Jemena Electricity Networks (Vic) Ltd

IT Investment Brief – Cloud Capacity Growth

Operating Expenditure – Recurrent Step Change

Jemena
bringing energy to life

Page intentionally blank

Glossary

AI/ML	Artificial Intelligence (AI) and Machine Learning (ML) are technologies that enable computers to perform tasks that usually require human intelligence, with ML focusing specifically on algorithms that learn from data. E.g. Chat GPT
AWS	Amazon Web Services, the public cloud service provider used by Jemena for the provision of Cloud Computing.
Capex	Capital Expenditure
Cloud Computing	The delivery of ICT services as a subscription including compute, network, database & storage via the internet.
Current regulatory period	The period covering 1 Jul 2021 to 30 Jun 2026
CYxx	Calendar Year xx – the period covering January to December
ERP	Enterprise Resource Planning
ICT	Information and Communications Technology
Jemena	Refers to the parent company of Jemena Electricity Network
JEN	Jemena Electricity Network (Vic) Ltd.
Next regulatory period	The period covering 1 Jul 2026 to 30 Jun 2031
NPV	Net Present Value
Opex	Operating Expenditure
R&D	Research and development
RYxx	Regulatory year covering the 12 months to 30 June of year 20xx for years in the Next Regulatory Period. For example, RY25 covers 1 July 2024 to 30 June 2025
SaaS	Software as a service
SAP	SAP accounting and Enterprise Resource Planning software
Totex	Total Expenditure

Cloud Capacity Growth

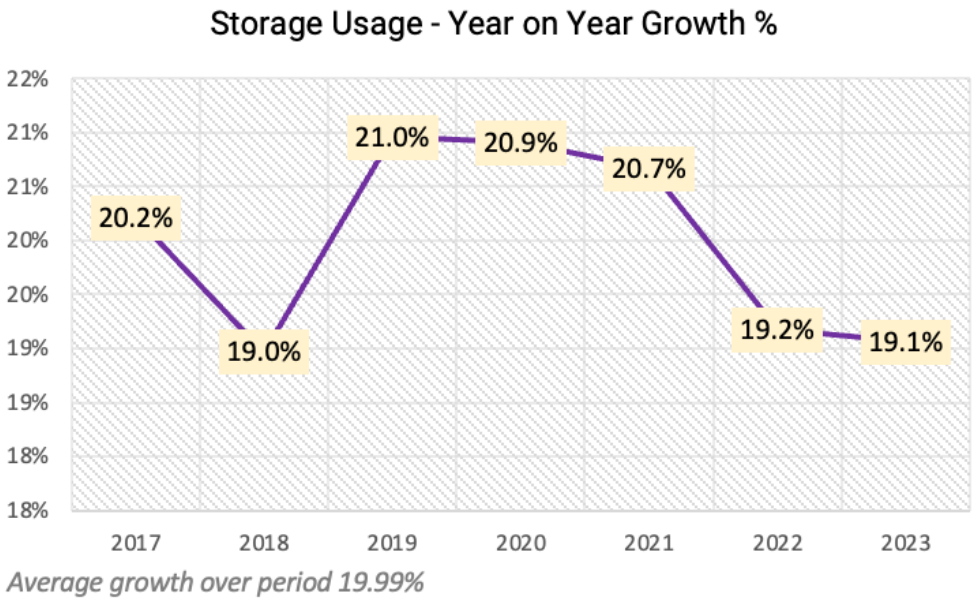
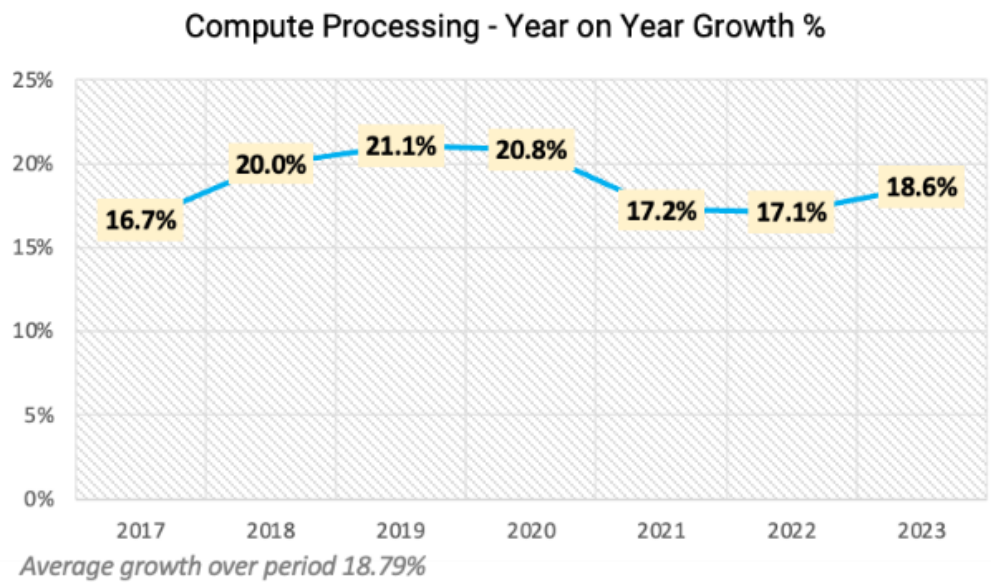
Objective	The objective of the operating expenditure (opex) recurrent step change is to ensure Jemena Electricity Networks Vic Ltd. (JEN), maintains the necessary Information & Communication Technology (ICT) capabilities to operate the Jemena electricity network safely, securely, and efficiently. Jemena's anticipated growth in cloud computing storage and processing means additional recurrent opex will be required to ensure JEN maintains reliable ICT service delivery.
Background	**Cloud capacity growth defined** Cloud capacity growth refers to growth related to storage and compute processing: • **Storage** includes all enterprise storage platforms deployed and used by our systems, applications, and users. It includes active data, backup data, and archive data. • **Compute processing** refers to servers, serverless computing platforms, and all other computing environments that enable our applications to execute, retrieve, and analyse data. **On-premises has become inefficient** Historically, utility businesses including Jemena have invested heavily in on-premises ICT infrastructure, with significant recurring capital expenditure (capex) for replacement and growth. While efficient at the time, this approach posed increasing challenges due to the rising costs of the ICT infrastructure, the need for frequent upgrades, equipment lifecycling as technology progressed, and vendors shifting to subscription-based licensing models, while withdrawing physical solutions requiring capex. Over the five years from 2017 - 2021, our analysis indicates a consistent trend of on-premises capacity increases, averaging ~20% for storage usage and compute processing annually. Refer Figure 1 and Figure 2 below. **Figure 1 - Year on year storage growth (calendar year)** 

Figure 2 - Year on Year processing growth (calendar year)



Jemena has migrated to cloud

The momentum behind flexible, scalable, cloud-based solutions supporting 24/7 operations and rising customer expectations is driving businesses like JEN to leverage solutions such as cloud computing. This optimises long-term costs, improves ICT resource utilisation, and enables a more sustainable, innovative digital future.

The shift toward cloud computing facilitates efficient ICT capacity growth management. Recognising this potential early on, Jemena adopted cloud computing as a key enabler, executing its Cloud Adoption program in 2021. This involved migrating over 100 corporate applications, including customer-facing workloads, to Amazon Web Services' (AWS) cloud.

Jemena continues expanding its use of cloud-based services including Microsoft Office 365, analytics, integration, and more. Governance processes ensure regular evaluation of alternative solutions as cloud technology progresses. Overall, this transition has positioned Jemena for greater efficiency[1], flexibility, and innovation in delivering customer and business value.

Cloud computing offers Jemena the scalability and flexibility needed to adapt to changing business requirements and fluctuating workloads. By expanding its cloud capacity, Jemena can easily scale its infrastructure up or down based on demand, without the need for significant upfront investment in hardware or infrastructure expansion. As shown in Figure 1 and Figure 2, since the implementation of Cloud has commenced in 2021, we have already seen a decrease in year on year growth.

As a result, our projection for cloud capacity growth stands at a conservative estimate of 15% per year, highlighting overall net savings in terms of our storage and compute processing costs.

It should be noted, the 15% forecast growth is related to the organic growth of existing systems and does not relate to the growth associated with new projects or new systems coming online; these project-related cloud costs are accounted for separately in project forecasts. This forecast growth aligns with industry insights, as discussed below.

Our estimates align with industry insights

Our projected 15% per year forecast is supported by industry evidence:

- Gartner: "By 2028, large enterprises will triple their unstructured data capacity across their on premises, edge and public cloud locations, compared to mid-2024." [2]

[1] As evidenced by CEG in its independent report on our benchmark efficiency in Att 3.4-Relative efficiency and forecast productivity growth of JEN

[2] Gartner, October 2024 | Use_Data_Storage_Man_816065_ndx.pdf

- IDC: “Enterprises are generating and storing more data than ever before in support of modern digital business initiatives. IDC estimates that on average, enterprises can expect their storage capacity to grow 30% annually.” [3]
- IDC: “IDC projects that over the next two years enterprise data will grow at a 42.2% annual rate.” [4]
- AWS have stated: “On average, enterprise cloud spending tends to grow approximately 20-30% year-over-year after initial migration. However, this growth rate can vary significantly depending on several key factors:
    - Initial Migration Strategy
    - Cloud Maturity Stages
    - Factors Influencing Cloud Spend Growth
    - Cost Management Approaches

  While 20-30% annual growth is typical, some enterprises might experience more modest 10-15% growth or more aggressive 40-50% growth depending on their specific digital transformation strategies and technology investments.” [5]

Based on industry benchmarking, an increase of 15% year on year growth for cloud storage and computing power proposed in our price review application is well within ranges noted above.

Drivers of organic growth in Jemena’s shared cloud storage and processing

Jemena's cloud infrastructure is enterprise-wide, meaning all costs are shared across a broader set of businesses. As demonstrated in Figure 1 and Figure 2 organic growth of our shared storage and processing platforms is inevitable.

Key drivers of organic cloud capacity growth include:

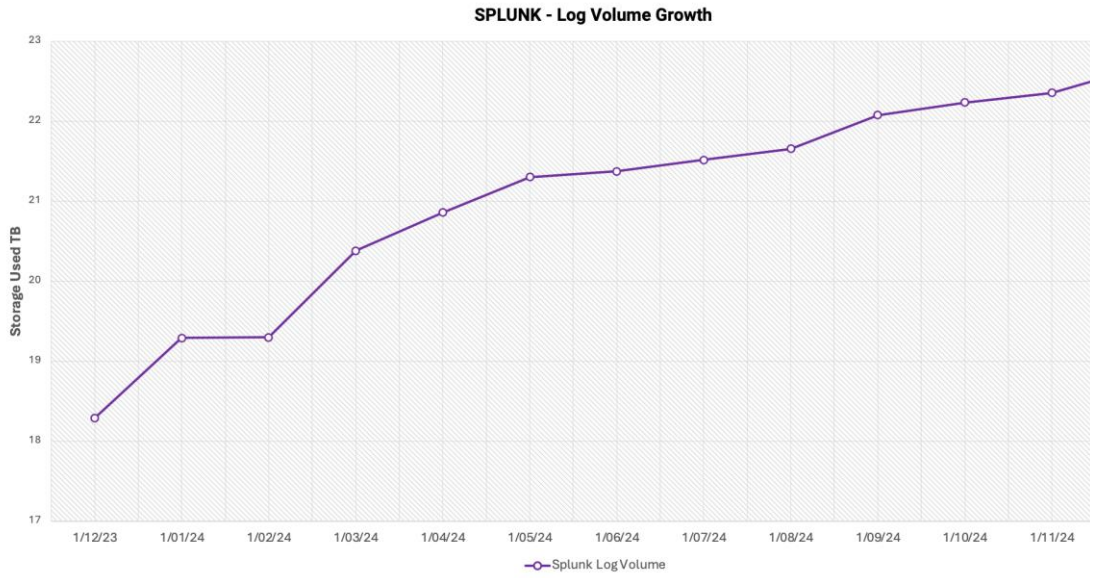
- Security
- Compliance
- Backup and disaster recovery
- Vendor-driven
- Innovation – data-driven decision making

SECURITY

Ensuring the security and integrity of our data is a top priority. To detect and investigate security incidents, we need to maintain comprehensive logs and audit trails of system and user activities. [redacted] Additionally, it centralises log collection from diverse sources, enabling comprehensive investigation of security incidents and forensic analysis of security events. The primary objective of this platform is to log all activities across all devices on the Jemena network. The graph in Figure 3 below illustrates an annual growth rate of 19%.[6]

[3] IDC, August 2021 | IDC InfoBrief - Data Deluge: Why Every Enterprise Needs a Cold Storage Strategy
[4] Seagate (referencing IDC), July 2020 | https://www.seagate.com/au/en/news/news-archive/seagates-rethink-data-report-reveals-that-68-percent-of-data-available-to-businesses-goes-unleveraged-pr-master/
[5] Source: Email from AWS dated 4th December 2024
[6] Note – these costs are not included in our cybersecurity Investment brief.

Figure 3 - Year on Year security related storage growth



COMPLIANCE

In the AEMC's vision for a shared energy future, the AEMC has stated that rule change throughput has increased by 30% in the last two years and that they are now averaging 20-25 changes per annum.[7] Further, they stated "Importantly, we will continue to test and adopt new and innovative ways of working that increase the pace, quality and impact of our work and decisions."[8] The AEMC has stated it expects to increase the rate at which it implements rule changes. With each rule change impacting Jemena, system changes are more often than not required; with each new requirement, more storage and computing are required.

Compliance with various regulations and industry standards requires us to collect and store specific types of data for extended periods.

For instance, JEN needs to satisfy several legal and regulatory expectations regarding the data it stores, all of which require additional storage and compute resources at an increasing rate, including:

- New obligations and reporting requirements for facilities subject to the Safeguard Mechanism (including the JEN network) under the *National Greenhouse and Energy Reporting Act 2007* (Cth) and relevant regulations, increasing the need for accurate and auditable data on greenhouse gas emissions.

- The Australian Energy Market Commission (AEMC) has officially incorporated emissions reduction considerations into the national energy rules, solidifying a significant regulatory shift towards net zero, increasing the need for accurate and auditable data on greenhouse gas emissions.

- The issuance of the FIRB Land Exemption Certificate by the Foreign Investment Review Board, that grants an exemption from seeking approval for Australian land acquisitions is subject to specified conditions that JEN must comply with, increasing the way in which we manage and store our sensitive operational data.

- In December 2022, the *Privacy Act 1988* (Cth) (Privacy Act) was amended to significantly increase the maximum penalties for serious privacy breaches and to provide the regulator with more extensive powers, furthermore, on 16 February 2023, the Attorney General released the Privacy Act Review Report which contains

extensive recommendations to reform and broadens the application of the Privacy Act, increasing the need to better govern and store personal identifiable information (PII).

- The Australian Energy Regulator (AER) employs Regulatory Information Notices (RINs) to gather accurate data for regulatory decisions. The AER relies on accurate data to make informed decisions.

- [redacted]) regulatory framework requires Jemena to understand where business critical data is stored (and secured).

With a historical trend of change and a supported forecast of continued reform, we anticipate the need to deploy elevated levels of growth in storage and computing power.

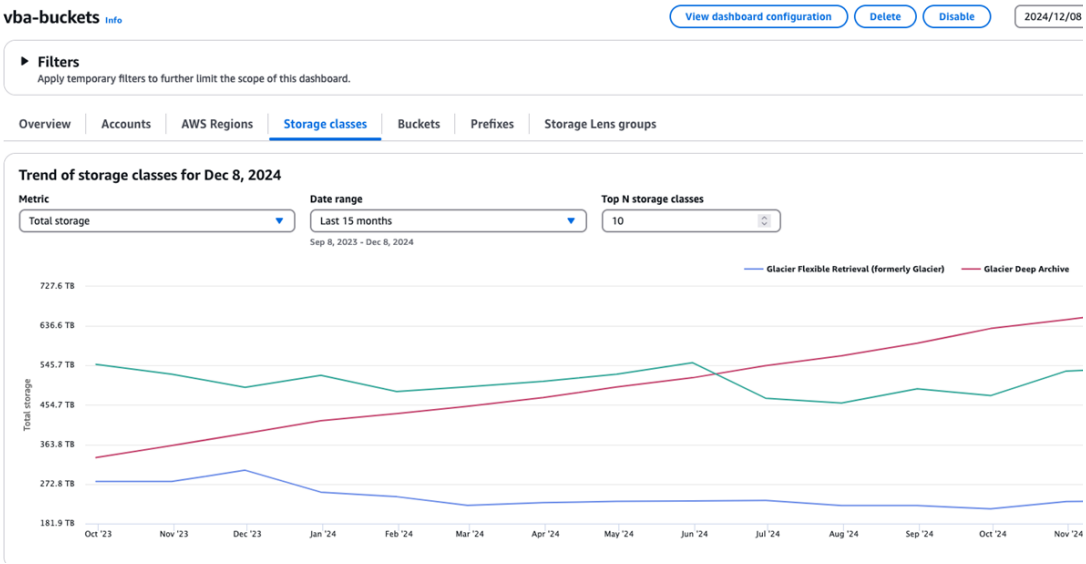
BACKUP AND DISASTER RECOVERY

To ensure business continuity and protect against data loss, we must maintain robust backup and disaster recovery mechanisms. This involves regularly creating copies of our critical data and storing them in secure, geographically dispersed locations. As our primary data footprint grows, so does the size of our backups. As of December 2024, Jemena is safeguarding 1,500 TB of data with annual growth of 26.67% since October 2023 (across all three tiers).

The chart in Figure 4 below illustrates Jemena's strategic utilisation of "Storage Tiering." This approach enables Jemena to optimise storage utilisation by employing various storage types, each with a distinct trade-off between performance and cost per Terabyte (TB). The Glacier Deep Archive, a lower-tier storage solution, serves as the primary repository for most of our backup data. This strategic choice ensures the protection and security of our information in the event of a disaster or system restoration requirement while simultaneously minimising storage costs.

The Standard tier, positioned at the highest cost point, is reserved for the most recent backups. It is more likely to be required in the immediate aftermath of a disaster or restoration need.

Figure 4 -Backup growth (1/12/23 – 1/12.24)



VENDOR DRIVEN

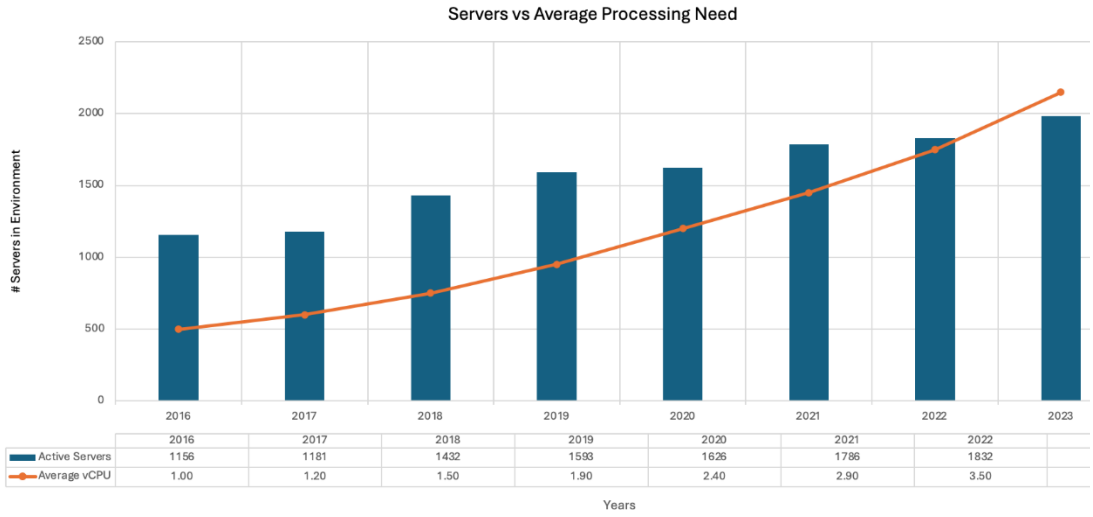
[7] AEMC | https://www.aemc.gov.au/our-work/our-priorities

[8] AEMC | A consumer-focused net zero energy system pg.35

As technology progresses, operating systems and applications are constantly advancing to offer new features, improved performance, and enhanced security. Each new version introduces capabilities that leverage cutting-edge advancements; however, this evolution also drives up the baseline requirements for cloud capacity.

The orange line in Figure 5 below shows a clear trend of increasing computational requirements, with the average server needing more than four times the processing power, from 1 vCPU in 2016 to 4.3 vCPU in 2023. This reflects the growing complexity of modern applications and vendor solutions, which demand significantly more computing resources to deliver enhanced functionality and performance.

Figure 5 - Server and average processing needs (Calendar year reporting)



	2016	2017	2018	2019	2020	2021	2022
Active Servers	1156	1181	1432	1593	1626	1786	1832
Average vCPU	1.00	1.20	1.50	1.90	2.40	2.90	3.50

[redacted]

[redacted]

[redacted]

[redacted]

There isn't any information to indicate this trend will slow down, rather, as noted above, this trend should continue or accelerate.

Jemena must periodically upgrade hardware to meet evolving requirements. This ensures compatibility with modern server features, scalability for future workloads, and mitigation against cyber-security attacks.

Key Observations and Trends:

- **CPU Growth**: The baseline transitioned from single-core, x86 CPUs to multi-core, 64-bit CPUs with progressively higher clock speeds. The push towards virtualisation and cloud computing has significantly increased CPU demand.
- **RAM**: Minimum RAM requirements have surged substantially, reflecting the increased intensity of applications and database loads, as well as in-memory processing features.
- **Disk Space**: Initially driven by operating system and basic application needs, newer versions require more space due to built-in features, additional drivers, and expanded libraries.
- **Hybrid & Cloud**: [redacted] introduces support for hybrid workloads, which significantly impact hardware specifications upwards.

[redacted]

[redacted]

There isn't any information to indicate this trend will slow down, rather, as not above, this trend should continue or accelerate.

Key Observations and Trends:

- **Processor Requirements**: Increased over time due to more advanced kernel capabilities, virtualisation [9]technologies, and containerisation[10].
- **Memory Requirements**: Gradually increased, reflecting the need for smoother GUI performance and larger kernel features.
- **Disk Space Requirements**: Scaled up to accommodate newer features, larger file system defaults, and additional utilities.
- **Notable Features**: The rise in specs directly correlates with shifts toward containerisation, better file systems, enhanced virtualisation, and hybrid cloud capabilities.

INNOVATION – DATA-DRIVEN DECISION MAKING

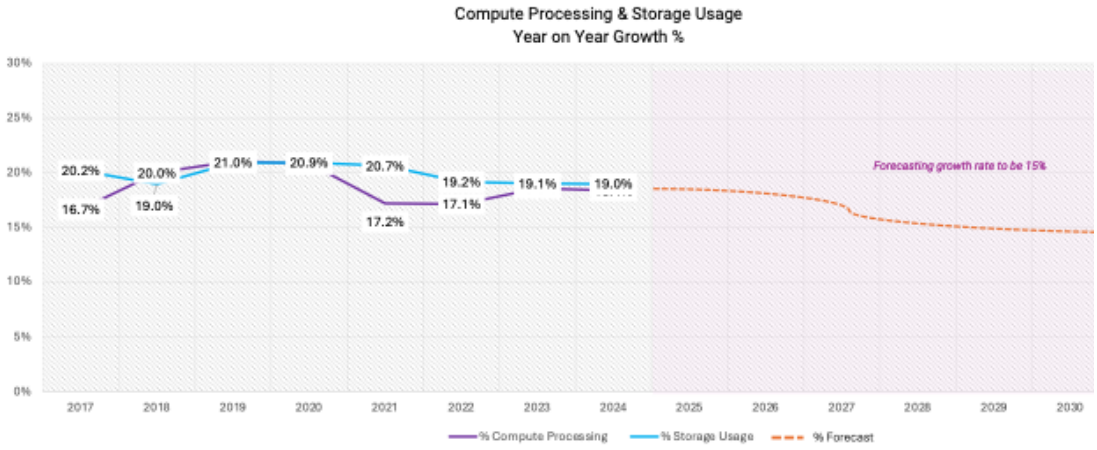
Data-driven decision-making has become critical for JEN. To gain insights, identify trends, and make better informed decisions, we collect, store, and analyse vast amounts of data from various sources. As we expand our data collection efforts, our storage requirements grow as show in Figure 1. Examples of data-intensive JEN use cases that have contributed to capacity growth include but are not limited to the following. JEN will continue to leverage data for insights into the next regulatory period:

[9] Virtualisation technologies refer to methods and tools that allow multiple virtual environments or operating systems to run on a single physical hardware system. Virtualisation abstracts the underlying hardware, enabling better resource utilization, flexibility, and scalability in cloud computing environments. Advanced virtualisation features like live migration, fault tolerance, and resource over-commitment require more CPU.

[10] Containerisation refers to a lightweight virtualization technology that involves packaging an application and its dependencies together into a self-contained unit, called a container. Containers, while efficient, often require high-performance processors to manage tasks like orchestration, scaling, and maintaining security across distributed environments.

	• EV BD roadmap – Investigative piece into the current impacts of EV adoption on the network. Used known EV owner AMIs to infer consumption patterns, as well as identify any other potential EV owners in the network. • LV Circuit / Substation health - Produced a health score for each LV Circuit and Distribution Substation to improve reliability and power quality performance by better targeted maintenance and augmentation. • Pole replacement logic - Forecasting pole expected replacement timeframes to improve crew scheduling. • Address matching data quality dashboard – Identify addresses not matching from SAP to GIS, which can then be updated. • Customer satisfaction (CSAT) analysis - Customer response analysis of survey data and definition of measurement mechanisms Often, it is the intelligence over the data that yields the best result; the storage space and computational power identify the outcome, rather than traditional methods, of human-driven algorithms. By allowing more data and computing power, more insight comes to the fore that would not otherwise be achieved. Figure 5 above reflects the growing complexity of modern applications, and the increasing CPU needs of applications that support analytics and AI (including Microsoft 365), which demand significantly more computing resources to deliver enhanced functionality and performance. **USER DRIVEN** One of the drivers of storage growth is the increasing amount of data generated and consumed by our existing users (i.e. not a growth in users per se). There is an increase in the volume of unstructured data created through everyday business activities, such as emails, email attachments, sharing of documents, images, drawings and multimedia content. Our provisioned capacity to support this has grown 28.57% from 40TB to 56TB[11] in the last 12 months alone.
Customer Importance	Jemena's cloud platform is fundamental to our ICT capabilities. The recommended cloud capacity growth will empower Jemena to effectively meet expected increased demand across critical ICT services including computing, storage, backup, collaboration tools, and analytics. This encompasses customer-facing systems like web portals that must swiftly adapt to usage spikes. It also enables a one-time transition of Jemena's core ERP platform, addressing vendor requirements essential for ongoing metering and billing operations. Cloud capacity growth will enable Jemena to support customers throughout the energy transition, enabling digital technologies such as smart meters, sensors, automation, machine learning, artificial intelligence and other digital network technologies which can create smart integrated networks that better meet customers' needs. These capabilities will also enable Jemena to have more knowledge of our customers to prepare them for future network changes. By adopting the cloud, Jemena has shifted to a more opex-centric model. With intense focus on sustaining delivery of customer value, this transformation carefully balances performance enhancements against total cost of ownership across multiple regulatory periods. Overall, the increased business agility and resilience will translate into superior customer service quality and satisfaction. The shift to cloud prioritises delivering value to our retail partners and end-use customers through:

[11] Source: Jemena Cloud FinOps

	• Enhanced cost efficiencies: optimised resources and cloud economies of scale target greater efficiencies, ultimately benefitting electricity retailers and end-use customers. • Dynamic, responsive services: the cloud's scalability and agility empower rapid adaptations to evolving partner and market needs, enabling faster, more tailored service delivery. • Mitigated infrastructure risks: transitioning from traditional capex models reduces risks of outdated, inflexible infrastructure, keeping us adaptive and responsive to market changes.
Key Considerations	Jemena has adopted a strategic approach by implementing a cloud migration program rather than opting for on-premises refresh and capacity expansion. This decision highlighted our forward-thinking mindset and recognition of the numerous benefits offered by cloud computing. **Shifting from capex to opex-centric model** This transition to the cloud shifts capex investments to opex investments, due to the subscription model for these cloud services, which is detailed further in the JEN Technology Plan 2026 – 2031. **How costs were derived** Over the past six years, our analysis indicates a consistent trend of our IT Platforms capacity increases, averaging ~20% for storage usage and compute processing annually. However, in response to evolving business needs and technological advancements, we've embraced cloud computing as a strategic solution. As a result, our projection for cloud capacity growth stands at a conservative estimate of 15% per year, highlighting an overall cost savings in our cloud storage and processing. The below graph shows actual compute processing and storage growth which averages ~20% compared with our forecast 15% growth forecast.  This shift towards cloud infrastructure shows the flexibility and agility that cloud solutions offer. Unlike traditional on-premises setups, cloud platforms allow for more dynamic and scalable resource allocation.
Options	JEN has considered two Options to deliver the capability articulated above: (1) Do nothing – maintain status quo – not recommended (2) Invest in Cloud Capacity Growth – recommended

Option 1: Do nothing – maintain status quo

Description

Under this Option, Jemena would rely solely on existing cloud capacity and would be unable to expand workloads (for data storage and processing) beyond current levels. As this is an enterprise-wide initiative, a broader set of businesses across Jemena would also be impacted outside of JEN. Additional funding for cloud infrastructure growth would need to be sourced by diverting opex from other critical areas of the business.

Benefits

There are no benefits associated with this Option.

Risks

Maintaining the status quo and refraining from increasing our cloud storage capacity may seem like a cost-saving measure in the near term, but it poses significant operational risks and could result in higher overall costs in the long run. These include:

- Poor Application Performance and System Outages: Without sufficient cloud storage capacity, our ICT systems will struggle to expand and meet the increasing demands of our business operations. This can lead to degraded application performance, system outages, and downtime due to insufficient compute resources. Such disruptions not only impact productivity but also erode customer trust and satisfaction.
- Business Continuity Impact: In extreme cases, if our systems are unable to cope with the workload due to limited cloud storage, we may be forced to turn off critical applications or services. This could have severe consequences for business continuity, potentially disrupting operations and impacting revenue generation. Additionally, reverting to on-premises infrastructure could incur significant costs and logistical challenges.
- Regulatory Compliance: Inadequate cloud storage capacity increases the risk of failing to meet regulatory compliance standards related to data security, resilience, and privacy. Non-compliance with regulations could result in hefty fines, legal liabilities, and reputational damage to Jemena.
- Delay or Prevention of Essential Initiatives: Insufficient cloud storage capacity may delay or even prevent the implementation of essential initiatives, such as the migration to SAP S/4HANA which could hinder our ability to adapt to changing business needs and meet regulatory requirements.
- Customer, employee and asset losses: Insufficient cloud storage capacity would hinder Jemena from adopting digital technologies facilitating the energy transition. Late adopters of these technologies are likely to be left behind, as they have less knowledge of their customers, poorer management of their workforces and assets, and are less prepared for future network changes.

Summary

This Option is not recommended as we do not consider it reflects good industry practice given the risks outlined above. Furthermore, it does not provide the most efficient cost.

The risks associated with not increasing our cloud storage capacity extend beyond immediate cost considerations. They encompass operational disruptions, compliance challenges, customer service issues, and delays in strategic initiatives, all of which can have detrimental effects on our business performance, reputation, and long-term sustainability. Therefore, investing in adequate cloud storage capacity is essential to mitigate these risks and ensure the smooth functioning of our ICT systems and operations.

This Option is impractical given Jemena's expanding reliance on technology. It poses severe risks to essential operations without providing economic benefits or supporting strategic imperatives.

Option 2: Invest in Cloud Capacity Growth

Description

This Option involves gradual, modular increases in cloud infrastructure to accommodate expected growth in ICT workloads over the planning horizon. Expansions would match supply to demand based on regular capacity monitoring and forecasting. This enables continuation of existing services without performance degradation, plus headroom to deploy expanded capabilities.

Benefits

Investing in cloud capacity expansions delivers considerable benefits compared to the past model of capital-intensive, pre-provisioned infrastructure. The proposed opex approach aligns costs to actual usage growth at optimal price points.

As well as mitigating the risks outlined in Option 1, key benefits include:

- Ensures high-performing ICT systems essential for continuous operations
- Reduces outage risks and maintains compliance standards
- Enables and supports strategic projects
- By shifting to operationally scaled cloud infrastructure, this Option maximises value by matching capacity growth to demand trajectories.

The pay-per-use model concentrates on spending during periods of expansion rather than over-investing based on forecasts. This approach delivers total cost optimisation while enabling the agility to meet changing needs.

Notwithstanding this position, a growing number of vendors only offer cloud-based solutions, meaning we cannot source alternative technologies.

Risks

Key risks include the following:

- The cloud capacity expansion forecasts utilise historical growth trends and current (CY24) cloud expenditure to project future infrastructure demands. A conservative 5% reduction has been applied to account for efficiencies of the cloud's pay-per-use model. However, there are inherent risks that actual growth rates and/or cloud pricing could exceed expectations over the planning horizon. Ongoing monitoring and periodic forecast adjustments will aim to mitigate these uncertainties.
- While the phasing of capacity upgrades aligns with CY24 consumption, the precise timing of future workloads is also based on forecasts. The rollout schedule will remain dynamic based on new data and infrastructure demands to mitigate this risk.

In summary, while founded on current usage and historical data, the growth estimates contain uncertainty. To address this, the plans incorporate flexibility to pivot based on emerging needs and trends.

Costs

$2024	FY27	FY28	FY29	FY30	FY31
Total capex					
Non-recurrent opex					
Recurrent Step opex	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total opex	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Totex	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

This is an Enterprise-wide initiative, which means the costs of cloud infrastructure are shared across a broader set of Jemena enterprises, ensuring the most cost-efficient solution. Costs have been allocated in accordance with Jemena Group Cost Allocation Methodology.

<table>
<tr><td></td><td>As noted in the table above, this option will incur recurrent opex costs over the 2026-31 period of [redacted]
Note, we are forecasting an annual capacity growth rate of only 15% (a reduction of 5%) now we are operating in Cloud; our forecast costs reflect this.

Summary
This Option is recommended as we consider it reflects good industry practice given the benefits and risks outlined above. Furthermore, it provides the most efficient cost.
Overall, Jemena's growth in cloud capacity reflects its commitment to leveraging cloud technology to drive innovation, improve operational efficiency, and meet the evolving needs of its business and customers. This strategic investment in the growth of cloud infrastructure enables Jemena to remain agile and competitive in today's digital landscape.</td></tr>
<tr><td>Options Summary</td><td>The table below summarises the quantitative and qualitative differences between the analysed Options.
<table>
<tr><th>$2024</th><th>Capex</th><th>Opex</th><th>Totex</th><th>NPV</th><th>Residual Risk</th></tr>
<tr><td>Option 1</td><td>Not applicable</td><td>Not applicable</td><td>Not applicable</td><td>Not applicable</td><td>Significant</td></tr>
<tr><td>Option 2</td><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td><td>Low</td></tr>
</table></td></tr>
<tr><td>What We Are Recommending</td><td>JEN recommends proceeding with option 2 by investing in opex to support cloud capacity expansions. This option is recommended as we consider it reflects good industry practice given the benefits and risks outlined above. Furthermore, it provides the most efficient cost.
This approach represents the lowest-risk strategy to address forecasted growth across ICT workloads. Rather than large, upfront capital projects, this Option leverages operationally scaled cloud infrastructure to deliver needed capacity. It utilises a pay-per-use model that is adaptable to fluctuations in demand and changes in technology.</td></tr>
<tr><td>Dependencies on other Investment Briefs</td><td>Not applicable.</td></tr>
<tr><td>Relationship to ICT Capital Forecast</td><td>Not applicable.</td></tr>
</table>