Appendix 1.22: Information Communication Technology Plan

Regulatory proposal for the ACT electricity distribution network 2024–29

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1. Overview

This Information Communication Technology (ICT) Plan describes the overarching strategy and decisions concerning non-network ICT for the period 01 July 2024 to 30 June 2029 to support the Evoenergy Electricity Distribution Network Determination 2024–29 (EN24) Regulatory Proposal.

As we look to the future, the nature of the energy system and Evoenergy's role within it is changing. Achieving net zero by 2045, a target set by the Australian Capital Territory (ACT) Government, and meeting community expectations will require fundamental changes to the way we generate and use electricity. These changes are reliant on investment in ICT to establish the platforms of common technology and enable the agility and outcomes for enterprise strategic initiatives.

Our four strategic technology goals have been developed to balance reliability, affordability and do-ability while simultaneously remaining open to options for Evoenergy growth opportunities in renewable gas alternatives in the next regulatory period.

Our four strategic goals are:

1. **Respond to the Customer**. Provide prudent and efficient technology options, which optimise how services are delivered to customers, and are supported by our customers.
2. **Flexibly integrate with stakeholders**. Technology architected and established to enable integration with our stakeholders' systems efficiently.
3. **Simplify Technology Landscape**. Core applications focused on utilising standard vendor offerings in accordance with the intended use to ensure ongoing prudency and efficiency in our technology.
4. **Strengthen Technology Foundations**. Continue to modernise and strengthen our enabling technology — the 'foundations'. Supporting a continuous uplift in security aligned to regulatory requirements and customer needs and enabling the development of scalable, repeatable, modularised solutions.

We are in a strong position to achieve these objectives.

Our vision is robust and appropriate. Over the previous and current regulatory period (2019–24), we have established the core technology stack for asset management, works management, network operations, metering and billing. We have further aligned these systems to Evoenergy's work practices and new regulatory requirements. Looking to the 2024–29 regulatory period, we seek to extend and enhance these systems through the functionality available through recurrent investment in the system roadmap and targeted non-recurrent investment. For 2030 and beyond, our focus will transition to extending and enhancing new customers, future grid, and resilience capabilities to meet our net zero requirements.

We listen to our customers and respond to their concerns. We have adopted an engagement approach to effectively enhance relationships with consumers and the interest groups that represent them. Our consumer engagement program seeks to understand consumer values to inform the draft proposal and tariff structure program, use the feedback to produce a draft proposal, and then consult on any further elements that need understanding.

Our customer engagement has identified six themes of priority and expectations of our customers:

- maintain reliability and improve network resilience;
- provide affordable electricity supply services;
- play a key role in enabling distributed energy resources;
- act towards achieving a net zero future;
- play a bigger role in communications with the community; and
- provide network tariffs that are fit for future users of the network.

All customer feedback has been integrated into our ICT planning process to develop the regulatory proposal.

Our shared services delivery model is efficient. The ActewAGL Joint Venture employs a shared services delivery model across its portfolio of assets, with a high proportion of technology common to its regulated electricity and gas distribution networks. This model allows the ActewAGL Joint Venture to deliver greater efficiencies for both regulated businesses, with fixed costs of ICT capital expenditure shared across a larger customer base than if the expenses were incurred on a standalone basis. Where sharing of systems is not appropriate or efficient, the ActewAGL Joint Venture allocates costs to the relevant subsidiary business, including Evoenergy.

Our delivery program is targeted at achieving strategic technology goals. We have proposed seven ICT programs that will contribute to the realisation of our strategic technology goals. Our ICT non-recurrent expenditure for Standard Control Services (SCS) over the 2024–29 regulatory period is $28.0 million, with the recurrent expenditure of $19.4 million.

Our ICT programs and future architecture incorporates the adoption of new technology through alignment with vendor product roadmaps and the identification of planned new system implementations:

- **Customer engagement**: deliver more control to customers making it easier to communicate and work with Evoenergy.
- **Network operations**: Establish the necessary technology platforms to support the continuation of Evoenergy's Distributed Energy Resources (DER) integration and network optimisation.
- **Metering and billing**: reduce the complexity and risk in the Evoenergy technology landscape without losing core capabilities or impacting on efficiency.
- **Asset management**: optimising asset management practices to reduce the cost impact to customers of maintaining reliability and security of supply while supporting the achievement of Net Zero 2045 targets.
- **Works management**: enhanced precision in forecasting, scheduling, and workforce planning enabled through efficient sharing of data between systems and reporting tools.
- **Supporting (financial management, human resources, health, safety and risk)**: enhancing the granularity of financial information to support timely decisions without compromising the governance and control framework.
- **Critical hygiene**: reduce the risks associated with failing or aged and unsupported hardware to ensure maintenance of an acceptable security risk profile and targeted application efficiency can be achieved.

In conclusion, our objectives for the next regulatory period are to prudently invest in extending and enhancing our long-term strategic technology capabilities ready to adapt to a net zero future, to maintain the quality of our services to our customers, and to achieve the expectations set out by those customers who assisted us in preparing this ICT plan.

2. Introduction

As we look to the future, the nature of the energy system and Evoenergy's role within it is changing. Achieving net zero by 2045, an ACT Government target, and meeting community expectations will require fundamental changes to how we generate and use electricity.

This plan describes our overarching strategy and decisions concerning non-network ICT the 2024–29 regulatory period.

This plan describes how our investments will respond to customer expectations, integrate our technology flexibly with stakeholders, simplify our technology landscape and strengthen our technology foundations. This will ensure our distribution system and the distribution services we provide will elevate customer experience, optimise our assets and networks, build our net zero carbon

future, deliver efficient and targeted investment, and support a sustainable business, energising our evolving community.

This document covers capital expenditure within the Australian Energy Regulator (AER) definition of non-network ICT and communications expenditure (referred to throughout this document as ICT capital expenditure for SCS).

Unless otherwise stated, all financial numbers in this document are presented in real $2023/24 dollars.

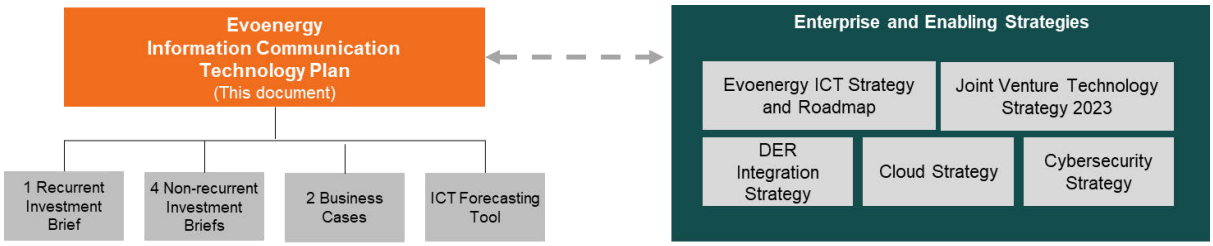
This document includes the following:

- **Introduction**: how this ICT Plan relates to submission documents and ICT supporting documents for Evoenergy and ActewAGL. The scope and responsibility of Evoenergy ICT to invest, replace, provide, and support key services.
- **Current regulatory period performance**: an overview of our ICT capital expenditure and performance for the current regulatory period including the achievements of our major projects and programs to date.
- **Strategic themes for investment**: key industry and technology trends impacting our business and the strategic technology goals we have formulated to progress the business in this trajectory.
- **ICT program and roadmap**: proposed ICT capital expenditure for the next regulatory period including our ICT Programs and roadmap, the forecasted benefits and expenditure to achieve our desired target state architecture by the end of the 2024–29 regulatory period.
- **Implications and beyond**: how Evoenergy is prepared for 2030 and beyond, by being positioned to achieve cost savings now and in the future, whilst retaining business continuity into the future despite evolving uncertainties of the future electricity network and ICT landscape.
- **How we manage and deliver change**: an overview of our approach to customer engagement, roadmap forecasting and planning processes, and our overarching project governance framework designed to manage and embed required change effectively.

2.1. Relationship to other ICT supporting documents

This ICT plan forms part of Evoenergy's 2024–29 regulatory proposal, providing information about our ICT capital expenditure forecast. The plan represents the collective output of business technology strategies, roadmaps, policies, and standards that support the efficient running of the network business and technologies used to provide services.

Figure 1 regulatory proposal artefacts and alignment with enterprise and enabling strategies



The plan is aligned to and informed by other key Evoenergy internal and external documents, including:

- Evoenergy Strategy 2030;
- Evoenergy ICT Strategy and Roadmap;
- Joint Venture Technology Strategy 2023;
- DER Integration Strategy;
- Cloud Strategy; and
- Cybersecurity Strategy.

2.2. Scope of Evoenergy IT

The ActewAGL Joint Venture was set up in October 2000 when the Australian Gas Light Company (AGL) and Icon Water Limited (formerly ACTEW Corporation), an ACT owned corporation, entered Australia's first utility joint venture. Today, the ActewAGL Joint Venture is made up of two partnerships:

- ActewAGL Retail Partnership is owned equally by Icon Water Limited and AGL Energy Ltd via subsidiary companies. ActewAGL Retail sells electricity and natural gas to centres in the south-east NSW region.
- ActewAGL Distribution Partnership is owned 50 per cent each by Icon Water Limited and Jemena Ltd via subsidiary companies. ActewAGL Distribution owns and operates the electricity network in the ACT and the gas networks in the ACT, Palerang shires and Nowra, under the brand name Evoenergy.

The ActewAGL Joint Venture employs a shared services delivery model across its portfolio of assets, with a high proportion of technology common to its regulated electricity and gas distribution networks. This model allows the ActewAGL Joint Venture to deliver greater efficiencies for both regulated businesses, with fixed costs of ICT capital expenditure shared across a larger customer base than if the expenses were incurred on a standalone basis. Where sharing of systems is not appropriate or efficient, the ActewAGL Joint Venture allocates costs to the relevant subsidiary business, including Evoenergy.

The Evoenergy enterprise ICT environment consists of two core elements: ActewAGL Joint Venture shared systems and infrastructure, and Evoenergy operational technology systems.

The ActewAGL Joint Venture's Enterprise Technology Division is structured to provide a range of shared ICT services and infrastructure across the Joint Venture (including Evoenergy and Icon Water[1]). The groups contributing to services provided to Evoenergy within the technology division structure include:

- **Chief Information Officer (CIO) Office**: responsible across the Enterprise Technology Division for providing assurance and commercial support services for the division, portfolio management and administration support.
- **Operations**[2]: responsible for providing service desk, ICT infrastructure support, radio support, software and hardware asset management, and end user compute support for devices and applications (i.e., Adobe).
- **Security**: responsible for providing cyber security services across the information technology environment and the Evoenergy operational technology environment, policy and advice, incident response, and monitoring and alerting.

[1] Enterprise Technology Division will retain responsibility providing key ICT services for Icon Water until the expiration of the Corporate Services Agreement in 2023.
[2] Operations Group activities to a large extent are delivered by an outsourced ICT services provider – Tata Consulting Services (TCS).

- **Design and Engineering**: responsible for providing solution architecture and design, integration build and support services, and identity and access management solution support.
- **Corporate Information Systems**: provides support for corporate applications and databases such as finance, records management, human resources, payroll systems**,** project delivery for ActewAGL Distribution Corporate ICT projects, Microsoft 365 product suite extension and support, and ICT strategy and enterprise architecture support.

The Technology Division includes a group dedicated to the provision of operational technology services, Evoenergy IT. Evoenergy IT is responsible for guiding investment, replacement, and support of Evoenergy operational technology systems, illustrated in the figure below.[3]

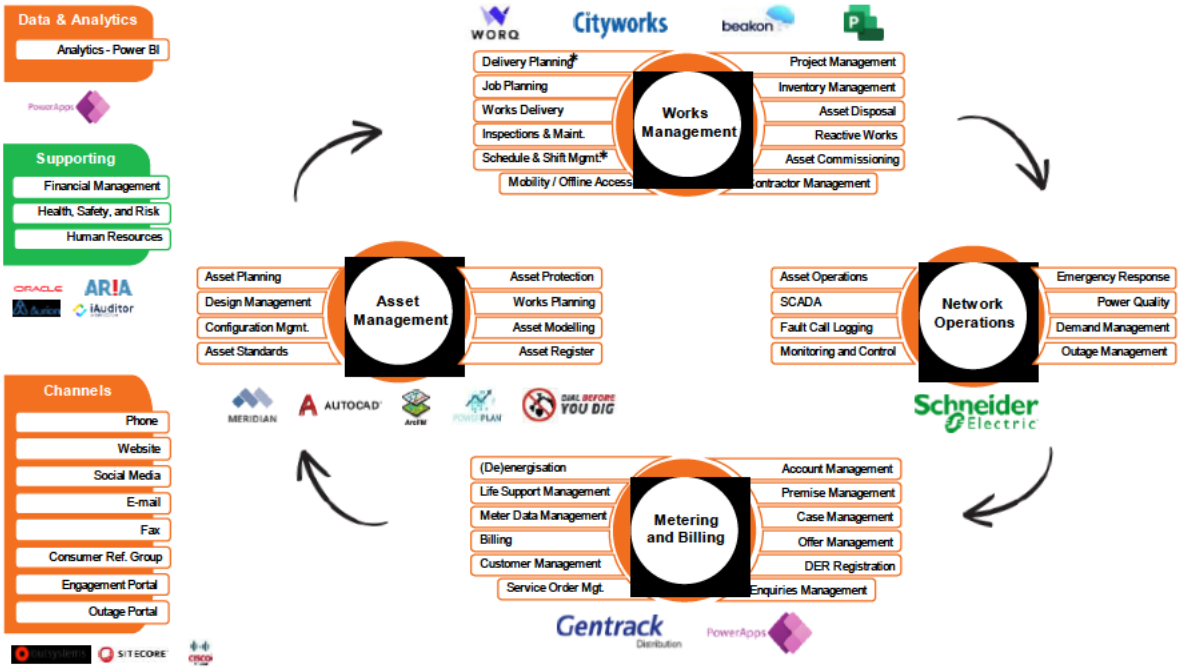
Evoenergy IT is responsible for providing specific application support in the following areas:

- **Works management**: technology capabilities to support the planning, scheduling, shift management and execution of work related to reactive works, inspections, inventory management, and asset commissioning and disposal. Current applications include Cityworks, Worq, Beakon and Microsoft Project.
- **Network operations**: technology capabilities to support asset operations, emergency management, and system operations. Current applications include Schneider Electric solution.
- **Metering and billing**: technology capabilities to support meter reading and billing for residents. Current applications include Gentrack Distribution, Velocity and PowerApps.
- **Asset management**: technology capabilities to support the management of assets through the asset lifecycle and the management of asset information. Current applications include Meridian, AutoCAD, ArcFM (geospatial information systems (GIS)), Cyme, PowerPlan and PSS Sincal.
- **Channel management**: technology capabilities to support the management of phone, website, social media, e-mail, fax channels. Current applications include OutSystems, Sitecore and Cisco Finesse.
- **Data and analytics**: technology capabilities to support the management of data for operational and analytical uses. Current applications include PowerApps.

[3] Within the Evoenergy business (separate to Evoenergy IT), there are several groups which provide support for specific operational technology within the environment such as ADMS and some energy network monitoring systems.

We have provided an illustration of the current state architecture (mapped to capabilities) as it relates to Evoenergy IT in Figure ***2*** below. A more detailed current state architecture of the Evoenergy systems, prior to completion of the 2019–24 regulatory period program (including extension of the Azure integration toolset) is provided at the Appendix below.

Figure 2 Current state application architecture



In addition to these capability areas, Evoenergy IT manages ICT project delivery and program management, and provides primary support for Evoenergy websites.

3. Current regulatory period performance

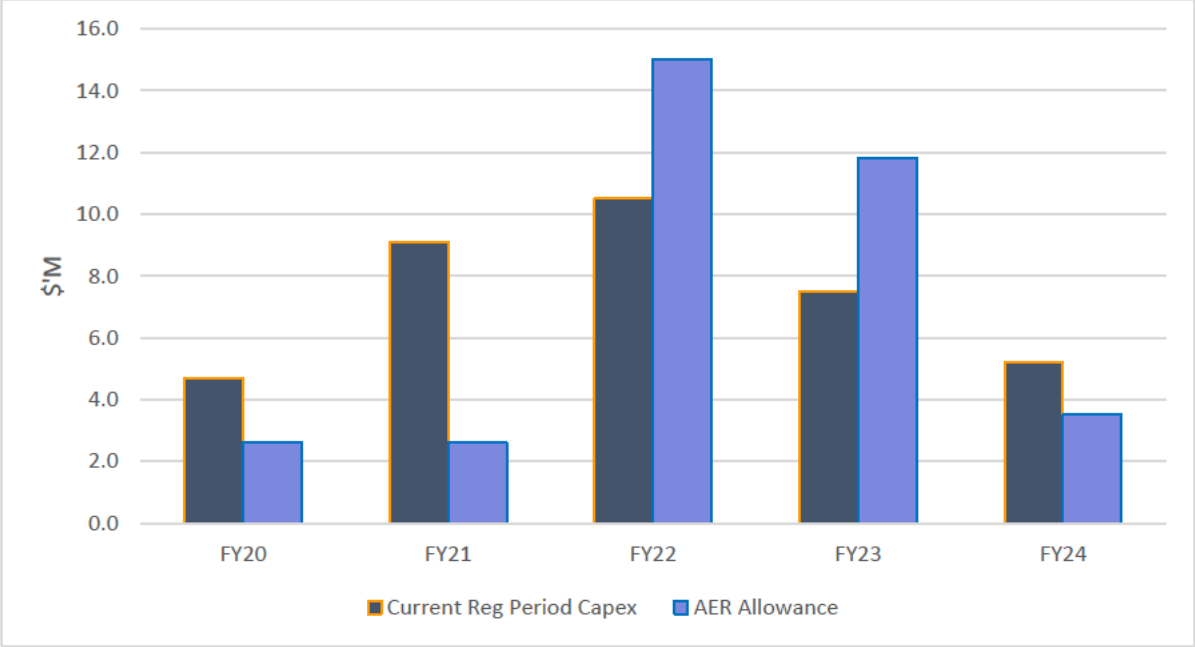
This section provides an overview of our ICT capital expenditure (capex) in the current period, including against the ICT Capex allowance set out in the AER's final decision for the current regulatory period (2019–24).

The ICT Capex presented in the ICT plan addresses both the Network IT and Corporate Support Business Systems categories, providing an overview of the total ICT capex expenditure enabling Evoenergy's management of the electricity network.

3.1. Actual and estimated ICT capex against AER allowance

Figure 3 below details the variance between the actual and forecast Network IT capital expenditure outcomes for the current regulatory period.

Figure 3 Current regulatory period ICT capital expenditure summary

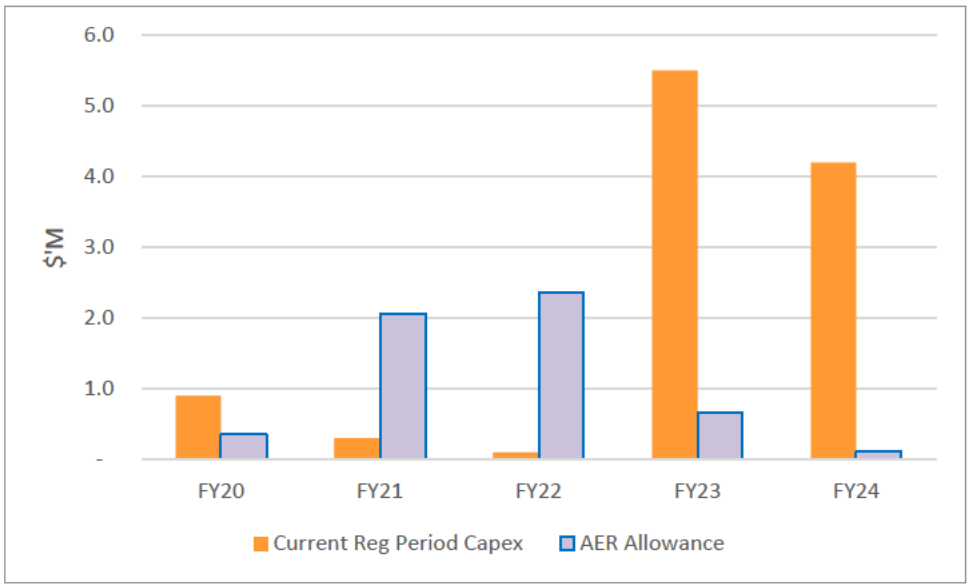


Our Network ICT capital expenditure for the current regulatory period is expected to be $37.0 million[4] which is 4.2 per cent above the regulatory allowance of $35.5 million. Evoenergy's capital expenditure profile shifted in timing across the current regulatory period reflecting a change in approach to investing in the Gentrack Velocity billing system, and a shift in approach to rolling out data analytics. The shift in timing resulted in underspends in years three (2021/22) and four (2022/23) and overspends early in the period and forecast again in the final year of the period (2023/24).

[4] Note that the EN19 regulatory period is still partly a forecast of actual Capex, as observations for 2022/23 and 2023/24 have not yet been realised. As a result, actual capex for the current regulatory period is an estimate based on three years of actual Capex and two years of Evoenergy's forecast capex.

Figure 4 below details the variance between the actual and forecast Corporate Support Business Systems expenditure outcomes for the current regulatory period.

Figure 4: Current regulatory period ICT capital expenditure summary – Corporate Support Business Systems



Our ICT capital expenditure for the Corporate Business Support Systems category in the current regulatory period is expected to be $11.0 million[5] which is 96 per cent above the regulatory allowance of $5.6 million. Evoenergy's increased capital expenditure in this category is as a primarily driven by the replacement of the Oracle R12 finance system. The implementation of the replacement system is due to be completed in the final year of the current regulatory period (2023/24) with the Evoenergy investment in the replacement finance system forecast to be [redacted].

3.2. Major project and programs

Evoenergy has progressed effectively in delivery of the ICT programs described in the last proposal. Considerable progress has been made on Advanced Distribution Management System (ADMS) upgrades, with the project currently in Phase 3 involving software installation, training, and testing (project completion due December 2022), and the Gentrack Velocity billing solution has been extended to meet compliance with Five-Minute Global Settlement rules. These two projects account for almost half of the investment across the current 4 2019–24 regulatory period capital expenditure.

A brief overview of key programs outcomes and achievements delivered to date have been provided in Table 1.

[5] Note that the 2019–24 regulatory period is still partly a forecast of actual capex, as observations for 2022/23 and 2023/24 have not yet been realised. As a result, actual capex for the 2019–24 regulatory period is an estimate based on three years of actual capex and two years of Evoenergy's forecast capex.

Table 1 Current regulatory period ICT program achieved outcomes

Program	Outcomes
Network IT	
ADMS upgrade	• Extended operational life of system, improved functionality, and cyber security. • Improved customer experience derived using real time data received from these sites to provide valuable power quality information at the customers level (e.g., overvoltage, low voltage network unbalances, etc.). • Introduced the Energy Management System (EMS), providing an integrated transmission network view and expanding Distribution Management System functionality to transmission. • Introduced Arc Flash module to enable incident energy value calculation associated with planned switching. • Additional integrations to incorporate weather data and pass information securely to other operational technology systems. • Enabled internal business workload and pipeline reporting and workforce planning.
5MGS	• Existing on-premise Velocity instance has been extended to meet 5MGS compliance requirements. • Extended operational life of the system undertaking the least cost option using the existing Velocity product. • Reduced the integration of the on-premise instance with all existing workflows, protecting the integrity of on-premise instance and its interface with other Operation Technology Systems. • Enabled data for existing type 4 meters to be held in the cloud and generation of NUoS billing.
Velocity billing	• Extended the on-premise Velocity platform to address regulatory and functional needs including: o Global Settlement; o Life Support; o B2B Schema Changes; o Customer Switching; o MSATS Standing Data Review Phase 1 and Phase 2; o Planned Interruptions; o CPC and COVID responses; o Solar Tariff Trials; and o DER Register.

Program	Outcomes
Network IT	
PowerPlan updates	• Implementation of the AIP Module to augment the initial AIO deployment. • Enabled enhancement of the program of work planning and development capability, including monetised risk, estimating and fleet forecasting capabilities.
Cityworks Portfolio updates	• Enhanced mobility, customised field force services, reporting, data management improvements, analytics capabilities, and productivity enhancements. • Vegetation Management, Workflow, Forms Management, and Inspection Data Collection modules developed and deployed.
ArcFM GIS support and maintenance	• Relocated ArcFM GIS platform from on-premise infrastructure to Azure Cloud. • Delivered iterative stability and enhancements, extending the useful life of the solution.
Digital platform	• Enhanced customer portal services.
Data storage and analytics Platform	• Enhanced data access and reporting services for consumers, staff and industry partners alongside data analytics and insight services.
Drawing management systems	• Generational change and improvement for the core platform. • Enhanced Mobility access systems.
Corporate Support Business Systems	
Finance system replacement	• Commencing implementation in the middle of 2023/24, the finance system replacement project will see the current Oracle R12 solution replaced with the Oracle Fusion software as a service solution. • Evoenergy capital expenditure investment will include integration of the new solution to existing on-premise hosted systems such as Gentrack Velocity billing and Cityworks.
Data Centre infrastructure upgrade	• Commencing implementation in 2023/24, the data centre infrastructure upgrade project will refresh the compute and storage infrastructure as well as data centre networking equipment that is end of life and without vendor support.

4. Strategic themes for ICT Investment

This section outlines the rapidly evolving industry trends and strategic themes which have informed the prioritisation and development of our ICT capital expenditure forecast for the 2024–29 regulatory period.

4.1. Industry trends

The global climate agenda is driving unprecedented change across all sectors of the economy in pursuit of decarbonisation targets. The energy sector is at the forefront of the global decarbonisation journey as it is both a significant carbon emitter and a key enabler for decarbonisation across all other sectors of the economy. The energy sector will experience revolutionary change in the coming decades. Distribution businesses will need to decentralise and adopt Distributed System Operator (DSO) capabilities that enable coordination of distributed customer owned generation as network wide demand scales significantly higher with electrification and customer expectations rise.

As an energy provider, Evoenergy will need to be a first mover in energy transition to meet customer expectations and to enable decarbonisation in transport, constructions, waste, land use and other sectors.

The following factors are driving business change, affecting customer service expectations, our growing asset base due to an aging network and net zero augmentation, and our workforce capability and experience:

- **Net zero by 2045**: ACT Government target/legislation to achieve net zero greenhouse gas emissions by 2045 and associated interim targets.
- **Transition to DSO role**: the introduction of a distributed energy resources drives a shift in services required from a Distributed Network Service Provider (DNSP).
- **Cyber security threats**: while we have been progressing well towards meeting cyber security obligations and target maturity levels, threats will remain. As we start to open our systems up to new stakeholders, new threats will be introduced. The integration of systems across external parties though supply chains, and the community's critical reliance on security and stability of these systems, will see the recommend cyber security controls under frameworks such as the Australian Energy Sector Cyber Security Framework (AESCSF) continue to expand.
- **Climate change**: long-term trends in the average pattern of weather in the ACT and beyond will continue to change in the coming period.

Evoenergy not only needs to respond to these drivers and their direct impact on the business, but also needs to address where these drivers may affect other market participants' behaviours. In developing the proposed ICT plan, Evoenergy has taken a prudent approach to investing to manage the impact of these drivers.

4.2. Technology trends

Technology continues to evolve at a rapidly increasing rate and provides both new opportunities to increase customer satisfaction and improve our operations, whilst it also introduces heightened cyber security risks that need to be mitigated. In this section we explore the four key technology trends that have been considered for the ICT plan.

Digital Twin

Energy companies can use digital twin capabilities across various areas of their businesses as they relate to asset management, to create virtual representations of physical assets or systems before

they are even built or deployed. Simulations can be run and combined with real-time internet of things (IoT) data, to realise process and operations optimisation and performance. Applications for this technology within the energy industry can include:

- **Digital Twin of constructed or to be constructed asset**: this can be used to optimise cost, quality, safety and risk for the design and construction of an asset.
- **Digital Twin of an object combined with real-time sensor data**: combine real-time sensor data with virtual simulations that can optimise performance, predict failure rates, and guide predictive maintenance in real-time.
- **Digital Twin of a live network**: support operations teams to predict and optimise for disruptions in real time to provide more reliable services and uplift real-time load monitoring, incident detection and disruption prediction.
- **Digital Twin of a network combined with planning/forecasting data**: used for planning, long-term infrastructure implementation and environmental modelling.

Automation

Energy companies are facing higher expectations of stability and availability from their customers and increasing technological complexities across their operating environments. To respond to these external pressures, energy companies are transforming their technology operating models and are looking to significantly leverage ICT automation tools and other systems (e.g., cloud tech, modern Enterprise Resource Planning (ERP), etc.), to make operations more effective, error-free, and scalable. Also, given the increasing demand for ICT talent, energy companies cannot afford to squander employees' hours and days on routine, low-value tasks. Shifting routine tasks to automation systems helps improve processes and enhance productivity, while enabling resources to focus their time and effort on higher value activities. Enabling automated and standardised operations in back-office ICT through integrated digital tools, automated regression test tools, DevSecOps, etc, and enhancing these tools with artificial intelligence (AI) and machine learning (ML) technologies is also helping to provide improved operational insights.

Internet of things and artificial intelligence

By harnessing the power of AI vision and other advanced AI technologies, energy companies can monitor and analyse vast amounts of information — including data from field sensors, drone video, and weather radar — with a level of timeliness, accuracy, and thoroughness that humans alone simply cannot achieve. There is an interminable wealth of use cases that can provide a competitive advantage and uplift energy companies operations:

- **Field sensor data analysis**: upstream energy operations require intensive analysis of complex and unstructured data — such as spatial, geological, geophysical, and chemical data — to monitor production assets and assess opportunities. AI technologies can be used to analyse real-time data from networks of sensors in the field (combined with scientific knowledge models and information about various environmental or geographic factors).
- **Predictive machine maintenance**: preventative maintenance for plant assets has traditionally relied on mean-time-to-failure to determine when maintenance should be scheduled (with breakdowns and failures noted in service logs to analyse historical performance). However, with the industrial IoT market growing and IoT sensors becoming ubiquitous, industrial producers now have a valuable opportunity to use IoT data and AI to make smarter decisions about when machines should be serviced or replaced, helping plants maximise production output at lower costs. Over time, AI can learn to recognise patterns in IoT sensor data to identify which machine parts are most likely to fail. These results can be further analysed to understand the correlation between critical parts performance and the quality of product output.
- **Predictive insights for utility service outages**: machine learning models can identify historical trends within energy markets to forecast loads and demand peaks more accurately, helping to ensure an adequate supply of energy. Other factors such as weather forecasts, event-based indexes, and supply-side constraints can be included in the models to not only predict demand, but also to predict the length and timing of service outages that cannot be avoided. Customers can benefit from predictive AI when their service providers are better equipped to manage demand peaks and other risk factors such as inclement weather. However, when service outages are unavoidable, predictive AI can also help utilities issue warnings to their customers and keep them updated with expected resolution times.
- **Field workforce support and safety**: AI technologies such as natural language processing (NLP) can give field workers easy access to critical information. Also, computer vision and machine learning algorithms can be leveraged to sense dangerous working conditions and automatically generate alerts.
- **Cyber security and defence**: enterprise attack surfaces are expanding exponentially with the proliferation of 5G and the growing number of network-connected devices. This is compounded with critical infrastructure such as utilities becoming key targets for cyber criminals. AI can be expanded beyond established applications, such as using it to accelerate

data analysis, identify anomalies, and detect threats. These emerging AI techniques can help human analysts focus on prevention, remediation, and developing a more initiative-taking, resilient security posture.

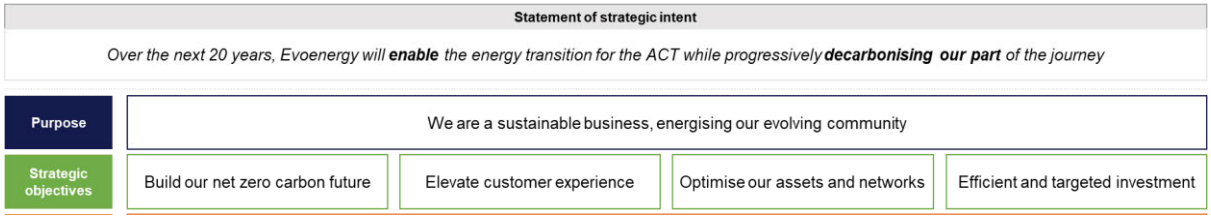
Data Sharing and Analytics

Energy providers can unlock greater value by coordinating data management, business intelligence and analytics activities across business units and functions, and within functions themselves. Most companies have instituted multiple data programs to continue addressing this area and have realised the benefits of enhancing connectivity within business units and functions. For instance, improved data curation and cleansing leads to improved downstream results for machine learning and analytics applications. By implementing solutions that enable broader data visibility and real-time data sharing for analysis and modelling, energy companies can better gather data about demand, supply, inventory, financials, operations, cyber security, technology risks, and more.

4.2. Strategic technology goals

As illustrated below in Figure 5, we aligned our objectives to the Evoenergy 2030 Strategy in developing our ICT plan,

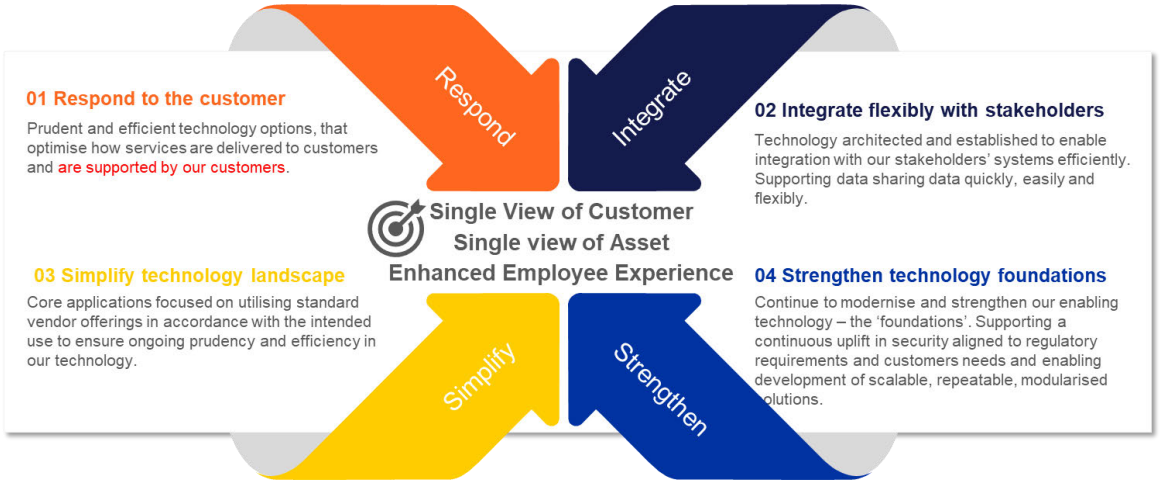
Figure 5 Evoenergy 2030 Strategy highlights



Each of these strategic objectives are reliant on investment in information and communications technology to establish the platforms of common technology, which are the enablers supporting efficiency outcomes for enterprise strategic initiatives and Evoenergy.

The four strategic technology goals, illustrated below, have been developed to balance reliability, affordability and do-ability while simultaneously remaining open to options for Evoenergy to growth opportunities in renewable gas alternatives into the next regulatory period.

Figure 6 Strategic technology goals



The ICT programs in the 2024–29 regulatory proposal have been developed according to the following strategic technology goals:

- **Respond to the customer**. Provide prudent and efficient technology options, which optimise how services are delivered to customers, and are supported by our customers. Our customers' expectations also continue to evolve, and we need to ensure we can meet them in terms of regulated service standards and respond to changing needs. Technology provides the enabler to meet customer expectations, through application integration and the delivery of a near-real-time digital experience via a centralised customer experience hub. The advancement of new disruptive technology solutions also offers new opportunities for customers like the future grid device integration.
- **Flexibly integrate with stakeholders**. Technology architected and established to enable integration with our stakeholders' systems efficiently. Supporting data sharing quickly, easily, and flexibly. Data integrated into a shared data model with a single version of the customer and asset.
- **Simplify the technology landscape**. Core applications focused on utilising standard vendor offerings in accordance with the intended use to ensure ongoing prudency and efficiency in our technology. We continually monitor opportunities streamline information management, such as by introducing further workflow automation. This comprehensive approach seeks to leverage rather than replace current solutions and be more cost-effective in how we support the delivery of services to customers. We will apply a broader scale approach to the consolidation and rationalisation of systems to reduce complexity and maintenance costs.
- **Strengthen technology foundations**. Continue to modernise and strengthen our enabling technology – the 'foundations.' Supporting a continuous uplift in security aligned to regulatory requirements and customers' needs, and enabling development of scalable, repeatable, modularised solutions. We must continue to respond as our obligations as they develop, as achieving regulatory compliance in many cases requires new or changed system capabilities. In the absence of any new or compelling customer enhancement (in line with customer expectations for improved digital services), we will also look to develop and leverage our existing systems in preference to the early adoption of new technologies to maximise the value of previous investments.

5. ICT programs and roadmap

The ICT programs proposed for 2024–29 regulatory period cover the strategic technology goals. Aligning with feedback from our customers, our technology programs seek to minimise adverse pressure on energy affordability and maintain our current levels of network reliability by leveraging existing core solutions and reducing the risk inherent with significant system changes.

The programs and target application architecture have been developed with the following guiding principles:

- Cyber security is at the forefront of our decisions and actions. We will be secure by design in our processes and our technology.
- Modernising our core systems, where possible, will be achieved through the upgrade paths provided by the vendors of our existing product suite.
- We will use cyclical upgrades to review what capabilities are delivered by our systems to determine whether there is a benefit to re-factoring which systems are used to support our business processes. This will require a close alignment between the architecture of business and technology.
- As we look to achieve scale through partnerships with external vendors, we will ensure that supply chain risks associated with such a strategy are carefully considered and monitored appropriately.
- Our transition to a digital utility will be achieved through evolution not revolution.
- Our technology will make us ‘easy to do business with’, internally and externally.

5.1. IT programs

Each of the seven (7) proposed ICT programs will contribute to the realisation of our defined strategic technology goals over the next regulatory period.

The table below highlights how each of the programs will deliver against one or multiple strategic technology goals. Each of the ICT programs have been aligned to the Evoenergy ICT architecture and we have provided a background for the investment, options, benefits, risks, and a recommended option which forms the basis for the proposed expenditure for the 2024–29 regulatory period. Please refer to the Appendix for a summary of the underlying initiatives, their planned outcomes, and the proposed investment.

Table 2 ICT program outcomes mapped to strategic technology goals

	Program	Outcomes	Strategic technology goals			
			Respond	Integrate	Simplify	Strengthen
1	**Customer engagement** Deliver more control to customers making it easier to communicate, and work with Evoenergy.	• Evoenergy customers interact via their preferred channel, with a consistent experience, ensuring that the information shared by customers and Evoenergy supports the most appropriate action. • Builders use self-service options to remove barriers to having demolition work completed prior to the network being safely disconnected. • Evoenergy fieldworkers have a reduced safety risk profile associated with undertaking condition inspections on assets located on private property due to the enhanced efficiency in accessing customer records. • Evoenergy is better able to segment customers to improve specific aspects of customer experience e.g., customer satisfaction survey, complaint analysis, focus groups and consumer representatives (Energy Consumer Reference Council members). • Evoenergy is delivering improved service target	✓			

	Program	Outcomes	Strategic technology goals			
			Respond	Integrate	Simplify	Strengthen
		performance incentive scheme (STPIS) telephone answering grade of service outcomes, reducing exposure to penalties, and providing the potential for rewards.				
2	**Network operations** Establish the necessary technology platforms to support the continuation of Evoenergy's DER integration and network optimisation.	• Evoenergy can securely combine data from core operational technology systems and third party distributed energy resources to forecast, plan and make decisions on the network adequately and more accurately. • Suitable innovative technologies as an alternative to traditional network augmentation have been identified and are considered viable options (subject to outcomes of trials). • The organisation has achieved a state of readiness for the increasing adoption of DER and other emerging future market and industry models.	✓		✓	✓
3	**Metering and billing** Reduce the complexity and risk in the Evoenergy technology landscape without losing core capabilities or impacting on efficiency.	• Existing systems have been simplified with Gentrack Velocity no longer being highly customised to extend the core product to support capabilities that are more efficiently supported via fit for purpose off-the-shelf products.		✓	✓	✓
4	**Asset Management** Optimising asset management practices to reduce the cost impact to customers of maintaining reliability and security of supply while supporting the achievement	• Condition based asset assessments are undertaken with enhanced granularity of information, reducing the risk for error in assumptions. • Improved precision in the calculation of total cost of ownership of assets.		✓	✓	

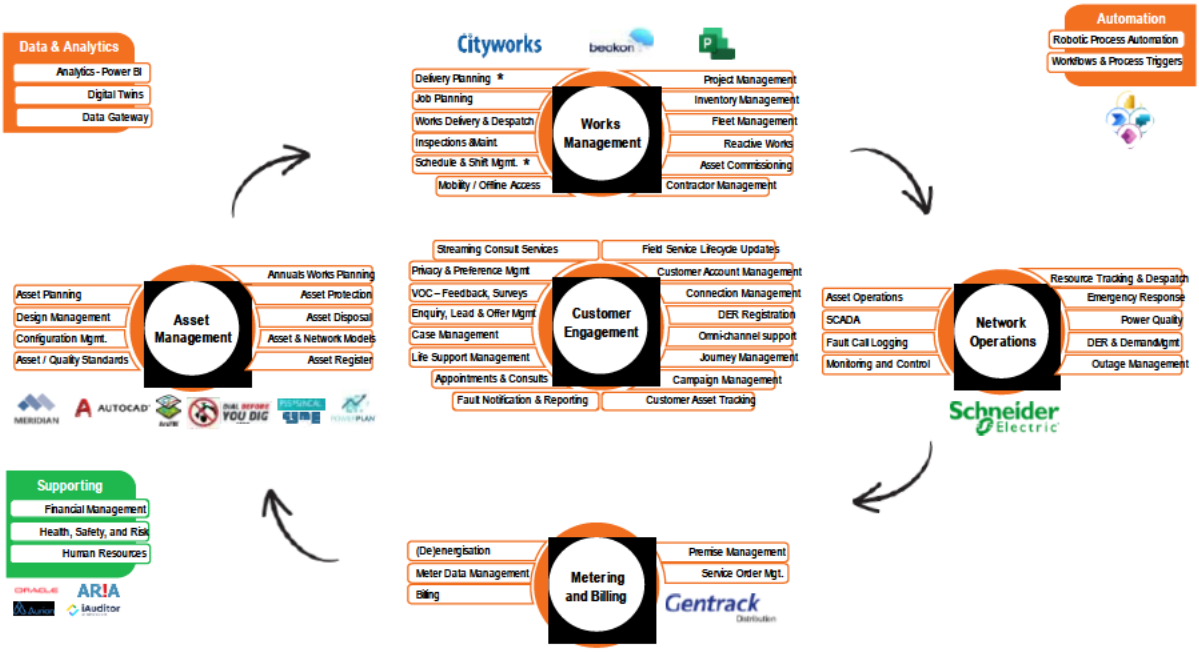
	Program	Outcomes	Strategic technology goals			
			Respond	Integrate	Simplify	Strengthen
	of net zero 2045 targets.					
5	**Works management** Enhanced precision in forecasting, scheduling, and workforce planning enabled through efficient sharing of data between systems and reporting tools.	• Evoenergy can optimise works schedules to respond to internal and external factors that may impact on the efficiency of existing plans. • Outputs from asset management and maintenance planning solutions are easily translated to schedule actions and variations to the scope or timing of planned works are easily reflected in updated maintenance plans.		✓	✓	
6	**Supporting (financial management, HR, health, safety, and risk)** Enhancing the granularity of financial information to support timely decisions, without compromising the governance and control framework.	• Evoenergy leverages the Finance Information Management System upgrade to simplify the financial reporting and analysis process. • Cost centre managers and project managers can more efficiently access timely reports that support insights through lead indicator and historical performance metrics. • Financial controls are established within core finance systems with customisations in asset and works management solutions to supplement the pre upgrade controls removed. • Resource cost capture solutions (including time sheeting) are optimised to remove duplication in entry effort and to enhance the accuracy of the records of the total cost of ownership of assets. The enhanced cost records can be used to inform maintenance strategies.			✓	

	Program	Outcomes	Strategic technology goals			
			Respond	Integrate	Simplify	Strengthen
7	**Critical hygiene** Reduce the risks associated with failing or aged and unsupported hardware to ensure maintenance of an acceptable security risk profile and targeted application efficiency can be achieved.	• Evoenergy and ActewAGL Distribution (AAD) Corporate's technology assets are maintained in accordance with industry standards and vendor supported lifespan. • Evoenergy continues to maintain compliance with regulatory and legislative requirements associated with cyber security. • Evoenergy continues to apply a cyber security control framework that meets the expectations of our customers and the ActewAGL Board. • Security in design is supported across all system upgrades and implementations to ensure that cost pressures associated with increased remediation efforts are avoided. • Informed by the AESCSF criticality assessment, Evoenergy will align design, implementation, and remediation activities with the requirements of AESCSF Security Profile 3. • Evoenergy and AAD Corporate's application landscape has been consolidated, removing customisations from applications by shifting capability to systems of better fit, decommissioning applications that provide insufficient value, and optimising the total cost of ownership of technology. • The Evoenergy technology environment has been simplified, making it easier to transition to software-as-a-service solutions and to maintain an N-1 policy across applications.			✓	✓

5.2. Target state architecture

To understand the changes to the Evoenergy application environment proposed to be delivered through the ICT programs, we have developed the target state application architecture, illustrated in Figure 7, to provide a concept-level view on how our technology landscape and ecosystems may evolve through the 2024–29 regulatory period. It is planned that the target architecture will be achieved by the conclusion of the 2024–29 regulatory period.

Figure 7 Target state application architecture



Our ICT programs and future architecture incorporates the adoption of new technology through alignment with vendor product roadmaps and the identification of planned new system implementations.

Key changes shown in the target state application architecture include:

- **Customer engagement**: complete transition to a fit for purpose Customer Management Relationship Management Platform to replace sub-standard Velocity functionality and bespoke customer communication tools. Expansion of customer related capabilities delivered through new cloud-based services and integrations with adjacent systems to drive a shared data model with a single version of the customer and assets.
- **Metering and billing**: simplification of a metering and billing solution Velocity [redacted]
- **Automation, data and analytics**: implement new Robotic Process Automation (RPA) and workflow management capabilities with Microsoft Power Platform (Power BI, Power Apps, Power Automate and Power Pages). The low code platform and applications will enable improved analytics, app development, process automation and external customer websites. Implementation of a Digital Twin solution, for example Neara, will enable scenario testing and simulation of specific events or strategies. To a large extent, the investment in automation, data and analytics will be operating expenditure (opex) in nature due to the product licencing

for the tools used and solutions available. These solutions will be required to demonstrate a positive net present value, recovering costs of implementation through efficiencies achieved through realisation of benefits.

- **Asset management**: deliver system/platform updates and enhancements to follow vendor roadmaps. Stabilise portfolio of asset management systems and scale down to manufacturer supported versions to prepare for future upgrades.
- **Works management**: deliver system/platform updates and enhancements to follow manufacturer support models and simplify the platform to remove capability that is not fit for purpose such as scheduling and forms management. Deliver cloud based full project management capability that is integrated with financial, works management, scheduling, and asset systems.
- **Network management**: continue Future Grid (AutoGrid) implementation to improve DER and demand management capability.
- **Supporting functions**: deliver system/platform updates and enhancements to follow vendor roadmaps and increase integration with enterprise systems such as works management, asset management and customer engagement.

Implementation of the target state will be occurring in alignment with Evoenergy undertaking a program of works to enhance security controls, with the objective of meeting AESCSF Security Profile 3.

5.3. Forecast ICT expenditure

This section outlines our proposed ICT capital expenditure for the 2024–29 regulatory period. We have classified our forecast ICT capital expenditure into Recurrent and Non-Recurrent projects in line with AER definitions. These categories are explained in Table 3 below.

Table 3 ICT value driver categories

Project Types	Description
Recurrent – Base	Lifecycle activities to maintain application systems, platforms, and communications systems.
Recurrent – Step	Additions to the recurrent base resulting from the deployment of new systems or the non-recurrent replacement of old ones in the current regulatory period.
Non-recurrent – Compliance	Projects to respond to changing regulatory requirements or market rules.
Non-recurrent – Maintain	Lifecycle activities are driven by replacement of systems rather than in-situ upgrades. These do not always fall within the five-year regulatory cycle, nor are they, necessarily, repeated in the same way. They do, however, subsume other activity that would have otherwise been classified as recurrent.
Non-recurrent – New	The introduction of new or extended functionality, modules, or whole systems to meet a business requirement.

Evoenergy's ICT initiatives have been assigned across the AER expenditure categories and estimated in detail using the costs accounts below, with input from key subject matter experts and the capture of key assumptions:

- **Project size**. For all project sizes, the daily rate represents a standard team and specialist skills that may be required over and above the full time employee (FTE) profile of the standard team are reflected in the complexity factor.
    - The standardised rate card applied to project sizing was established based on external labour hire sources, Gartner research, contracted rates with current providers, and internal rates. Figure 8 below shows the various roles included in the project size assessment with a daily rate based on the Gartner Labour Rate Calculator. The forecast tool point is the daily rate applied within the standardised forecast process.

Figure 8 Project sizing rate card analysis

- **Project complexity**. The complexity factor assigns a rate to adjust the effort required to deliver the ICT initiative due to factors such as existing and proposed integration approaches, interactions with legacy applications, requirement for data stored in unique data models, potential to impact time-sensitive and critical operations. For low complexity projects, the reduction effectively reduces the utilisation of the project team. In High and Extra High projects, the complexity factor recognises that there will be a need for additional resources to support the standard project team resource model.
- **Project timeframes**. Projects have been assigned timeframes ranging from 0–3 months to 24+ months. An estimate of modelled days required for completion has been provided relative to each of the defined project timeframes.

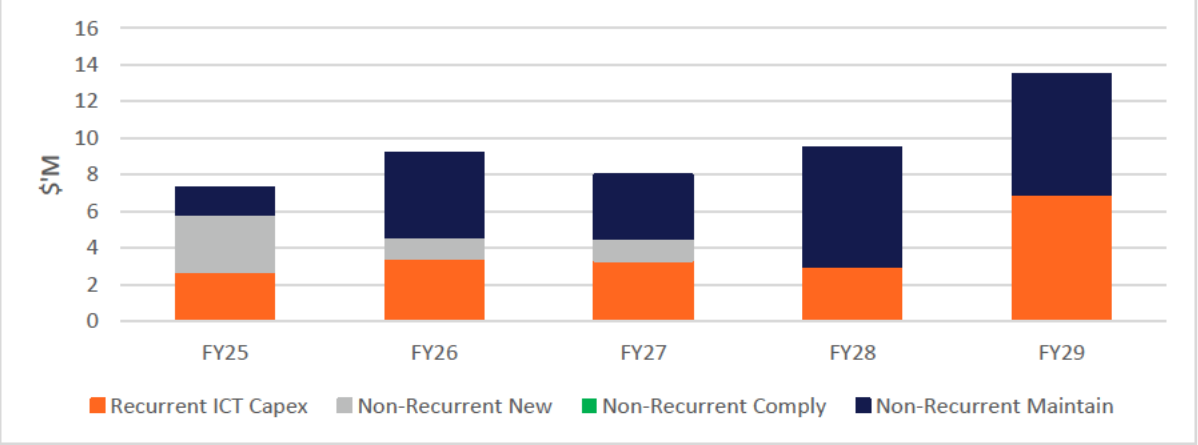
Table 4 below summarises the non-recurrent and recurrent capital expenditure for the six investment briefs. Please refer to section 5 for detail on the programs of work, their outcomes and the investment required.

Table 4 2024–2029 ICT program capital expenditure forecast

IT programs	Non-Recurrent ($ million)				Recurrent ($ million)		
	New	Comply	Maintain	Total 5 years	Base	Step	Total 5 years
Customer engagement	0	0	0.3	**0.3**	0.7	0	**0.7**
Network operations	4.8	0	0	**4.8**	3.3	0	**3.3**
Metering and billing	0	0	5.9	**5.9**	2.5	0	**2.5**
Asset management	0.6	0	10.8	**11.4**	2.3	0	**2.3**
Works management	0	0	5.6	**5.6**	1.8	0	**1.8**
Supporting	0	0	0	**0**	0.7	0	**0.7**
Critical hygiene	0	0	0	**0**	8.1	0	**8.1**
Total	**5.4**	**0**	**22.6**	**28**	**19.4**	**0**	**19.4**

Figure 9 below shows the forecast ICT expenditure by AER category on an annual basis across the 2024–29 regulatory period.

Figure 9 ICT program capital expenditure by AER subcategory



The AER assesses the non-system ICT capital expenditure according to the category of spend. The following subsections analyse Evoenergy's ICT capital expenditure by the category of spend.

New capability. This subcategory of non-recurrent ICT expenditures captures the expenditures relating to the acquisition of new or expanded ICT capability, functions and services. A positive Net Present Value (NPV) should be demonstrated to demonstrate the investment is prudent. Consideration should also be given to self-funding of the investment where benefits exceed costs. The highest NPV option may not always be the chosen one as another option may achieve benefits that are qualitative or intangible, but the qualitative assumptions related to these benefits will need to be supported by evidence.

The targeted outcomes of the new initiatives are outlined below.

DER integration

As outlined in the DER integration business case, Evoenergy has developed the DER Integration Strategy to address the challenges associated with DER integration. The strategy defines a clear set of actions and measurable targets which are designed to meet the objectives of:

1. integrating DER with the network while maintaining core service obligations in line with customer, regulatory, and government expectations; and
2. leveraging DER to support network planning, operations, and performance.

The proposed investment in DER integration in the 2024–29 regulatory period reflects a 'no regrets' approach to integrating and enabling DER, which supports Evoenergy in obtaining core capability and functionality in line with the technological and regulatory progression of the industry and aligned with customer requirements.

The investment outlined in the DER integration business case includes the costs associated with establishing the capabilities required to offer dynamic operating envelopes and orchestrate DER.

The broader outcomes of the DER integration business case include:

- installing network devices in targeted locations, and procuring data from smart meter service providers and other third parties to achieve 20% visibility across the LV network;
- developing analytical capabilities to support and improve existing business capabilities, such as improving data quality to increase accuracy of datasets, checking compliance, analysing customer complaints, and identifying network constraints and hosting capacity;
- obtaining a base level of capability for dynamic operating envelopes (DOEs) through partnering with an industry service provider and leveraging their software solution. DOEs will be offered to a subset of residential DER customers as an alternative to a static export limit;
- trialling low voltage (LV) static synchronous compensators (STATCOMs) and community batteries in targeted areas to alleviate network constraints, enable a higher hosting capacity and further understand their role in Evoenergy's network to support DER integration;
- addressing network constraints as they are identified (and not resolved through enabling projects or DOEs), including traditional fixes to power quality and capacity constraints, such as phase balancing and transformer tap changes; and
- readiness for increasing adoption of DER and other emerging future market and industry models as the industry transitions towards decentralisation and unlocking additional value for customers.

The ICT plan includes capex associated with enabling the IT solutions ($2.4 million) in support of the overall proposed investment in DER integration. As such, the capex investment is required only to the extent that the broader DER integration business case proceeds.

Digital Twin

The proposed investment in digital twin technology is to establish a prototype for the use of a virtual representation in asset management planning, with a focus on leveraging existing data sources to establish the new capability. The prototype would utilise the Evoenergy large database of LiDAR data (collected for bushfire management, vegetation management and planning purposes) along with other information from Evoenergy's operational databases, including data from the ArcFM GIS platform, to build a virtual representation of the distribution network.

Depending on the quality of data and level of integration within an ICT environment, the initial investment required to establish a digital twin can be significant. The approach proposed by Evoenergy will see initial benefits realised through continuation of existing core technology platforms, avoiding the costs that would be incurred through a significant change in systems and architecture (e.g., implementation of an ERP) to enable data driven digital twins.

Beyond the benefits reflected in the EN24 non-network investment profile realised through an avoidance (or deferral) of non-recurrent expenditure, it is anticipated that the prototype will enable Evoenergy to support asset management improvements, workforce efficiencies, and safety initiatives often associated with digital twins and data analytics.

The total forecast capital expenditure is $0.8 million.

ADMS

The proposed investment in the ADMS in 2024–29 regulatory period addresses the ongoing maintenance of the system as well as the introduction of new capability.

The maintenance investment in the ADMS solution will see design work undertaken in 2028/29 in preparation for an upgrade to v3.9 early in the following regulatory period. Evoenergy elected to not move to v3.9 in 2022 at the time of the upgrade to v3.8 from v3.4 due to the risk associated with being an early adopter of v3.9 in Australia. It is anticipated that by 2028/29 and the next regulatory period, Evoenergy will be able to leverage the experiences of other utilities both in terms of implementation approach and any maturing of the solution through industry informed patches and bug fixes.

In addition to the maintenance investment, Evoenergy is proposing an investment in new capability in the ADMS. The new capability is targeted to address the impact of the increase in demand and growth in DER.

Evoenergy anticipates that the proliferation of DER will create multiple network issues including:

- need for augmentation for DER (or applying constraints on generation);
- increasing quality of supply issues on the network; and
- increased requirement for load growth augmentation.

In addition, the emergence of community and larger batteries also creates opportunities for non-network solutions. In some cases, these opportunities can be exploited with the existing ADMS, but enhancements may offer the potential to do this more efficiently. Other scenarios will require the ADMS enhancements to mitigate the challenges being faced.

The proposed investment will enhance the ADMS, assisting with managing the increasing levels of Solar Photovoltaic(PV), EV, and Batteries on the network. The relevant modules are already owned by Evoenergy but have not yet been implemented. These enhancements consist of:

- **Near Term and Long-Term Forecasting tools**. The Near-Term Forecast uses historical load, historical weather, day types and external impacts such as the upcoming weather conditions to assist with more detailed demand forecasting and operates over a period of 24 hours ahead. The Near-Term tool forecasts to individual feeders within Evoenergy's network, allowing for enhanced DER management.
    - The Long-Term Forecast is used for the assessment of the sequence of annual active and reactive loads (consumptions) in large areas of the network or in the entire network, for future periods from one to 15 years.
- **Lookahead Constraint Management Tool** in ADMS. This provides information about upcoming constraint violations detected in the distribution network as well as detailed insight via the mitigation plan created by the module to eliminate these violations. It will assist in mitigating forecast network constraints so the violations of the operational constraints that are forecast for the upcoming interval may be mitigated by the upfront engagement of the available distributed energy resources.
- **Integration of Project Converge capability** to the ADMS. Project Converge is an existing Australian Renewable Energy Agency (ARENA) funded $8m collaborative project aiming to demonstrate new DER Orchestration capabilities including Shaped Operating Envelopes. The project is intended to assist energy distributors to improve network congestion management, minimise network expenditure and improve DER market bidding. Through project Converge Evoenergy will[6]:
    - design and develop a system to support the integration of solar, batteries and electric vehicles (EVs) into the ACT electricity network;
    - deploy new software systems to demonstrate the shaped operating envelope concept for solar, batteries and electric vehicles;
    - Integrate hardware, software, and systems to pilot capabilities with up to 1,000 existing customer owned solar and battery systems;
    - deliver open source, royalty free designs and models which can be adopted by other Australian electricity distributors, and
    - deliver a range of knowledge sharing reports and webinars to share lessons with industry.

The aim of this enhancement is to integrate the investment made and capability developed in Project Converge into the ADMS. This should facilitate its use in real time by the control room and other ADMS users within Evoenergy. The project does not include the integration to additional customer owned solar and battery systems and this will need to be assessed separately.

The projected capex costs for these options are as follows:

- Year 1: $2.75 million (cost for implementation of the enhancements identified above).
- Years 2–4: $100,000 per annum (cost for minor on-going enhancement to delivered project).

The total forecast capital expenditure is $3.05 million.

ArcFM GIS

The GIS platform provides Evoenergy with the capability to store geospatial data and graphically map and model its assets. This platform integrates with the other key systems providing Evoenergy with the ability to accurately perform critical functions such as dispatching, troubleshooting, engineering, planning, and reporting on assets. The ArcFM GIS platform is critical to the Asset Planning System (PowerPlan), Billing and Market System/Customer Resource Management System (Velocity), Works Management System (Cityworks) and the ADMS.

[6] More information is available at www.evoenergy.com.au/project-converge.

The proposed investment in the ArcFM GIS platform is targeted at reducing the risk of failure and cyber security vulnerabilities ensuring the solution is a current, vendor supported version. Further, maintaining the currency of the ArcFM GIS platform will enable the interoperability with other systems to ensure that Evoenergy is able to meet licence requirements and maintain practices in accordance with Asset Management standards (ISO 55000).

Maintenance upgrades will involve simplifying the ArcFM GIS where possible (by removing customisations, workarounds and add-ons that have been implemented) to streamline the platform upgrade process.

The more significant investment, to undertake a Platform Upgrade, is a large upgrade scheduled in the last two years of the regulatory period. This upgrade has been recommended by the platform vendors (Esri and Schneider Electric) as they are moving their products to a new utility-based framework for storing geospatial data. The new data structure is optimised for utility networks providing enhanced ability to use data.

Works management (Cityworks)

Cityworks is the works management system used by Evoenergy to effectively manage and plan works and to support the effective and efficient management of assets on and related to the electricity network. This includes task management, asset management, risk assessment, scheduling, short-term works planning and a level of program and project management activities.

The Evoenergy instance of Cityworks is a current version (15.5.3) having last been upgraded in 2021. The vendor has not provided an end date for support of version 15.5.3, but Evoenergy anticipates that newer versions will continue to be released before and throughout the 2024–29 regulatory period. The current available version of Cityworks is 15.8.

The proposed investment is to undertake a platform upgrade of the Cityworks system early in the EN24 period. The platform upgrade will shift Evoenergy's Cityworks installation to the latest major version and address issues identified in a vendor-partner run software health check (due for completion early in 2023).

Based on preliminary advice provided by the vendor-partner, Evoenergy expects the platform upgrade to include an overhaul of the current Cityworks implementation to significantly simplify the platform, remove customisations and move some capabilities to specialised fit-for-purpose tools. The main benefits are a reduction in risk due to the complex nature of the current system and improved long-term cost effectiveness as the new platform will be easier to update and manage. The continuation of a heavily customised solution that is not based on the current available version of Cityworks increases the cyber security risk and burden for Evoenergy to identify and assess vulnerability points without being able to fully leverage the support of the Cityworks vendor.

The reduction in complexity of the Cityworks implementation will provide Evoenergy with a greater level of flexibility in determining whether Cityworks continues to provide a fit for purpose solution for Evoenergy. It is also anticipated that a mature SaaS Cityworks (or other) offering will be available by the next regulatory period. Investment in simplification of the current solution will increase the likelihood of success of future platform upgrades or shifts to other solutions.

Other Non-Recurrent ICT

This is made up of projects that are categorised as non-recurrent but individually have a forecast capital cost of less than $1 million.

The projects included have been categorised as Non-Recurrent (Maintain) as they cover investments in ICT system upgrades with recurrence periods less frequent than once every five years with the aim to maintain existing services, functionalities, capability and/or market benefits. The projects included within this investment brief do not bring any new or expanded ICT capability or functions and service

and are not being proposed to comply with new or altered regulatory requirements or obligations and will maintain Evoenergy's current levels of productivity and functionality with potential for minor uplifts.

The non-recurrent investments included in this investment brief are:

- Drawing Management System;
- Asset Management System – PowerPlan;
- project management tool;
- website suite; and
- video conferencing.

Complying with new/altered regulatory obligations/requirements. This subcategory of non-recurrent ICT expenditures 'captures those expenditures that are driven by the need to comply with new or altered regulatory obligations or requirements'. A positive NPV may not always be the case to justify the investment and it is reasonable to choose the least cost option. If there are multiple options to achieve compliance using external service providers, then the costs and merits of these should be compared.

Evoenergy has not forecast an investment in non-recurrent compliance related activities in the 2024–29 regulatory period. However, it is anticipated that compliance driven initiatives may be required throughout the period, in which case, proposed maintenance investment activities will be assessed to determine opportunities to re-prioritise to deliver against the compliance driven requirements.

Maintaining existing services, functionalities, capability and/or market benefits. This subcategory of non-recurrent ICT expenditures 'captures non-recurrent ICT expenditures that are related to maintaining existing services'. Any expenditures that are incurred periodically, but on a frequency that is longer than a five year cycle, are captured by this category. Note that if additional cost is required for new or improved capability and capability as part of this expenditure, this will need to be reflected in the other subcategories. A positive NPV may not always be the case to justify the investment and it is reasonable to choose the least negative NPV option from a range of feasible options including the counterfactual. In this case, prudency means possible multiple timing and scope of options of the investments and efficiency means options for alternative systems and service providers.

Other Recurrent ICT

This is made up of projects that are categorised as Recurrent but individually have a forecast capital cost of less than $1 million. Recurrent projects tend to be small, only one project over $0.5 million, and short-lived with most being complete within a single year.

Recurrent ICT expenditures capture expenditures that are related to maintaining existing ICT services, functionalities, capability and/or market benefits, and occurs at least once every five years.

Evoenergy operates a suite of ICT platforms, systems, and devices that perform key business functions such asset management, network management and resource management which enables it function to meet its current performance levels and outputs maintaining a steady level of operational cost. As with most ICT systems these systems enhance productivity and efficiency and if not properly maintained, upgraded, or replaced in a timely manner can reduce the benefit they are designed to bring. Critically, a failure to maintain the currency of these systems can result in the introduction of significant vulnerabilities to the ICT environment. It is Evoenergy's preference to maintain the currency of solutions and leverage the vendor's investment in addressing cyber weaknesses rather than carry the full burden of identifying and resolving vulnerabilities in isolation.

The Evoenergy suite of ICT platforms, systems, and devices have been added to Evoenergy's technology infrastructure in previous regulatory periods (significant investment prior to the 2019–24 regulatory period), improving efficiency and productivity through various means, whilst keeping up

with what technology is present in not just the electricity industry but all industries. Many business functions are reliant on these ICT systems and platforms.

Evoenergy has categorised expenditure at an individual project level to either recurrent or non-recurrent using the descriptions of each individual project. The recurrent projects are those that are aimed at maintaining operational and service levels with the previous regulatory period and where repeat costs have been observed.

Evoenergy's approach is to categorise all very small projects (~$100,000 and small) as recurrent irrespective of if they add new capabilities or features to Evoenergy's ICT systems. This is because these projects are, in aggregate, repetitive in nature and form a constant baseline small modifications to ICT systems that are necessary to delivery services to customers. For forecasting purposes applying a base-step-trend approach where forecasts are based on historic costs to these expenditures is reasonable, so inclusion within the recurrent category is appropriate.

Larger projects were assessed on a case-by-case basis to determine the underlying drivers of the investment (maintaining systems vs adding capabilities and the frequency of recurrence) and categorised accordingly.

Current period

During the current 2019–24 regulatory period, including projections, Evoenergy recorded $19,510,545 of recurrent ICT capital expenditure.

Table 5 2019–24 Recurrent ICT capital expenditure

Project title	2019/20	2020/21	2021/22	2022/23	2023/24
Recurrent ICT	$3,787,684	$3,615,372	$3,651,003	$5,147,896	$3,308,991
Total	$ 3,787,684	$3,615,372	$3,651,003	$5,147,896	$3,308,991

Failure to maintain these platforms and processes affect Evoenergy's key business drivers. Evoenergy's investment in ICT reflects the goals of:

- respond to the customer;
- flexibly integrate with stakeholders;
- simplify the technology landscape; and
- strengthen technology foundations.

Evoenergy's strategic approach to managing ICT Recurrent systems is to reduce complexity through consolidation of platforms, systems, and devices at as low capital cost as possible whilst maintaining current levels of operational efficiency with potential for incremental improvement.

The continued widespread use of the ICT platforms, systems and hardware is necessary for Evoenergy to meet the productivity targets and service levels contained in the submission for the next regulatory period. This includes maintained capital and operational expenditure during the next regulatory period and sustaining service levels.

Achieving the targeted balance of cost, risk (including management of cyber security risk), and performance will result from continuing the successful management practices in place during the current period. These practices include considering delivery risk at a project and program level when defining the scope of investment in recurrent ICT projects.

2024–29 regulatory period

Evoenergy has taken a bottom-up approach to forecasting ICT capital expenditure requirements during the 2024–29 regulatory period. Each project in the forecast has been allocated to either recurrent or non-recurrent using the same criteria used for categorising 2019–24 regulatory period projects.

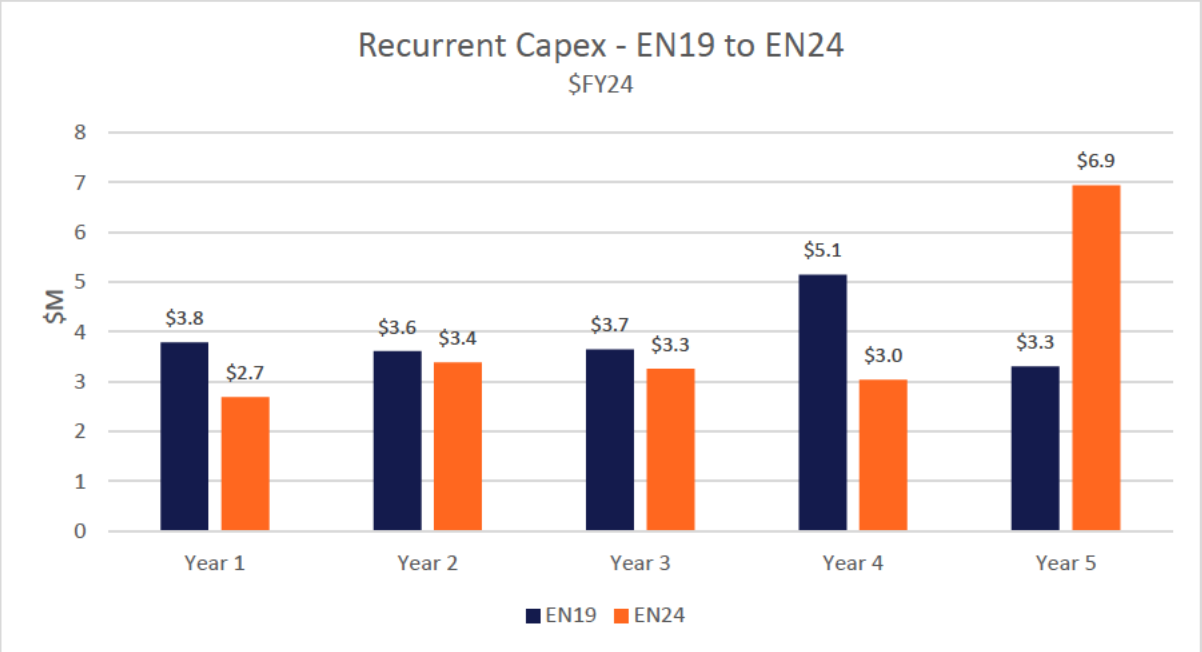
As a bottom-up approach has been used, the forecast is affected by major non-recurrent projects, which in most cases cause more regular lifecycle maintenance of ICT systems to be deferred or integrated into the non-recurrent project. Evoenergy does not split individual project costs across recurrent and non-recurrent.

Because of this, the forecast for the 2024–29 regulatory period is based on the preferred option being approved and progressed for each of the non-recurrent capital expenditure investment briefs. This similarly applies during EN19 where major non-recurrent projects reduced recurrent expenditure on some ICT systems.

The forecast recurrent capital expenditure calculated for the 2024–29 regulatory period is $19,316,070. This is an increase of less than one per cent from current period recurrent capital expenditure.

This proposed investment will enable Evoenergy to maintain current service levels and manage the cyber security risk profile to an acceptable level. ICT solutions will be updated and upgraded in line with vendor support advice and industry practice, enabling Evoenergy to operate with a level of comfort that data and information extracted from ICT systems is accurate, accessed expediently, and secure.

Figure 10 Recurrent capex comparison between regulatory periods



6. Roadmap

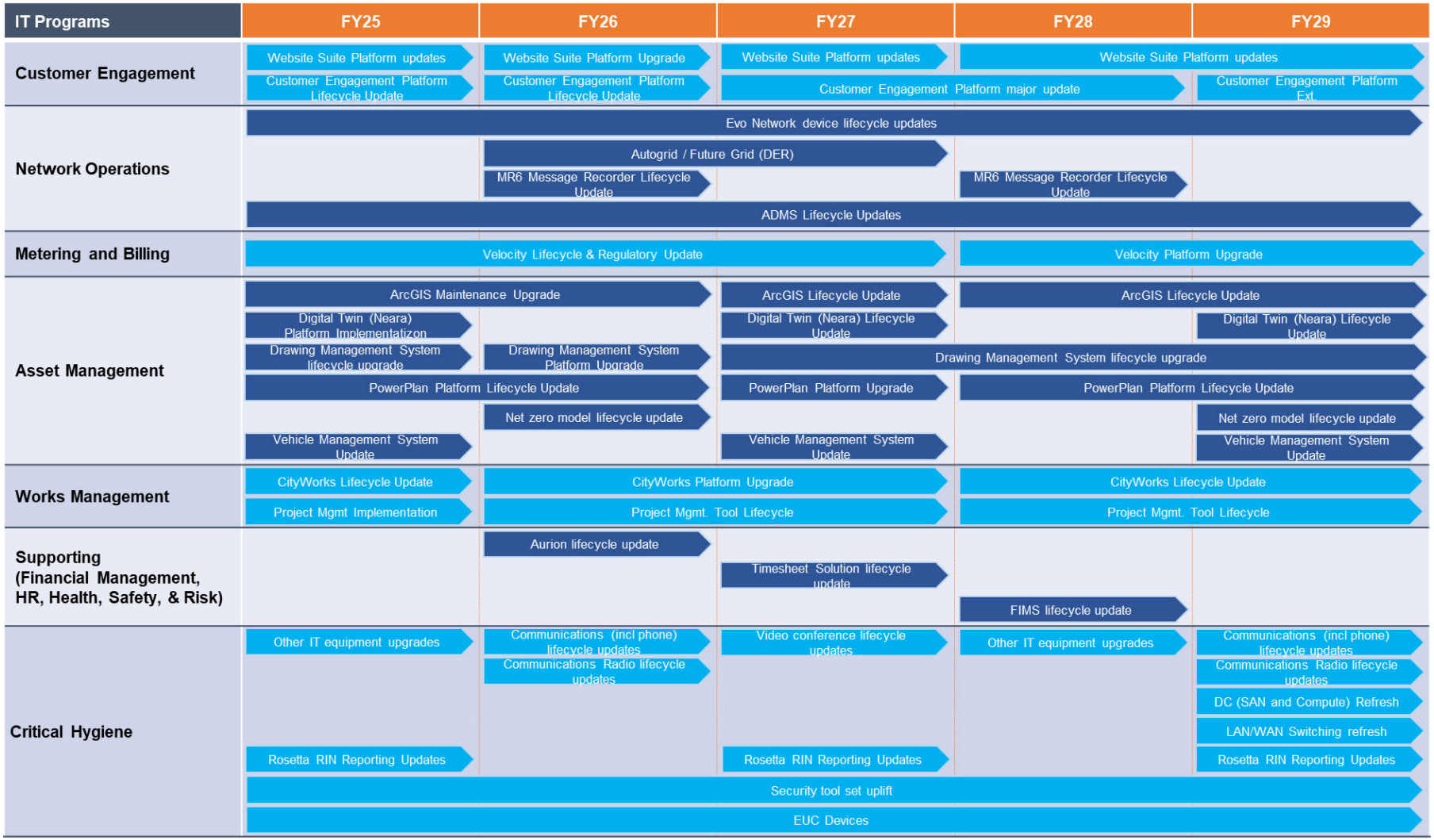
During the 2014–19 period, Evoenergy established the core technology stack that remains in place today including ADMS, ArcGIS, ArcFM, Cityworks, PowerPlan (previously Riva), and Velocity.

The current investment period from 2019 to 2024 focused on further aligning these systems to Evoenergy's work practices and meeting new regulatory requirements, for example Five Minute Global Settlement. This positioned Evoenergy to continue to realise the value from the significant establishment investment made in the 2014-2019. It also enabled Evoenergy to determine the suitability of the systems to continue to support the organisation's requirements in the mid to long term.

Looking forward to the EN24 program, Evoenergy is seeking to extend and enhance the systems through the functionality enabled through the recurrent investment profile and through targeted non-recurrent investment for some core systems. Evoenergy recognises that the ability to efficiently extend and enhance the systems during (and beyond) the EN24 period is dependent on the planned embed, assess, and plan investment to simplify systems and remove complexity that may have been configured or built into solutions through establishment or initial activities to enhance alignment with business processes.

A high-level roadmap for ICT investments is depicted below, showing the programs being delivered by each priority investment theme and outcomes to be achieved.

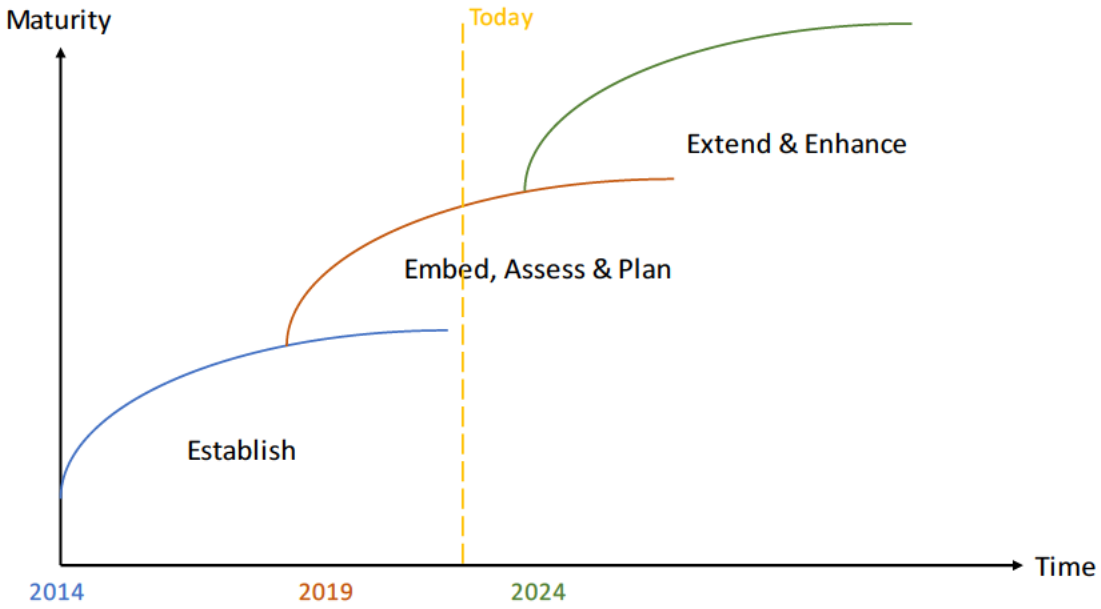
Figure 11 High level roadmap for investment



7. Implications for 2024–29 and beyond

Evoenergy understands that to meet net zero targets by 2045 and the growing environmental demands of the customer and community, will require sustained and incremental progress over a prolonged period. Each of the technology horizons described below have been designed with specific technology outcomes to guide Evoenergy on a consistent trajectory in delivering fundamental changes to electricity generation and use by 2045 as depicted in Figure 12 below.

Figure 12 Evoenergy technology horizons



Evoenergy recognises that the ability to efficiently extend and enhance the systems during and beyond the EN24 period is dependent on the planned embed, assess, and plan investment in simplifying systems and removing complexity that may have been configured or built into solutions through establishment or initial activities to enhance alignment with business processes.

For the period 2030 and beyond, the focus will transition to extending and enhancing upon newly established capabilities developed into the operating environment.

Evoenergy has defined the following technology outcomes to be delivered in 2030 and beyond to ensure net zero requirements are met:

- Extension of the use of digital twins aligned with advancement in asset management practices, DER integration and data availability.
- ADMS and Future Grid systems support DER orchestration.
- Works planning — matured capability to support flexible scheduling across internal and external delivery teams in preparation for net zero by 2045.
- Possible modular adoption of SaaS based ERP solution.
- Asset condition assessment techniques leveraging smart devices to advance the level of detail available in an efficient manner.
- Enhanced resilience and recovery capability of the ICT network with ICT/operational technology automated segmentation based on monitoring alerts as part of the cyber security controls.
- Customer DER integration hub enabling self-service and automated assurance processes.

8. How we manage and deliver change

Evoenergy applies sound management processes and practices for the planning, delivery, and governance of ICT investment programs. Customers are engaged throughout the planning activities for the regulatory submissions with deep dives into the technology investment. Planning and forecasting for individual applications and infrastructure investments adopt an approach that considers the prudent selection of technology options and the efficiency of its implementation and support. The initiatives to deliver the investments are then defined, prioritised, and delivered through Evoenergy's Technology Project Framework.

8.1. Customer engagement

Customer engagement at Evoenergy is guided by the Stakeholder Engagement Strategy[7] which sets out principles to effectively enhance relationships with consumers and the interest groups that represent them. The approach has been developed with consideration for AER's Consumer Engagement Guideline for Network Services Providers[8] (2013), Energy Networks Australia's Customer Engagement Handbook[9], and the public participation goals defined in the IAP2 Public Participation Spectrum. Our customer engagement approach aims to:

- inform, consult, involve, and collaborate with electricity consumers, key stakeholders, and other Canberra community members about the future of the ACT electricity network;
- gather diverse consumer input to inform the development of the plan; and
- further enhance consumer knowledge of Evoenergy and its business through active engagement with Evoenergy.

The consumer engagement program is monitored on an ongoing basis by the ECRC who provide an independent consumer view and advice on the delivery and effectiveness of the program and help to identify opportunities for continual improvement.

Figure 13 Customer engagement process

[7] Evoenergy *Stakeholder Engagement Strategy 2021*, available athttps://www.evoenergy.com.au/consumer-engagement-program
[8] Australian Energy Regulator, *Better Regulation Consumer Engagement Guideline for Network Service Providers,* 2013 (https://www.aer.gov.au/node/22552)
[9] CSIRO and Energy Networks Association, *Electricity Network Transformation Roadmap: Customer Engagement Handbook*, 2016, available at https://www.energynetworks.com.au/customer-engagement-handbook

The customer engagement program, illustrated above, will be delivered over three distinct phases:

- **Phase 1**. Understanding consumer values to inform the draft proposal and tariff structure statement. This phase focused on understanding how the values of energy consumers have changed since the last electricity network plan, understand what was important to them now, and what they think would be important as the energy landscape continued to change. Several engagement activities were conducted throughout the phase such as community panels, pricing focus group sessions, Distribution Network Service Provider (DNSP) collaboration and consumer surveys.
- **Phase 2**. Using the feedback provided, we will produce a draft proposal and draft tariff structure statement. We will come back to the community for more feedback. This phase provides consumers with an opportunity to provide feedback on draft plan. A range of engagement activities are conducted throughout this phase including feedback workshops with community panels, engagement with hard-to-reach consumers through partnership with ACT Council of Social Service (ACTCOSS) and with the broader community via social media and council meetings.
- **Phase 3**. After the AER has reviewed our proposal, we will consult further on any elements that need further understanding. This phase will continue communication with the community and use deep dive workshops to focus on specific topic areas that require further deep discussion.
- **Our customer engagement through Phase 1 and 2** has identified six themes of specific priority and expectation to our customers:
    - Reliability — maintain reliability and improve network resilience but make decisions that balance this with cost.
    - Affordability — provide affordable electricity supply services.
    - DER enablement — play a key role in enabling DER.
    - Net zero future — act towards achieving a net zero emissions future.
    - Communication — play a bigger role in communicating with and informing the community.
    - Future focussed tariffs — provide network tariffs that are fit for future users of the network.

All customer feedback has been integrated into our ICT planning process to develop the draft regulatory proposal.

8.2. Planning for the next regulatory period

This ICT Plan is informed by business and technology teams, providing both short and long-term objectives and articulating the vision gathered from our customers through our customer engagement program. Aligning our planning and delivery processes with customer expectations helps to ensure that the cost of services and value creation for customers becomes more transparent and better understood.

To summarise, our regulatory period technology planning process involves the following:

- Collaboration and engagement with customers and business stakeholders to understand and capture technology requirements, including through review of service ticket history, which align with Evoenergy strategic aspirations.
- Understanding what gaps need to be addressed within our current technology capabilities, and those provided through technology vendor roadmaps, to ensure that future capability will be in place when it is required.
- Ensuring all proposed investments under our ICT plan represent prudent and cost-efficient outcomes that are realistic, actionable, balanced, and timely and consider the risks and improvement opportunities.
- Synchronising the technology roadmap and detailed 12–24 month planning with other business planning streams to ensure alignment with common goals and objectives.

The outcome of this work has resulted in our proposed ICT Plan, Investment Briefs, and ICT capital expenditure budgets for EN24.

8.3. ICT investment planning and forecasting

The Investment Briefs which accompany this ICT plan provide insight into how we will meet our future state challenges through the specific projects within our forecast ICT capital expenditure program.

Each Investment Brief details the objective and problem statements that will be addressed as well as the high-level scope, what options have been considered to deliver the most prudent and efficient technology solution. The options analysis provides a preliminary assessment of the options to implement an effective solution to achieve the objective of the brief. As part of our ICT Governance process when we are considering making any investment, we assess the size and complexity of the projects/programs based on historical experience delivering similar change, undertake further options analysis using most recently available information, including a detailed costing activity and benefits assessment relating to the implementation of each option.

The table below sets out the details the template we have used for our investment briefs. It is important to note that not all sections are relevant to each investment brief.

Table 6 Investment brief template

Section	Information provided
Objective	What is the overall objective of the initiative and investment?
Background/problem	What is the problem(s) the proposed projects address?
Customer importance	What importance do customers place on this?
Strategic approach	How does this support our future vision and objectives?
Options/investments	What options have been considered?
Benefits	What are the benefits derived from the proposed activity?
Risks	What are the risks associated with doing, or not doing the activity?
What are we recommending	What is our recommendation, and what makes it the choice which best contributes to the long-term interests of customers?

The investment briefs provide information about our ICT capital expenditure forecast. While informative, it is important to note that Evoenergy does not create detailed business cases for technology projects until the time the project reaches its final initiation step.

- All projects contained in our ICT capital expenditure forecast have been scoped well in advance of the actual start date of any project, given the need to develop a forecast for the next regulatory period. Technology changes are frequent, and technology roadmaps are always subject to change and provide guidance rather than facts. The delay between preparation of our regulatory proposal and the initiation of a project within the next regulatory period, therefore, means that changes in technology and business requirements are likely to necessitate that the business case is redeveloped.
- The time horizons required by the preparation of a next regulatory proposal forecast (up to seven years) can be significantly longer than the 'normal' investment horizon for these types of technology assets in a business that is not subject to economic regulation using five year periods. Technology vendors can, therefore, be reluctant to participate in or may seek means of cost recovery for provision of responses in tender processes so far in advance of projects being initiated, or otherwise may provide non-binding or build significant risk premiums in their responses. This approach can make vendor responses of limited use when forecasting the efficient cost of undertaking a project in the future. In contrast, we have established our ICT Forecasting Tool which incorporates project size, complexity, timeframes and required resources to understand the efficient delivery cost for relevant projects.

8.4. Delivery and Governance Framework

The Technology Project Management Framework extends the AAGL JV Project Management Standard (PO0533) to apply specifically to the requirements of projects delivered by Technology. The TPF articulates key principles, processes, tasks, and tools for Technology led projects[10]. The framework adopts project management principles, based on the PRINCE2 methodology, and includes the approach to initiation, planning, execution, and closure.

Technology project framework principles

The principles serve an important role of ensuring that the underlying objectives of project management are met, regardless of how each project may be delivered due to varying approaches, sponsor requirements, and other project specific factors. As such it is important that each principle is to be applied to all projects regardless of tier, classification, type, or other unique characteristics. The principles are:

- **Technology projects must have justification**. All projects delivered by technology must be justified via a business case or equivalent and justification must be valid throughout the project lifecycle.
- **Lessons learned and continuous improvement**. All projects should be evaluated, with lessons captured and actioned. This includes all stages of delivery, including initiation, planning, execution and closure.
- **Roles and responsibilities are clearly defined**. All key roles for project delivery are to be defined and documented at the start of the project and maintained through. Responsibilities must be clearly articulated and agreed.
- **Manage by stages**. Projects are to be delivered in stages so that they can be managed and controlled effectively, and that the project can be evaluated, with consideration to lessons learned at the beginning and end of each stage.
- **Project board and project manager must maintain direction and control of projects**. The project board is responsible for providing direction and making decisions in a timely manner

[10] Also including projects where Technology has a major contribution but may not necessary be directly leading.

for the project team. The project manager is to ensure the project board always maintains control and oversight of the project.

- **The project focuses on both quality and value**. Projects must have focus on quality and value for the organisation. Quality is ensuring all deliverables meet specified requirements to achieve project success. Value is to ensure project outcomes deliver towards identified benefits.
- **The approach is tailored for each project**. Technology projects should adopt a delivery approach and control framework that is tailored to optimise the success of the project and satisfy the risk mitigation requirements of the project board and sponsor.

In addition to the standard principles for project governance, the Technology Project Management Framework has defined the following baseline requirements to apply to all projects:

- **Apply ActewAGL Joint Venture (AAGL JV) policies and procedures**. AAGL JV operates within a highly regulated industry and has specific requirements associated with aspects of its operations (including Ring Fencing requirements). Applying all AAGL JV policies and procedures will ensure projects meet our regulatory and compliance requirements.
- **Project sponsorship and endorsement**. All projects undertaken by technology must be sponsored by an appropriate y representative or, for business sponsored projects, have a project sponsor representative from the technology division. Additionally, all projects require endorsement from the CIO.
- **Technology project cost recording and reporting**. Technology projects must record costs in a manner that supports the correct accounting treatment and allocation of those costs in accordance with the AAGL JV Cost Allocation Methodology.

Technology project framework stages

Figure 14 Technology project framework

At each stage, the project board confirms the ongoing business viability and health of the project to determine whether the project:

- can proceed as currently scoped and planned;
- can proceed with modification; or
- should be stopped.

Each of the Stages within the framework are described below:

Initiation

The Initiate Stage is conducted at the end of the Project Start Up Stage. Having approved the project brief, at this stage, the Project Board decides whether to move to the Planning Stage and release budget and resources for the activities of this Stage.

Key governance arrangements in this phase:

- **Project acceptance and sponsorship.** This process is intended for technology to formally take on project request from business areas and nominate a technology project sponsor[11].

[11] This does not remove the need for a business project sponsor. The roles and responsibilities of a Business sponsor and a Technology sponsor are different.

- **Tier assessment.** All projects are to be assessed regarding cost, complexity, risks, timeframes, and overall difficulty and assigned a project tier.
- **Establish project governance and controls.** Establish direction and control over the project at the start to approve the business case, plan, schedule and maintain control over the project. The level of governance and control required will be determined by the tiering assessment. For example, Tier 1 projects, are recommended to apply all recommended project principles, processes, controls and use available templates. Additional project management controls may be warranted that go beyond recommended practices. Tier 1 projects should always involve senior technology management.
- **Project brief.** The brief should provide high level information on all aspects of the project based on what is known at the concept stage. Once prepared, the project brief requires endorsement from the Technology Assessment Committee or CIO (dependent on project tier).
- **Preliminary risk assessment.** Satisfy internal risk management policies to ensure all projects are assessed before commencement.
- **Business case review and approval.** Business cases must be approved and have financial delegation authorisation before commencement.

Planning

The Planning Stage is conducted following the Initiate Stage. Having approved the project plan and project initiation documentation, at this stage, the Project Board decides whether to move to the Execution Phase, release budget and resources for the remainder of the project and proceed with the detailed design, development, build and testing of project products.

Key governance arrangements in this phase:

- **Project plan and approval.** Detailed project planning should occur once the business case has been approved. All project information presented in the business case should be carefully assessed for validity and updated accordingly. Any noted deviations or plans that have a material impact on the business case should be raised to the Project board for approval and subsequent update to the business case. Detailed project planning should consider the correct approach, methodology, scope, deliverables, schedule, and various other project elements. Approval is required from the project board before the project can move to execution.

Execution

The Execution phase begins with the detailed design, development, build and testing of project products.

The product build can commence once the project has received technical approval through the Design Authority. Once the asset or service is ready for delivery, it will enter testing. This review checks that system testing has been completed to user satisfaction and that the relevant Evoenergy group or the Technology Division is ready to take over operation. This review also confirms any contracts are complete and documented, the contract management arrangements are in place and current, and the business case remains valid. Quality assurance and control activities are determined based on the project risk and the anticipated process maturity on transition to support.

Key governance arrangements in this phase:

- **Project Controls**. The Technology Project Framework Tiering Assessment Framework is used to determine the level of controls recommended during project delivery in the areas of risk management, business change and communication, test and quality assurance, reporting, and governance.
- **Design**. All detailed solution designs must be approved by the Design Authority to assess that the solution could be implemented to meet the project requirements with acceptable levels of risk.

- **Product development**. The product development process covers all aspects of the product development cycle, including requirements, design, development, test, user acceptance and implementation. It may also cover other activities such as (user) change management, operational handover, decommissioning, and other scope items agreed in the project plan. These components will be documented in the project development lifecycle and guide the build and testing phases for the product. Product development may take several different forms and is highly dependent on the type of product being produced as well as the project tier and required controls.
- **Quality management.** Quality management processes focus on ensuring what is developed is of high standards. This may include quality criteria that are planned out at the start of development and assessed during, and once deliverable is complete. There are various quality management processes that can be applied and should be tailored to the type of project and tier.
- **User acceptance testing (UAT).** UAT is normally performed by the receiving business area for deliverables and may be conducted during or at the end of the project. UAT is aimed at ensuring the business is satisfied with the developed product or service. Whilst performed by Business, in most cases UAT is required to be prepared by the UAT team.
- **Deployment.** Deployment planning covers all aspects of getting the new product or services to production (going live). Deployment planning is not just for new systems or tools and can be completed for services. All projects are required to develop a deployment plan for Change Authority Board submission.
- **Change Authority Board request.** The Change Authority Board process is to ensure all new systems or changes to existing systems have been tested and meet quality, change, and business requirements before release to production.
- **Project reporting.** This process is to ensure the project team and project manager have an effective process to convey the status of the project the project board. It is fundamental for the project to report on progress, delays, risk, issues, and milestones achieved. Frequency and content of reports is determined by the project Board.
- **Project change management.** This is a standard process outlining what is a project change, who can a change, who reviews and approves a change. The change process is standard across all tiers.

Closure

This phase and follows the implementation of the project and handover of products to the end users. The purpose of the stage is to obtain acceptance from business, formally close the project and enable the Project Board to fulfil its overall project management responsibility.

Key governance arrangements in this phase:

- **Project closure report.** The final process for all projects is to ensure all project activities are completed or have been satisfactorily handed over and agreed upon. All projects must complete a project closure report; however, the detail and level of documentation is dependent on tiering project tiering. For example, all tier 1 project closure documentation is required to be authored with the understanding that the documents may be subject to review from key internal and external stakeholders later.

Optional Stage Gates

A Project Board may decide to conduct additional stage gates at additional points in time based on the design and structure of their project. These additional gates will need to be discussed with the project manager and formally documented in the project plan.

Benefits Management Framework

Evoenergy defines benefits as a measurable advantage derived from an outcome. Benefits are used for defining and declaring the success of a program or initiative. Benefits can be classified into the following categories:

- **Bankable.** Those benefits that can be quantified and valued in financial terms, i.e., a reduction in cost or an increase in revenues.
- **Non-bankable**. Those benefits that can be quantified but are difficult to measure in financial terms.

Consideration of benefits includes any dis-benefits arising from the project.

Evoenergy's process of managing benefits can be viewed as the practice of identification, analysis, planning, realisation, and reporting of benefits. The objectives of benefit realisation management are to:

- Ensure benefits are identified and clearly defined at the outset and align to Evoenergy's strategic outcomes.
- Ensure ownership and accountability is clearly defined, securing business commitment to the realisation of the benefits.
- Drive the process of benefit realisation including measurement, tracking, and reporting of benefits progressively throughout the implementation of the project/initiative and continuing until the benefits have been fully delivered.
- Provide alignment and linkages between the various programs/initiatives being undertaken and the strategic objectives of Evoenergy.

Effective benefit management will also help Evoenergy to demonstrate investment success and embed lessons learned to continually improve. There are three key principles to Evoenergy's benefit governance:

- Active commitment and support by the executive and senior managers, driving a change in organisational culture.
- Clear and active project management and accountability for the benefit realisation.
- Clearly defined roles in benefit realisation.

The following table details the proposed governance structure for the benefit realisation program.

Table 7 Benefit realisation governance

Body	Role in Benefit Realisation Governance
ActewAGL Joint Venture Board	• Provides strategic governance for the operation of Evoenergy and sets the strategic direction. • Receives periodic reports to monitor progress against the expenditure stretch target including strategic benefit measures.
Evoenergy Executive Committee	• Defines the strategic objectives in line with the Board's direction and articulate the target outcomes. • Shows visible commitment to the strategic projects and other corporate initiatives, and to the realisation of the end benefits. • Receives periodic reports to monitor the status of benefit realisation across the business with reference to the strategic and operational benefit measures.
Executive sponsor	• Approves the benefit profiles.
Evoenergy leadership group	• Endorses periodic reports to monitor the status of benefit realisation. • Ensures project change requests accurately reflect the impact of the change on benefit realisation. • Endorses strategic projects for funding and progression through project stage gates. • Validates proposed benefits of new projects to ensure declared benefits are not duplicated.
Project Steering Committee	• Monitors project delivery and ensures the impact to benefit realisation arising from changes to the project scope or outcome are appropriately documented and reported.

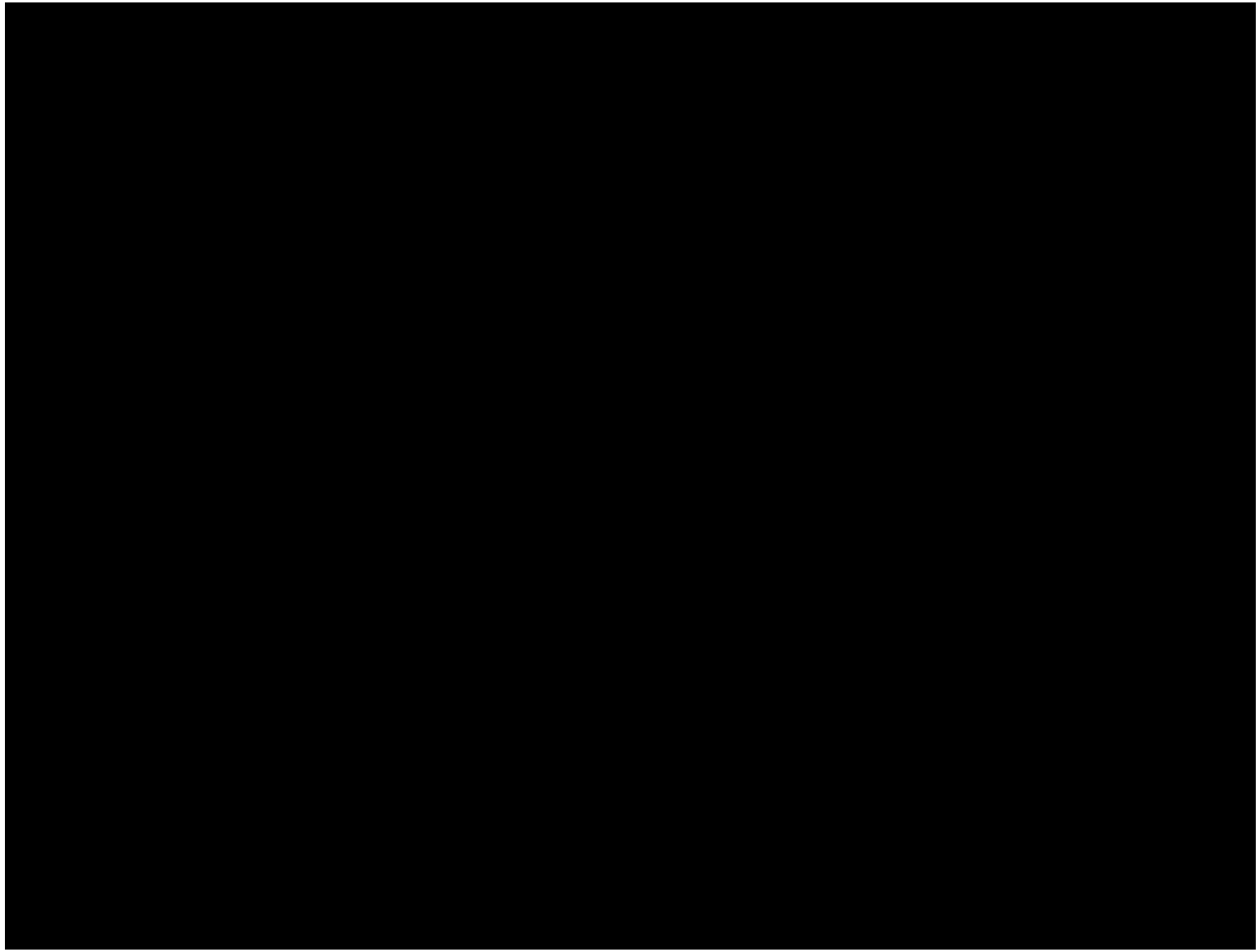
As the benefit realisation process matures, there may be a need to rescope the benefit measurement and/or the agreed targets.

The benefit manager will coordinate the change approval process with the benefit owner and seek executive sponsor approval.

APPENDIX

Evoenergy IT current state application architecture

The figure on the following page is a representation of the Evoenergy IT current state application architecture prior completion of the 2019–24 regulatory period program. It is expected that integrations between applications will be re-established through an Azure API gateway as part of life cycle or major upgrades throughout the final 12 months of the 2019–24 regulatory period and into the 2024–29 regulatory period.



Initiatives list

The following table outlines the underlying initiatives for each program/project, and the expected outcomes and investment estimates.

Program	Outcomes/Benefits	Investment estimate
Customer engagement		
Website suite platform	• Brings the Sitecore platform up to manufacturer supported levels. • Refreshes all Customer interaction and data collection forms. • Connects Website to all Customer communications channels. • Refreshes content and functional capability.	Non-Recurrent $0.3 million Recurrent $0.7 million
Network operations		

ADMS lifecyle updates	• Implements a set of ADMS enhancements that will assist with management of the increasing levels of photovoltaics, electric vehicles, and batteries on the network. These enhancements include:
	  ○ near term and long-term forecasting tools in the ADMS; and
	  ○ lookahead constraint management tool in the ADMS.
	• Maintain product currency and support through upgrading in accordance with the vendor support roadmap:
	  ○ Mainstream support for the recently upgraded version 3.8 is forecast by the vendor to end in June 2028.
	  ○ Extended support is forecast to expire in June 2030 and is subject to an upgrade contract being in place.
		Non-Recurrent $2.5 million
		Recurrent $2.9 million

Autogrid/Future Grid (DER)	• Enable IT systems orchestration to support management of DER and dynamic operating envelopes. • Enable the broader benefits articulated in the DER integration business case.	Non-Recurrent $2.4 million

Program	Outcomes/Benefits	Investment estimate
MR6 Message Recorder lifecycle updates	• Replaces end of life solution with latest voice channel capabilities. • Maintains manufacturer supported and maintained service. • Introduces potential to migrate to managed service or SaaS. • Introduces integrations to access information from the ADMS and customer channel services including the website and customer engagement platform. • A replacement product for the current MR6 solution is currently being assessed which may lead to a shift in product to deliver these capabilities. Should the implementation of a new solution proceed, it is planned to be undertaken in late 2022/23 and 2023/24.	Recurrent $0.3 million
Metering and billing		
Velocity updates and upgrades	• Delivers ongoing regulatory upgrade program. • System simplification process remove functionality that is not fit for purpose such as CRM, letters generation. • Removes data from the system that is not invoice and billing related such as customer asset data. • Maintains manufacturer support and maintenance arrangements. • Moves to “managed service” to reduce cost of operation and support.	Non-Recurrent $5.9 million Recurrent $2.5 million

Program	Outcomes/Benefits	Investment estimate
Asset management		
ArcGIS upgrade and updates	• Updates the Datum to GDA2020. • Introduces a single source of functionality to collect and manage internal and external data sourcing. • Maintains a geospatial platform that is compatible with industry standards and business partner toolkits. • Delivers an option to remove reliance on ArcFM Designer, which reduces cost and aligns more closely with industry standard design tools. • Maintains the platform as fully supported by the manufacturers (Schneider Electric and Esri Australia). • Transitions to the new generation geospatial platform based on the Esri Utility Network Model. • Enables retirement of systems from small supply relationships, simplifying the technology portfolio.	Non-Recurrent $9.7 million Recurrent $0.5 million
Digital Twin platform (Neara) implementation and updates	• Delivers a virtual representation of full or component parts of Evoenergy networks to enable scenario testing and simulation of specific events or strategies.	Non-Recurrent $0.6 million Recurrent $0.2 million
Drawing management upgrade and updates	• Maintains alignment with the product vendor's development pathway and stays aligned with industry use, enabling Evoenergy to leverage cross-industry investment in product security rather than carry the full costs of identifying and remediating security vulnerabilities. • Provide opportunities to adopt new functionality and capability as it is developed by the product vendor, should a prudent investment case exist.	Non-Recurrent $0.5 million Recurrent $0.4 million
PowerPlan upgrade and updates	• Stays within the manufacturer support model. • Provides for organic improvements and extensions to the configuration model to continue to leverage new or enhanced functionality. • Provides options to extend to include additional modelling capability as developed by the manufacturer.	Non-Recurrent $0.7 million Recurrent $0.7 million

Program	Outcomes/Benefits	Investment estimate
Net zero model lifecycle updates	• Ongoing enhancement and development of Net Zero Modelling (NZM) toolkit.	Recurrent $0.2 million
Vehicle management system updates	• Establishes a comprehensive vehicle management system. • Replaces ageing IVMS technology. • Integrates vehicle management with finance and works planning systems. • Integrates vehicle management with the safety and compliance platform. • Introduces advanced asset utilisation, optimisation and use capabilities.	Recurrent $0.3 million
Works management		
Cityworks upgrade and updates	• Maintains direct compatibility with the geospatial platform progression. • Stays within the manufacturer support model. • Delivers role-based interfaces. • Extended Storeroom and tools management capabilities. • Removes dependencies on device specific software. • Improves security model. • Removes functionality that is currently achieved through customisations and workarounds including aspects of scheduling, time sheeting, and forms management. • Moves to 'managed service' to reduce cost of operation and support.	Non-Recurrent $5.1 million Recurrent $1.5 million

Project management tool implementation and updates	• Full project management functionality. • Integrates with financial, works management, scheduling and asset systems.	Recurrent $0.3 million
Supporting (financial management, HR, health, safety, and risk		
Aurion lifecyle update	• Upgrade of the payroll and HR platform to a current, supported version based on the vendor roadmap. • Consideration will be given to a shift in platform to software as a service should the vendor's offerings present the most prudent and efficient solution.	Recurrent $0.5 million
Timesheet solution lifecycle update	• Delivers a fit for purpose timesheet system. • Introduces auto-populate and collect processing for known work. • Integrates with financial, payroll, works management and scheduling systems.	Recurrent $0.1 million
Finance reporting and warehouse/ inventory systems	• Maintains alignment of finance reporting and warehousing inventory systems with operational requirements post implementation of the new Oracle finance information management system.	Recurrent $0.1 million
Critical hygiene		
Other ICT equipment upgrades	• Based on experiences in the current and previous regulatory period, we anticipate that across the 2024–29 regulatory period, we will upgrade and/or replace peripheral devices and other technology tools that support Evoenergy's operational activities.	Recurrent $0.2 million

Communications (including phones) lifecyle updates	• Refresh end of life and out of support communications tools including the collaboration endpoints across Evoenergy work locations.	Recurrent $0.3 million
Communications radio lifecycle updates	• Refresh end of life and out of support digital mobile radios.	Recurrent $0.6 million
LAN/WAN switching refresh	• Refresh the local area network and wide area network switches to ensure the equipment is supported, aligns with Evoenergy's technology requirements, and minimises unplanned network related outages.	Recurrent $0.9 million
Data Centre (SAN storage and compute) refresh	• Refresh the data centre compute and storage infrastructure ensuring the equipment continues to be under suitable support arrangements. • The options to be considered will include private and public cloud infrastructure migration to ensure the most prudent and efficient hosting option is utilised.	Recurrent $1.35 million
Rosetta RIN reporting updates	• Maintain currency of the regulatory reporting solution which may include continuation of existing vendor products, a shift to a new product, or investment to consolidate functionality into other systems from the Evoenergy technology environment.	Recurrent $0.3 million

Security Tool Set uplift	• Maintain the currency and support for cyber security tools that provide a range of capabilities including (but not limited to):
	  o authentication and identity management;
	  o password management;
	  o security incident and event management;
	  o firewall;
	  o monitoring and alerting;
	  o web security testing;
	  o anti-virus; and
	  o server protection and recovery.
	• The proposed security tool Capex is distinct from the proposed Opex associated with cyber security measures to address the enhanced controls introduced identified in the Security of Critical Infrastructure step change. The Capex investment identified within the Technology Plan addresses the continuation of existing capabilities and toolsets. Recognising the shift in licence models, and the resulting impact on accounting determination, new and extended tools proposed in the SOCI cyber security enhancement program are expected to lead to increased recurring Opex.
	• As part of any detailed options analysis and approach to market for new solutions or extensions to existing solutions, consideration will be given as to whether the most prudent and efficient approach, aligning with the cyber architecture, is to consolidate capabilities across existing or new toolsets — regardless of the licencing model available.
	• Based on our current expectation and understanding of the solutions, we expect a continuation of the recurrent capex above in addition to the proposed Opex step change.
		Recurrent $1.2 million

EUC devices	• Maintain currency and performance of the fleet of end user compute devices including laptops, desktops, and mobile devices.	Recurrent $1.99 million

Corporate Services Business Support Systems	• Evoenergy's proportion of the costs associated with maintaining currency, performance and support for Corporate Services Business Support systems including:
	  o video conferencing equipment across Evoenergy sites;
	  o End user compute devices used in the provision of shared services to Evoenergy; and
	  o peripheral ICT equipment associated with the delivery of shared corporate services to Evoenergy.
		Recurrent $1.3 million