



# Jemena Electricity Networks (Vic) Ltd

IT Investment Brief – Enterprise Content Management

**Uplift**

Non-recurrent – Compliance



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## Glossary

|                           |  |
|---------------------------|--|
| AER                       | Australian Energy Regulator  |
| Capex                     | Capital Expenditure  |
| CO <sub>2</sub>           | Carbon Dioxide   |
| Current regulatory period | The period covering 1 July 2021 to 30 June 2026  |
| CY <sub>xx</sub>          | Calendar Year xx – the period covering January to December   |
| ECMS                      | Enterprise Content Management System   |
| FIRB                      | Need definition  |
| ICT                       | Information and Communications Technology  |
| Jemena                    | Refers to the parent company of Jemena Electricity Network   |
| JEN                       | Jemena Electricity Network (Vic) Ltd.  |
| kWh                       | Kilowatt hour  |
| Next regulatory period    | The period covering 1 July 2026 to 30 June 2031  |
| NPV                       | Net Present Value  |
| Opex                      | Operating Expenditure  |
| RY <sub>xx</sub>          | 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 |
| SaaS                      | Software as a Service  |
| SOCI                      | Security of Critical Infrastructure Act  |
| The Group                 | Jemena Gas Network and Jemena Electrical Network   |
| Totex                     | Total Expenditure  |
| U.S.                      | United States of America   |

## Enterprise Content Management Uplift

|                                      |  |  |  |
|--------------------------------------|--|--|--|
| Objective                            | This initiative aims to modernise and consolidate Jemena’s enterprise content management ecosystem for staff to maintain compliance with regulatory obligations, while delivering efficiency and safety outcomes for customers and other stakeholders through better access, security, organisation and management of operational and investment content.  |  |  |
| Non-recurrent ICT sub-categorisation | <input type="checkbox"/> Maintaining existing services, functionalities, capability, and/or market benefits  | <input checked="" type="checkbox"/> Complying with new/altered regulatory obligations/requirements | <input type="checkbox"/> New or expanded ICT capability, functions, and services |
| Background                           | <p>Jemena employs an enterprise content management ecosystem, which encapsulates multiple platforms, including our Enterprise Content Management System (ECMS), Microsoft File Server, Microsoft SharePoint and Teams and DrawBridge. These systems store and manage structured and unstructured content, including but not limited to records, processes, procedures, policies, drawings, contracts, reports, forms, standards, specifications and more. Our ecosystem is enterprise-wide which means that JEN’s customers enjoy the benefit of a lower-cost because we are able to share costs across a broader set of businesses.</p> <p><b>Changes in JENs business and enhanced technologies have triggered the need for further uplift</b></p> <p>Since the first elements of these systems were implemented in the late 1990s, JEN’s enterprise content management ecosystem has expanded over time driven in part by:</p> <ul style="list-style-type: none"> <li>• regulatory reform resulting in changes to the responsibilities and obligations of JEN and its businesses, including in energy law (such as ring-fencing requirements), privacy law and cybersecurity law;</li> <li>• changing needs of stakeholders, including information provision to regulators and governments;</li> <li>• changing technology and digitalisation resulting in the adoption of new technologies, systems, and platforms, including to promote efficiency and cybersecurity;</li> <li>• managing an expanded asset base in JEN; and</li> <li>• JEN’s prudent and efficient investment in business improvements to adapt to our changing business environment.</li> </ul> <p>Historically, JEN’s efficient development and maintenance of its enterprise content management ecosystem has supported the provision of electricity services to JEN customers. However, these incremental changes to our systems have resulted in limitations across the disparate platforms<sup>1</sup>.</p> <p><b>The current ecosystem has capability limitations</b></p> <p>It has become increasingly inefficient and time-consuming to search for content due to a surge in digitalisation over recent years by replacing content historically managed in physical form with digital content. This is causing difficulties for JEN staff in efficiently sourcing information required by business users for operational activities, customer service, regulatory information requests and audit purposes.</p> <p>Whilst the enterprise content management ecosystem has historically served the needs of JEN staff, the current implementation does not offer robust and secure document sharing and collaboration capabilities like modern cloud-based offerings available in the market. Controlled documents on the ECMS cannot be directly accessed using mobile devices including those issued to JEN staff. To access content, staff create disparate and unmanageable work-around solutions.</p> <p>It is becoming increasingly difficult to maintain operational efficiency and manage content control. JEN staff must now set up manual workarounds for various operational activities such</p> |  |  |

<sup>1</sup> These platforms include [redacted] for managing engineering drawings and images, and [redacted] for project management-specific features.

as printing paper forms and diagrams and undertaking manual validation and approval processes for controlled documentation.

The ECMS is becoming difficult to support and optimise and lacks the advanced optimisation features of the latest software-as-a-service (SaaS) offerings. This means it is costly and time-consuming to undertake version upgrades to leverage new features and maintain system security. Moreover, the vendor has already flagged that it will cease making capability and functionality enhancements to the current on-premises system and is dedicating 80% of future investment to the cloud equivalent.

**Managing our regulatory obligations will become increasingly more challenging**

The limitations of JENs enterprise content management ecosystem will increasingly hinder our ability to expand the capabilities needed to meet our regulatory obligations. This challenge is further compounded by the vendor's decision to cease new investment into providing enhancements to the system's capabilities and functionality, as previously noted. This includes:

- **Electricity Distribution Ringfencing Regulatory Obligation:** Reduced ability to identify JEN specific content and implement necessary controls to ensure content is not shared or made accessible to individuals or business that would contradict ringfencing obligations.
- **FIRB Regulatory Obligations:** Reduced ability to audit access and sharing of documentation in compliance with FIRB obligations, such as access of sensitive asset information outside of Australia.
- **Privacy Regulatory Obligations:** Reduced ability to identify and protect personal information collected in records and documents and implement group wide policy controls to secure and govern such content from misuse, unauthorised access or disclosure until it is securely disposed.

[REDACTED]

- **Commercially Confidential Obligations:** Reduced ability to manage versioning of confidentially contracts to avoid breach of obligations.
- **Regulatory Reporting Obligations:** Obligations for timely and accurate provision of information to regulators including the AER in response to regulatory information notices and other regulatory requests: Reduced ability to quickly and confidently locate accurate information across multiple platforms, in multiple repositories.

Customer Importance

When we interact with our customers, we create documentation and content that needs to be stored and managed throughout its lifecycle. In order to continue to serve our customers and adhere to growing legal and regulatory compliance obligations, we require modern tooling that allows us to enforce our information, records and document management policies, processes and procedures.

With advanced solutions, we can streamline workflows, ensuring that content is organised and easily accessible. This not only enhances the customer experience through improved service delivery and response times but also strengthens the security and confidentiality of customer information. Moreover, modern tools offer the scalability and flexibility needed to grow alongside our evolving business requirements, enabling us to adapt to future regulatory changes with minimal disruption.

If we can better organise, access, and manage our content, our customers will benefit from:

- Improved services and faster response times,
- More secure and compliant management of sensitive information,
- Increased operational efficiency, leading to cost savings and better resource utilisation,
- A future-ready platform that supports innovation and continuous improvement in customer service.

|                           |   |
|---------------------------|---|
|                           | <p>Ultimately, investing in modern document and information management systems will empower JEN to meet both current and future challenges.</p>   |
| <p>Key Considerations</p> | <p>In considering whether and how to address various challenges across the disparate platforms forming JEN's enterprise content management ecosystem, we have considered various strategic factors.</p> <p>To address the challenges outlined in the background section of this document, our approach involves investing in the establishment of a centralised content management system, streamlining content access, search processes and version control, and mitigating the risk of non-compliance to regulations and audit requirements.</p> <p>Informed by input from technology vendors and external research agencies such as Gartner, JEN's preferred option will allow us to address this gap in the 2026-31 period through the functionality and capability delivered by the systems outlined in this initiative brief. The approach described in this brief aims to achieve the following key outcomes:</p> <ul style="list-style-type: none"> <li>• Centralised and efficient content search mechanism: Consolidate, integrate and modernise our existing content management platforms so that we will have a centralised and integrated ECMS that allows efficient content indexing, tagging and version control.</li> <li>• Efficient content collaboration: Implement robust and secure content collaboration tools to allow users to access controlled content based on their role, allow teams to collaborate, access and update documents simultaneously and provide mobile device compatibility.</li> <li>• Optimise process and integration capabilities: Address content duplication, better manage manual effort in operational activities and be able to respond quickly to regulatory requirements, growing market trends and customer demands.</li> <li>• Management of content throughout its lifecycle: Enable Jemena to effectively manage content throughout its lifecycle, from creation to classification, indexing, storage, retrieval, distribution, access, version control, collaboration, review and approval, retention, archiving, disposal, audit and compliance.</li> </ul> <p><b>How our costs were derived</b></p> <p>A proxy-based estimation approach was taken for our recommended option outlined below, due to the similar nature of the project as to ones we have completed in the past.</p> <ul style="list-style-type: none"> <li>• In 2015, Jemena successfully completed a project to implement our Enterprise Content Management System (ECMS). This project has served as the foundation for a proxy-based estimation method for the proposed Enterprise Content Management Uplift project, which has similar requirements, offering a reliable benchmark due to its comparable duration and scope.</li> <li>• Additionally, in 2023, we transitioned our 2013 SharePoint on-premises solution to a Software-as-a-Service (SaaS) model, migrating content from an on-prem environment to the cloud, furthering our understanding of migration efforts and cost implications.</li> </ul> <p>For the proposed Enterprise Content Management Uplift project, our proxy-project costs have been adjusted to reflect the increased complexity of our content management ecosystem, which includes our Enterprise Content Management System (ECMS), Microsoft File Server, Microsoft SharePoint and Teams and Drawbridge.</p> <p>Since all components of the project are cloud-based, the associated costs are classified as opex.</p> |
| <p>Options</p>            | <p>JEN has considered three alternatives to deliver the capability articulated above:</p> <ol style="list-style-type: none"> <li>(1) Do nothing – not recommended</li> <li>(2) Consolidate and modernise the disparate content management platforms. – recommended</li> </ol>   |

(3) Develop a new custom built Enterprise Content Management system – not recommended

**Option 1: Do nothing**

**Description**

This option requires that no action is taken and results in no changes to current platforms; minimum viable application version upgrades will be performed to ensure vendor support is maintained and security patches can be applied.

**Benefits**

By doing nothing, JEN would avoid incurring the costs and many of the risks outlined at Option 2 below in relation to the proposed initiative. However, doing nothing may result in JEN no longer having a workable ECMS, would return no benefits and increase the overall risk significantly.

**Risks**

Without investment to modernise JEN’s content management platforms, our ability to manage and govern JEN content will deteriorate over time. As this capability deteriorates, the likelihood of breaching regulatory obligations (refer Background above) will increase.

As observed in the Optus security breach of 2022, a significant risk could eventuate regarding disposal of content that is no longer required by JEN and the consequences and costs of not disposing content effectively can be significant. JEN requires modern content management platforms that support intelligent content archiving and disposal policies to ensure data is responsibly archived or disposed of when no longer required by JEN.

Community expectations and government policy responses on privacy has also shifted in recent years, leading to greater financial, legal and reputational impact for any privacy breaches by an organisation.

**Summary**

This option is not recommended as we do not consider it reflects good industry practice given the risks outlined above. There would generally be no benefits for JEN for incurring these risks other than avoiding the costs outlined below in Options 2.

**Option 2: Consolidate and modernise our disparate content management platforms.**

**Description**

This option will modernise the current architecture, integration and remove the complexity and duplication of features and functions across our multiple content management platforms. It will consider which platforms need be retained and integrated. It will also consider if the remaining platforms are better placed to meet business and customer requirements running on Group managed infrastructure or as a SaaS platform.

**Benefits**

**Emission Benefits**

- Improved ability to integrate and share with line of business applications and accessing controlled content will reduce the need to print paper forms/diagrams by the field workers and in turn reduce usage of paper, ink and other resources.
- Reduction in creating multiple copies of documents will lead to reduced storage costs and power usage in datacentres thereby reducing carbon footprints.

**Customer Benefits**

- A modern content management platform will support intelligent content archiving and disposal policies to ensure data is responsibly archived or disposed of when no longer required by JEN, minimising data breach risks that could impact customers.





|  | <p>JEN also considers that it best reflects good industry practice and provides the most efficient costs.</p> <p><b>Option 3: Develop a Custom-Built Enterprise Content Management System</b></p> <p><b>Description</b></p> <p>Developing a new bespoke Enterprise Content Management system from the ground up would offer complete control over the design, functionality, and integration with existing systems - however, the financial implications of this option make it untenable.</p> <p>Building a custom system from the ground up would require significant upfront investment for the design, development, and testing phases. The costs associated with hiring specialised software developers, architects, and business analysts would be far higher than the costs outlined in option 2.</p> <p>Additionally, the time required to fully implement a bespoke system could extend over several years, leading to further cost escalations, potential delays, and risk of breaching our regulatory obligations as detailed above. The combination of high development costs and long timelines would put severe pressure on both our financial and operational resources.</p> <p><b>Summary</b></p> <p>Due to the reasons outlined above, we have not considered this option as viable and have therefore not costed this option. This option is not recommended as we do not consider it reflects good industry practice. Pursuing a more cost-effective solution, such as consolidating and modernising existing platforms, as detailed in option 2 is a far more prudent and sustainable path forward.</p> |                |                |                |                |               |     |               |          |                |                |                |                |                |          |          |  |  |  |  |  |     |          |                |                |                |                |                |      |
|--|---|----------------|----------------|----------------|----------------|---------------|-----|---------------|----------|----------------|----------------|----------------|----------------|----------------|----------|----------|--|--|--|--|--|-----|----------|----------------|----------------|----------------|----------------|----------------|------|
| <p>Options Summary</p>                         | <p>The table below summarises the quantitative and qualitative differences between the analysed options.</p> <table border="1"> <thead> <tr> <th></th> <th>\$2024</th> <th>Capex</th> <th>Opex</th> <th>Totex</th> <th>NPV</th> <th>Residual Risk</th> </tr> </thead> <tbody> <tr> <td>Option 1</td> <td>Not applicable</td> <td>Not applicable</td> <td>Not applicable</td> <td>Not applicable</td> <td>Not applicable</td> <td>Moderate</td> </tr> <tr> <td>Option 2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Low</td> </tr> <tr> <td>Option 3</td> <td>Not applicable</td> <td>Not applicable</td> <td>Not applicable</td> <td>Not applicable</td> <td>Not applicable</td> <td>High</td> </tr> </tbody> </table>   |                | \$2024         | Capex          | Opex           | Totex         | NPV | Residual Risk | Option 1 | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable | Moderate | Option 2 |  |  |  |  |  | Low | Option 3 | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable | High |
|  | \$2024  | Capex          | Opex           | Totex          | NPV            | Residual Risk |     |               |          |                |                |                |                |                |          |          |  |  |  |  |  |     |          |                |                |                |                |                |      |
| Option 1                                       | Not applicable  | Not applicable | Not applicable | Not applicable | Not applicable | Moderate      |     |               |          |                |                |                |                |                |          |          |  |  |  |  |  |     |          |                |                |                |                |                |      |
| Option 2                                       |   |                |                |                |                | Low           |     |               |          |                |                |                |                |                |          |          |  |  |  |  |  |     |          |                |                |                |                |                |      |
| Option 3                                       | Not applicable  | Not applicable | Not applicable | Not applicable | Not applicable | High          |     |               |          |                |                |                |                |                |          |          |  |  |  |  |  |     |          |                |                |                |                |                |      |
| <p>What We Are Recommending</p>                | <p>JEN proposes to proceed with option 2.<sup>2</sup> This option best reflects accepted good industry practice and will ensure we are able to meet our ongoing regulatory obligations, as well as providing the most efficient costs.</p> <p>Option 1 will limit our ability to manage and govern JEN content over time and as this capability deteriorates, the likelihood of breaching regulatory obligations will increase. Option 3 is financially untenable. We consider that options 1 and 3 do not reflect accepted good industry practice.</p>   |                |                |                |                |               |     |               |          |                |                |                |                |                |          |          |  |  |  |  |  |     |          |                |                |                |                |                |      |
| <p>Dependencies on other Investment Briefs</p> | <p>Not applicable.</p>  |                |                |                |                |               |     |               |          |                |                |                |                |                |          |          |  |  |  |  |  |     |          |                |                |                |                |                |      |
| <p>Relationship to ICT Capital Forecast</p>    | <p>The supporting modelling for this investment brief is contained in the following model: <b>JEN - IT Investment Brief - Enterprise Content Mgmt System - Costs and Benefits Analysis Model.xls</b></p>  |                |                |                |                |               |     |               |          |                |                |                |                |                |          |          |  |  |  |  |  |     |          |                |                |                |                |                |      |

<sup>2</sup> This initiative is part of an enterprise-wide approach and was also included in the Jemena Gas Networks (NSW) Ltd. (JGN) Access Arrangement (AA) proposal. The proposed option received approval as part of the AER’s 2025-30 Draft Decision.