Business case: ICT Non-Recurrent - Service Order Module Replacement

2025-30 Regulatory Proposal

Supporting document 5.12.13

January 2024

SA Power Networks

Empowering South Australia

Contents

Glossary

Acronym / term	Definition
AEMO	Australian Energy Market Operator
Capex	Capital expenditure
CS	Customer services
DNSP	Distribution network service provider
ERP	Enterprise resource planning
ESCoSA	Essential Services Commission of South Australia
GSL	Guaranteed service level
ICT	Information and communication technology
NEM	National Electricity Market
NPV	Net present value
Opex	Operating expenditure
SLA	Service level agreement
RCP	Regulatory Control Period

1 About this document

1.1 Purpose

This document provides a business case to justify forecast non-recurrent Information and Communication Technology (**ICT**) expenditure for the 2025–30 Regulatory Control Period (**RCP**) for the replacement of SA Power Network's core software application which manages customer and national energy market requests (**service orders**), ensuring that our existing customer services are cost-effectively maintained and secured with the current acceptable levels of risk.

1.2 Expenditure category

- Non-network ICT capital expenditure (**capex**): non-recurrent – major replacements or upgrades

1.3 Related documents

Table 1: Related documents

Title	Author	Date
5.12.1 - IT Investment Plan 2025-30 – Asset Plan	SA Power Networks	Jan 2024
IT Asset Management Plan	SA Power Networks	Jan 2024
Digital and Data Strategy	SA Power Networks	Jan 2024

2 Executive summary

SA Power Networks' critical customer-requested services (or service orders) are managed through the SAP Customer Services (**CS**)[1] module. These include new connections, disconnections, reconnections, shock reporting, dial before you dig, quality of supply reporting, and customer-specific projects. The module provides streamlined automated processes that facilitate the initiation, execution and, where appropriate, billing of most of SA Power Networks' energy services for our customers.

Received directly from other participants of the National Electricity Market (**NEM**), reconnections and disconnections are specific customer requests that may come with the obligation of same-day completion. SA Power Networks is required to ensure that advance notification of planned work is communicated to life-support customers, and that disconnection service orders received from NEM participants are not actioned without appropriate notifications as a matter of safety of these customers. The module plays a key role in automating activities to compliantly deliver these outcomes or, by exception, enable the reporting of non-compliance to stakeholders.

The CS module is a core component of our SAP enterprise suite. In the 2020–25 RCP, SA Power Networks successfully migrated the SAP Enterprise Resource Planning (**ERP**) modules to SAP S/4 HANA, mitigating significant risk on the core platform. The CS module, which was initially implemented in 1998, is now approaching its end of life, with the solution vendor having advised that this module will be switched off in 2030.

This business case recommends replacing the current module with the vendor-supported successor module prior to its end of life, ensuring we can maintain our existing level of service to customers. The total expenditure for this preferred option **is $20.7 million[2], all of which is non-recurrent capex and falls within the 2025–30 RCP.** The overall residual risk rating is Medium.

Table 2: Options assessment summary ($ million, June 2022)[3]

	Total program costs			2025–2030 costs			Program estimates		Residual risk rating[4]
Option	**Capex**	**Opex**	**Total**	**Capex**	**Opex**	**Total**	**Benefits**	**NPV[5]**	
Option 1 – Replace CS module with successor service	20.7	-	20.7	20.7	-	20.7	-	-17.8	Medium
Option 2 – Replace CS module with alternate capability	64.1	-	64.1	64.1	-	64.1	-	-57.0	High

An option to replace the technology supporting our service order management capability with an alternative vendor solution was considered. Such a solution would require significant integration with our core ERP and all systems required to deliver customer service requests, including our critical billing, work scheduling and inventory management processes. As the existing solution and process is seamlessly integrated in our inventory process for stock management, as well as project management, procurement and finance processes to provide an end-to-end process, this option would result in a decrease in end-to-end visibility

1 CS technically stands for 'Customer Services' which stems for a time over 25 years ago when the module was designed for 'front end' customer transactions. However how it is used now is as background module enabling the interactions with the NEM, but the name 'CS' has stuck.

2 Unless otherwise specified, all financial figures in this business case are in real June 2022 dollars.

3 Note: Totals presented in tables throughout this document may not exactly match the sums of individual figures due to rounding.

4 The overall risk level for each option after the proposed option implemented. Refer to Appendix B – risk assessment for details.

5 Net present value (**NPV**) of the proposal over 10-year cash flow period from 1 July 2025 to 30 June 2035, based on discount rate of 4.05%.

and efficiency of delivering the customer requests. In addition, the high-level estimation of $64.1 million is more than three times the cost of the preferred option, primarily to develop the complex integrations that would be required.

An option to not upgrade at end of life was also considered. This would result in SA Power Networks not having access to the current automated capabilities provided by the module and would require a manual approach for the end-to-end process delivery of customer service requests. Everything from the interaction and information capture from the first instance the customer raises their request through to work execution and any quotation and customer billing – all these activities would need to be manually integrated. As a result, this option was deemed non-credible.

The preferred option was selected because it:

- maintains our compliance with National Energy Market regulatory requirements through our timely delivery of requests coming from the market, and provisioning of structured information in response to work progress and request completion;
- ensures our functionality is maintained, mitigating any risk associated with reverting to manual work practices to facilitate and coordinate customer service requests;
- supports future maintenance and security of our systems at the current acceptable levels of risk, avoiding the risk of critical business failure;
- provides the capability for SA Power Networks to maintain service level agreements (**SLA**) associated with delivering customer service requests;
- avoids all negative impacts to our customers' satisfaction and our brand and reputation by maintaining SLAs;
- reflects efficient delivery of the required change; and
- is the least cost of all credible options.

3 Background

SA Power Networks delivers a broad range of services to deliver and support the energy supply to our customers. The service order management capability and supported processes enables most of these services, including:

- **reconnections and disconnections** – Deliver end-to-end execution of energisation and de-energisation requests initiated by participants in the National Electricity Market (230,000 per annum);
- **life support management** – Manage the information related to support customers (22,500 per annum);
- **new connections for new homes and businesses, or modifications to existing connections** – End-to-end management and execution of customer-requested work with relation to the lifecycle of a customer connection point (40,000 per annum);
- **customer-specific project requests** – such as changes to or removal of existing supply connection points (4000 per annum);
- **network access permits** – End-to-end management and execution of customer-requested temporary isolation of supply (11,000 per annum);
- **quality of supply** – Facilitates the process of customers reporting a degradation of supply, and SA Power Networks' investigation and resolution of customer supply quality (2000 per annum);
- **dial before you dig** – Ensures protection of customers and avoidance of supply interruption through providing visibility of assets in the ground (140,000 per annum);
- **electric shock reporting** – Facilitates SA Power Networks' investigation and resolution of reported low-voltage shock incidents (1000 per annum); and
- **tiger Tails** – End-to-end management of requests for low-voltage line covers, which act as a visual aid to keep workers safe when performing jobs around overhead powerlines (200 per annum).

SA Power Networks is obligated to perform reconnection and disconnection requests for customers initiated by participants of the NEM on the same day, when requested. As described in the National Energy Retail Rules[6], we have an obligation to manage our relationship as distributor with retailers and customers in ways that align to those rules. For each request, we must:

- provide connection services within time constraints;
- provide information to the retailer in response to the request, and the customer, as requested;
- ensure details of life-support customers and their life-support equipment are appropriately captured when shared by either the customer or retailer, and to maintain this;
- manage notifications in advance of planned interruptions for life-support customers; and
- ensure disconnections are not actioned where the premises have a life-support customer.

In relation to the provision of connection services, the Essential Services Commission of South Australia (**ESCoSA**) mandates for SA Power Networks a same-day reconnection requirement that is to be complied with and reported against.
Further to these rules, the data and information associated with the requirements above are governed through defined technical procedures[7] that detail the requirements for interaction between retailers and distributors, in particular:

- maintaining accurate details (transaction data) relating to the request and of the associated customer.

6 National Energy Retail rules

7 AEMO Service Order Process: B2B Procedure

- communicating service orders, from acknowledgement of receipt through to the status of work progress.
- timing definitions for communication and responses based on service order types and criticality.
- delivery priority that stipulates timing expectations for the request, based on the service request type.

SA Power Networks regularly reports to ESCOSA to demonstrate our compliance to the service level agreement for these customer requests. As can be seen above, we have specific requirements to comply with regarding the needs of life-support customers. Specifically, these relate to the advance notification of planned work, as well ensuring that disconnection service orders received from NEM participants are not actioned where it is known that a customer is on life support.

SA Power Networks' obligation in the local network service provider role within the NEM involves actioning and providing structured information in accordance with Australian Energy Market Operator (**AEMO**) procedures in relation to requests regarding the lifecycle of a connection point, such as new connections, alterations and various statuses of energisation requests. Our service order management capability is fundamental in delivering efficient and reliable compliance requirements, particularly as there are such tightly controlled rule sets and technical standards that need to be met. Not having this capability will have a devastating impact on our ability to not only deliver customer requests and meet the timing constraints of service delivery and communication, but also efficiently comply to the level of accuracy of detail required for these requests.

3.1 The scope of this business case

This business case addresses the end-of-life risk associated with the technology that enables our service order management capability and related processes that deliver services to our customers. This system delivers streamlined automated processes that facilitate the initiation, execution and billing of the majority of SA Power Networks' energy services for our customers. This includes:

- Management of the customer processes end to end, ensuring compliance with our obligations under the National Electricity Market;
- Quotation of activities and transparency of associated costs and pricing;
- Management of and visibility in the progress of work execution, relating to each of these service requests, including associated details of supply points and network assets installed; and
- Provision of customer location information, integrating with the location of our network assets for the purposes of safely and efficiently delivering the work.

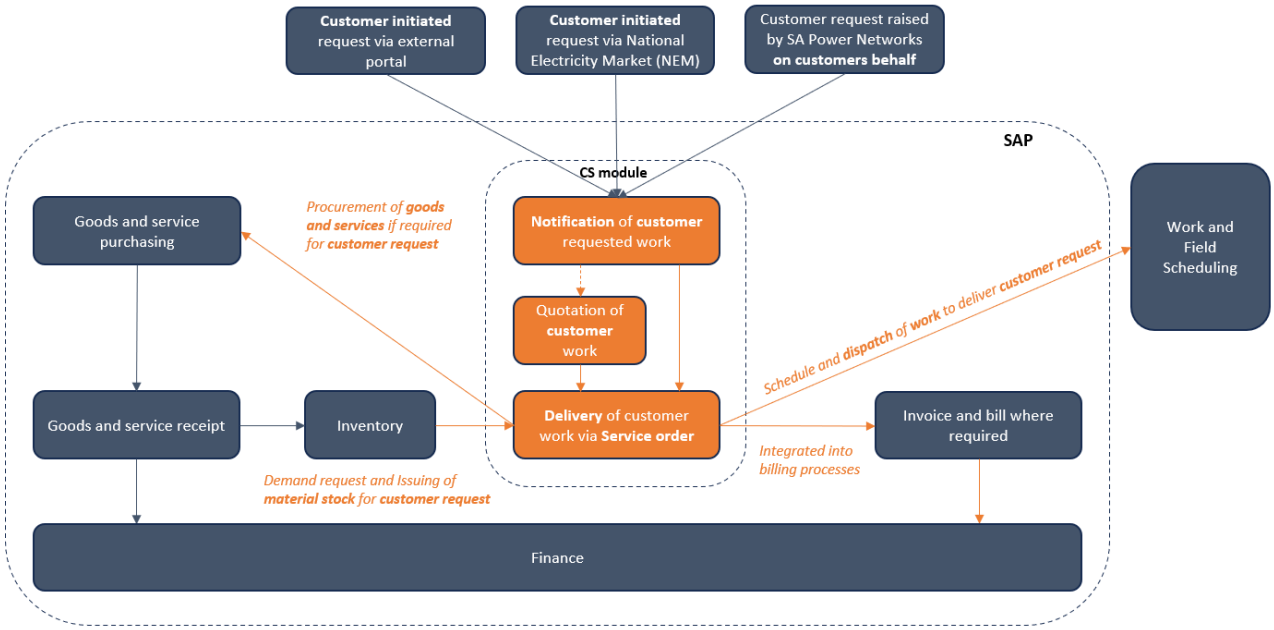
The diagram below depicts the integrated nature of the CS module with other modules, which enables a seamless and efficient process for delivering services requested by our customers. The process typically includes the following high-level steps facilitated by this integrated solution:

1. **Customer requested work is fed into our back-office process:** The module is integrated with several different solutions, such as via the national electricity market (eg reconnection/disconnection) or via external service portals (eg, new connections or electric shock reporting) enabling collection of details related to customer-requested work, including linkage to any associated assets.
2. **Quotation and pricing are provided, when required:** The module supports the generation of quotations and pricing, which is integrated into the end-to-end process seamlessly.
3. **Demand and provisioning for goods or services:** The module, through its native integration into inventory and procurement processes, manages the provisioning of goods and services to support delivery of customer-requested work.
4. **Scheduling and execution of customer work:** The module manages execution of customer-requested work. It is tightly integrated into our asset and work management solutions to enable the scheduling and

delivery of customer-requested work, along with facilitating notifications and capturing work progress status.

5. **Invoicing and billing, when required:** The module enables automated invoicing and billing where appropriate through seamless integration to other modules and processes within SAP. This provides a seamless experience for the customer and streamlined and efficient back-office processes.
6. **Provision of status information and completion:** The module enables the provision of information to market participants and customers regarding the status of their requests and when work is completed.

Figure 1: Example of integrated process delivering customer requested work



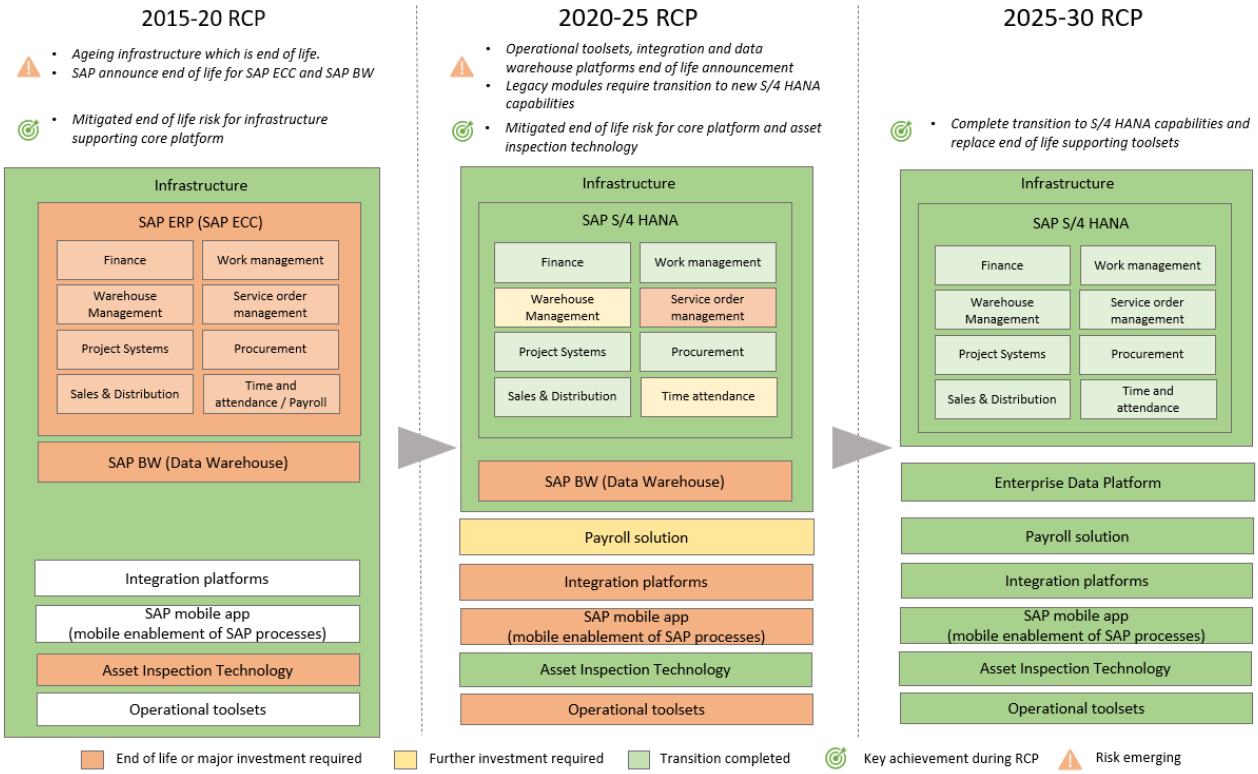
3.2 Our performance to date

The current module was implemented in 1998, along with the underlying software platform. To keep it up to date, this module was maintained through patching and version upgrades.

We prudently plan our major upgrade and replacement activity for our core systems over multiple periods. This approach manages both cost and risk. We began upgrading our core SAP modules in the 2015–20 RCP and completed the upgrade of our ERP platform S/4 HANA in the 2020–25 RCP. This was a $28 million program, delivered on time and on budget. This proposed business case is the continuation of a rolling program of refresh activities on our core technology system as end-of-life approaches, relative to each module.

Figure 2 below illustrates our progress over the current and prior RCPs, and what we forecast for the next period.

Figure 2: Progress of platform and module replacements across 2015–30



3.3 Drivers for change

End of life

SAP has announced that end of life for the current CS module will be December 2030. The replacement module has been available since 2022, allowing eight years to transition. Having now delivered the equivalent services and also allowing a reasonable timeframe for transitioning, SAP is committed to its end-of-life date for the CS module. We will prudently use the existing system for the maximum lifespan.

The driver for this business case is to ensure continued availability of the functionality and data that the module provides, and the resulting capabilities for our business, avoiding the need to perform these functions manually. Reverting to manual performance of these functions would result in a cost to the business – and our customers – of multiple times the long-term cost of replacing the system. It would also drive extended durations for fulfilment of customer service requests and could be expected to result in widespread customer dissatisfaction.

Ability to meet additional customer request types

The current technology provides a foundation for an optimised and efficient process for managing and executing customer request work. The ability to continue to use this level of technology is critical for SA Power Networks to efficiently deliver a growing number of customer-related requests in an industry that is going through significant change. It is critical that SA Power Networks can meet the ongoing demand expected of us, both from the industry and our customers.

3.4 Industry practice

Typical industry practice to address system end of life is to upgrade the software by either taking on the current vendor's successor product (should one exist) or replacing it with an alternative technology.

4 The identified need

The driver for investment action being considered in this business case is the need to address the end of life of our critical CS module, ensuring that the existing levels of customer service and risk are maintained.

In considering potential responses to this driver, we engaged with our customers on their desired service level outcomes balanced against price outcomes and considered our regulatory requirements under the National Electricity Rules, National Electricity Law and jurisdictional regulations.

As a result of these considerations, the identified needs for our module replacement are as follows:

- To respond to customers' concerns[8], identified through our consumer and stakeholder engagement process, regarding their explicit service level recommendations that:
    - we maintain reliability service performance – driven by a desire to not cause delays to service requests due to failed or insecure IT applications leading to the inability to capture, coordinate and communicate the progress of service requests coming from the market.
- To maintain our compliance with regulatory obligations/requirements[9], in this case with specific reference to:
    - continuing to meet our cyber security obligations and enhanced responsibilities as a critical infrastructure provider – through secure, reliable technology systems.
    - continuing to meet our NEM compliance obligations (described above) to the National Electricity Retail Rules, ESCOSA timing constraint and associated AEMO business-to-business procedures, such as same-day reconnection requests for customers where requested, and life support customer outage advance notification requirements, service order data and communication requirements.
- To maintain the safety of our distribution network and system, in relation to the risks of harm to workers, consumers and community:
    - through customers being able to report safety-related issues, such as shock reports and 'Dial Before You Dig'.
- To ensure continuity of essential services for the minimum possible long-term cost.

[8] This is pursuant to Clause 6.5.7(c)(5A) of the NER, which requires regard to be had to the extent to which forecast expenditure seeks to address the concerns of distribution service end users identified by the distributor's engagement process.

[9] This is pursuant to Clause 6.5.7(a)(2) of the NER, which requires expenditure in order to comply with all appliable regulatory obligation s or requirements associated with the provision of standard control services.

5 Comparison of options

5.1 The options considered

Table 3: Summary of options considered

Option	Description
Option 1 – Replace service order module with successor service (Preferred)	Replace the CS module prior to the December 2030 end of life with a 'like for like' successor module, and maintain our ability to effectively and efficiently deliver customer service requests, mitigating the risks associated with reverting to a manual approach to the delivery of customer service requests.
Option 2 – Replace the service order module with alternative vendor solution	Implement an alternative solution as the replacement for the CS module and implement this change prior to the December 2030 end of life. This will require significant complex integrations into the core ERP platform and other non-SAP systems.

5.2 Options investigated but deemed non-credible

Table 4: Options investigated but not deemed credible

Option	Description
Option 0 – Base case (Do nothing)	As at December 2030, we will lose access to the CS module. This would mean loss of the functionality required to facilitate and coordinate business activities arising from customer requests, as well as the ability to create or update data relating to these activities. From 2031 onwards, the business would therefore need to revert to a manual approach to managing customer service requests and manual coordination of process execution and associated information capturing. Reversion to a manual process would result in a significant uplift in resourcing, due to having to replace task execution currently performed by the service order module, including facilitating and coordinating service requests and capturing and distributing information relating to activity outputs, work status and completion. Particularly, this includes our key inventory and finance modules. The significant number of additional staff required to replicate these automated processes would result in a cost to the business and customers that is multiple times the long-term cost of replacing the system. This manual approach would also drive significant additional risk and a reduction in service across many areas. This includes: • Degraded customer experience due to longer durations for customer service requests, and an inability to meet forecasted future demands and volumes for customer service requests • Degraded reputation and brand value due to an inability to meet supply obligations • Potential fines/penalties for non-compliance to regulatory-defined distribution network service provider (**DNSP**) obligations, including Guaranteed Service Level (**GSL**) penalties • Reduced employee engagement and impact to morale, leading to reduced efficiency and service flexibility due to increased absenteeism, and reduced flexibility and availability of workforce. Note that if we do nothing, the existing integrations between the service order module and each respective business system would still require remediation to decouple from integrated systems.

5.3 Analysis summary and recommended option

5.3.1 Options assessment results

Table 5: Costs, benefits and risks of alternative options relative to the base case over the 10-year period ($ million, June 2022)

Option	10-year program/ project costs			2025–30 program/ project costs			10-year benefits	10-year NPV[10]	Overall risk rating[11]	Ranking
	Capex	Opex	Total	Capex	Opex	Total				
Option 1 – Replace the service order module with successor product (Preferred)	20.7	-	20.7	20.7	-	20.7	-	-17.8	Medium	1
Option 2 – Replace the service order module with alternative vendor solution	64.1	-	64.1	64.1	-	64.1	-	-57.0	High	2

5.3.2 Recommended option

SA Power Networks recommends Option 1 – replace CS module with the successor module to this module from the same vendor. All processes that are dependent on this module for business process execution will be re-enabled in the replacement so the business can continue with delivering business-as-usual customer outcomes.

Maintaining this functionality will enable us to continue to fulfil customer requests, through our ability to manage accurate information to manage work, market interactions, customer contact, quotation, and billing. It will ensure the current service level continues, and that our delivery of service requests and our customer communications related to work activities remain effective and, efficient and can be provided for the lowest long-term cost. It will also enable us to meet growing demand from customers.

Failure to appropriately replace this core capability would have a catastrophic impact on SA Power Networks ability plan, execute and manage customer-requested work, requiring reversion to a manual process. This would necessitate a large uplift in resourcing to replace task execution currently performed by the module and to mitigate the risks of process error, at an excessive cost.

[10] Net present value (**NPV**) of the proposal over 10-year cash flow period from 1 July 2025 to 30 June 2035, based on discount rate of 4.05%.

[11] The overall risk level for each option after the proposed option implemented. Refer to Appendix B – risk assessment for details.

5.4 Option 1 - Replace service order management module with successor module (Preferred)

5.4.1 Description

Replace the CS module before December 2030 and maintain our ability to deliver customer service requests effectively and efficiently.

All processes that are dependent on this module for business process execution will be re-enabled in the replacement so the business can continue with delivering the same customer outcomes, as usual. This includes end-to-end process integration with activities of network project officers, customer service officers, electricians and SA Power Networks field workers for associated planning, estimating, quoting, scheduling, and work execution along with quoting and billing – essentially, all work to deliver a customer service request.

5.4.2 Costs

The total forecast for Option 1 is $20.7 million of non-recurrent capex. This is profiled in Table 6, with the detailed cost model listed in Appendix A.

Table 6: Option 1 – Costs by cost type ($m real June 2022)

Cost type	2025–26	2026–27	2027–28	2028–29	2029–30	Total 2025–30	2030–31	2031–32	2032–33	2033–34	2034–35	Total 2030–35
Capex	-	-	3.1	7.2	10.5	**20.7**	-	-	-	-	-	**20.7**
Opex	-	-	-	-	-	**-**	-	-	-	-	-	**-**
Total	**-**	**-**	**3.1**	**7.2**	**10.5**	**20.7**	**-**	**-**	**-**	**-**	**-**	**20.7**

The costing consists wholly of the estimate of activity required to plan, build, integrate and test the proposed replacement module.

While the replacement module has been available for some time now, we will only execute the replacement when we absolutely need to; that is, by December 2030. This allows us to focus on the highest priority work early in the period, allows the replacement module to mature before adoption, and ensures that customers are not paying for this system in advance of its end of life.

5.4.3 Risks

Table 7 provides a summary of the risk assessment conducted for Option 1. The full risk assessment is provided in Appendix B.

Table 7: Risk assessment summary

Risk consequence category	Current risk level[12] (Option 0)	Residual risk level[13] (Option 1)
Network – Failure to transport electricity from source to load	Extreme (9)	Medium (6)
Customers – Failure to deliver on customer expectations	Extreme (9)	Medium (6)
Performance and growth – Non-compliance with regulatory, legislative and/or other obligations	Extreme (9)	Medium (6)
Safety – Harm to a worker, contractor or member of the public	Extreme (9)	Medium (6)
Governance – Non-compliance with regulatory, legislative and/or other obligations	High (8)	Low (5)
Overall risk level	Extreme	Medium

The primary risk scenario associated with not addressing the upcoming end-of-life state of our service order module is an inability to manage customer service requests efficiently and effectively. Systems that are not maintained or are insecure could lead to a high risk of service disruption, liability concerns, and a failure to deliver on customer expectations. Option 1 reduces the likelihood of this risk eventuating from 'Almost Certain' to 'Unlikely', as at the end of the 2025–30 RCP. This reduces the residual risk rating from Extreme to Medium.

5.4.4 Quantified benefits

There are no quantified benefits associated with this option.

5.4.5 Unquantified benefits

The primary benefit associated with this option is avoiding the need to revert to a manual process to facilitate and coordinate service requests and for capturing and distributing information relating to activity outputs, work status and completion. This avoids the large cost associated with the dozens of additional staff that would be required to replicate these automated processes, in particular, associated with our key inventory, billing, and finance modules.

Avoiding reversion to manual processes would also provide for current service levels to continue, including the associated degradation of customer experience due to longer durations for customer service requests, and an inability to meet forecasted future demands and volumes for customer service requests. It would also reduce risks associated with:

- degraded reputation and brand value due to an inability to meet supply obligations;
- potential fines/penalties for non-compliance to regulatory defined DNSP obligations, including GSL penalties; and
- reduced employee engagement and impact to morale, leading to reduction in efficiency and service flexibility due to increased absenteeism, and reduced flexibility and availability of workforce.

Note that if we do nothing, the existing integrations between the module and each respective business system would still require remediation to discontinue interactions with the module for creating and updating data and triggering systems tasks, including status updates.

12 The level of risk post current controls (ie after considering what we currently do to mitigate the risk).

13 The future level of risk once treatments proposed in this option have been implemented.

5.5 Option 2 – Replace service order management module with alternative vendor solution

5.5.1 Description

Option 2 involves seeking an alternate supplier solution to replace our end-of-life module.

As with Option 1, all processes that are dependent on this module for business process execution will be re-enabled in the replacement so the business can continue with delivering the same customer outcomes with no degradation in service levels or customer experience.

5.5.2 Costs

The CS module uses standard SAP integrations into the core SAP ERP platform. This includes billing and inventory management and all other SAP and non-SAP business systems that are required to conduct business activity to deliver customer service requests. To integrate an equivalent alternative product into this suite of systems and ensure the same efficiencies of process execution in delivering outcomes, would require much more complex, non-standard integrations. Therefore, this would require significant additional investment. This option would also result in additional operational costs for annual software licensing and support – for the SAP successor solution, there is no separate licensing fee for the current module as this is covered as part of the overarching agreement for the core ERP platform.

The total forecast for Option 2 is $64.0 million of non-recurrent capex. This is profiled in Table 8, with the detailed cost model listed in Appendix A.

Table 8: Option 2 – Total cost by cost type ($m June 2022 Real)

Cost type	2025–26	2026–27	2027–28	2028–29	2029–30	Total 2025–30	2030–31	2031–32	2032–33	2033–34	2034–35	Total 2030–35
Capex	-	-	41.0	17.5	5.6	64.1	-	-	-	-	-	64.1
Opex	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	41.0	17.5	5.6	64.1	-	-	-	-	-	64.1

5.5.3 Risks

Table 9 provides a summary of the risk assessment conducted for Option 2. The full risk assessment is provided in Appendix B.

Table 9: Option 2 – Risk assessment summary

Risk consequence category	Current risk level[14] (Option 0)	Residual risk level[15] (Option 2)
Network – Failure to transport electricity from source to load	Extreme (9)	High (7)
Customers – Failure to deliver on customer expectations	Extreme (9)	High (7)
Performance and growth – Non-compliance with regulatory, legislative and/or other obligations	Extreme (9)	High (7)
Safety – Harm to a worker, contractor or member of the public	Extreme (9)	High (7)
Governance – Non-compliance with regulatory, legislative and/or other obligations	High (8)	Medium (6)
Overall risk level	Extreme	High

[14] The level of risk post current controls (ie after considering what we currently do to mitigate the risk).

[15] The future level of risk once treatments proposed in this option have been implemented.

The primary risk scenario associated with not addressing the upcoming end-of-life state of our service order module is an inability to manage customer service requests efficiently and effectively. While Option 2 addresses the likelihood of this risk eventuating, the complexity of the integrations required and the volume of business rules that need to be migrated poses risks to a successful outcome. As the existing solution and process is seamlessly integrated in our inventory process for stock management, as well as procurement and finance processes, to provide an end-to-end process, it is considered that this option would result in a decrease in visibility and efficiency.

As a result, the likelihood of the risk scenario under this option remains 'Possible' as at the end of the 2025–30 RCP, and the residual risk rating is High.

5.5.4 Quantified benefits

There are no quantified benefits associated with this option.

5.5.5 Unquantified benefits

Option 2 has similar benefits to Option 1. However, as noted above, there is a considerably higher risk of not successfully completing this option, and as a result, there is a risk that these benefits will not be realised.

Replacing the service order module with another product other than the S/4HANA service module has cost disbenefits that contribute to the higher cost overall. These are:

- **Licensing:** the new product will come with licensing costs (operating expendiure). The current service order module is not licensed separately but is instead covered under user-based licensing within the costs of the core SAP platform, resulting in no cost reduction to offset the significant licensing costs of the replacement product.
- **Change Management and Training:** the successor service order module is SAP Fiori and consistent in experience with existing Fiori-based applications, requiring minimal upskilling by end users. The replacement product, however, will require a very high level of change management and training for users to adopt.
- **Integration complexity:** the new product will require integrations to be built and supported for inventory management and corporate services including billing and finance. These integrations are complex, increasing the cost of not only implementing the replacement product but also the cost of support activities for both production and non-production environments. Resources supporting the solution will require upskilling.

6 Deliverability of recommended option

Implementation of the recommended option is expected to take up to three years and be delivered in a phased approach across key business processes.

The legacy customer service module and the successor module can run in parallel. We will therefore implement this system replacement as a phased migration, with processes grouped together based on complexity and impacted business areas.

Consideration will also be given to the dependencies and relationships with other strategic projects, such as those covered within the -Integration Platform Replacement and Portal Replacement & Consolidation, to reduce impact on the business where possible and reduce the need for re-work, such as user acceptance testing. If either of those two projects are not progressed, additional funding will be required to deliver this replacement project.

7 How the recommended option aligns with our engagement

Customers expect that we will maintain our existing levels of service and risk. There is also an expectation on SA Power Networks to manage our assets prudently and cost-effectively. Customers are conscious of the amount of change that is being undertaken on the network – and that they will be undertaking more change themselves – such as installing new types of connections. They want those processes to be reliable and easy to use. The options selected ensure we can continue to meet those needs reliably and safely.

This project was mentioned in the IT Focused Conversation with the Consumer Advisory Board in September 2022 as “for information”. The total costs and bill impacts were included in all other customer engagement conversations as part of Scenario 2 ‘Maintain’ but were not specifically drawn out in these conversations.

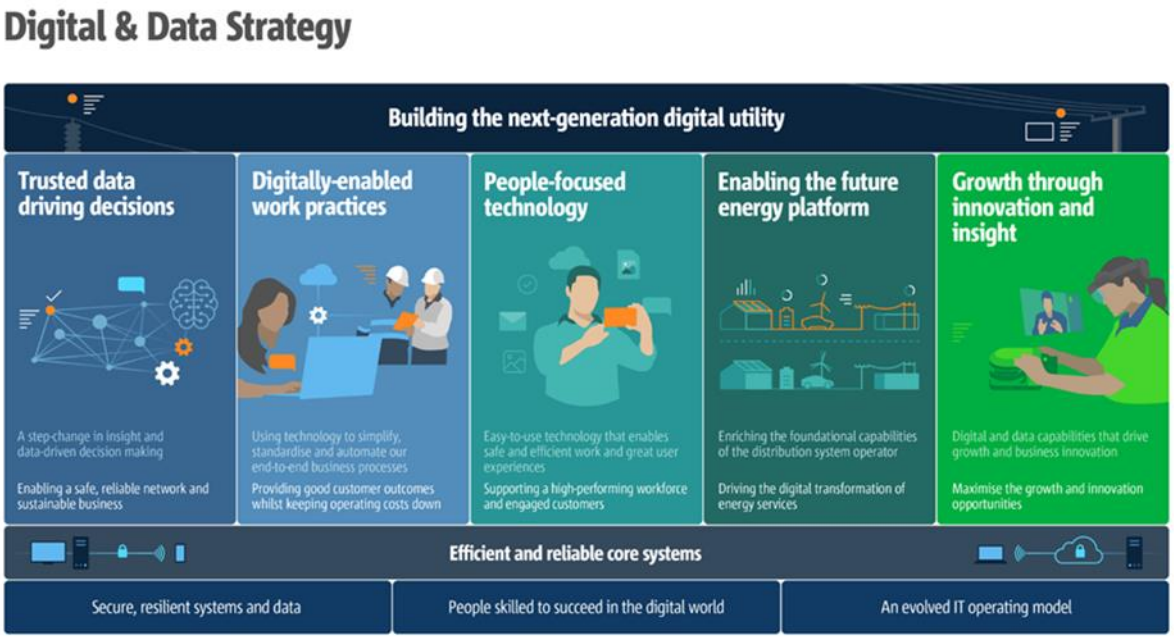
8 Alignment with our vision and strategy

SA Power Networks Digital and Data Strategy outlines the long-term strategic direction for ICT. The focus of the strategy is on the provision of efficient and reliable core systems, and a range of digitisation that ensures our workforce is supported to provide the broad range of business activities required to meet the needs of customers, including service requests they may initiate. A high-level view of our Digital and Data Strategy is depicted in Figure 3.

The strategy describes core components of the 'Efficient and reliable core IT systems' enabler that include:

- keeping core systems and applications operational, current and maintained to an acceptable level of risk, which in turn maintains the current service level to our business;
- maintaining data so as to continue the enablement of our decision-making processes; and
- leveraging technology that is people-focused to maintain efficient work practices and great user experience, which retains the engagement of our workforce and customers.

Figure 3: SA Power Networks Digital & Data Strategy



9 Reasonableness of cost and benefit estimates

SA Power Networks engaged Capgemini, a third-party vendor with significant experience in upgrading SAP applications at end of life, for a preliminary estimate. They assessed our technology landscape and provided an initial estimation of costs for replacing the service order Module, based on replacement activities, resourcing requirements for those activities, and market rates for resources.

SA Power Networks also conducted an internal review of the estimations with members of our Application Management team and our portfolio and program delivery team to refine the estimations, using our own experience and history with these same applications and our understanding of integration complexities required for end-to-end processing of service requests.

As such, SA Power Networks believes the estimates of costs and benefits in this business case are reasonable.

10 Reasonableness of input assumptions

All labour costs have been calculated using standard SA Power Networks internal and external labour rates. These rates are aligned with industry standards and consistent with other NSPs in the sector.

The labour effort required for delivering the work in this business case was informed by the estimation prepared by Capgemini Pty Ltd, discussed above. This has been validated and challenged by internal business subject-matter experts using knowledge gained from delivering other SAP modules in recent years.

Appendix A – Cost models

- Service Order Module Replacement - Option 1 Preferred (Replace with SAP)
- Service Order Module Replacement - Option 2 (Replace with Alternate)

Appendix B – Risk assessment

				Current risk (Option 0 – Do nothing)			Residual risk (Option 1 – Replace in 2025–2030)			Residual risk (Option 2 – Alternate vendor)		
ID	**Risk scenario**	**Consequence description**	**Consequence category**	**Consequence**	**Likelihood**	**Risk level**	**Consequence**	**Likelihood**	**Risk level**	**Consequence**	**Likelihood**	**Risk level**
1	The inability to efficiently and effectively manage customer service requests.	As at the end-of-life date for the Customer Service module, December 2030, manual processes will need to be implemented to facilitate and coordinate planning, quoting, delivery and billing of customer service requests and associated information capture. Consequently, there will be a degradation in customer experience, with longer durations for customer service requests, and an inability to meet future demands. Efficiency and effectiveness of our processes will decrease massively as a result of them becoming manual. This will require significant additional staff numbers to support the recording, distribution and updating of customer service request information, along with coordinating and facilitating work. Ability to meet National Energy Market compliance obligations will be impacted. There will be a flow-on impact to SA Power Networks' reputation from the perspective of customers, as well as employees, whose morale will be significantly lowered as result of reversion to manual business practices.	**Customer** – Failure to deliver on customer expectations.	4	5	Extreme (9)	4	2	Medium (6)	4	3	High (7)
			Network – Failure to transport electricity from source to load.	4	5	Extreme (9)	4	2	Medium (6)	4	3	High (7)
			Performance and growth – Financial impact.	4	5	Extreme (9)	4	2	Medium (6)	4	3	High (7)
			Safety – Harm to a worker, contractor or member of the public.	4	5	Extreme (9)	4	2	Medium (6)	4	3	High (7)
			Governance – Non-compliance with regulatory, legislative and/or other obligations.	3	5	High (8)	3	2	Low (5)	3	2	Medium (6)
			Overall risk level[16]			Extreme			Medium			High

[16] For each option, the overall risk level is the highest of the individual risk levels.