.3
Trialling fire-resistant products	a range of products will be trialled providing fire protection to network assets	0.2	0.1	0.3
Enhanced climate modelling	climate modelling will be improved to better predict and understand the impact of storm events to our networks	0.25	0.25	0.5
Total		0.65	0.45	1.1
Total less 10% self-funding		**0.6**	**0.4**	**1.0**

Note: Totals may not add correctly due to rounding errors

4.3 Governance arrangements

A strong governance framework is critical to ensuring that innovation funding is allocated prudently and efficiently. Robust governance provides a structured approach to decision-making, prioritising projects that are likely to have the highest likelihood of success. This was one of the key pieces of feedback received from customers, who wanted to ensure that proposed customer benefits are in fact delivered.

Key to this framework is the establishment of a diverse innovation committee. Following the AER's approval of our innovation allowance we will establish an innovation committee that includes:

- industry representatives: with expertise in energy systems, engineering, and emerging technologies to assess feasibility and scalability of potential projects. Ensuring only the innovation ideas with highest chance of delivering tangible customer benefits will receive approval. Having members from other DNSPs will also support the sharing of key learnings and avoid duplication of innovation projects.
- customer representatives: to ensure alignment with customer needs and public expectations. This will include at least one member of the Customer Advisory Panel.
- internal representatives: including members of our internal innovation team and senior executives who will take responsibility for delivering the projects and ensuring customer benefits are maximised.

We would also welcome members of the AER to attend our innovation decision committee meetings.

Having a diverse innovation committee with well-defined roles and responsibilities will ensure a balanced decision-making that meets the objective of customer focused innovation. Following approval of our innovation allowance, we will work with the CAP to develop the guiding principles and

necessary safeguards to deliver a successful innovation program. A key part of this work will be developing a standardised evaluation framework against which to compare all potential investment options. Periodic audits and post-project reviews will also be used to ensure accountability, while transparent reporting and measurable outcomes will provide clear evidence of delivered benefits.

Another key component of innovation is the active sharing of innovation outcomes with the wider industry. We will commit to disseminating results of our innovation projects through reports, case studies, and industry forums, enabling collective learning and fostering collaboration. This will not only accelerate the adoption of successful innovations across the sector but also enhances the credibility and value of the funded projects. Sharing lessons learned—including challenges and best practices—will help create an ecosystem of continuous improvement, driving progress that benefits customers and the broader energy landscape.

4.4 Returning unspent funds to customers

We will return any revenue associated with unspent funds to customers. We consider the following measures will ensure that customers only fund incurred innovation investments that have been approved by our innovation committee and that we do not receive any rewards for underspending our allowance.

We will remove associated capital and operating expenditure incentive, by excluding both the operating and capital expenditure associated with our innovation allowance from the EBSS and the CESS. Without this exclusion, if we underspent our innovation expenditure we would share the associated benefits with customers. By excluding this expenditure from both incentive schemes, we do not receive any rewards for having actual innovation expenditure below allowance.

We will treat forecast opex as a 'category specific forecast' to ensure that the expenditure related to innovation does not become part of our opex base year assessment in the future.

We will return revenue received from unused funds to customers through a true up mechanism that will provide a revenue adjustment in the second year of the following regulatory period. Where we do not spend all of our innovation allowance across the 2026-31 regulatory period, the true up will adjust our revenue allowance in FY33 to ensure that customers do not incur costs associated with an underspend of our innovation expenditure. We consider this true-up adjustment can occur through the FY31 PTRM model. The amount to be returned to customers will be equal to the difference between:

- our revenue cap including the full proposed innovation allowance
- our revenue cap replacing our proposed innovation allowance with actual innovation allowance spend in the 2026-31 regulatory period.

We will only use the true up mechanism if a positive amount is calculated. Should a negative amount be calculated (i.e. actuals is greater than the proposed allowance) we will not seek to recover this revenue from customers.

A Innovation project descriptions

A.1 Assisting the energy transition

A.1.1 Supporting hard to abate industries in their electrification transition

This initiative would explore opportunities to support local communities and industries to transition hard to abate technologies for electrification. This will include exploring new technologies such as carbon heat blocks and batteries and provide advice on the integration of systems to support both network and customer impacts.

Customer benefits may include:

- customers will have additional support when transitioning to full electrification.
- testing of new technology and solutions will provide customers with a better understanding of what the most appropriate solution is for their electrification transition, specific to their industry

A.1.2 Dynamic tariffs trial

Dynamic tariffs may be able to incentivise customers to manage load and manage critical demand and respond to real time signalling from the network and wholesale prices. We would undertake a variety of dynamic tariff trials to be understand how customers may respond.

Customer benefits may include:

- supporting customers who use energy more efficiently, and their utilisation of renewable energy
- cost savings on customer bills due to alignment with peak and off-peak price signals
- customers having a better understanding of their electrical appliances and their ability to use these appliances to respond to changes in prices

A.1.3 Flexible, behind the meter customer solutions

Trials would test new home energy management and EV systems to support integration of consumer energy resources (CER) to our network and improve vehicle to grid offerings in our network.

Customer benefits may include:

- increased support for customers to manage their CER
- improved customer access to vehicle to grid and home energy management solutions
- customers will be able to optimise their home energy and network consumption, allowing them to get the most value of their CER

A.1.4 Electrifying farming trials

This trial would involve research and trials associated with electrifying agriculture. This would include understanding the different pinch points for different types of agriculture and how our network may be able to accommodate and support this electrification at scale. We could then trial different solutions to meet these pinch points

Customer benefits may include:

- new pathways for farmers looking to electrify and reduce their agricultural emissions, based on research specific to their type of agriculture

- Reduce emissions from a hard to abate industry

A.1.5 EV load product trial

Through smart chargers, this trial will ensure that customers EV load is managed via smart chargers. This will allow customer charging to be controlled, to provide the best charging experiences during periods of high demand or minimum demand. Managing customers EV load, will allow us to easily monitor customers charging profiles and usage behaviour, where this can be beneficially used for data reporting, forward planning and future EV charging maintenance. Customer will benefit may include:

- reduced bills due to charging when network charges are low
- less interrupted charging sessions leading to batteries charging at capacity

A.2 Improving customer experiences

A.2.1 Supporting sensitive customers with new technologies

This trial would involve working with customers who have sensitive business processes to voltage performance, to manage risk on daily operations and disruptions. This project will give us the opportunity to better understand customers who experience electricity consumption disruptions due to poor power quality and test supportive new technologies such as static synchronous compensators (STATCOMS) and batteries to provide more consistent voltage performance.

Customer benefits may include:

- improved reliability and performance of supplied energy
- less time off supply in their daily operations as a result of better voltage performance

A.2.2 Network tariff information tool

To inform their energy management decisions, customers are wanting more up to date and relevant information. This investment would seek to increase access to data points to customers, such as tariff look-up information, to compare tariffs instantly. This will allow customers to assess different types of tariffs based on their home or business energy consumption. The tool would utilise information about the customer's location and behaviour, setting out different load and generation profiles customers can choose from.

Customer benefits may include:

- improved access to data relating to tariffs
- increased customer education through improved understanding of tariff structures
- assisting customers who are considering community projects such as community batteries

A.2.3 Portable protection systems

This trial would involve testing and building a portable protection system that could be utilised across the network. When there are expected extreme weather events that may lead to outages, the portable protection system can be transported and integrated in high-risk areas to avoid customers outages.

Customer benefits may include:

- reduced likelihood of customer outages

A.2.4 Smart cable guard

We would test and trial a smart cable monitoring device that monitors sections of line and identifies weak points or defects. These weak points are identified along cables before they result in a fault. The aim of the investment is to be able to pinpoint these weak points within 1% accuracy.

Customer benefits may include:

- less time off supply due to improved asset management practices

A.2.5 Improving customer communications

This project would involve utilising AI to seek and gather customer information such as customer data, local outages and network information, to increase speed and accuracy of information transferred to customers. This will also allow data capturing processes to be improved when communicating with customers.

Customer benefits may include:

- more accurate information to help inform decisions for connection information, outage updates or local works
- more timely provision of services
- faster resolution of queries when using the contact centre
- a greater likelihood of solving a customer's query on first contact versus having to be referred to other representatives for query resolution

A.2.6 Smart connection processes

This investment would trial opportunities related to smart technologies encompassing GIS, load growth connection assessment tools and network data to assess dynamic network connections. Providing customers with accessible information to better consider connection scenarios before they sign connection agreements.

Customers are able to choose their connection agreement based on a range of scenarios using their own import and export load data.

Customer benefits may include:

- reviewing options for connection size relevant to the location of the connection request
- the ability to customise and provide scenario assessments of connection requests to match their individual circumstances

A.2.7 Quality management tool for renewable energy installations

We would seek to develop an AI-assisted tool for real time quality assessment of solar and battery system installations. This solution will enhance the efficiency and accuracy of installation reviews by automating the quality management process based on Australian Standards and industry best practices. The AI tool will analyse installation images and data, identifying discrepancies and ensuring installations meet compliance requirements. The tool will also help to streamline auditing procedures, reducing the need for manual inspections, and enabling faster, more consistent decision-making.

Customer benefits may include:

- having reduced re-work of their renewable installations
- ensure the accurate deployment of the system, maximising customers ability to export

- Improved connection processes, with better identification of non-compliance with improved turnaround times, supporting the customer CER experience

A.3 Developing sustainable networks

A.3.1 Trial new sustainable fleet options

We would test and trail technology opportunities to develop a more sustainable fleet, which will also reduce emissions. Technologies could include battery and hydrogen vehicles to transition our range of fleet with a focus on heavy commercial vehicles and elevated work platforms.

Customer benefits may include:

- a faster reduction in greenhouse gas emissions and quieter electric vehicles on neighbourhood streets

A.4 Building network resilience

A.4.1 SAPS technologies

This trial would support regional and rural customers supply of electricity through non-network solutions including modern power electronics inverters and battery energy storage systems (BESS) solutions supporting customers to experience the same service levels in metropolitan areas. The solutions may include varied operating models, including grid support utilisation of CER within network. The trials could be applied to individual customers or contained to a micro grid solution feeding multiple co-located customers.

Customer benefits may include:

- reduced outages caused by powerline maintenance, weather, wildlife and vehicle impacts will be reduced
- reduced public safety risk through the removal of poles and wires that are no longer required

A.4.2 Trialling fire-resistant products

We would trial a range of products that can provide fire protection to network poles and wires. This would include options such as fire mesh, conductor coverings and fire-resistant paint.

Customer benefits may include:

- power assets will be protected during a bushfire at a significantly lower cost than current bushfire risk mitigation options (such as upgrading timber poles with fire-resistant concrete poles). This would keep more customers on supply during emergencies, and avoid costly replacement works. As well as lower long-term costs to customers.

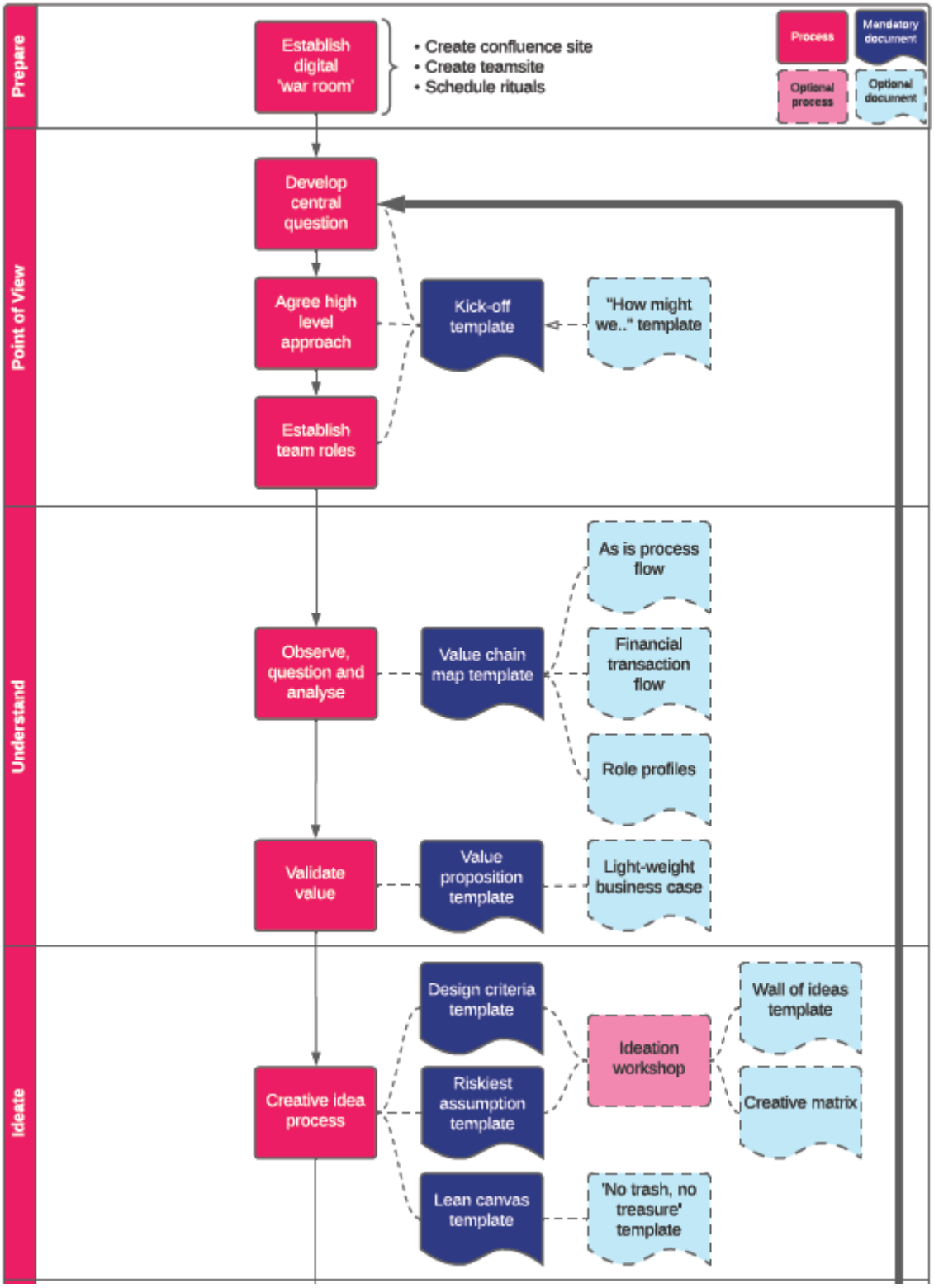
A.4.3 Enhanced climate modelling

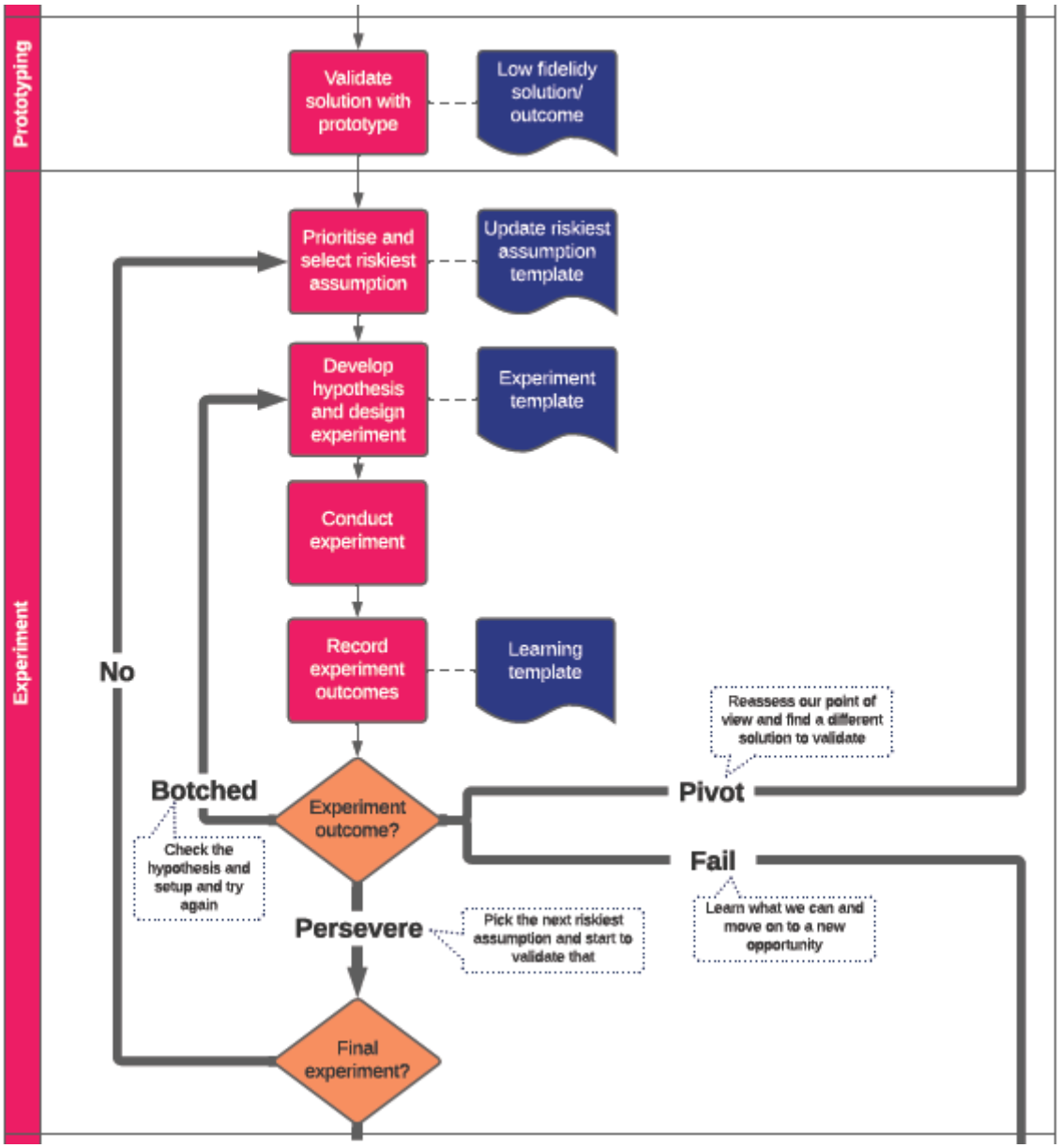
We would invest in improving our climate modelling to better predict and understand the impact on our network from extreme weather events, in particular storm events, which are a major contributing factor to outages on our network.

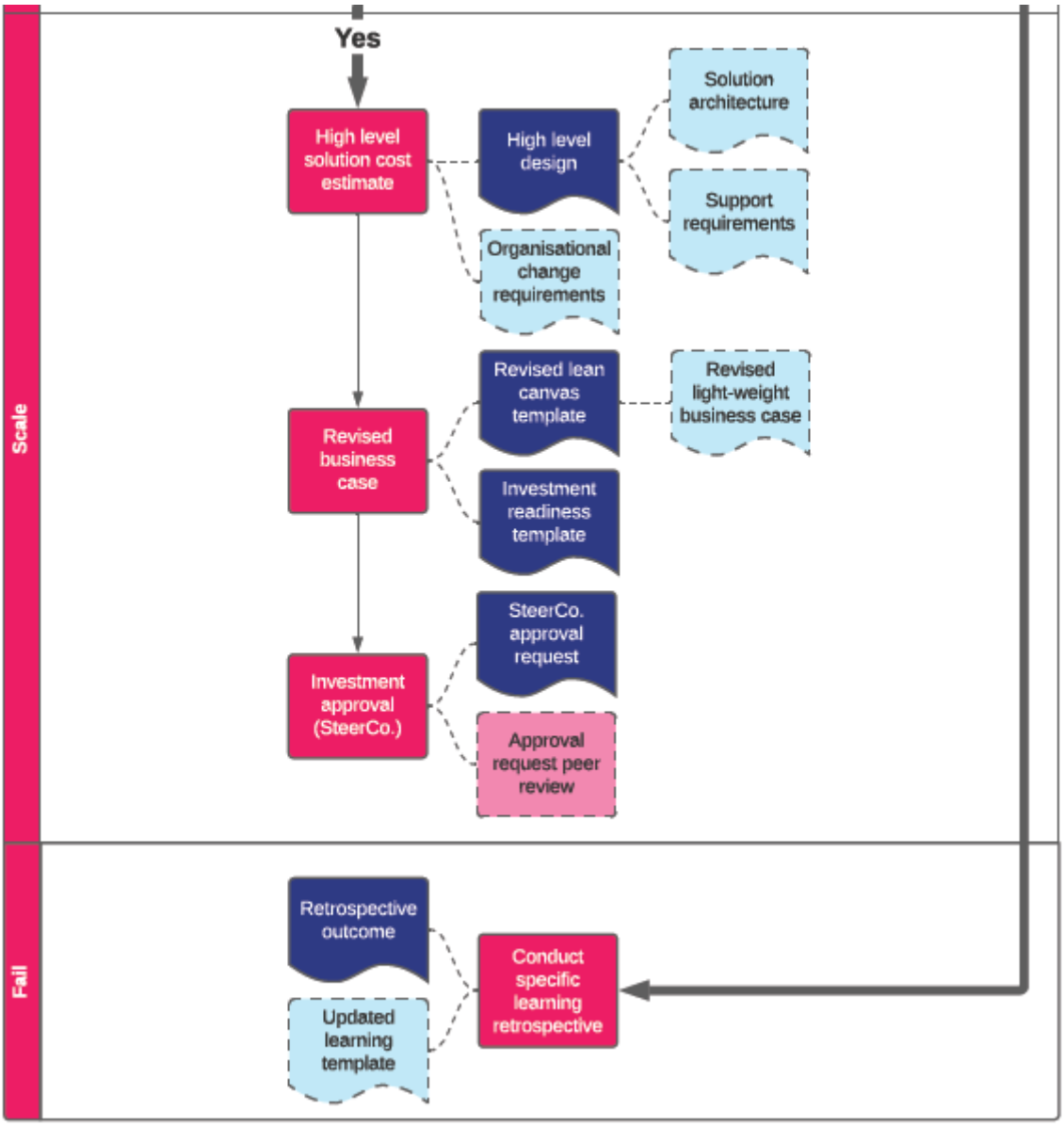
Customer benefits may include:

- being better able to identify areas of our network that will benefit from targeted investments
- allowing for improved early warning systems allowing both ourselves and communities to prepare for extreme weather events

B Innovation research and development framework




Prototyping
Validate solution with prototype
Low fidelidy solution/ outcome
Experiment
Prioritise and select riskiest assumption
Update riskiest assumption template
Develop hypothesis and design experiment
Experiment template
Conduct experiment
Record experiment outcomes
Learning template
No
Reassess our point of view and find a different solution to validate
Botched
Experiment outcome?
Pivot
Check the hypothesis and setup and try again
Fail
Learn what we can and move on to a new opportunity
Persevere
Pick the next riskiest assumption and start to validate that
Final experiment?


Yes
Scale
High level solution cost estimate
High level design
Solution architecture
Support requirements
Organisational change requirements
Revised business case
Revised lean canvas template
Revised light-weight business case
Investment readiness template
Investment approval (SteerCo.)
SteerCo. approval request
Approval request peer review
Fail
Retrospective outcome
Updated learning template
Conduct specific learning retrospective

For further information visit:

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