Jemena Electricity Networks (Vic) Ltd.

IT Investment Brief – Customer Systems Lifecycle

Non-recurrent – Maintaining existing services

Jemena
bringing energy to life

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Glossary

AER	Australian Energy Regulator
AWS	Amazon Web Services
Capex	Capital Expenditure
CMS	Content Management System
CSAT	Customer Satisfaction
Current regulatory period	The period covering 1 July 2021 to 30 June 2026
ICT	Information and Communications Technology
Jemena	Refers to the parent company of Jemena Electricity Network
JEN	Jemena Electricity Network
Next regulatory period	The period covering 1 July 2026 to 30 June 2031
NPV	Net Present Value
OMS	Outage Management System
Opex	Operating Expenditure
RYxx	Regulatory year covering the 12 months to 30 June of year 20xx for years in the Next Regulatory Period. For example, RY25 covers 1 July 2024 to 30 June 2025
Totex	Total Expenditure
WCAG	Web Content Accessibility Guidelines

Customer Systems Lifecycle

Objective	Jemena Electricity Networks Vic Ltd. (JEN) must regularly maintain its customer systems to ensure we continue to meet our operational and regulatory obligations and to meet customer expectations for accessible, timely information. This investment brief outlines the need to continue to maintain existing systems that provide services to customers. This includes fault reporting tools, contact management systems, connection and application services, and communications.		
Non-recurrent ICT sub-categorisation	☒ Maintaining existing services, functionalities, capability, and/or market benefits	☐ Complying with new/altered regulatory obligations/requirements	☐ New or expanded ICT capability, functions, and services
Background	JEN has a vision for the future to provide a consistent experience for customers, thereby meeting customers' expectations of good service. To achieve this goal and to meet our customers' expectation on quality and speed of service, our customer interactions must be supported by cohesive, integrated and streamlined end-to-end systems, processes, and capabilities. Furthermore, our customers have told us that it is important that the information that we provide them is accessible, and available to them, particularly before major events. Throughout the previous and current regulatory periods (commencing in 2019 and continuing today), JEN has invested in new core customer systems, addressing disparate and ageing technology to ensure that our processes and systems are fit for purpose to deliver customer communications and services. **Customer system landscape** JEN have not upgraded these core customer systems since implementation. In JEN's experience after 3-5 years, core customer systems typically start to show signs of degradation. This can manifest as increased performance issues, compatibility problems with newer technologies, and greater difficulty in applying patches or updates effectively, leaving us at risk of security breaches. Even if there are no significant issues evident today, our historical data and industry insights enable us to anticipate potential challenges on the horizon. Proactively planning for lifecycle upgrades and maintenance allows us to address these issues before they impact service reliability, ensuring that we continue to meet customer expectations and regulatory requirements efficiently. These new core customer systems require continued maintenance which includes periodic software upgrades (based on vendor version releases), security patches, performance optimisation, and integration management. These updates vary in frequency, with critical security patches and bug fixes occurring more often, while major feature updates are usually on an annual or semi-annual basis. A lifecycle upgrade plan for customer-facing systems is essential to ensure security, performance, and functionality remain optimal, providing a seamless and reliable experience that meets evolving customer expectations. Further, it allows JEN to be well positioned to meet ongoing regulatory and compliance requirements from the Australian Energy Regulator (AER), Essential Services Commission and the Cyber Security Act requirements in a prudent and efficient manner. The new core customer systems and processes also enable JEN to provide accessible digital content to users, in line with the human right to access information outlined in the Charter of Human Rights and Responsibilities Act 2006 (Vic)[1]. JEN aims to make digital service accessible by complying with the latest version of the Web Content Accessibility Guidelines (WCAG) Level AA[2], similar to the requirements of Australian Government Agencies. More specifically the Information Communications and Technology (ICT) systems and tools that support JEN's customers include: • Streetlight fault reporting tool and poles and wires fault reporting tool – These are bespoke, public facing, web-based tools, used by our customers (via the Jemena website) to report faults in public streetlights, poles, and wires. JEN's engagement		

[1] Charter of Human Rights and Responsibilities Act 2006 (Vic) https://content.legislation.vic.gov.au/sites/default/files/2022-06/06-43aa015%20authorised.pdf
[2] Web Content Accessibility Guide Lines https://www.w3.org/WAI/standards-guidelines/wcag/

	with customers highlighted a desire for improved fault reporting processes, especially the need for faster updates and more accessible communication channels for reporting street light issues. Customers also expressed the need for a more streamlined fault reporting experience. There were calls for clearer guidance and simplified reporting processes when faults occur, particularly for damage to poles and wires. • Customer portal – A self-serve customer platform built for customers to submit requests for JEN services (e.g. connection requests, access to network assets). [redacted] There was significant feedback from customers emphasising the need for a more user-friendly and responsive customer portal. The portal should allow better access to real-time data and more transparent communication about service status and updates. • Communications platform [redacted] – Utilised to share automated notifications to customers on their connection journeys, claims, enquiries etc. Customers noted a lack of effective two-way communication. They requested enhancements in the communications platform to provide real-time updates, better customer engagement, and clearer notifications during outages and service interruption. • [redacted] – Enterprise solution platforms that JEN utilises for customer relationship management, contact management and for scheduling truck appointments. Customers want JEN to have enhanced service efficiency, to have a clear record of all interactions between JEN and the customer, and to allow customers to self-serve and book their own truck appointments, especially for connection services. • Telephony integration [redacted] - This integration allows customer service agents to manage calls, track interactions, and view customer details in real time[redacted]. Feedback from customers pointed to frustration with long wait times and automated responses. • Jemena Website – Customers use the Jemena Website to access JEN information and services. [redacted]. Issues were raised by customers about the current website's accessibility and ease of navigation. Customers want simpler, clearer information, especially regarding fault reporting and support options. Suggestions included more intuitive design and better integration with other customer support tools. • [redacted] – JEN's knowledge management system which provides JEN's team members with easy access to information on process, practice, and guidance. This platform has easy search functionality and is integrated with other core systems. JEN's customers requested improved customer service and enhanced customer service efficiency. [redacted] Maintenance of these platforms is not the subject of this initiative brief, however due to system integrations they will be impacted. The full extent of our customer feedback is detailed in the Jemena 2026-31 Draft Plan.[3]
Customer Importance	This initiative brief, Customer Systems Lifecycle, is aligned to JENs key customer priorities in the following ways: Affordability: • Maintain operating and productivity efficiencies achieved between 2019 and 2024, through continued utilisation of tools and platforms. The digitisation of processes has reduced operating costs in the current period and continued investment is required to ensure operating efficiencies are not lost.

[3] https://hdp-au-prod-app-jemena-gridtalk-files.s3.ap-southeast-2.amazonaws.com/3617/2792/8908/JEN_2026-31_Draft_Proposal_-_20240823.pdf

	• Efficient and accurate ticket logging: automation and integration between the systems minimises manual errors, saving time and ensuring that the right teams handle issues promptly, maintaining response efficiency. • Streamlined fault reporting and updates: customers need a unified and efficient process to report issues and receive timely updates. This consistency leads to quicker resolutions and higher customer satisfaction and supports safe operation of the network. Improved network connections: • Customers expect to connect to JEN in a smooth and cost-effective manner, ensuring a more reliable and efficient connection experience. Continued investment in process improvements, and the technology systems that support connections, will also ensure that operating efficiencies achieved in the current regulatory period are not lost. Digitisation and automation: • Customer-facing portals and websites: continuous upgrading of the customer portal and website enhances security and ensures compliance, which ultimately protects sensitive information and improves user experience. Accessible communication: • Ongoing conversion of content to meet WCAG Level AA guidelines, so that users have access to information regardless of disability or technology. This builds trust and keeps users well-informed, as well laying the foundation to empower customers through the energy transition. • Real-time communication across multiple channels: customers value receiving consistent and transparent updates across various channels, which builds trust and keeps them well-informed. Choice is also key to customers feeling they are in control of how they seek out information or support. • Tailored and inclusive communication: Customers value accessible and culturally inclusive information across all channels, ensuring it meets the needs of multicultural, senior, and young customers. Clear, simple formats, and consideration for disabilities or mental health challenges foster inclusivity and reduce barriers. • Empathetic and tailored Service: Displaying understanding and adapting to varied customer communication styles helps customers feel safe, calm, and supported, reducing anxiety, and improving customer outcomes. • Streamlined processes: Simplifying interactions ensures quicker resolution of issues, minimising the need for customers to repeat their story and thereby reducing the anxiety customers feel when contacting JEN. The importance of continued investment in customer systems is reinforced in Jemena's Annual Customer Satisfaction (CSAT) research of residential end-use customers. This research identified that JEN's reputation is for being reliable, trustworthy, and providing good customer service (with affordability, community and environment ranking lower). The research identified that an energy distribution provider has good customer service when they keep customers informed, provide excellent customer service, and provide digital solutions. Across 2021 and 2023, JEN's comparative performance, as documented by Sagacity Research in their annual CSAT and NPS research report (internal document), indicates small improvements in these capabilities and that whilst the 2024 research shown trust has declined recently, this is predominantly to do with pricing and affordability, rather than customer service. To maintain customer satisfaction and reputation, the research indicates that JEN needs to continue to invest in its customer systems and processes rather than risk deteriorating customer experience.
Key Considerations	**How we estimated costs** For our recommended option, a proxy-based estimation approach was adopted for this proposed project. In the current regulatory period, JEN successfully delivered the "Customer Experience Uplift Foundation" project and is in the final stages of "Customer Experience Uplift Transform 2024", which implemented some of the new core technology described above and integrated existing systems to address an ageing landscape and ensure our processes and

	systems were ready for the energy transition. Further, in 2023, we launched the new Jemena website which also replaced an aged platform. Given their similarity to this initiative, these projects were used for a proxy-based estimation. These costs assume a blended team of internal and external resourcing, recognising that not all required capabilities for the lifecycle upgrades are available internally. [redacted] Integration, project management and testing resourcing efforts have been shared across platforms, reflecting their capex opex split as detailed above. The recurrent step opex is inclusive of increased utilisation of platforms and licensing of cloud-based solutions. More specifically, JEN anticipate an incremental growth [redacted] Licenses across the next regulatory period. The recurrent step opex also includes an additional resource for the updating of accessible digital content, as well as costs for website and content optimisation and development of accessible information standards. Costs have been estimated based on the cost of similar skilled resources, and for similar content developed for Jemena Gas Networks.
Options	JEN has considered 3 alternatives to deliver the capability articulated above: 1) Do nothing – not recommended. 2) Maintenance of existing systems – recommended. 3) New capability in anticipation of future needs – not recommended. **Option 1: Do nothing** **Description** Systems would not be updated or refreshed; JEN would maintain the current version of the systems. As outlined in the background section, the different software we rely on to support our customer experience and services follows a regular upgrade cycle, whether third party software and platforms or bespoke tools. This means that JEN must continually implement these upgrades to ensure access to the latest features, security enhancements, and performance improvements offered by the software providers. There would be no improvements made to ensure content is more accessible for customers, as outlined in option 2. **Benefits** By maintaining the current version of our systems, JEN would avoid incurring the costs outlined in options 2 and 3 as detailed below. **Risks** • There is a risk of a deteriorating customer experience, as customers may continue to face inefficiencies and frustrations when reporting faults or accessing updates, leading to declining satisfaction, increased enquiries, and increased complaints. • Continued reliance on outdated systems could lead to higher maintenance and manual labour costs over time, reducing overall efficiency and profitability.

[4] Aligns to the IFRS Interpretation Committee (IFRIC) published decision 'Configuration or customisation costs in a cloud computing arrangement (IAS 38 Intangible Assets)"

- Not updating JENs technology limits our ability to adapt to future needs, innovate, and scale services effectively, resulting in missed opportunities to enhance customer offerings.
- Whilst the customer systems landscape has been updated recently, without continued investment, these systems may not meet future security standards or compliance requirements. This would increase the risk of data breaches, leaks, and cyber threats, which could compromise sensitive customer information and lead to potential regulatory penalties.
- Without improvements in digital tools and self-service options, customers may continue relying heavily on phone support, leading to longer wait times and increased operating costs.
- Inefficient fault reporting tools for streetlights and poles/wires could lead to slower identification and resolution of issues, especially during extreme weather events. This may result in prolonged outages, affecting customer safety.
- The AER expects distribution network service providers to actively respond to customer feedback and improve service delivery. Failing to implement changes could result in heightened regulatory scrutiny.
- Failure to address accessible content for customers would lead to a decline in customer trust, satisfaction, and engagement. Without accessible, inclusive communication and empathetic service, JEN risks alienating vulnerable groups, including those with disabilities, mental health challenges, or language barriers.

Summary

This option 1 (Do nothing) is not recommended as we do not consider it reflects good industry practice given the risks outlined above. Furthermore, it does not provide the lowest sustainable cost.

Option 2: Maintenance of existing systems

Description

This option focuses on prudently investing in the maintenance of our existing systems and completing necessary upgrades to sustain current service levels. This approach allows us to minimise risks associated with ageing technology, maintain our operational obligations, and meet customer expectations. As many of our customer systems were implemented in 2019, they will be 6-7 years old by the start of the 2026-31 regulatory period, having had no lifecycle upgrades since being implemented.

By reinforcing our foundational capabilities, we aim to enhance operational resilience and stay responsive to changing customer expectations. Additionally, this approach ensures we continue to meet important regulatory obligations, and other standards such as WCAG Level AA compliance and Cyber Security Act, without the need for significant overhauls.

This option includes the ongoing conversion of content to meet WCAG Level AA guidelines, so that users have access to information regardless of disability or technology as outlined in the Background section above.

[redacted]

[redacted]

This option includes improving the accessibility of JENs existing content to meet WCAG Level AA guidelines, which will provide inclusive, culturally tailored communication with clear formats and multiple language options to our customers. This option will support customer choice in accessing information by providing real-time updates across multiple channels, which is particularly important before a major event.

Costs

The estimated costs for this option are outlined in the table below:

$2024	FY27	FY28	FY29	FY30	FY31
Total capex	$581,000		$863,000	$900,000	$300,000
Non-recurrent opex	$194,000		$288,000	$300,000	$100,000
Recurrent-step opex	$263,000	$358,000	$364,000	$388,000	$381,000
Total opex	$457,000	$358,000	$652,000	$688,000	$481,000
Totex	**$1,038,000**	**$358,000**	**$1,515,000**	**$1,588,000**	**$781,000**

The forecast of non-recurrent capex is $2,644,000, non-recurrent opex is $882,000, and recurrent step opex is $1,754,000 – with a total expenditure to deliver for this solution over the 2026-31 period of **$5,278,000**.

Benefits

As well as avoiding the risks outlined in option 1, and the customer benefits detailed in "customer considerations", other benefits include:

- Enhanced reliability and efficiency: maintaining and upgrading existing systems ensures they remain reliable and efficient, reducing the risk of system failures and disruptions to essential services.
- Cost-effective resource management: by focusing on targeted upgrades and maintenance, we optimise resource allocation, avoiding the costs associated with large-scale overhauls or unanticipated system issues.
- Sustained customer satisfaction: keeping core systems up to date allows us to consistently meet customer expectations, providing a seamless and responsive experience.
- Regulatory compliance: addressing necessary upgrades maintains compliance with critical regulations such as WCAG level AA and the Cyber Security Act protecting the organisation from legal and reputational risks.
- Minimised technological risk: regular maintenance of existing systems reduces the risks associated with outdated technology and potential security vulnerabilities.

Risks

- Limited innovation: focusing on maintenance may limit opportunities for adopting new technologies and improvements.
- Continued reliance on existing systems could lead to technical debt or dependencies, complicating future upgrades.
- Incremental maintenance expenses may accumulate over time without delivering substantial long-term benefits.

Summary

This option is recommended as we consider it reflects good industry practice given the benefits and risks outlined above. Furthermore, it provides the lowest sustainable cost.

Option 3: New capability in anticipation of future needs

Description

In addition to the system maintenance and improvements to content accessibility standards outlined in option 2, this option proposes system improvements to proactively enhance our customer systems. This strategic approach goes beyond basic maintenance to focus on significantly advancing our systems and processes in anticipation of future customer needs and upcoming regulatory and market changes. We would aim to future-proof our customer capabilities, ensuring that we remain aligned with evolving compliance standards and customer expectations.

Additional enhancements include:

- Significant enhancements to existing systems: upgrading core functionalities to improve reliability, efficiency, and overall service quality.
- Extending system capabilities: expanding current systems to offer new features and better support evolving customer needs.
- Accelerated customer improvements: fast-tracking initiatives to deliver enhanced customer benefits and experiences sooner.
- Proactive adaptation to regulatory and market changes: preparing early for anticipated regulatory changes and innovations, ensuring systems are ready for unplanned developments.
- Telephony-based integrations: expanding existing telephony solutions to further automate customer interactions.

Costs

The estimated costs for this option are outlined in the table below:

$2024	FY27	FY28	FY29	FY30	FY31
Total capex	$581,000		$788,00		$3,600,000
Non-recurrent opex	$194,000	$500,000	$263,000		$1,200,000
Recurrent-step opex	$315,000	$415,000	$423,000	$445,000	$438,000
Total opex	$509,000	$915,000	$686,000	$445,000	$1,638,000
Totex	**$1,090,000**	**$915,000**	**$1,474,000**	**$445,000**	**$5,238,000**

The forecast of non-recurrent capex is $4,969,000, non-recurrent opex is $2,157,000, and recurrent opex is $2,036,000 with a total expenditure to deliver for this solution over the 2026-31 period of **$9,162,000**.

Benefits

By enhancing our customer systems now, we can:

- Better accommodate new technologies.
- Able to maintain our customer service in a rapidly changing energy market.
- Adapt to regulatory shifts.

Risks

- Overinvesting in anticipated changes that may not align with actual future requirements, leading to wasted time and resources.
- Reduced flexibility to adapt to real regulatory or market shifts due to early commitments.
- Higher risk of budget overruns and unexpected technical challenges, leading to additional costs.
- Greater likelihood of system instability or service disruptions, with lots of external communications required with customers and retailers to communicate the changing system landscape and any impacted functionalities.
- Increased complexity and integration issues, causing change fatigue for staff and customers.
- Dilution of focus on core services, risking reliability and customer satisfaction.

Summary

This option is not recommended as JEN considers that it does not reflect good industry practice as outlined in the risks above and it does not provide the most sustainable cost. Instead, focusing on maintaining reliable services and adapting as clear needs arise, as outlined in option 2, is a more prudent approach.

Options Summary

The table below summarises the quantitative and qualitative differences between the analysed options.

$2024	Capex	Opex	Totex	NPV	Residual Risk
Option 1	Not applicable	Not applicable	Not applicable	Not applicable	High
Option 2	$2,644,000	$2,634,000	$5,278,000	Not applicable	Low
Option 3	$4,969,000	$4,193,000	$9,162,000	Not applicable	Medium

What We Are Recommending

JEN proposes to proceed with option 2. JEN considers that it best reflects good industry practice and provides the most efficient cost.

Dependencies on other Investment Briefs

This initiative will be aligned to the works proposed in the supporting document *JEN – RIN – Support - ICT Investment Brief – SAP Upgrade.*

Relationship to ICT Capital Forecast

The supporting modelling for this investment brief is contained in the following model**: JEN – IT Investment Brief – Customer Systems Lifecycle – Costs and Benefits Analysis Model.**