Jemena Electricity Networks (Vic) Ltd

2026-31 Electricity Distribution Price Review REgulatory Proposal

Attachment 03-02

Innovation Fund

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Abbreviations

AER	Australian Energy Regulator's
BTM	Behind the Meter
CER	Customer Energy Resources
CSIS	Customer Service Incentive Scheme
DEECA	Department of Energy, Environment and Climate Action's
DMIAM	Demand Management Innovation Allowance Mechanism
DMIS	Demand Management Incentive Scheme
DNSP	Distribution Network Service Provider
DPV	Distributed Solar Photovoltaic
EBSS	Efficiency Benefit Sharing Scheme
EV	Electric Vehicles
EVC	Electric Vehicle Council
EVCI	Electric Vehicle Charging Infrastructure
JEN	Jemena Electricity Network Vic Ltd.
NEO	National Energy Objectives
PMM	Project Management Methodology
PTRM	Post Tax Revenue Model
R&D	Research and Development
RCP	Regulatory Control Period
STPIS	Service Target Performance Incentive Scheme
V2X	Vehicle to grid
VPP	Virtual Power Plants
WACC	Weighted Average Cost of Capital

Overview

Our customers have recommended Jemena Electricity Networks (Vic) Ltd. (**JEN)** invest in innovation. They would like JEN to play a key role in facilitating the energy transition ensuring JEN, as a distribution network service provider (**DNSP**), does not act as a barrier to this transition and all customers can access its benefit. In recognition of this, JEN is proposing an $8M ($FY24) Innovation Fund, split 50% capital expenditure and 50% operating expenditure, be established to support initiatives enabling the efficient management of the future network in the next regulatory period and beyond.

The objective of the fund is to enable an adaptable portfolio to respond to customer and industry needs throughout the coming regulatory period through three key objectives:

- support future network innovation and capability development for JEN through trial and demonstration initiatives
- support energy equity within the JEN customer base[1]
- support nationwide future network development through knowledge sharing, collaboration and engagement.

Innovation is essential to managing an environment of unknowns and this proposal identifies 15 initiatives with scope for flexibility and a framework for delivery under a **customer-driven partnership model.**

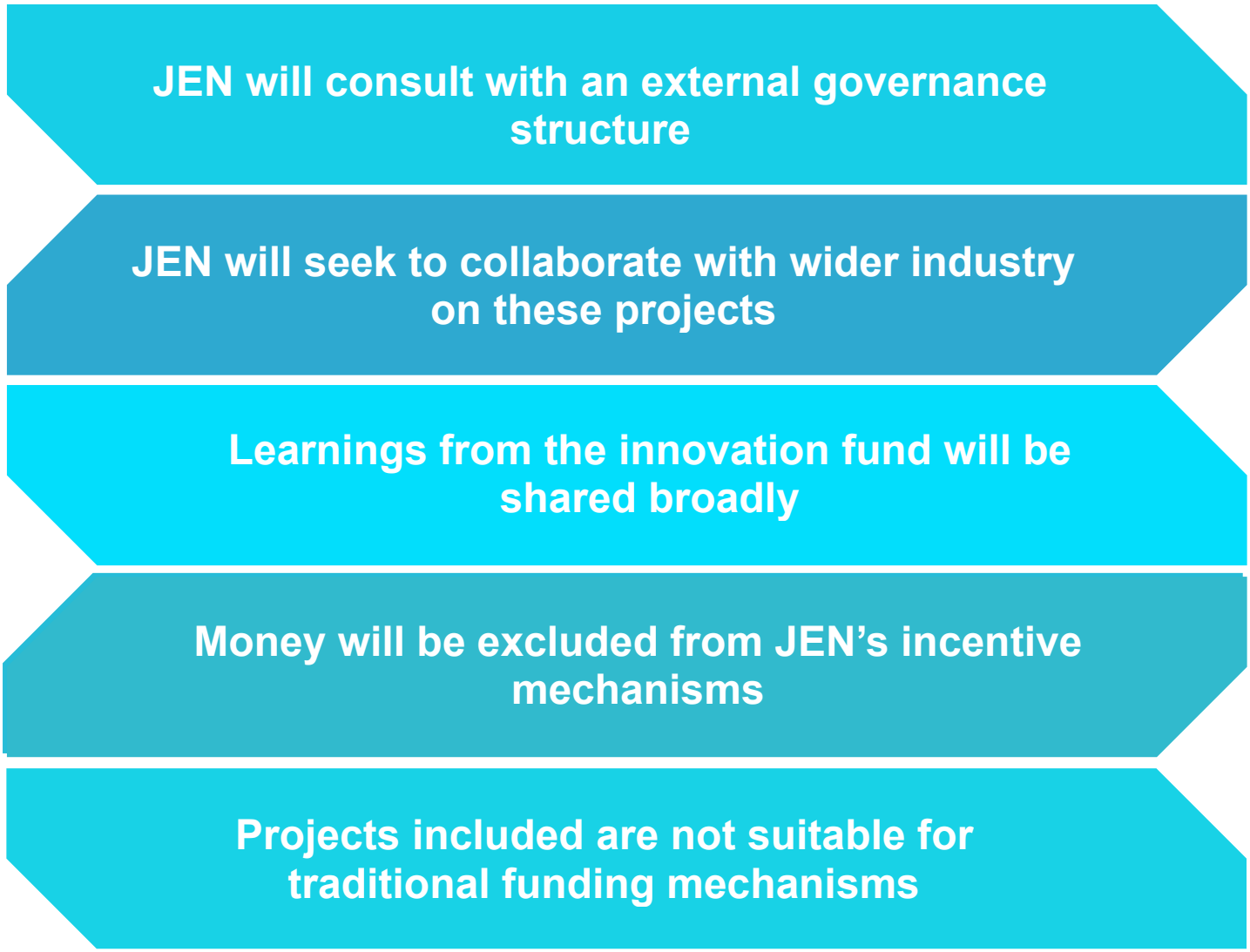
This expenditure is intended to manage the unknowns associated with the energy transition. JEN believes the proposed expenditure is consistent with the regulatory framework which gives primacy to the long-term interests of consumers and aligns to the kind of innovation the AER is looking to encourage. At the recent Energy Networks Australia's Regulation Seminar, the AER Chair gave a speech, *Adapting regulation to Australia's energy future,* challenging the notion that regulation is a barrier to innovation. The AER Chair said that the AER recognises that it is not business-as-usual anymore, it may have to think differently and that it was "open-minded and open for businesses." The AER Chair indicated that if businesses believe they have a better way to spend money, the pathway to change is to show the AER the consumer value or in the words of Jerry Maguire 'show me the money' and 'help me help you'.[2]

In order to provide additional comfort to the AER regarding the prudency and efficiency of this expenditure, JEN proposes that any money approved as part of the fund will be subject to the core tenets outlined in Figure OV–1.

[1] Energy equity in this instance involves ensuring the benefits of CER and the energy transition are available to all customers - including vulnerable customers, or those who may face barriers to participation. Energy equity is integral to maintaining the social licence for the broader energy transition, as highlighted by a recent request made by Hon Chris Bowen, Minister for Climate Change and Energy, to ARENA directing the organisation to accelerate funding for more community electrification demonstration projects across Australia including at least one low socio-economic community and one indigenous community. Further details on this direction can be found here; Electrifying more homes to bring down bills for good | Ministers

[2] Q&A with AER Chair Clare Savage 13 August 2024. Available here.

Figure OV–1: Innovation Fund core tenets



Customer engagement has identified two key areas of likely innovation:

1. Electrification
2. Energy storage.

Therefore, these have been identified as the two areas of development within this Innovation Fund. Importantly, these need to be considered as intersecting, not standalone themes. They also have dependencies and implications upon Customer Energy Resources (**CER**) integration and network data and analytics which are predominantly addressed through known key projects. Our proposed Innovation Fund is strongly aligned with the National CER Roadmap,[3] National Energy Objectives (**NEO**),[4] and JEN's CER Integration Strategy.[5] The core tenets of the fund align with similar innovation funds, previously proposed by our network colleagues and approved by the AER.

[3] Department of Climate Change, Energy, the Environment and Water, National CER Roadmap Canberra, July. CC BY 4.0.

[4] AEMC, National Energy Objectives | AEMC, 2024.

[5] JEN - Att 03 – 01 CER Integration Strategy, 2025.

1. Background

1.1 Scope and purpose

We are proposing an Innovation Fund (**Fund**) for the 2026–31 regulatory period (next regulatory period) to support investment in a suite of innovation initiatives.

The purpose of the Fund is to allow JEN to explore and support emerging technologies and activities to better support our customers and network in the context of the evolving energy market. We are proposing a Fund with an initial list of 15 initiatives, which may be subject to change based on market developments and feedback from customers or our Governance Committee (refer to Section **Error! Reference source not found.**).

Given that innovation responds to unknown future challenges, we are suggesting a new governance framework accompany this, which allows for greater flexibility to start and terminate projects in response to the changing environment. This would include a sign-off from our Customer Council for any deviations in plan.

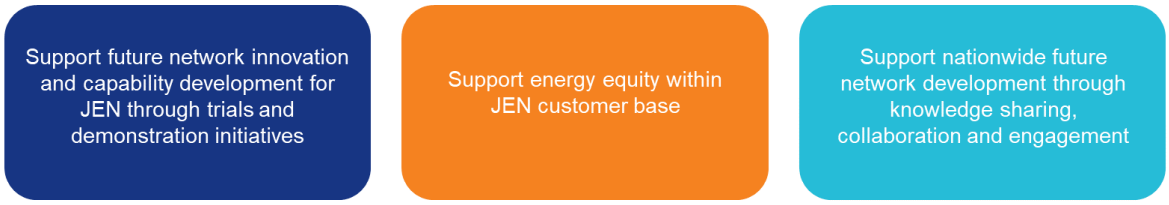
The following categories of innovation projects for the Fund have been co-developed with our customers and focus on:

- Electrification - to accelerate and facilitate Electric Vehicles (**EV**) and increasing electrification across the network.
- Energy storage - to support the growth of storage needs and deliver future solutions to unknown challenges.

1.2 Objectives

The Fund has been designed to enable a flexible portfolio of investments which respond to customer and industry needs throughout the next regulatory period. The objectives of the Fund are listed in Figure 1–1.

Figure 1–1: Innovation Fund Objectives



1.3 Investments in innovation in the current period

JEN understands the importance of innovation and have utilised funds available through the Australian Energy Regulator's (**AER**) Demand Management Incentive Scheme (**DMIS**) and Demand Management Innovation Allowance Mechanism (**DMIAM**) and government grants to finance innovative trials and programs. This has yielded important results for our customers, as highlighted in the text box below. However, there are challenges with this approach, namely:

- the constraints of the definitions applied to both the DMIS and DMIAM mean many potential innovative projects cannot be financed through the scheme

- applying for government funding can be a resource intensive process, requiring a significant amount of labour to prepare grant applications. These costs are not included in our current regulatory period.

EV Grid

Enabling Electric Vehicle Friendly Networks and Neighbourhoods trial

From April 2022 – April 2023 JEN partnered with JET Charge, Australian Renewable Energy Agency (**ARENA**) and some of our DNSP colleagues across Australia to deliver a trial demonstrating that managed charging can help balance extra demand on the electricity grid during peak times reducing the need to increase generation capacity or upgrade existing electricity infrastructure.

The study saw 170 EV owners across Victoria, Tasmania and the Australian Capital Territory trial the use of managed charging to help manage demand on the electricity grid during peak times or soak up excess solar being generated during the day. Participants continued to plug in their car to charge when it was convenient, but their electricity network business could dynamically adjust charging times to balance demand on the grid.

As part of the trial, participants had smart chargers installed free-of-charge. On days when there was peak demand on the grid or when excess solar was being exported into the grid, participants received an SMS notifying them that charging would be dynamically adjusted. These were referred to as 'demand response' and 'solar soak' events. Participants were offered incentives, such as cash-back rewards, for participating in events or could opt out if they did not want their charging adjusted.

The trial found that:

- 76% of participants said they would purchase a smart charger, which charges up to three times faster than a regular charger commonly supplied with a new EV and can allow electricity networks to manage charging times, based on their user experience during the trial.
- 74% of participants preferred managed charging over convenience charging.
- 97% of participants said they would be willing to participate in future EV trials.

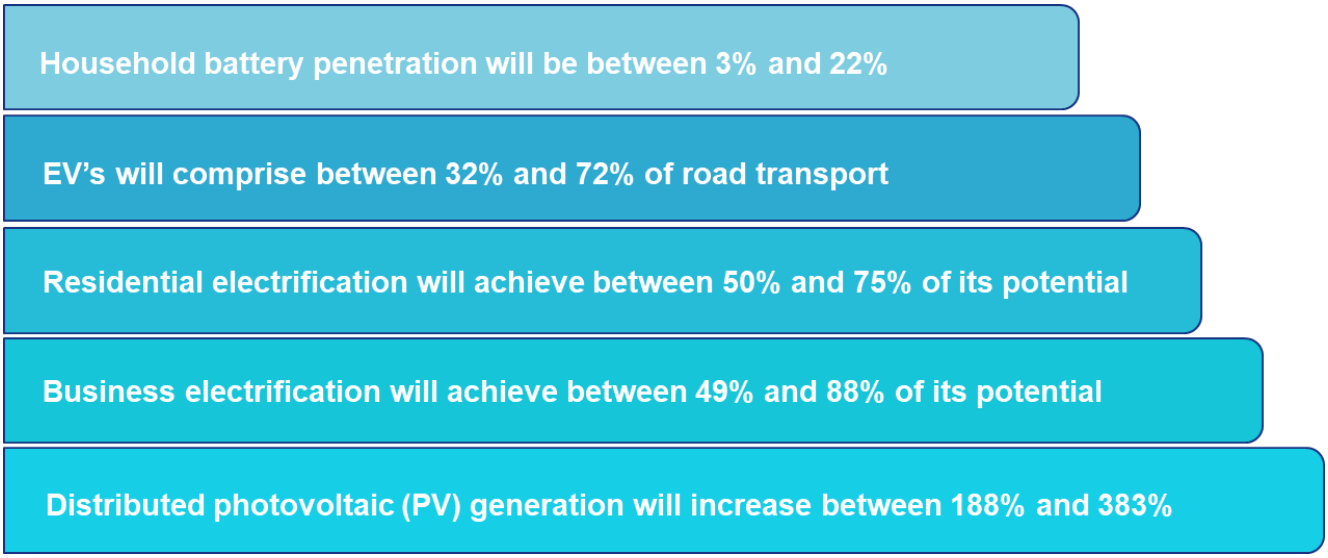
Insights from this trial has informed the development of this regulatory proposal, and our day-to-day business practices.

Due to constraints with resourcing and funding, JEN has missed opportunities to be involved in innovative projects in the current regulatory period including the Department of Energy, Environment and Climate Action's (**DEECA**) 100 Neighbourhood batteries program and a local council-led kerbside EV charging program. However, engagement with our customers in preparation for this regulatory proposal suggested they would like JEN - and importantly are willing to pay for JEN – to take a more active role in innovation. See Section 3 'Customer support for innovation' for further details on customer engagement and development of the proposed fund.

2. Identified need

Electrification and the proliferation of CER is placing a strain on electricity distribution networks across Australia. Within the current regulatory period, the ways in which our customers interact with the grid has changed and accelerated the need for innovation. This changing relationship is expected to continue in the coming regulatory period, as detailed in Figure 2 -1 below.

Figure 2-1: Expected growth in CER by 2040[6]



This changing relationship is creating both challenges and opportunities for JEN and our customers. Our customers expect JEN to be ready to provide seamless integration for these emerging technologies. Investing in network innovation will allow JEN to identify and deliver solutions to known and emerging challenges caused by electrification and the energy transition, before these challenges reach critical mass.

We have identified two key areas requiring innovative investment: Electrification and Energy Storage.

2.1 Electrification

The Australian energy sector is transforming rapidly as the Australian economy transitions towards a decarbonised, net-zero future. Federal and State Governments are committed to net zero targets, with the Victorian Government committing to net zero emissions by 2045. To facilitate the energy transition, recent changes have been made to the National Electricity Objective (**NEO**) to help achieve emission reduction targets set by participating jurisdictions. In addition, policies such as the Powering Australia Plan[7] will further accelerate electrification.

While many aspects of this transformation remain uncertain, the transformation is accelerating and the energy market in 2045 will look vastly different from today. Consistent with the NEO, JEN has a critical role to play in facilitating this energy sector transformation and in turn managing the quality and cost of distributing electricity within the north and west of the Melbourne metropolitan area as well as to help achieve emissions reduction targets.

The accelerated pace of the energy transition presents both opportunities and uncertainties for JEN and our customers. We are seeing an increase in the number of rooftop solar systems and increased electrification of transport. There is growing interest in communal energy solutions such as shared solar installations, virtual power plants (**VPP**), and community batteries. CER is now more accessible than ever.

6 Source: JEN, Att 03 – 01 – CER Integration Strategy, 2025

7 Further details on the Powering Australia Plan can be found here: Powering Australia - DCCEEW

Forward projections of EV uptake have been incorporated into planning for our next regulatory period however it is expected that future electrification growth across the JEN network, most notably within the transport sector, will provide new opportunities, barriers and changes to customer needs. In addition, the Victorian Government's recent policy aiming to prevent the growth of reticulated gas networks means more customers will be relying on the electricity network in future.[8]

In addition, CER connected to our network is continuing to increase and is becoming a crucial resource to support, manage and utilise the distribution network. JEN has already seen strong growth in network-connected, passive distributed solar photovoltaic (**DPV**) system installations by our customers and this is likely to continue. Other emerging, potentially more active CER technologies present further challenges and opportunities for network integration.

These factors will require innovative investment to both meet the increase and changing nature of demand, and more recently supply, of electricity as our network becomes the underpinning platform, with the electrification of gas and transport, increasing the energy distributed in our network area. As part of this portfolio, JEN will be able to support the communities it serves by undertaking innovative electrification trials and enabling research and development into future sustainable technologies.

2.2 Energy Storage

A growth in energy storage projects during the current regulatory period has highlighted a need for continuous improvement in our approaches as the energy storage sector continues to mature. This includes managing future demand, modelling impacts of energy storage on the network and identifying innovative technologies to store unused energy.

There is still significant uncertainty when standalone distributed storage technologies will reach a 'tipping point' as they have not yet been widely accepted by consumers to date. The economics of storage remain heavily influenced by relevant government policies and financial incentives, and at present with the cost premium required and long payback periods for standalone distributed battery storage systems, there is significant uncertainty as to when these tipping points might be reached.

At present, it appears likely that the battery storage capabilities of EVs could overtake the standalone household battery storage market as a substitute, given the additional mobility value provided to consumers by this form of storage.

Despite the relatively low uptake of distributed storage in the household market, standalone storage is becoming more commonplace in the transmission sector with its potential to provide system security and frequency control-type services, and also at the community battery system level within the distribution networks where it can easily be aggregated into VPPs.

Customers see us playing a leading role in growing energy storage on the network, in particular, to research and develop alternatives for energy storage with the intention of installation. There has also been support for adoption of more efficient technologies and commercial models, such as mobile energy storage assets. More information on the recommendations by our customers is provided in *JEN - Att 02-01 - Customer engagement*. In response to this, JEN developed this formal Innovation Fund proposal.

[8] Further details on the Victorian Government's gas substitution roadmap can be found here: Victoria's Gas Substitution Roadmap

3. Customer support for innovation

3.1 JEN's approach to engagement

JEN implemented an extensive customer engagement program to inform our regulatory proposal. As part of our engagement for the Electricity Distribution Price Review process, we have tripled the engagement hours and have aimed to capture the views of customers whose voices, without specialist and purposeful engagement, would not be heard. Our engagement strategy is underpinned by energy industry best practices, our engagement values and principles, and lessons learned from developing our past regulatory proposals. Our customer engagement objectives are:

- Build a deep understanding of our customers and their views – this involves understanding their needs, views and expectations.
- Shape our regulatory proposal based on customers' views – this involves providing our customers with unbiased and easy-to-understand information that they can engage with.
- Support growth of JEN's customer-focussed culture – this involves bringing in our Board, Executive Team, Senior Managers and team members to play an active role in the engagement process.
- Build customer trust in our regulatory proposals – this involves engaging with customers throughout the entire reset process, giving them access and opportunities to provide input and feedback to show them how this is used in JEN's planning.

We are committed to fostering a customer-centric approach that meets the AER Better Resets guidelines.[9] This will ensure that our plans are transparent, inclusive, and responsive to the needs of our stakeholders and reactive to our communities to ensure they remain resilient.

Additional information around our engagement process can be found in '*JEN - Att 02-01 – Customer Engagement.*'

3.2 JEN's customers identified innovation as a key priority

As noted in our Proposal, JEN's customers understand the scale of the change that is coming with the energy transition. They want JEN to remain at the forefront of renewable energy and innovation so that customers are not left behind. They see JEN playing a vital role in driving sustainability targets and empowering and incentivising customers to engage with and take up CER.[10]

JEN's customers are willing to pay for our proposed Innovation Fund. Feedback to our Draft Plan suggested that while our Future Network Strategy (now referred to as CER Integration Strategy) was well considered, JEN should have flexibility to respond to new technologies emerging in the period. In response to this JEN ran a 'costed-options' session to establish our customers' willingness-to-pay for novel projects, above what was presented in the Draft Plan.

> *"The rapid pace of technological advancement could introduce new opportunities or challenges that were not anticipated in the forecast. Staying flexible and open to incorporating emerging technologies, such as advanced grid management systems or innovative energy storage solutions, might be beneficial. Changes in customer behaviour and expectations, such as increased demand for renewable energy or greater emphasis on sustainability, might impact the forecast. Regularly reviewing customer feedback and market trends can help in aligning the forecast with evolving customer needs." – Customer Feedback to Draft Plan*

[9] AER, *Better Resets Handbook – Towards Consumer Centric Network Proposals*, 2021.

[10] *JEN - Att 02-19 People's Panel Recommendations - 20240420 – Public.*

3.3 Four innovation packages were presented to customers

Each of the four packages presented to customers aimed to drive renewable energy adoption and technological innovation but varied in approach and focus:

3.3.1 Package 0 - Baseline Innovation

Bill impact: $0 per annum
The costs of this package would involve JEN in engaging in limited innovation activities and the cost borne by JEN resulting in no costs to residential customers.

3.3.2 Package 1 - Innovation with Ingenuity

Bill impact: $0.67 per annum
Funding to support JEN's innovation objectives through collaboration with other stakeholders on researching innovative technologies, including:

- EV trial tariffs
- public charging maps
- vehicle-to-grid (**V2X)** technology
- pole-mounted chargers
- a large-scale battery project to explore energy storage benefits.

3.3.3 Package 2 - Innovation with Impact

Bill Impact: $1.39 per annum
Built on Package 1, this package would also:

- promote research and development into sustainable technologies
- integrated EV charging for grid stability
- industry trials for renewable business models
- support for residential & business electrification in growth areas.

This package would seek additional funding and/or resources from grants and research organisations to impact not only the future of the JEN network but the future of all networks.

3.3.4 Package 3 - Innovation with Influence

Bill Impact: $2.29 per annum
Built upon Package 1 & 2, this package would also:

- provide emerging battery and EV technology research and trials
- end-of-life battery solutions
- promoting energy storage initiatives in new real estate developments.

This package would be positioning JEN as a leader in future networks.

3.4 Panel Consensus

The Panel consensus was a preference for 'Package 2 - Innovation with Impact' due to its balanced approach to innovation and affordability. Additionally, panel members favoured the package's emphasis on research and development, viewing it as a necessary investment for the future. They highlighted that this package not only addresses the immediate need for EV infrastructure but also emphasised long-term sustainability through advancements in renewable energy solutions. Panellists also commented on the importance of collaboration,

noting that by leveraging partnerships with third-party investors and government grants, the financial burden on customers would be reduced whilst ensuring benefits for future generations.

While certain features of Package 3, such as research into battery lifecycle management, received some support, concerns regarding its high costs and uncertain returns led to a lack of overall support. Participants expressed that affordability was a significant concern, particularly for lower-income households who may not directly benefit from advanced technologies like EVs.

This sentiment underscored the importance of balancing innovation with cost-effectiveness for all customers. In contrast, feedback on Package 1 indicated it was viewed as a good starting point but lacked depth compared to Package 2. While it provided a foundation for integrating batteries into the grid and supporting research initiatives, participants felt it did not go far enough in addressing the broader challenges of a sustainable energy transition.

Ultimately, the decision to favour Package 2 reflects a strong commitment to innovation and reinforces the People's Panel's commitment to equitable access to energy resources, ensuring that sustainable solutions benefit both current and future generations. JEN has carefully considered this feedback in preparing our regulatory proposal, proposing an $8 million[11] Innovation Fund for the next regulatory period. This Fund would position JEN as a genuine and proactive partner in innovation, committed to driving sustainability for customers and communities while addressing their evolving needs.

[11] 50% split across capital and operating expenditure.

4. JEN will consult with an external governance structure

It is proposed that the governance of strategic innovation projects include specific customer engagement requirements. JEN has established and continues to grow engagement channels to empower our customers' voice and intends to incorporate customer voice in the approval process as outlined below.

The projects will be delivered in alignment with JEN's established Project Management Methodology (**PMM**). The PMM outlines the required process and documentation based on the size and complexity of the project. As part of the PMM, each project including those identified in this proposal will be required to develop a business case (or appropriate alternative) in order to proceed.

The business case will utilise a RAPID model to facilitate approval for a project to proceed to delivery;[12]

Recommend: Project Lead or Customer Council representative

Agree: Customer Council representatives and JEN internal governance committee

Perform & Input will vary dependent on the project.

Decide: One person will decide based on Delegation of Financial Authority

For a project to be 'agreed' it must meet the following criteria:

- The recommendation has been discussed and noted in the minutes from an appropriate customer voice group (for example, customer council);
- The recommendation is shared via email, poll or digital means to a relevant customer voice group and/or external stakeholder(s) for feedback; and
- Any concerns raised in consultation of the recommendation are addressed.

JEN's internal governance committee will also be responsible for delivery of approved business cases, including ensuring outcomes are shared.[13]

4.1 Mandatory project criteria

Projects delivered using this funding must meet the following 3 key criteria to proceed:

1. Must demonstrate alignment to the objectives of the Fund outlined.
2. Must demonstrate that they are innovative based on the definition provided.
3. The business case must demonstrate benefits in one or more of the categories outlined in Table 8-1.

[12] RAPID is a proprietary decision-making tool created by Bain & Company to clarify decision accountabilities with multiple stakeholders. It is part of a disciplined approach that defines the "what, who, how, and when" of decision making and can lead to improved decision effectiveness.

[13] Further details on JEN's proposed internal governance committee are included in Appendix A

Table 4-1: Required Benefits

Benefit	Description
Affordability	Customers pay less for their energy. Customer electrification delivers a net cost benefit.
Customer Experience	Customer satisfaction is maintained or improved by addressing issues arising.
Cost Efficiency	Decreased overall cost to serve. Decreased cost or increased efficiency in delivering non-standard customer initiated services.
Improvement in Network Load factor	Sustainable increase in overall network energy consumption. Improving consumption patterns (i.e. minimising the duck curve and other problematic load profiles).
Supply reliability	Improve or address risk to supply reliability.
Solar (or other generation) reliability	Improve or address risk to customer exports. Reduce curtailment.
Equity	Enabling customer access to renewably generated energy. Addressing barriers to all of the above benefits for those who do not have CER.

JEN in collaboration with our Customer Council will manage prioritisation of projects on this basis.

5. Learnings from the innovation fund will be shared broadly

Based on the third key objective “support nationwide future network development through knowledge sharing, collaboration and engagement”, JEN is committed to sharing learnings from activities funded by this proposed Innovation Fund.

5.1 Sharing our learnings

JEN has extensive channels and forums to share learnings with stakeholders, industry and customers. The chosen channel(s) for knowledge sharing would be based on JEN’s understanding of which channel is the most accessible for the target audience and the most appropriate for the type of information to be shared.

Table 5-1: Knowledge sharing channels available to JEN

Channel	Target Audience	Description
Webinar	Broad	Information around learnings from JEN’s Innovation Fund which may have broad applications. As the intention of these sessions is to be a longer forum than a conference etc. it would allow greater detail to be shared. These sessions could also be recorded, allowing interested parties to review at their convenience.
In-person event (e.g. conference)	Industry participants Academics	Topline findings from JEN’s Innovation Fund which may have broad applications, bringing research activities to the attention of industry participants and providing the contact details of a person/group who they may wish to reach out to for further details.
Ad-hoc conversations with key stakeholders	Local government Retailers Housing developers	Detailed information around learnings from trials/studies which may be particularly applicable to these groups. JEN has developed a close working relationship with these stakeholders, which we intend to leverage to share knowledge from our Innovation Fund.
Social media posting (LinkedIn)	Industry participants	Sharing topline findings and the progress of research activities, pointing interested parties to more detailed information to be found elsewhere.
Social media posting (Facebook etc.)	JEN’s customers	Sharing topline findings and the progress of research activities, pointing interested parties to more detailed information to be found elsewhere.
Website content	Broad	Detailed information around learnings and insights which can be customised for the target audience. Artifacts which have been developed for events (e.g. PowerPoint slides, webinar recordings etc.) can be hosted here permanently. This may also be the most appropriate place to catalogue the progress of trails/studies.
Customer engagement events/public forums	JEN’s customers	Detailed information around learnings and insights, updating our customers about the progress of research activities.
Annual sustainability reporting	Broad	Highlighting achievements and key learnings in JEN’s annual sustainability reporting which is published each year both on JEN’s website and in print.

5.2 Learning from others and collaborating

In addition to sharing the findings from our research activities, JEN's view of knowledge sharing also extends to keeping abreast with innovation activities which are being driven by other industry participants. This ensures we do not duplicate any activities and can help (if we are best placed to do so) or share information which may be relevant. This ensures both our innovation activities, and the wider industry's innovation activities are the most efficient they can possibly be.

In the current period, JEN has been an observer on one of our peers' Innovation Advisory Committee, we hope this relationship continues into the next regulatory period.

6. Money will be excluded from JEN's incentive schemes

While many of the AER's incentive schemes encourage networks to find more efficient solutions to meet our customers' expectations, these incentive mechanisms may not be appropriate mechanisms to fund the more novel projects, proposed as part of the Innovation Fund.

JEN has demonstrated prudent and efficient investment in innovation projects utilising DMIAM allowance. However, the objectives of DMIAM are not aligned with the objectives of this Innovation Fund. This Innovation Fund stands to support better outcomes for customers rather than manage demand. While there is some intersection between the two objectives, JEN believes there is a place for these funds/allowances to exist separately.

Other incentive schemes relating to customer service (**CSIS**), service target performance (**STPIS**) and efficient expenditure on non-network solutions to manage peak demand (**DMIS**) do not have the relevant scope to support innovation programs related to electrification and energy storage. The purpose of the Fund is to improve outcomes for customers more broadly rather than solely delivering value relating to customer service or demand. Investing through these schemes also could result in JEN incurring a scheme penalty in the short-run, despite benefits from innovation being longer-term.

Successful innovation projects that result in efficiency savings (as opposed to service improvements) would deliver savings in future regulatory periods, beyond the regulatory period in which the expenditure occurs. The efficiency saving would therefore be reflected in our expenditure forecast for the future periods and the expenditure allowances set by the AER. This removes the opportunity to outperform the allowance and hence fund innovation through the incentive payments, meaning the Efficiency Benefit Sharing Scheme (**EBSS**) is not appropriate to fund these projects. In fact, the EBSS may act as a disincentive for innovation.

7. Money will be returned to customers if not spent

A key tenet of JEN's proposed Innovation Fund is any expenditure included as part of the fund would be awarded on a 'use it or lose it' basis. Meaning if the money is not spent, it will be handed back to customers at the end of the period. As this is a somewhat novel proposal, there is not a clear mechanism to 'true up' this difference in expenditure within the regulatory framework. JEN proposes to adopt a mechanism, similar to the AER's approach to cost pass-through decisions in order to ensure any unspent money is returned to customers.

The difference between forecast and actual operational expenditure will be adjusted in the same way as the DMIAM mechanism.

7.1 Handback: Capital Expenditure

We propose to adjust for the difference in the next regulatory period for the difference between the allowance and actual capex spent as part of the Innovation Fund. We propose to make the revenue adjustment in the 2031-36 regulatory period (subsequent regulatory period) post tax revenue model (**PTRM**) via the 'revenue adjustment' building block. The revenue adjustment is to be calculated as follows:

- In the 'PTRM Input' sheet of the AER's most recent PTRM (including any return on debt updates and cost pass-through decisions), update the relevant cells in the Capital Expenditure input section to substitute the Innovation Fund capex from the allowance approved by the AER in its Final Decision to JEN's actual audited costs for the next regulatory period.

- In the 'X-factors' sheet of this updated PTRM, take the net present value (NPV) of the unsmoothed revenue, and compute the difference between this updated NPV value and the revenue NPV value from the same cell in the original AER PTRM.

- Escalate this NPV difference from Real 2026 to Real 2031 dollar basis using the nominal weighted average cost of capital (**WACC**) for each year of the regulatory period updated annually within the AER's PTRM.

This value will then be used as an adjustment to the building block revenue for the next regulatory period.

8. Projects included are not suitable for traditional funding mechanisms

8.1 Summary

The Innovation Fund proposes a budget of $8 million, split 50% capital expenditure, 50% operational expenditure. The expected value through accessing additional grant funding and collaboration is estimated at up to $26.6 million.[14] The Innovation Fund portfolio (**portfolio**) is divided into two focus areas: electrification and energy storage with 15 initial projects.

Table 8-1: Total Innovation Expenditure (2024 $M)

Initiative	FY27	FY28	FY29	FY30	FY31	Total
Electrification	$0.41M	$0.33M	$0.52M	$0.58M	$0.65M	**$2.5M**
Energy Storage	$0.36M	$1.32M	$0.84M	$0.32M	$0.43M	**$3.3M**
Intersection of Electrification & Energy Storage	$0.75M	$0.75M	$0.45M	$0.15M	$0.55M	**$2.2M**
Total	$1.5M	$2.4M	$1.8M	$1.1M	$1.63M	**$8M**

8.2 Scope

This section provides a high level outline of the anticipated scope of JEN's indicative Innovation portfolio. The potential projects have been selected in response to our customer and network needs identified in section 2 and section 3. Four options of portfolios were proposed to customers, and this portfolio has been selected based on our feedback from them.

To allow the Innovation Fund to remain fit-for-purpose, we will continuously monitor the progress of these projects, the new innovations in the market as well as our customers' emerging needs and adjust the portfolio of activities as needed. This will ensure that we are acting in the best interests of the energy transition and our vulnerable customers. To provide the AER and our customers with oversight and comfort that this is prudent, we will be enacting a strict external governance framework (outlined in section 5).

To demonstrate our alignment with the innovation criteria, these initiatives have been categorised based on the AER's innovation criteria for DMIAM. This outlines that in order for a project to be considered innovative it must, alongside having the potential to deliver long-term benefits and provide community information sharing, meet at least one of the following criteria:[15]

- be based on new or original concepts; or
- involve technology, techniques or concepts that differ from those previously implemented or used in the relevant market; or
- focused on customers in a market segment that significantly differs from those previously targeted by implementations of the relevant technology, in relevant geographic or demographic characteristics that are likely to affect the future network.

We set out an overview of the potential projects below.

[14] Based on JEN 's Innovation Fund expenditure amounting to a 30% co-contribution to grant proposals, which is industry standard.

[15] The AER, Final Decision 'Demand Management Innovation Allowance Mechanism', December 2017, pg. 9

8.2.1 Initiative: Customer Experience including shared charging

Total Cost: $182,000

Description: This project will seek to review the connection process for EV Charging Infrastructure (**EVCI**) and identify pain points for this particular connection type. It will look to make recommendation for improvements.

Driver: With an uptick in EV ownership expected, it is expected that roadblocks will present themselves in relation to customers' experience in connecting and managing charging as well as finding solutions for shared charging such as in strata environments.

Proof of Innovation: The project is focused on customers in a market segment that significantly differs from those previously targeted by implementations of the relevant technology, in relevant geographic or demographic characteristics that are likely to affect the future network.

8.2.2 Initiative: Vehicle-to-x (V2X)

Total Cost: $1,155,000

Description: This cornerstone project will shape EVs into batteries-on-wheels which will include Vehicle-to-grid, vehicle-to-home, vehicle-to-business, vehicle-to-load. This will involve analysis, research including customer research, possible trials etc.

Driver: Unlocking additional value for customers to electrify their vehicles will further incentivise take-up of EV's across JEN with secondary benefits to JEN and customers and enable bidirectional charging that can contribute to resilience and grid stability.

Proof of Innovation: Involves technology or techniques or concepts that differ from those previously implemented or used in the relevant market.

8.2.3 Initiative: Managed charging integration with dynamic operation

Total Cost: $300,000

Description: This initiative will investigate opportunities to use managed charging to benefit network operations and reduce customer costs.

Driver: Managed charging can reduce connection and consumption costs to customers.

Proof of Innovation: Is focused on customers in a market segment that significantly differs from those previously targeted by implementations of the relevant technology, in relevant geographic or demographic characteristics that are likely to affect the future network.

8.2.4 Initiative: EV tariff analysis

Total Cost: $20,000

Description: We will seek to undertake modelling and analysis including engagement with stakeholders to understand the scope and viability of an effective EV tariff.

Driver: Feedback from people's panel and external bodies such as EV Council (**EVC**) have suggested a desire for EV tariffs to better support uptake of EV's and EVCI.

Proof of Innovation: Is based on new or original concepts.

8.2.5 Initiative: Pole mounted EV charging

Total Cost: $220,000

Description: This initiative will aim to reduce roadblocks to pole mounted EVCI.

Driver: Pole mounted charging limits the infrastructure footprint within a community and has been rolled out on a trial basis in NSW. Businesses offering chargers have significant roadblocks to rolling out a trial on the JEN network while maintaining safety and reliability.

Proof of Innovation: Involves technology or techniques or concepts that differ from those previously implemented or used in the relevant market.

8.2.6 Initiative: Public charging maps (install and charging)

Total Cost: $125,000

Description: Using data already captured within JEN systems, this initiative will aim to make it more accessible to visualise optimal locations for charger placement and EV charging.

Driver: Third party charging providers do not have access to network conditions to assess likely costs and benefits of placement of EVCI. This can lead to wasted effort and extended delivery timeframes rendering public and shared charging infrastructure uneconomic.

Proof of Innovation: Involves technology or techniques or concepts that differ from those previously implemented or used in the relevant market.

8.2.7 Initiative: Industry trials for innovative business models

Total Cost: $600,000

Description: This initiative will enable JEN to support emerging business models with electrification. The specific scope and benefits of this is yet unknown however it is expected that business models will emerge and in order for JEN to not block these, a nominal amount of funding should be available to support to this initiative.

Driver: Enabling business models that support those who cannot electrify, enabling equity in innovation.

Proof of Innovation: Is based on new or original concepts.

8.2.8 Initiative: Residential electrification in growth areas

Total Cost: $500,000

Description: This initiative will enable JEN to support overcoming roadblocks in electrification within growth areas. The scope and benefits of this specifically are yet unknown however it is expected that in order for JEN to not block these a nominal amount of funding should be available.

Driver: In alignment with people's panel recommendation 14 and the rationale in the project above.

Proof of Innovation: Is focused on customers in a market segment that significantly differs from those previously targeted by implementations of the relevant technology, in relevant geographic or demographic characteristics that are likely to affect the future network.

8.2.9 Initiative: Research and development (R&D) for sustainable technologies

Total Cost: $570,000

Description: In alignment with ESG goals as well as overcoming supply chain issues, JEN will invest in R&D for sustainable technologies.

Driver: Collaborating to develop sustainable technology and products relevant to JEN accelerates the maturity of the market resulting in future efficiencies at scale.

Proof of Innovation: Is focused on customers in a market segment that significantly differs from those previously targeted by implementations of the relevant technology.

8.2.10 Initiative: Integrated EV charging and BESS trial

Total Cost: $1,000,000

Description: This trial would seek to explore and optimise integrated EV charging and Battery Energy Storage System (BESS) solutions. This may be in co-locating chargers to existing BESS, trialling integrated products and/or conducting studies. This may also extend into optimising connection costs for public EV chargers.

Driver: Cost and complexity to connect public EV charging is a known barrier to installation. Trialling integrated EV charger and BESS system to reduce connection costs without increasing risk to supply reliability.

Proof of Innovation: Involves technology or techniques or concepts that differ from those previously implemented or used in the relevant market.

8.2.11 Initiative: Large scale battery project

Total Cost: $1,505,000

Description: This proposed funding would support analysis, modelling and a co-contribution to a battery installation.

Driver: JEN expects there is opportunity to explore a large-scale battery storage project to support zone substation level network needs. Innovation is required to implement emerging business models to economically support the ongoing operation.

Proof of Innovation: Is focused on customers in a market segment that significantly differs from those previously targeted by implementations of the relevant technology, in relevant geographic or demographic characteristics that are likely to affect the future network.

8.2.12 Initiative: Incentivise Behind the Meter (BTM) battery storage

Total Cost: $300,000

Description: This initiative will investigate how BTM storage can be incentivised. This will not be solely through tariff design but may incorporate marketing, incentives and connection journeys.

Driver: As per people's panel recommendation number 10, our customers want to be incentivised to invest in battery storage behind the meter.

Proof of Innovation: Involves technology or techniques or concepts that differ from those previously implemented or used in the relevant market

8.2.13 Initiative: Standardisation of battery connections

Total Cost: $40,000

Description: This initiative would innovate to assist with improving and streamlining the connection of new BESS.

Driver: As uptake of batteries is incentivised, this project shall seek to overcome roadblocks and difficulties in relation to customers' experience in connecting energy storage.

Proof of Innovation: Is focused on customers in a market segment that significantly differs from those previously targeted by implementations of the relevant technology, in relevant geographic or demographic characteristics that are likely to affect the future network.

8.2.14 Initiative: Flexible Exports Trial

Total Cost: $535,000

Description: Leveraging expected capability uplifts from key digital projects, this initiative is proposed to enable JEN to listen to our community and trial flexible export applications in collaboration with the community.

Driver: Commercial viability of generation/storage projects can be impacted by static export limits imposed by JEN to protect network and grid stability as well and ensure equity of access to export.

Proof of Innovation: Involves technology or techniques or concepts that differ from those previously implemented or used in the relevant market.

8.2.15 Initiative: Customer interface with flexible markets

Total Cost: $950,000

Description: This initiative considers testing how JEN customers may interact with flexible markets. It may involve trialling a product or a short-term subscription.

Driver: This project would build upon learnings from other DNSP's to test how best JEN customers may interface with flexible markets.

Proof of Innovation: Focused on customers in a market segment that significantly differs from those previously targeted by implementations of the relevant technology, in relevant geographic or demographic characteristics that are likely to affect the future network.

9. Costs and benefits

Given the early stages of development, expenditure estimates have been developed, based on projects of a similar size and complexity analysed and/or conducted within the current regulatory period.

9.1 Electrification costs

The anticipated costs for the next regulatory period are outlined in Table 9-1 below.

Table 9-1: Costs of electrification projects ($2024)

	RY27	RY28	RY29	RY30	RY31	Total
Customer Experience including shared charging						
Capital expenditure	$0	$4,000	$8,000	$24,000	$8,000	**$72,000**
Operating expenditure	$0	$6,000	$12,000	$36,000	$12,000	**$110,000**
Managed charging						
Capital expenditure	$24,000	$24,000	$24,000	$24,000	$24,000	**$120,000**
Operating expenditure	$36,000	$36,000	$36,000	$36,000	$36,000	**$180,000**
EV tariff trials						
Capital expenditure	$0	$0	$0	$0	$0	**$0**
Operating expenditure	$0	$0	$0	$20,000	$0	**$20,000**
Pole mounted EV charging						
Capital expenditure	$100,000	$50,000	$5,000	$0	$0	**$110,000**
Operating expenditure	$100,000	$50,000	$5,000	$0	$0	**$110,000**
Public charging maps (install & charging)						
Capital expenditure	$20,000	$20,000	$4,000	$4,000	$2,000	**$50,000**
Operating expenditure	$30,000	$30,000	$6,000	$6,000	$3,000	**$75,000**
Industry trials for innovative business models						
Capital expenditure	$0	$0	$100,000	$100,000	$100,000	**$300,000**
Operating expenditure	$0	$0	$100,000	$100,000	$100,000	**$300,000**
Residential electrification in growth areas						
Capital expenditure	$0	$0	$40,000	$42,000	$100,000	**$200,000**
Operating expenditure	$0	$0	$60,000	$63,000	$150,000	**$300,000**
R&D for sustainable technologies						
Capital expenditure	$40,000	$44,000	$48,000	$48,000	$48,000	**$228,000**
Operating expenditure	$60,000	$66,000	$72,000	$72,000	$72,000	**$342,000**

Key outcomes expected:

Increased utilisation of JEN’s network.

Accelerated uptake of EV's within JEN's network, which for each individual customer electrifying their vehicle it is estimated an average net saving of $2,500 per year.[16]

Reduced carbon emissions.

9.2 Energy Storage costs

The anticipated costs for energy storage projects in the next regulatory period are outlined in Table 9-2 below.

Table 9-2: Costs of energy storage projects ($2024)

	RY27	RY28	RY29	RY30	RY31	Total
Large scale battery project						
Capital expenditure	$2,000	$400,000	$200,000	$0	$0	**$602,000**
Operating expenditure	$3,000	$600,000	$300,000	$0	$0	**$903,000**
Incentivise BTM battery storage						
Capital expenditure	$0	$0	$0	$0	$0	**$0**
Operating expenditure	$60,000	$60,000	$60,000	$60,000	$60,000	**$300,000**
Standardisation of battery connection						
Capital expenditure	$0	$0	$0	$0	$0	**$0**
Operating expenditure	$15,000	$15,000	$0	$0	$0	**$30,000**
Pole mounted EV charging						
Capital expenditure	$100,000	$50,000	$5,000	$0	$0	**$110,000**
Operating expenditure	$100,000	$50,000	$5,000	$0	$0	**$110,000**
Flexible exports trial						
Capital expenditure	$25,000	$32,500	$45,000	$70,000	$95,000	**$267,500**
Operating expenditure	$25,000	$32,500	$45,000	$70,000	$95,000	**$267,500**
Customer interface with flexible markets						
Capital expenditure	$172,500	$135,000	$135,000	$135,000	$135,000	**$712,500**
Operating expenditure	$57,500	$45,000	$45,000	$45,000	$45,000	**$237,500**

Key outcomes expected:

- Increased overall energy storage across JEN's network.
- Increased possibility of renewable energy powering the grid during peak demand times.
- Reduced need for network augmentation in future regulatory periods.

9.3 Intersection of electrification and energy storage costs

The anticipated costs for the next regulatory period are outlined in Table 9-3.

[16] The Time is Now Report, ENA 2024 https://www.energynetworks.com.au/assets/uploads/The-Time-is-Now-Report-ENA-LEK-August-2024.pdf

Table 9-3: Costs of electrification and energy storage projects ($2024)

	RY27	RY28	RY29	RY30	RY31	Total
V2X						
Capital expenditure	$250,000	$125,000	$125,000	$50	$27,500	**$577,500**
Operating expenditure	$250,000	$125,000	$125,000	$50	$27,500	**$577,500**
Integrated EV charging and BESS trial						
Capital expenditure	$125,000	$250,000	$100,000	$25,000	$0	**$500,000**
Operating expenditure	$125,000	$250,000	$100,000	$25,000	$0	**$500,000**

Key outcomes expected:

- Increased overall energy storage across JEN's network.
- Increase the possibility of renewable energy powering the grid during peak demand times.
- Reduce the need for network augmentation in future regulatory periods.
- Increased utilisation of JEN's network
- Accelerated uptake of EV's within JEN's network, which for each individual customer electrifying their vehicle it is estimated an average net saving of $2500 per year. [17]
- Reduced carbon emissions.

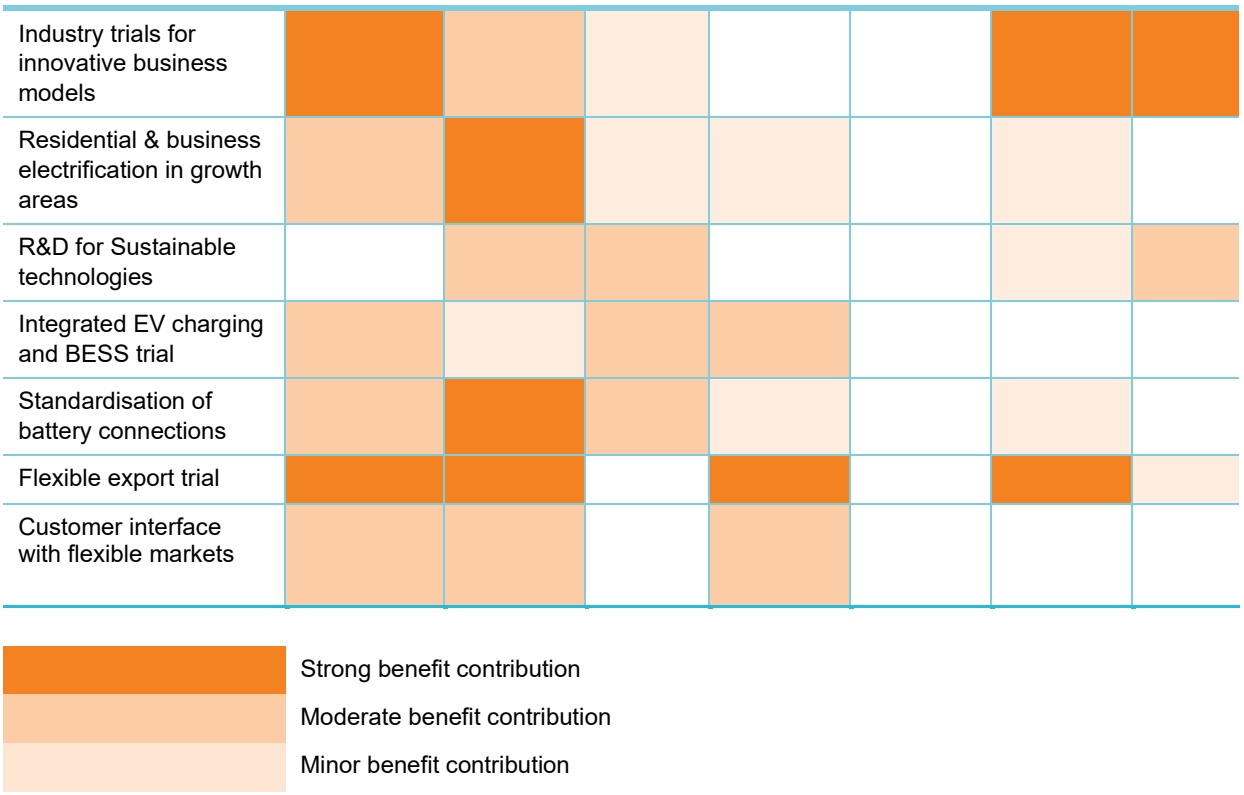
9.4 Expected Benefits

Table 9-4 below indicates the relative expected impact of each project in terms of key benefits identified above. Benefit quantification will occur as part of project business cases to be developed.

Table 9-4: Project Benefits

Initiative	Affordability	Customer Experience	Cost Efficiency	Network Load factor	Supply reliability	Solar (export) reliability	Energy Equity
Customer Experience incl shared charging							
V2X							
Managed charging							
EV tariff trial							
Pole mounted EV charging							
Public charging maps (install and charging)							
Large scale battery project							
Incentivise BTM battery storage							

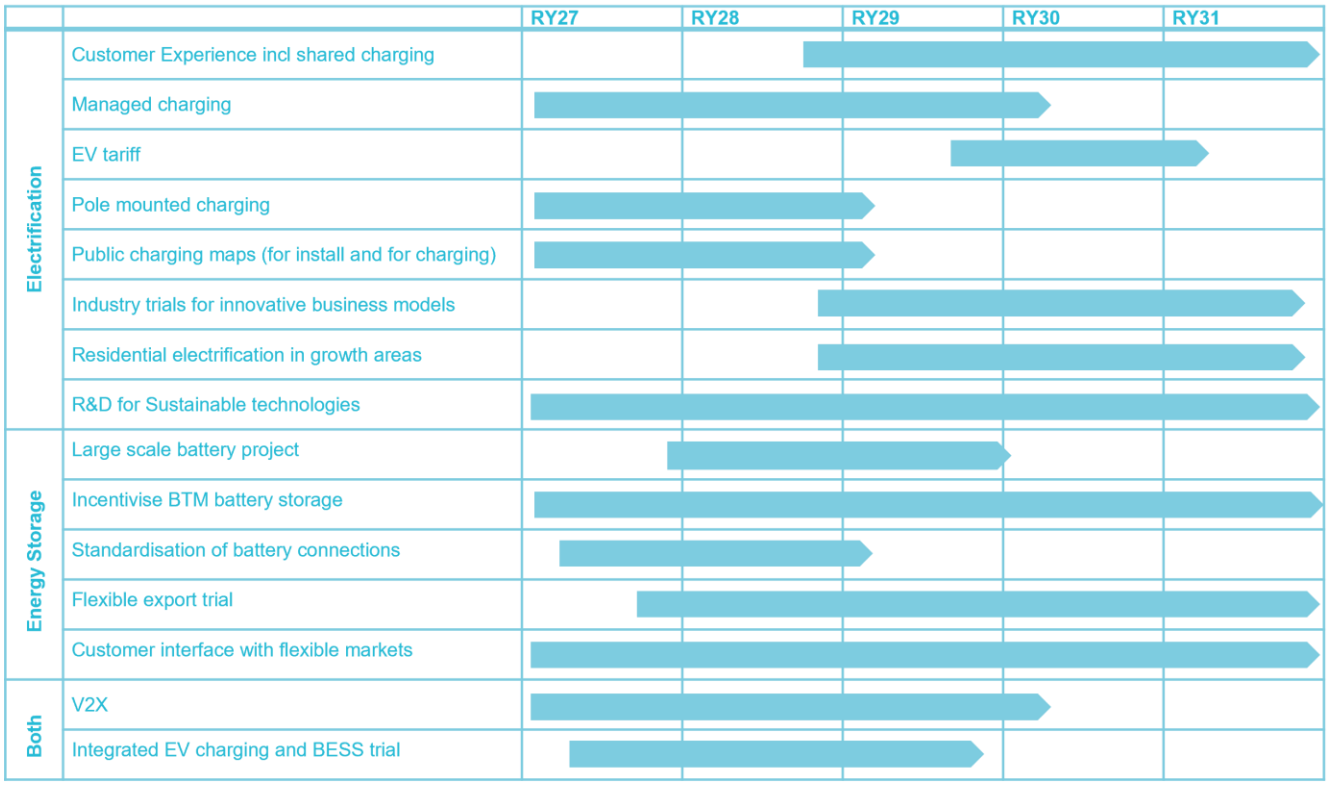
[17] The Time is Now Report, ENA 2024 https://www.energynetworks.com.au/assets/uploads/The-Time-is-Now-Report-ENA-LEK-August-2024.pdf


Industry trials for innovative business models
Residential & business electrification in growth areas
R&D for Sustainable technologies
Integrated EV charging and BESS trial
Standardisation of battery connections
Flexible export trial
Customer interface with flexible markets
Strong benefit contribution
Moderate benefit contribution
Minor benefit contribution

10. Deliverability

A high-level schedule has been considered to optimise availability of resources.

Figure 10-1: Innovation portfolio overview



Approval of this centralised Innovation Fund will ensure key capabilities are built and transitioned into business-as-usual activities for the future network, particularly in the integration of electrification and energy storage.

Having certainty regarding an allowable expenditure more widely enables possible efficiencies in internal and external resourcing.

10.1 Risks to deliverability

This portfolio assumes collaboration with external stakeholders, including the possible contribution of financial or human resources which may pose a risk to deliverability.

Appendix A
JEN's proposed internal governance model

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A1. Internal Governance Committee

As this portfolio will span multiple functions and require collaboration with external stakeholders, JEN is proposing to establish a cross-divisional internal governance committee, responsible for delivering the overarching objectives of the fund and to act as a key contact point for customers and external collaborators. A summary of the terms of reference is outlined in the following sections.

A1.1 Purpose

The purpose of the JEN Governance Committee is to provide strategic decision making, governance and oversight across the portfolio of projects funded through JEN's Innovation Fund.

This governance committee will:

- facilitate prioritisation, portfolio balancing and decision making;
- optimise delivery capability and capacity;
- ensure customer voices are heard and incorporated;
- maximise benefits from investment;
- identify and manage stakeholder expectations; and
- provide visibility of portfolio component activity and status.

A1.2 Key Principles

The following are the key principles of the JEN Governance Committee:

- The discipline of portfolio management describes a set of interrelated organisational processes and methods by which JEN allocates resources;
- The execution can be described as a continuous decision-making process whereby JEN's suite of innovation projects are subject to periodic review for alignment to customer and community wants and needs, strategic objectives; and
- By introducing and implementing governance across JEN innovation projects, new opportunities and threats are evaluated, influential factors external to the Portfolio are assessed and Portfolio projects are prioritised and authorised and in cases, potentially modified, delayed or terminated.

A1.3 Responsibilities

The Governance Committee is responsible for undertaking the following tasks:

- approving project initiation and prioritisation;
- ensuring appropriate Customer Voice Groups and/or stakeholders are engaged in the project design;
- approving and allocating funding to the project;

- approving closure of projects, ensuring objectives including knowledge sharing have been delivered;
- reviewing portfolio risks and approving mitigation strategies;
- reviewing portfolio issues and approving corrective actions;
- reviewing portfolio benefits realisations and approving alterations / corrective actions;
- reviewing portfolio status reporting and authorising actions as required;
- reviewing escalated project risks and issues and approving mitigation strategies and actions; and
- reviewing and deciding upon project specific variation requests (specific to budget increases, time extensions and scope / deliverables / benefits additions & subtractions).