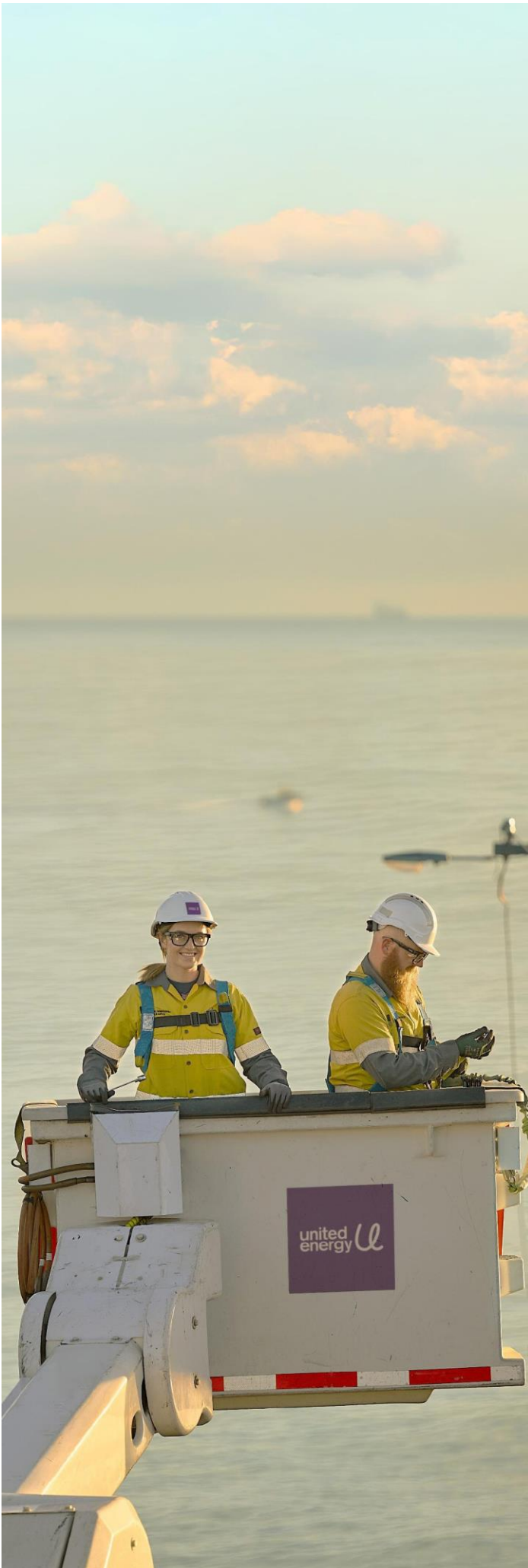


# INFORMATION AND COMMUNICATIONS TECHNOLOGY

## ENTERPRISE MANAGEMENT SYSTEMS



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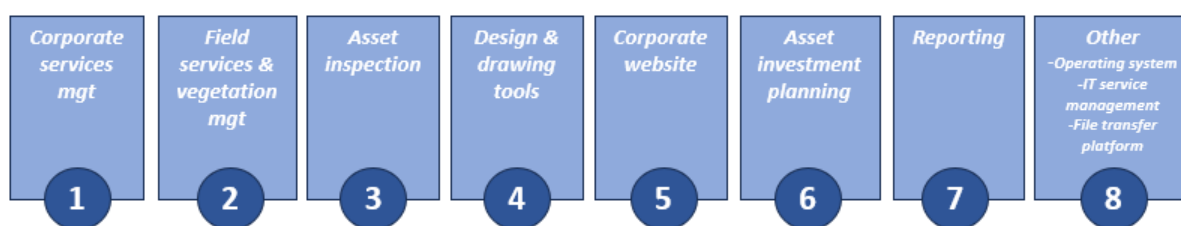
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# 1. Overview

We rely on a number of IT solutions comprising of over 300+ systems to manage and orchestrate the maintenance of our assets, deliver the best level of service to our customers, and ensure the safety and reliability of our distribution networks. The IT solutions cover a wide range of capabilities and must be regularly reviewed, updated, or upgraded to ensure stability, resilience, and performance.

This business case includes 19 applications within our Enterprise Management Systems (**EMS**) which require capital expenditure over the 2026-2031 regulatory period. In order to simplify our analysis, the EMS applications have been grouped into eight high level categories, based on the function/s they support.<sup>1</sup>

**FIGURE 1 HIGH LEVEL APPLICATION GROUPS**



Within the next regulatory period, the set of applications identified in this business case will need to be upgraded or refreshed in response to changes in the internal and external environment. The key drivers for capital expenditure include:

- application versions becoming out of vendor support. This occurs when a vendor invests in subsequent improved versions rather than maintaining the old. The newer software versions being released often provide fixes to known defects, security patches or improved functionality.
- systems no longer meeting evolving business requirements.
- changes to other components within our technology landscape. The highly integrated nature of our IT ecosystems means that when undertaking necessary changes or transformations, existing application integrations and customisations become obsolete and need to be refreshed or re-written.
- external factors and industry trends may drive the need to alter part of our IT landscape including evolving cyber security threats, technology advancements and changing customer requirements.
- the need to maintain current service levels to our customers.
- an update of our website to support the delivery of new services to customers.
- the availability of technological advancements in line with evolving requirements which can deliver a higher value to our customers.

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<sup>1</sup> Further information on each category is available in Appendix A

In response to the challenges outlined above, the following three options were assessed to identify the recommended approach for the next regulatory period:

1. **do not maintain currency**– this option assumes we do not apply any vendor upgrades to our systems
2. **maintain currency**– this option will deliver prudent maintenance of the existing enterprise management systems
3. **maintain and enhance our systems** –this option will deliver prudent maintenance of the existing management systems and enhance our systems including the delivery of multi-language support on the website, BYDA drawings in digital form and replacement of aging platforms.

Option two is our recommended option. This option is able to mitigate much of our business and IT specific risks by maintaining the currency of our systems

**TABLE 1      OPTIONS ANALYSIS SUMMARY (\$M, 2026)**

OPTION		CAPEX	OPEX	NPV
1	Do not maintain currency	2.5	0.4	-
2	Maintain currency	10.9	-	23.2
3	Maintain and enhance our systems	23.1	-	15.4

## 2. Background

We are responsible for the safe and reliable delivery of electricity to over 700,000 Victorian households and businesses across our distribution networks. Disruption to the supply of electricity or delivery of our services can result in serious impacts and major cost implications for the Victorian economy and public safety.

We rely on a number of IT solutions comprising of over 300+ systems, to manage the maintenance of our assets, deliver the best level of service to our customers, and ensure the safety and reliability of our distribution networks. The IT solutions cover a wide range of capabilities and must be regularly reviewed, updated, or upgraded to ensure stability, resilience, and performance.

This business case includes 19 applications within our Enterprise Management Systems (**EMS**) that will require capital expenditure over the 2026-2031 regulatory period. Note this business case does not include our SAP system. However, some of the applications covered under this business case have links or integrations to the SAP platform. To avoid any cost overlaps, all costs relating to integration of the EMS applications with our proposed SAP upgrade have been included in the ERP and billing system replacement business case<sup>2</sup>.

To assist with the analysis supporting this business case, the applications have been grouped into eight high level categories, based on the function/s they support:

- Corporate services - solutions required to operate back-office services such as employee lifecycle management, payroll, tax, legal counsel, health and safety incident management and financial compliance.
- Field services management - applications supporting field work and management of data relating to operational assets.
- Vegetation management – an application utilised to inspect and manage vegetation around poles and wires to ensure the area is clear and safe while meeting our regulatory obligations.
- Asset inspection – application supporting the periodic review of electrical network assets required for the supply of electricity so that the network’s safety and reliability can be maintained.
- Design and drawing – document management system utilised for organising, managing and tracking electrical network drawings and design files. Also, software which builds 3D interactive models of critical infrastructure networks and assets to assist with network design.
- Corporate website – utilised to deliver vital information (including customer outages) and access to a range of digital service offerings utilised by our customers.
- Asset investment planning – an application utilised to analyse large and complex data sets, highlight trends and critical components, and support decision making regarding investments on assets.
- Reporting – a suite of systems used to collate and derive insights from structured and unstructured data, supports objective decision making and proactively addressing issues. Also enables regulatory reporting requirements.

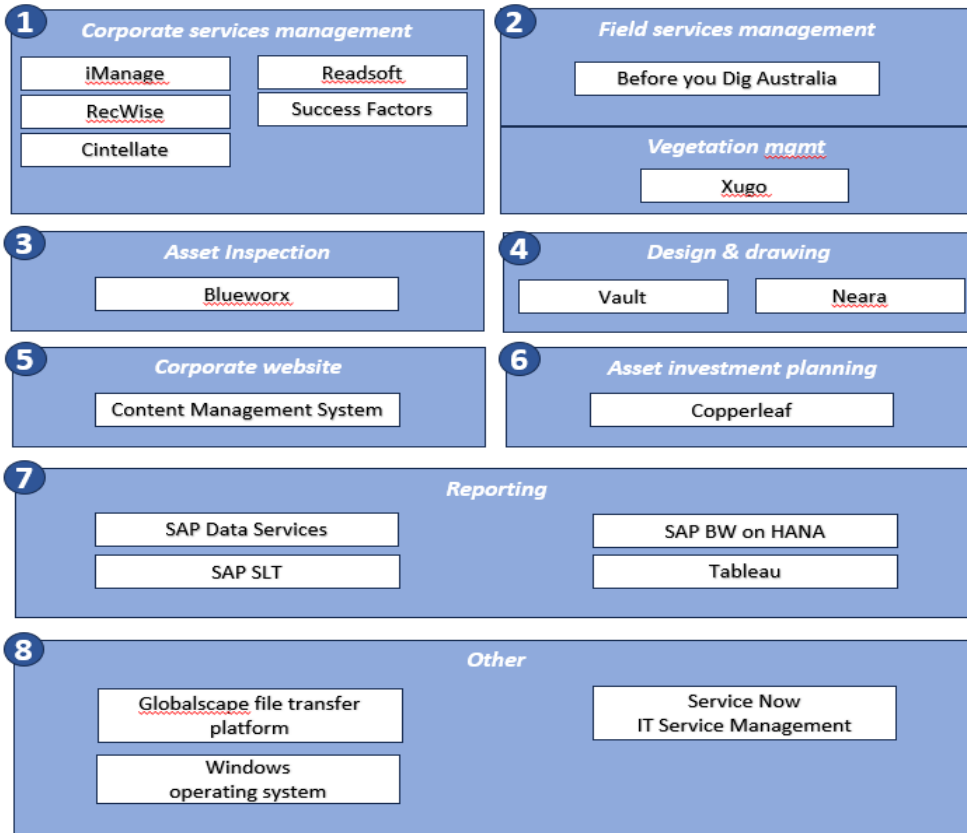
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<sup>2</sup> See UE BUS 7.01 - ERP & billing system replacement - Jan2025 - Public

- Other – applications used to manage IT services, securely transfer files and provide an operating system.

Please refer to Appendix A for further information about on the applications covered under each category.

**FIGURE 4 MAPPING APPLICATIONS TO CATEGORY**



## 2.1 Meeting regulatory requirements

As an electricity distributor in the National Electricity Market (NEM), we must deliver services and reporting in line with regulatory compliance obligations. The Essential Services Commission (ESC) establishes and maintains the Distribution Code of Practice<sup>3</sup> which outlines the rules relating to the distribution of electricity in Victoria. Our Enterprise Management Systems underpin our ability to meet the related regulatory obligations.

From the perspective of our corporate website, the code outlines the defined requirements. These are provided in appendix B. Failure to meet these requirements and provide adequate power outage information and communication channels to customers will encounter significant financial penalties. In April 2024 Ausnet entered into a \$12m court enforceable undertaking after a website crash left storm affected customers without information.<sup>4</sup>

<sup>3</sup> Commonly referred to as the Code.

<sup>4</sup> [AusNet enters \\$12M court enforceable undertaking after website crash leaves storm affected customers in the dark | Essential Services Commission](#)

## 3. Identified need

Our Enterprise Management Systems support key internal and customer related processes. Within the 2026-2031 regulatory period, these applications will need to be updated, upgraded, or refreshed in response to a variety of changes in the internal and external environment.

In line with our commitment to modernise our services and better adapt to changing compliance requirements, we constantly review our IT portfolio and assess opportunities to optimise the value we are providing to customers, including through large transformations.

The key drivers for capital investment include ensuring applications are under vendor support, changes to other parts of our technology landscape and external factors such as cyber security.

### 3.1 Applications out of vendor support or aging platforms

The majority of our current applications will run out of vendor support in the upcoming regulatory period. Running on legacy or out of date applications would expose us to increased risks of failure or breaches, and as a result, also expose our customers to increased safety, security, and financial risks.

Past software versions and out of support applications have the following limitations:

- Limited vendor support – available vendor support is only offered on a reasonable efforts’ basis<sup>5</sup> and sometimes not at all. If an application which is out of the vendor support window fails, this would increase the time it would take use to recover from the failure and incur considerable costs
- Lack of security patches – we would not benefit from the same patching schedule as current applications. The lack of zero-day,<sup>6</sup> or regular security patching, would expose our operations and data to increased risks of a security incident
- Limited and costly market expertise – the skills and expertise linked to legacy applications becomes limited and is therefore associated with a price premium.

### 3.2 Changes to other parts of our technology landscape

The highly integrated nature of our IT ecosystem with our Enterprise Management Systems, means that when undertaking necessary changes or transformations, existing application integrations and customisations become obsolete and need to be refreshed or re-written.

With the upcoming transition from SAP ECC6 to SAP S/4HANA and our billing system replacement, we need to undergo testing and validation exercises to ensure integrations with peripheral applications can be maintained. A refresh exercise will also be required to ensure that workflows and data processes remain functional and data integrity is maintained once the new SAP system transition is completed.

### 3.3 External factors and industry trends

External factors and industry trends also drive the need to alter our IT landscape. This includes:

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<sup>5</sup> Reasonable effort – the vendor will assist with addressing issues only to the extent that they deem reasonable. This implies that they are not necessarily committed to getting to a conclusion or resolution.

<sup>6</sup> Zero-day patching refers to patches released on the same day a system weakness is identified to avoid directed cyber-attacks

- Evolving security threats - cyber threats against industrial control systems (**ICS**) and critical infrastructure continue to increase in intensity, frequency, and complexity. The highest success rate for hackers comes from exploiting weak links in a technology chain, as opposed to employing the more 'traditional' brute force attacks. It is now more than ever critical for us to ensure that our systems are patched, upgraded, or updated as this will limit the risk a successful cyber attack.
- Technology advancements and changing customer requirements - over the last few years, the exponential adoption of technology and the increased diversity of devices have pushed us to rethink the way we deliver information and services to our customers. Our technology landscape, especially our customer facing platforms, need to be regularly reviewed and adapted to keep in line with evolving requirements and deliver the highest value to our customers. If we do not adapt our technology, there is a heightened risk that our customers may not be able to access our services or critical information.



## 4. Option analysis

Three options were considered to meet the identified need:

1. **do not maintain currency** – this option assumes we do not apply any vendor upgrades to our systems
2. **maintain currency** – this option will deliver prudent maintenance of the existing enterprise management systems
3. **maintain and enhance our systems** – this option will deliver prudent maintenance of the existing management systems and enhance our systems including the delivery of multi-language support on the website, BYDA drawings in digital form and replacement of aging platforms.

The costs and associated net present value of each of the options is presented in Table 2, and set out in further detail in our attached market systems cost and risk models.<sup>7</sup>

**TABLE 2      OPTIONS ANALYSIS SUMMARY (\$M, 2026)**

OPTION	CAPEX	OPEX	NPV
1      Do not maintain currency	2.5	0.4	-
2      Maintain currency	10.9	-	23.2
3      Maintain and enhance our systems	23.1	-	15.4

### 4.1 Risk framework

To assess our investment options, we worked with EY to develop an ICT risk monetisation framework. This provides a standardised approach for identifying, classifying, and quantifying risks associated with potential IT investments.

The framework aims to support value-based decision making by translating risks into monetised values, facilitating consistent evaluation of cost-benefit analyses across potential investment scenarios.

Figure 2 sets out the steps we have taken to quantify risks associated with this business case. Further information on each of these steps is included in the risk monetisation framework attachment.

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<sup>7</sup> UE MOD 7.13 - Enterprise management systems cost - Jan2025 – Public; UE MOD 7.14 - Enterprise management systems risk - Jan2025 - Public

**FIGURE 2 RISK MONETISATION STEPS**

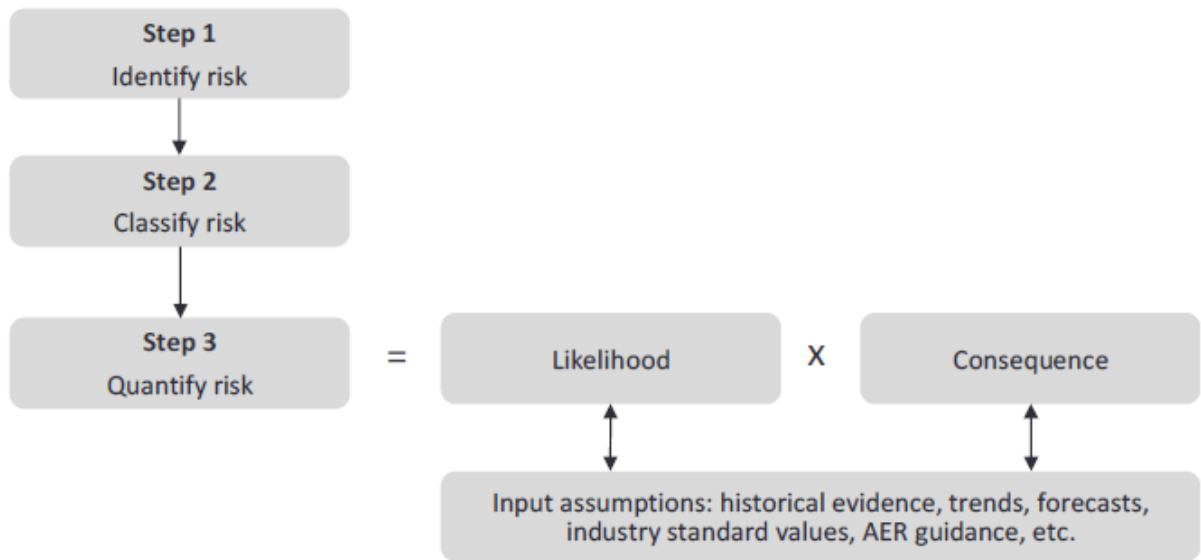


Table 3 provides a summary of each risk category included in our risk monetisation framework, which is itself attached with our regulatory proposal.<sup>8</sup>

**TABLE 3 RISK FRAMEWORK SUMMARY**

CATEGORY	DESCRIPTION
Reliability	Risks related to events or failures that cause unforeseen impacts to electricity supply or export capability. For example, customer supply or solar export
Compliance	Risks of regulatory, legal, or financial penalties due to failure in meeting compliance obligations, such as delays in publishing key market data or unauthorised access to sensitive data
Bushfire	Risks that outages of critical operational systems may increase bushfire likelihood by impairing visibility of the network and timely decision-making
Safety	Risks affecting public and staff safety, such as loss of supply impacting life-support customers or disruptions to protective systems
Customer experience	Risks where customer interactions are impacted, such as outages of customer-facing IT systems
IT outage	Risks of systems becoming unavailable due to poor infrastructure maintenance or resource constraints, resulting in prolonged downtimes or outages

<sup>8</sup> UE ATT 7.02 - EY - IT risk monetisation framework - Jan2025 - Public

Suitability and sustainability	Risks arising from legacy systems that are prone to failures, inefficiencies, and incompatibilities. These systems may lead to increased maintenance costs, failures, and cyber vulnerabilities if not updated
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For each risk identified in the table above we have developed a list of sub-category risks. Each of these sub-category risks is set out in our framework alongside methodologies explaining how each of these risks are quantified.

For this business case, we have conservatively only quantified risks relating to reliability and IT outages.

## 4.2 Option one – do not maintain currency

Under option one, for on premise applications we will retain the target applications in their respective current state and not apply any updates, upgrades, patches, or refreshes.

For cloud-based applications the vendor will push upgrades. As we are using cloud services, we will need to undertake these upgrades which is outside of our control. Depending upon the level of customisation, expenditure can be associated with internal resources conducting minimum preparation for the upgrade and testing to ensure existing processes are not negatively impacted.

The running of legacy or obsolete technology poses a high risk to the general stability of our overall IT environment and may increase run costs through lost productivity and inefficient processes. This is ultimately passed on to our customers through delayed service provision and an inferior experience. Further, software warranty is not protected once version end of life is reached and software faults will not be rectified by the vendor. As a result, there is an increased risk of disruption to our business units, delayed customer services, increased safety risks and a negative impact to supply reliability.

Compliance with regulatory obligations around service and reporting would also be compromised if the enabling systems are unstable or fail. Even without failure, the systems would likely be slower and be more difficult to update when changes in policies or regulations occur. Should a system failure occur, we will likely be non-compliant leading to significant financial and reputational penalties.

In the event of a system failure, the remediation cost is likely to be high, as we are likely to receive minimal vendor support under an extended support arrangement, with longer timeframes to analyse and deploy a fix. These delays to restore system functionality will increase the supply restoration time for customer and increase risks related to safety, particularly during storm or escalation events. There is also an increased risk of system integration failure that might have a flow on effect to other parts of the IT ecosystem, creating additional costs (e.g. to remediate issues).

This option does also not include a rebuild of the website or any substantial updates to maintain customer experience.

Without a substantial upgrade/rebuild of our website:

- The customer experience may begin to suffer as the website information architecture, look and feel and content cannot respond to business/industry changes and potentially limit the ability for our customers to find information and interact with our business.
- We face the risk of not being able to continue to apply security patches on an application that is public internet facing. This could leave significant security vulnerabilities that could lead to the website becoming non-functional or providing further attack vectors for internet hackers into our network.

- We risk capacity constraints which will have an adverse impact during a period of high volumes including storms and fire events.

The table below summarises an assessment of Option one against our key risk criteria.

**TABLE 4 OPTION ONE RISK SUMMARY**

#	RISK	DESCRIPTION
1	Reliability	By not actively upgrading our systems we would have a significantly higher reliability risk. For example, system outages would require us to revert to manual processes to dispatch fault restoration work, increasing the time customers are off supply and also limiting the information able to be provided to customers during the outage. Our reporting would also be significantly impacted to the point that it may require us to stop planned work due to limited ability to identify residential, business and life support customers.
2	Compliance	<p>Not maintaining currency and stability of our Enterprise Management Systems, creates a risk that we will be unable to meet our regulatory reporting obligations. Potential issues include:</p> <ul style="list-style-type: none"> <li>• issues with any of the reporting platform systems would impact our ability to provide regulatory reporting. There would also be impacts to business back-end processes and efficiency.</li> <li>• if currency of our automated reporting landscape was not maintained, we would need to undertake manual data management and reporting. This has not been attempted before and may not be feasible due to the high volume of data. If achievable, the manual approach would increase labour resourcing leading to increased costs to customers and the risk of non-compliance.</li> <li>• compliance with the Victorian legislation around electrical safety and bushfire mitigation<sup>9</sup> could not be supported if reporting related to the inspection of overhead electric lines and supply networks was unstable or unavailable.</li> </ul>
3	Bushfire	<p>Any interruption to the Xugo solution which prevented or delayed vegetation management around electrical assets could have a negative impact on bushfire risk. Similarly, if the asset/pole inspection program was impacted by an issue with the BlueWorx solution, potential risks may not be identified or rectified resulting in an increased bushfire risk.</p> <p>Safety issues arising from a failure to maintain the reliability of electrical assets due to accessibility to reporting could lead to a bushfire event.</p>

<sup>9</sup> [Electrical Safety \(Bushfire Mitigation\) Regulations 2013](#)

<p>4 Safety</p>	<p>Under this option reporting that informs and empowers our people to take action to meet safety and reliability standards would not be available (e.g. assessing root causes of outages using geospatial information, to shorten repair turnaround times).</p> <p>Real time health and safety reporting may not be available to employees, contractors and 3<sup>rd</sup> parties advises of hazards, incidents and near misses so that preventative action can be executed.</p> <p>The BYDA solution is an efficient and automated way for a person performing work in the field to request site information about a particular work area. This free service advises on existing underground electrical infrastructure in the work area and provides a vital role in supporting safe work practices while protecting utility assets. Preventable safety incidents could occur if this vital service was not available.</p>
<p>5 Customer experience risk</p>	<p>Website inaccessibility would prevent our customers from accessing vital information during bad weather or escalation events resulting in increased risk of a safety related incident. All customers would be unable to:</p> <ul style="list-style-type: none"> <li>• view or report an outage or faulty streetlights. This includes life support customers who would be unable to access the estimated restoration time in order to determine contingency plans.</li> <li>• register for outage notifications.</li> <li>• obtain advice regarding safety during storm, flood, fire and heat scenarios.</li> <li>• obtain emergency planning advice.</li> <li>• during an escalation event, it is likely that SMS messages would not be sent. Due to the website being unavailable current outage information, including the estimated restoration time would not be available. Life support and vulnerable customers are particularly at risk of a safety incident<sup>10</sup>.</li> </ul>
<p>6 IT system outage</p>	<p>Increased outages to Enterprise Management Systems are likely to impact internal productivity as employees that utilise these systems are unable to effectively undertake their responsibilities. This could result in employees being unable to undertake their tasks or a reversion to manual processes that are significantly slower.</p> <p>There is an increased risk of system instability when product currency is not maintained. Further, software warranty is not protected once version end of life is reached and software faults will not be rectified by the</p>

<sup>10</sup> During an unplanned outage we send SMS messages to all customers using the mobile phone number provided by a retailer. If the estimated time of restoration (ETR) is updated more than three times, we cease SMS message updates and refer customers to our website for further information. Without access to the website, customers are unaware of the new ETR may make contingency plans based on incorrect information.

vendor. As a result, there is an increased risk of disruption to our business units.

System instability due to not maintaining currency of our reporting platform could result in failures and disruption to the delivery of reporting services. Under an extended support arrangement, a longer system outage duration will be encountered with flow on impacts to business operations, supply reliability, customer services and regulatory compliance.

Updates to integrated systems could render the reporting platform unable to extract necessary data if currency is not maintained.

7	IT system suitability and system sustainability	<p>Not maintaining software currency makes difficult to apply changes which adapt to changing regulatory or customer requirements. Vendors usually will not develop code changes on old unsupported versions of software. If they do, implementation of the required changes on old, out of date software leads to increased costs, which can quickly exceed the cost to invest in an upgraded system.</p> <p>There is also a high risk we will be unable to accommodate and integrate with new, emerging future technologies,</p>
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The table below sets out the expenditure associated with option one.

**TABLE 5      OPTION ONE EXPENDITURE FORECAST (\$M, 2026)**

<b>OPTION ONE</b>	<b>FY27</b>	<b>FY28</b>	<b>FY29</b>	<b>FY30</b>	<b>FY31</b>	<b>TOTAL</b>
United Energy	0.8	0.5	0.6	0.5	0.5	3.0

\*Rounding may lead to discrepancies between individual network costs and total costs

### 4.3 Option two – maintain currency

Under option two, we would maintain the currency, stability, and overall efficiency of EMS applications.

Under this option we would:

- maintain 'N-1'<sup>11</sup> currency, e.g. keeping one version behind the latest software version released to maintain affordability and limit changes to our systems
- refresh applications where necessary to apply security patches and defect fixes and address external factors or changes to other parts of our technology landscape.
- ensure previous investments in our Copperleaf system are consolidated e.g. Consolidate the CitiPower/Powercor and United Energy instances of Copperleaf into a single instance.
- perform a substantial upgrade/rebuild of website so that the look, feel and content can respond to business/industry change and ensure customers can continue to source information and interact with our business.

These activities will support our primary objective of ensuring customer value and benefits are maximised and ensuring our overall risk profile remains acceptable. The initiatives included under this option require differing levels of effort depending on the complexity of the application being updated/upgraded/refreshed.

This option will keep the target applications efficient, secure, and within an adequate vendor support window over the 2026-31 regulatory period. Ensuring currency will reduce the risk of an interruption to service (both IT and network) and maintain our ability to keep our services safe and dependable for customers. If applications are kept within a vendor support window, then fixes and patches to known issues are provided at no extra cost. Should a system issue arise, adequate vendor support will be provided to assist with faster recovery.

Market skillsets and expertise required to maintain applications are less costly if applications are maintained; resources specialising in legacy or out-of-date applications charge a premium as the majority of businesses no longer use these legacy versions. By continuing to upgrade we will not be exposed to these cost premiums.

Our Broad and Wide customer engagement program enabled us to identify customer needs and preferences for the immediate and longer-term future of the network. Customers advised they wanted communications and notifications which are timely and clear so that they can plan and stay updated, particularly regarding outages. The work proposed for our corporate website ensures we can maintain the website information architecture and provide customers with information related to outages.

The table below summarises an assessment of option two against our key risk criteria.

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<sup>11</sup> 'N-1' refers to a state where applications are maintained within one release of the latest available version. This approach ensures that we are not affected by bugs or glitches that potentially present in the latest version.

**TABLE 6      OPTION TWO RISK SUMMARY**

<b>#</b>	<b>SYSTEM</b>	<b>DESCRIPTION</b>
1	Reliability	<p>By continuing to invest in reliable, stable and tested solutions we maintain supportable technology platforms and can continue to automatically dispatch and close out work to field crews including fault restoration work. The electricity supply of our customers is maintained efficiently with minimal outage periods.</p> <p>We will continue to keep our customers informed though the receipt of real time information on the time to restore power.</p>
2	Compliance	<p>Having a stable reporting platform supports the provision of accurate and timely regulatory reporting. Where system currency is maintained, we are able to record and report requested data to the regulator at the required consistency and granularity. The risk of not meeting regulatory obligations is minimised as vegetation management activities to ensure safe clearance around electrical assets can be supported. As a result, safety risks, can be minimised and our regulatory obligations met.</p>
3	Bushfire	<p>A supported and working vegetation management solution ensures the daily program of work to ensure clearance around electrical assets is maintained and the risk of a bushfire is minimised.</p>
4	Safety	<p>Automated processes to dispatch work to field crews and efficiently restore electricity supply to customers, particularly during storm events, reduces the safety risk as customers are not without power for extended periods.</p>



5	Customer experience risk	<p>The proposed website upgrade/rebuild will ensure a continuation of current services together with the ability to respond to evolving business/industry changes. The availability of vital information on our website during bad weather or an escalation event improves the level of service available to our customers. Customers are able to:</p> <ul style="list-style-type: none"> <li>• view or report an outage or faulty streetlights. This includes life support customers who can access the estimated restoration time in order to determine contingency plans.</li> <li>• register for outage notifications.</li> <li>• obtain advice regarding safety during storm, flood, fire and heat scenarios.</li> <li>• obtain emergency planning advice.</li> </ul> <p>Ensuring a stable website means we can continue to send customers, including life support and vulnerable customers, SMS messages to customers to provide updates on electricity supply restoration.</p> <p>The stability of our field services system (SFS) will ensure we can continue to confirm appointments in the field made with customers.</p> <p>The automated and efficient service provided to customers and developers through the BYDA solution will ensure a person performing work in the field can receive site information about a particular work area supporting safe work practices while protecting utility assets.</p> <p>The application of vendor provided software updates reduces cyber security vulnerabilities and the risk of cyber-attacks with increased security of customer data.</p>
6	IT system outage	<p>Internal productivity will not be impacted by instable or unavailable enterprise management systems, enabling employees to effectively undertake their responsibilities and maintain high levels of productivity.</p> <p>The risk of introducing instability to peripheral applications will be reduced, avoiding costs required rectifying failures.</p>
7	IT system suitability and system sustainability	<p>Up-to-date applications and systems are easier to adapt to changes in the technology landscape and evolving customer expectations around service delivery and changes to compliance requirements.</p> <p>The website upgrade/rebuild will ensure a continuation of current services together when the ability to respond to evolving business changes and customer needs.</p>

The table below sets out the expenditure associated with option two.

**TABLE 7      OPTION TWO EXPENDITURE FORECAST (\$M, 2026)**

<b>OPTION TWO</b>	<b>FY27</b>	<b>FY28</b>	<b>FY29</b>	<b>FY30</b>	<b>FY31</b>	<b>TOTAL</b>
United Energy	4.6	0.8	2.2	1.7	1.6	10.9

\*Rounding may lead to discrepancies between individual network costs and total costs

## 4.4 Option three – maintain and enhance currency

Option three builds on option two and provides for the delivery of pragmatic application enhancements. This includes:

- an improved customer experience on our website by providing multi-language support to all base content. This will broaden the number of customers able to utilise online services and assist in education.
- an update to our website to provide information on restored power outages in addition to current outages. While this will always be available, it will provide increased value during escalation events so that customers can see progress being made with repairs/supply restoration.
- an uplift to the accessibility requirements to better meet WCAG<sup>12</sup> standards. This will ensure customers across a range of disabilities are better able to access our services and provide an enhanced experience for existing users.
- the option for delivery of BYDA drawings in digital format rather than PDF alone. This will assist with information sharing and ultimately improve safety outcomes.
- replacement of the aging Globalscape file transfer platform and Copperleaf asset investment solutions.

In addition to these specified enhancements, option three also caters for some minor, unspecified enhancements to corporate, field, inspection, and design systems.

Our Broad and Wide customer engagement program enabled us to identify customer needs and preferences for the immediate and longer-term future of the network. With regard to accessibility, our customers advised they wanted us to improve services for those who are hearing or vision impaired and CALD<sup>13</sup> customers. We have already commenced our journey to improve services for those who are hearing or vision impaired and CALD customers through the introduction of assistive technology on our website for visually impaired people. Under Option three we would extend this functionality.

This option would also explore opportunities to unlock additional benefits for our customers over the 2026-2031 regulatory period, while maintaining the robustness of our IT systems and adhering to compliance requirements.

With regard to system currency, the risks associated with option three are almost identical when compared to option two. Option three provides a small reduction of risk associated with replacing the aging Globalscape file transfer platform, together with the delivery of enhancements for customers.

The reduction of risk associated with the Globalscape and Copperleaf system replacements are outlined in the table below, however these are unlikely to lead to any material reduction in risk when considered as part of the full portfolio of EMS applications.

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<sup>12</sup> WCAG refers to Website Content Accessibility Guidelines and defines how to make website content more accessible to people with disabilities. Accessibility involves a wide range of disabilities, including visual, auditory, physical, speech, cognitive, language, learning and neurological disabilities. WCAG is an internationally recognised standard created by the World Wide Web Consortium (W3C).

<sup>13</sup> CALD – culturally and linguistically diverse

**TABLE 8      OPTION THREE RISK SUMMARY**

#	SYSTEM	DESCRIPTION
1	Reliability	Same as option two
2	Compliance	Same as option two
3	Bushfire	Same as option two
4	Safety	Same as option two
5	Customer experience risk	Same as option two
6	IT system Outage	Replacement of the aging Globalscape file transfer platform and Copperleaf asset investment solution will lead to a reduction in system instability.
7	IT system Suitability and system sustainability	Same as option two

**TABLE 9      OPTION THREE EXPENDITURE FORECAST (\$M, 2026)**

OPTION THREE	FY27	FY28	FY29	FY30	FY31	TOTAL
United Energy	8.3	3.2	4.5	3.8	3.3	23.1

\*Rounding may lead to discrepancies between individual network costs and total costs

## 5. Recommendation

Following our options analysis, we recommend progressing option two – maintain currency. This option is able to mitigate much of our business and IT specific risks by maintaining the currency of our systems. Further information on the work to be completed under option two is provided in Appendix C.

Our recommendation also considered a number of general factors (e.g. project concurrency, resource availability, etc.) to ensure that the option selected and upgrade timing was pragmatic, actionable, and would have the highest probability of delivering a successful outcome.

Our proposed expenditure profile is provided in Table 10.

**TABLE 10 RECOMMENDED OPTION EXPENDITURE FORECAST (\$M, 2026)**

<b>OPTION TWO</b>	<b>FY27</b>	<b>FY28</b>	<b>FY29</b>	<b>FY30</b>	<b>FY31</b>	<b>TOTAL</b>
United Energy	4.6	0.8	2.2	1.7	1.6	10.9

\*Rounding may lead to discrepancies between individual network costs and total costs

# A EMS application details

## A.1 Corporate services management

<b>APPLICATIONS</b>	<b>LEGAL DOCUMENT MANAGEMENT</b>	<b>ACCOUNTS PAYABLE PROCESSING</b>	<b>FINANCIAL RECONCILIATION</b>	<b>EMPLOYEE LIFECYCLE MANAGEMENT &amp; PAYROLL</b>	<b>HSE<sup>14</sup></b>
Current Solution	iManage	Readsoft	RecWise	Success Factors	Cintellate

Refers to the set of solutions required to operate back-office services such as employee lifecycle management, payroll, tax, and financial compliance. A number of the applications covered under this grouping are critical to our finance operations and the maintenance of transaction traceability for audit and compliance purposes.

The functions covered under this category are essential in ensuring that:

- legal documents are managed efficiently, and vital information is protected.
- the management of our finances and employee transactions retain high levels of accuracy and compliance, to limit the risk of errors and fines that might ultimately impact our ability to provide the best value to our customers.
- payroll and tax are accurately calculated.
- balance sheet reconciliation compliance is achieved.
- we retain strong relationships and service quality from our vendors by ensuring the appropriate settlement of our Accounts Payable.
- Health & safety and network safety incidents are managed effectively.

## A.2 Field services management

<b>APPLICATIONS</b>	<b>BEFORE YOU DIG AUSTRALIA</b>	<b>VEGETATION MANAGEMENT</b>
Current Solution	Ticket Access	Xugo

<sup>14</sup> HSE – Health, Safety and Environment

## **A.2.1 Before you dig Australia (BYDA)**

For over three decades, state and national entities such as CitPower/Powercor/United Energy have partnered to deliver a free essential service across Australia to keep construction workers and members of the general public safe during excavation projects. This service plays a vital role in supporting safe work practices while also protecting utility assets through the provision of asset information.

When performing work in the field that involves digging, it is important for any person (contractor, worker, or community member) to ensure that they have all the necessary information regarding existing underground electrical infrastructure in the vicinity of the work area so the right measures and procedures can be actioned. Failure to ascertain this information prior to digging might lead to catastrophic consequences including human harm, infrastructure damage, and service disruptions.

The DYDA solution is an efficient and automated way for any person performing work in the field to request site information about a particular work area. Upon receipt of a new request, the system consults existing engineering repositories and sends back a PDF document that depicts any documented underground infrastructure in the target area. The compliance requirements around response time are currently set to 2 calendar days.

## **A.2.2 Vegetation management**

As an electricity distributor, we are responsible for keeping the area around poles and wires safe. It is up to us to ensure the area surrounding our poles and wires is clear and safe. Branches falling or flying loose in strong winds can bring down powerlines, cause power outages or spark grass fires, which is why we regularly inspect vegetation around our poles and wires and cut it back if necessary. We inspect all our powerlines in both low and high bushfire risk areas each year, and we trim and cut trees in a way that keeps them safe and healthy.

We have an obligation to clear any vegetation that poses a risk to our assets. The Electricity Safety Act, including the Electrical Safety (Electric Line Clearance) regulation in 2020 requires us to maintain minimum standards with regard to our vegetation management plans. This defines the clearance distance of trees and other vegetation near high voltage and low voltage powerlines.

Xugo is a critical vegetation management business application which supports the cutting of approximately 13,500,000 trees across the network. It is used to manage a large vegetation management works program to effectively mitigate bushfire, reliability and compliance risk across our distribution network. Xugo requires ongoing maintenance to ensure that we minimise disruption/outages to the business and manage the works program effectively and efficiently. Failure to maintain the functionality of Xugo may result in increased risk of bushfire, Service Target Performance Incentive Scheme (STPIS) impacts and non-compliance leading to prosecution.

We are also using LiDAR technology to boost our vegetation cutting program<sup>15</sup>. Each year our helicopters scan our network, fitted with advanced Light Detection and Ranging (LiDAR) technology to scan for vegetation growing too close to powerlines. The data can also be used to create an accurate

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<sup>15</sup> The expenditure forecast relates to ensuring currency of the Xugo software. Information regarding the exploration of drone technology to support the vegetation management program of work is only provided as context.

digital model of the electricity network and its surroundings, and helps ensure we identify which trees to cut, by how much and when.

### A.3 Asset inspection

Our network assets include the poles, wires, and other equipment required for the supply of energy to homes, properties, and businesses. These assets are fundamental to the reliable flow of electricity across our network. Asset inspections are a process we carry out to maintain our network’s safety and reliability. Good asset health is essential not only for the reliability of our network, but also for the safety of the community it supplies. Assets that are left in a poor condition can potentially cause unwanted incidents in our network. For this reason, we conduct thorough asset inspections, which determine their condition and whether further action is required. Our assets are managed as part of our cyclic pole maintenance program to ensure we inspect all of the 645,000+ poles across our network.

We will utilise BlueWorX to manage the asset inspection program, develop work packages to be executed and maintain auditable records of the work undertaken. BlueWorX is integrated with the SAP ‘Plant and Maintenance module’ which stores details of the electrical network assets. This includes electricity poles and other assets such as cross arms, conductors, pillars, fuses, insulators and private lines. We classify the severity of asset damage using a priority system, so the most urgent matters are attended to as soon as possible. This system also allows us to record non-urgent asset defects for monitoring purposes. These assets may receive more frequent inspections as a result.

### A.4 Design and drawing tools

APPLICATIONS	DOCUMENT MANAGEMENT <sup>16</sup>	DIGITAL 3D MODELS <sup>17</sup>
Current Solution	Vault	Neara

Vault is an AutoDesk document management system for organising, managing and tracking electrical network drawings and design files used by teams across the business.

Vault functionality provides these key features:

- Integration with Office Applications and AutoDesk products (e.g. AutoCAD)
- Search for, view, edit and download files

Vault consists of a central storage server than can be accessed via desktop application or a browser-based client (Thin Client).

Aerial captured data has been integrated into Neara software (along with additional asset information from GIS and SAP) to create a digital 3D model of the entire CP/PAL/UE overhead distribution network including its environment.

<sup>16</sup> Pertaining to electrical drawings and design files.

<sup>17</sup> Relating to critical infrastructure networks and assets to assist with network design.



Neara is a physics-enabled platform that builds 3D interactive models of critical infrastructure networks and assets to assist with network design. It provides the following benefits:

- Planning / Project management: ability to accurately plan and scope projects, with a visual representation of the network from the office.
- Safety Compliance: Safety scenario analysis in the form of 3D clearance analysis of electrical infrastructure to just about anything picked up in the lidar scan: structures, railways, third party assets, vegetation etc.
- Design / Engineering: Increased accuracy with desktop design.
- Compliance: A platform for quality assurance 'as built' analysis, as previous scans can be compared with more recent ones.

## A.5 Corporate website

Our current solution is Craft Pro.

Our corporate website provides a face to our business, delivers vital information and access to the digital service offering utilised by our customers. Our public website is the primary landing space for customers to access general information across a range of topics including connections, power outages, bushfire prevention programs and emergency procedures. Ensuring currency of the website ensures delivery of a seamless, on-brand customer experience that meets regulatory requirements, supports future campaigns and enables digital service delivery. It is essential that the website can operate under high load events such as network escalations or mass outage events.

The functions provided by our website are essential in ensuring that:

- Live outage information is available and accessible to all customers, especially in emergency scenarios
- network pricing is accessible to the customer, ensuring compliance requirements are met
- customer experience is maintained at a high standard to allow for ease of use
- customers are provided easy access to our digital tools and services.<sup>18</sup>

## A.6 Asset investment planning

Our current solution is Copperleaf.

We utilise the Copperleaf system to analyse large and complex data sets, highlight trends and critical components, and support decision making regarding investments on assets. Copperleaf was initially rolled out to optimise network investment and has been expanded over the years to include IT and discretionary investments in property, environmental and fleet.

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<sup>18</sup> Note: this business case only covers the currency requirements of the presentation platform; initiatives linked to related tools and customer portals are covered in a separate business case, e.g. Customer Enablement

Copperleaf supports investment decisions and the way we prioritise the activities required to manage our network assets and distribution networks. The application allows us to prioritise investment opportunities based on rational economic and risk mitigation assessments and supports decision making around pre-emptive maintenance works.

The functions provided by the Copperleaf software are essential in ensuring that:

- investments are made in the right areas to ensure that our distribution network remains stable and interruptions are avoided
- the overall safety of our network is maintained by ensuring that maintenance work is performed proactively.
- our investments deliver the maximum value to both the business and our customers.

## A.7 Reporting

Current Solutions	SAP Data Services	SAP SLT	SAP BW on HANA	Tableau
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The ability to collate and derive insights from structured and unstructured data is rapidly gaining importance and supports objective decision making and proactive addressing of issues. The core technology that supports this data management capability are the data warehouses and analytical and reporting tools that collect data from various source systems and provide insights (e.g., through report, visuals etc.) This will support business operational and financial decisions.

We use our BI/BW<sup>19</sup> business intelligence and reporting system for producing a range of reports across our business including for regulatory, financial, network and customer service reporting. Our BI/BW systems enable us to manage data and develop reports which underpin our business operations. Without BI/BW systems we would need to undertake manual data management and reporting which would increase labour resourcing leading to increased costs to customers. The solution will also support our regulatory reporting obligations to AER/AEMO<sup>20</sup> including RIN, GSL, CSAT and any jurisdictional requirements (e.g. ESV, HSE, AMI, Vegetation Management and etc). These reports also supporting the asset management and planning, portfolio optimisation and work planning to ensure the prudent investment into our fixed asset.

<sup>19</sup> BI/BW – business intelligence/business warehouse

<sup>20</sup> AER – Australian Energy Regulator, AEMO – Australian Energy Market Operator, RIN – regulatory information notice, GSL – guaranteed service levels, CSAT – customer satisfaction score, ESV – Electricity Services Victoria, HSE – health, safety & environment, AMI – advanced metering infrastructure,

## A.8 Other

APPLICATION	OPERATING SYSTEM	IT SERVICE MANAGEMENT	FILE TRANSFER
Current Solution	Windows	Service Now	Globalscape

### A.8.1 Operating system

Ensuring currency of the Windows operating system is a necessary change to ensure we keep our technology up to date, which is an important part of security management. Later versions are fully supported by Microsoft and have enhanced security features offering extra protection. In addition, ensuring currency assists to improve performance and functionality. Remaining on a supported version the vendor will continue to resolve identified issues and provide security patches to address malware and other security threats. An upgrade can also deliver new features and improvements to enhance the user experience.

During 2024 all corporate laptops were upgraded to the Windows 11 Operating System. This was a necessary change to ensure we keep our technology up to date and provides enhanced security features offering extra protection.

### A.8.2 Service management

*Service Now* is the IT Service Management (ITSM) software utilised by CP/PAL & UE. ITSM provides a set of workflows and tools for optimally developing, delivering and managing IT services. *Service Now* is utilised to manage IT service incidents, service requests, problems and changes, all of which need to be approved, qualified, assigned, tracked and completed.

*Service now* enables us to identify, track and resolve high-impact IT incidents through efficient and visible processes; ensuring issues are resolved asap. Agents are able to triage, collaborate, and resolve incidents, find answers, and stay connected from anywhere. As system applications are utilised across every business process, ensuring we have a working version of *Service Now* means application issues can be resolved in the shortest time possible and customer impacts minimised.

#### File transfer platform

We utilise *Globalscape* a comprehensive managed file transfer solution. It provides security and compliance as well as data transfer automation through integration with back-end systems. *Globalscape* enables secure file transfers between applications and with external partners in a secure and auditable manner. This transfer of files supports critical business processes such as:

- ensuring outage information from ADMS is available on the website outage map
- obtaining weather forecasts from the Bureau of Meteorology to be utilised by the analytics platform for forecasting purposes.
- the provision of letters to customers via a mail house with scalability to cater for future needs.

## B Website related compliance requirements

The Distribution Code<sup>21</sup> defines the following website related requirements for an electricity Distributor.

A distributor must publish the following information on its website:

- A description of the distributor's connection contracts and how copies of the contracts may be obtained.
- Details of the distributor's guaranteed service levels.
- The targets for reliability of supply.
- Details of applicable energisation and re-energisation timeframes.
- Notice of a customer's rights in respect of the negotiation of different terms.
- Details of charges for connection services.
- Information relating to new connections or connection alterations.
- A description of the distributor's and customer's respective rights and obligations concerning the provision of connection services under the electricity laws
- A summary of the rights, entitlements and obligations of small customers, including:
  - (i) the distributor's standard complaints and dispute resolution procedure; and
  - (ii) the contact details for the energy ombudsman

In addition, the following requirements in the Distribution Code relate to a distributor's website:

- Unplanned interruptions - a distributor must as soon as practicable, make available by way of frequently updated entries on a prominent part of its website information on the nature of the interruption and an estimated time when supply will be restored.
- Interruption notifications – a distributor must enable customers to nominate and update their preferred method for receiving the notification and this may be via our website.
- Reliability targets – Before 30 June each year a distributor must publish on their website the targets for reliability of supply relating to the following year.
- Supply reliability – Prior to December each year a distributor must write to the customer to provide defined information including their website address.
- Complaint handling – A distributor must include information about its process on their website.
- Reporting – the Transmission Connection Planning report must be available on a distributor's website.

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<sup>21</sup> [Electricity Distribution Code of Practice](#)

- Embedded networks – a distributor must provide information about safety, technical, servicing, inspection and installation requirements and when remote equipment may be used.

## C Option two timeline of investments

Examples of technical improvements delivered to the core software as part of a recent vendor upgrade are shown below.

**TABLE 11** TIMELINE OF WORK

APPLICATIONS CATEGORY	CLOUD	SYSTEM	OPTION TWO INITIATIVES (RECOMMENDED)
Corporate services management	Y	iManage	Annual minor upgrades with minimal expenditure associated.
	N	Readsoft	Upgrades in 2026/27 and 2028/29
	N	RecWise	Upgrades in 2026/27 & 2028/29
	Y	Success Factors	Introduction of the Learning Management System in 2026/27
	Y	Cintellate (Roam)	Annual regression testing in relation to vendor upgrades and customisations relating to safety changes.
Field Services Management	Y	Salesforce Field Service	This is a major application across the field services of this organisation. The forecast includes expenditure associated with annual upgrades & minor improvements.
Before you Dig Australia Service	N	Ticket Access	Upgrades in 2026/27 and 2029/30
Asset Inspection	N	BlueWorx	Upgrades to take place in 2026/27, 2028/19 & 2030/31.
Vegetation Management	Y	Xugo	Upgrades in 2026/27 and 2030/31.
Design & drawing	N	Vault	Upgrades in 2027/28 & 2029/30.
	Y	Neara	Small annual upgrades.

Corporate Website	Y	Content Management System	<p>In order to maintain current service levels this option will require a rebuild of the website including the associated infrastructure and information architecture.</p> <p>There will also be a modest uplift to website Information Architecture and design. These changes will help meet customer experience expectations as user interface design changes over time as well as providing a thorough review of the content present on the website, so it is kept current to changes within our business and the industry.</p>
Asset investment planning	N	Copperleaf	Consolidate UE and VPN into a single Copperleaf instance while maintaining Asset Models.
Reporting	N	Various systems (VPN & UE are different)	We will retain the current respective data landscapes and maintain prudent currency. We will undertake periodic upgrades of data warehouses and reporting applications. This will include the data archiving and housekeeping activities.
Other - File Transfer	N	Globalscape	Major version upgrades every two years, hence in 27/28 and 27/30. Operating system upgraded in 27/28 hence \$ are higher than in 29/30.
Other - Operating system	N	Windows	Upgrade to Windows version 12+ in 2028/29.
Other - IT Service Management	Y	Service Now	We will perform annual vendor upgrades which will ensure we maintain vendor support for ServiceNow, with maintenance work to ensure currency remains relevant.



For further information visit:

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