AusNet



Digital Post-Implementation Reviews

Top 10 Project Summary

Friday, 31 October 2025

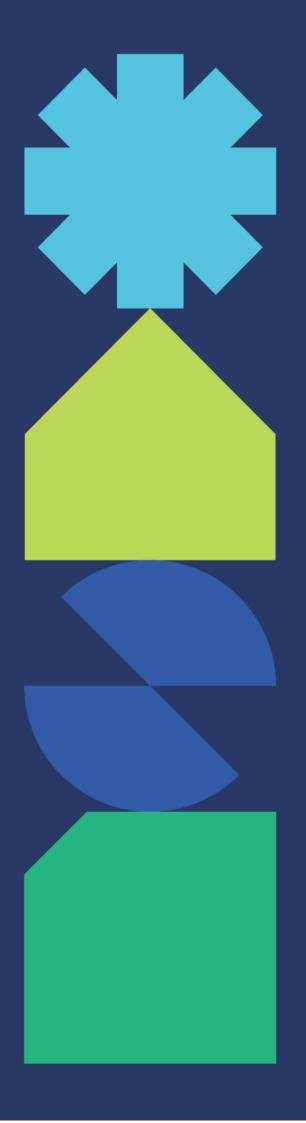


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Document history

DATE	VERSION	COMMENT
25/08/2025	V1.0	Draft PIRs prepared and issued for review
28/08/2025	V2.0	Updated to incorporate review feedback
03/09/2025	V3.0	Final document for submission

Related documents

DOCUMENT	VERSION	AUTHOR

Approvals

POSITION	DATE
Digital & Technology – Strategy, Regulatory and Partner Management	September 2025
Digital & Technology – Program Management	September 2025
Digital & Technology – Data and Digital Enablement	September 2025

Executive Summary

The Post Implementation Reports (PIRs) presented in this document represent AusNet Services' most material completed Transmission related Digital programs of work or projects in the period 2020 – 2025 (through to end RY2025). Projects have been selected based on being the largest Transmission expenditure, as per AusNet's Capital Allocation Methodology. Consistent with the AER's ICT expenditure assessment guideline, Programs and Projects in flight and yet to be completed in this same period are therefore not included, with a number of those in-flight Programs and Projects relating to TRR submissions for the same period.

Overall, the portfolio of projects was delivered \$4.4m below totex budget. Individual project budget performance was balanced, with half delivered under planned budget. A number of projects experienced extended schedules, with common challenges of resourcing constraints in the 2021-2023 period and unforeseen technical complexities. Almost all intended benefits were realised, noting that some asset management optimisation projects were impacted by underlying data quality issues, which are now being addressed.

Lessons learned from these projects have already been embedded into AusNet's delivery practices, with further commentary regarding specific learnings and actions detailed in the report.

Summary Table

No.	Project Name	ToTex* Variance \$	Schedule variance mths**	Realised Benefit
1	Cyber Security Program	-\$5.84M (-25%)	-10 (-29%)	 Risk & Safety – realised Regulatory Compliance - realised
2	Cloud Migration (Project Nebula)	\$1.92M (+12%)	+8 (+30%)	 Risk & Safety – realised Organisational Efficiencies - realised
3	Electricity Transmission Operations and Maintenance Delivery Model (Project Roy)	-\$0.01M (-0.36%)	+2 (+20%)	Operational Efficiencies - realised
4	AusNet on Demand to Application Hosting Initiative Consolidation	\$0.22M (+3%)	+1 (+8%)	Risk & Safety – realised Organisational Efficiencies - realised
5	Transmission Outage Management Improvement Program	\$0.42M (+28%)	-11 (-30%)	 Organisational Efficiencies – realised Cost & Performance – not realised Customer Experience – not realised
6	Asset Risk Management (ARM) Waves 1-4	\$0.31M (+2%)	+8 (+32%)	 Functional Value – realised CapEx Deferral – partially realised Risk & Safety – not currently realised Org Efficiencies – not currently realised
7	Information Management Foundation Extension	-\$0.66M (-11%)	+4 (+57%)	 Organisational Efficiencies – realised Capability & Culture Uplift – realised CapEx Avoidance – partially realised Org Efficiencies – partially realised
8	Asset Management Framework System (Joan)	-\$0.60M (-12%)	+5 (+89%)	 Functional Validation – realised Capability Development – realised Cost Efficiency – not realised Improved Network Performance – not realised
9	SCADA EMS Upgrade	\$0.09M (+4%)	+11 (+87%)	Cyber Resilience – realised Functional Enhancements - realised
10	Transmission Landholder Access	-\$0.27M (-26%)	0 (0%)	 Regulatory Compliance – realised Customer Outcomes – realised Organisational Efficiencies - realised
	Total	-\$4.41M		

^{*}TotEx reflects the total CapEx and Project OpEx costs for the Project or Program, i.e. it is not solely the Transmission element of the TotEx.

^{**}Schedule variance reflects the difference between planned go-live and actual go-live.

Project PIRs

1. Cyber Security Program*

Project details

Project description

The Cyber Security Program aimed to increase the protection of AusNet Services' critical assets, data and staff, and was designed in three annual tranches of initiatives running from 2021 through to 2024.

The Program's three-year initiatives were selected and prioritised to assist in achieving Maturity Level 3 (MIL-3) of the Australian Energy Sector Cyber Security Framework (AESCSF Version 1), which was expected at that time to be mandated for achievement by energy operators by 2024.

This PIR relates to the first and second annual tranches for the period May 2021 to the period April 2023. This is due to a revised business case being approved for the period 2023-2026 to reprioritise the initiatives of the program to address the evolving organisation, technology, and threat landscape at that time, and the cybersecurity requirements of the Security of Critical Infrastructure (SOCI) Act, the Privacy Act and AESCSF SP2 in March 2024.

The following improvements were delivered via the first and second tranche:

- the way identities of staff, devices, customers and partners are managed
- remediation of vulnerabilities across the systems
- real-time visibility of threats and vulnerabilities informed by threat intelligence
- the speed at which actions could be taken based on quality threat intelligence
- standards-based, structured and measurable environment
- compliance to regulatory obligations.

Project delivery commentary

Given the evolution of a new 2023-2026 Business Case (refer above commentary) incorporating the original tranche 3 scope, expenditure and budget not incurred in the program was re-forecast as part of the subsequent 2023-2026 Business Case. Under this business case AusNet continued to mature cyber security practices in accordance with the new AESCSF Version 2 framework.

^{*}As a cross-network project, the Cyber Security Program PIR is consistent with reporting in the AusNet EDPR 2027-31 Submission.

Project budget

Budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Project budget (original approved)	\$19.00M	\$4.43M	\$23.43M
Project budget (final actuals)	\$13.16M	\$4.43M	\$17.59M

Project Budget - Transmission Allocation

Transmission budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Percentage allocation to Transmission Business	39%	35%	38%
Transmission budget	\$7.41M	\$1.53M	\$8.94M
Transmission actuals (final actuals)	\$5.14M	\$1.53M	\$6.67M

Project schedule

	Original approved	Actual ac	chieved	
Project start Go-live Project completion		Actual go-live*	Actual project completion*	
01/04/2021	28/02/2024	31/03/2024	30/04/2023	28/08/2023

 $^{^{\}ast}$ Actual dates provided are for tranches 1 and 2 of the original business case only.

Project Benefits

Summary of key benefits	Benefit Achieved	Benefit type	Realisation
Compliance to AESCSF SP1 requirements.	Yes	Risk & Safety, Regulatory Compliance	30/04/2023 Compliance to AESCSF (Version 1) SP1 met.
Critical assets cyber security risk reduction.	Yes	Risk & Safety	30/04/2023 Compliance to AESCSF (Version 1) SP1 met.

2. Cloud Migration (Project Nebula) *

Project details

Project description	In August 2020, Project Nebula was established to support the migration of key applications and platforms to the Cloud, transitioning away from on-premise infrastructure, where appropriate and justified. This project enabled mitigation of critical infrastructure platform end-of-life (EOL) risks, reduced investment in 5-yearly hardware refresh cycles, and supported modernisation of AusNet's technology platforms.
Project delivery commentary	Additional budget required due to scope changes identified at the completion of Detailed Design confirming applications for migration to the cloud and supporting vendor cost quotes. New scope items not originally planned in the Business Case required additional timeframes to deliver. Primary scope changes included the removal of the AOD migration (subject to new Business Case), and addition of Information Management data platform to aid reduce legacy costs with a net positive outcome. These revisions to scope were made once detailed design and analysis were completed.

Project budget

Budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Project budget (original approved)	\$14.69M	\$1.44M	\$16.13M
Project budget (final actuals)	\$16.75M	\$1.30M	\$18.05M

Project Budget - Transmission Allocation

Transmission budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Percentage allocation to Transmission Business	30%	30%	30%
Transmission budget	\$4.41M	\$0.43M	\$4.84M
Transmission actuals (final actuals)	\$5.03M	\$0.39M	\$5.42M

Project Schedule

Original approved		Actual achieved		
Project start	Go-live	Project completion	Actual go-live	Actual project completion
02/09/2019	15/10/2021	12/11/2021	06/06/2022	23/08/2022

^{*}As a cross-network project, the Cloud Migration Program PIR is consistent with reporting in the AusNet EDPR 2027-31 Submission.

Project benefits

Summary of key benefits	Benefit Achieved	Benefit type	Realisation
Mitigate cyber and associated maintenance risks of on-premise infrastructure.	Yes	Risk & Safety	06/06/2022 On premise infrastructure estate reduced.
Future CapEx avoidance for hosted infrastructure and associated support costs (OpEx).	Yes	Organisational Efficiencies	30/11/2022 Hosted infrastructure CapEx needs reduced.
Increased automation and accelerated infrastructure provisioning.	Yes	Organisational Efficiencies	06/06/2022 Cloud provider solutions and Service Level Agreements in place.

3. Electricity Transmission Operations & Maintenance Delivery Model (Project Roy)

Project details

Project description

Prior to this project, Transmission field services at AusNet were delivered through a mixed model, with approximately half resourced internally and half resourced externally through partners BEON and BMC.

To address surplus internal capacity and inefficiencies arising from a reduction in work volumes within the Transmission line of business, this project was established to transition to a fully outsourced field services model. The chosen delivery partner was Zinfra.

Following the transition to Zinfra, this project delivered digital enablement initiatives including system integrations between AusNet and Zinfra enabling two-way data exchange, supporting invoicing and work updates. Completion was critical to launching the new delivery model. Furthermore, the integration aimed to reduce the usage and maintenance costs of mobility solutions devices.

Strategically, this digital project enabled the service delivery transition, which created a more efficient, scalable, and cost-effective service model while improving flexibility to respond to changing work volumes.

Project delivery commentary

The project was delivered successfully and within budget. Lessons learned from a similar transition to Downer in the Distribution business helped establish the digital work platform for Transmission services moving to Zinfra, particularly around the interface agreement.

Project go-live was delayed by two months as Zinfra required additional time to mobilise and prepare for the transition. In response to these delays, AusNet redeployed excess resource capacity to deliver additional scope items, including extending automated Aligned Managed Work Order and RCTI interfaces across delivery partners.

Project budget

Budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Project budget (original approved)	\$3.00M	\$0.00M	\$3.00M
Project budget (final actuals)	\$2.99M	\$0.00M	\$2.99M

Project Budget - Transmission Allocation

Transmission budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Percentage allocation to Transmission Business	100%	0%	100%
Transmission budget	\$3.00M	\$0.00M	\$3.00M
Transmission actuals (final actuals)	\$2.99M	\$0.00M	\$2.99M

Project Schedule

Original approved			Actual	achieved
Project start	Go-live	Project completion	Actual go-live	Actual project completion
13/04/2020	22/03/2021	03/05/2021	31/05/2021	12/07/2021

Project benefits

Summary of key benefits	Benefit Achieved	Benefit type	Realisation
Enabled data exchange between AusNet and Zinfra systems, reducing manual workarounds and errors.	Yes	Operational Efficiencies	31/05/2021 System integrations between AusNet and Zinfra.
Established consistent processes across delivery partners, improving the timeliness and quality of information received.	Yes	Operational Efficiencies	31/05/2021 Aligned Managed Work Order and RCTI interfaces across delivery partners.

4. AusNet on Demand to Application Hosting Initiative Consolidation*

Project details

Project description	The 'AusNet on Demand' (AOD) to Application Hosting Initiative (AHI) Consolidation project complemented Project Nebula in delivering against AusNet Services cloud migration strategy and was established to:
	 address the immediate risk of end of life for the AOD hardware platform, which runs business-critical applications consolidate AusNet Services on-premise hardware footprint onto a single virtualised hardware platform (AHI).
Project delivery commentary	Minor budget and schedule variances incurred due to additional resource needs, unexpected technical complexity, and the need to defer migration at a time of inclement weather (in order to mitigate risk associated with the introduction of technical change during an inclement weather period).

Project budget

Budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Project budget (original approved)	\$6.18M	\$0.14M	\$6.32M
Project budget (final actuals)	\$6.54M	\$0.00M	\$6.54M

Project Budget - Transmission Allocation

Transmission budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Percentage allocation to Transmission Business	30%	0%	30%
Transmission budget	\$1.85M	\$0.00M	\$1.85M
Transmission actuals (final actuals)	\$1.96M	\$0.00M	\$1.96M

Project Schedule

Original approved		Actual achieved		
Project start	Go-live	Project completion	Actual go-live	Actual project completion
01/07/2021	30/09/2022	31/10/2022	06/11/2022	03/03/2023

^{*}As a cross-network project, the AusNet on Demand to Application Hosting Initiative Consolidation PIR is consistent with reporting in the AusNet EDPR 2027-31 Submission.

Project benefits

Summary of key benefits	Benefit Achieved	Benefit type	Realisation
Mitigate cyber and associated maintenance risks of on-premise infrastructure.	Yes	Risk & Safety	06/11/2022 On premise infrastructure estate reduced.
Avoid legacy infrastructure costs.	Yes	Organisational efficiencies	06/11/2022 Reduction in legacy support costs and CapEx needs.

5. Transmission Outage Management Continuous Improvement Program

Program details

Program description

Improving outage management processes has been a long-standing priority for AusNet. In 2020, a business case was approved to go-to-market for a transmission outage management application. The program was halted in February 2021 following a market scan which revealed that the solution would require significant customisation with a high risk of escalating development costs.

As an alternative, AusNet launched the Transmission Outage Management Continuous Improvement Program (TOMIP). TOMIP was focussed on delivering low-cost enhancements to the outage management process. The aim was to improve the experience for Transmission Access Planners, strengthen business process controls, and enable more effective outage scheduling through improvements to existing tools.

Program delivery commentary

TOMIP was designed as a three-year, continuous improvement program designed to deliver incremental enhancements, with priorities and scope to be refined progressively over time.

During delivery, several factors led to delays and cost overruns for the first tranche of enhancements, which ultimately affected overall program benefits realisation. Resourcing was one such challenge, with the program relying on BAU staff for delivery, creating priority conflicts and difficulties around staff turnover. Project management oversight was another factor. At the time, AusNet operated an outsourced governance model that did not provide effective project oversight or financial stewardship. Additionally, technical challenges emerged, with issues around Power BI's ability to integrate with AusNet's ERP impacting the ability to implement automations.

Ultimately, the combination of resourcing, governance, and technical challenges led to the TOMIP program being wound down in Q1 FY24 - nine months earlier than planned. This meant that intended enhancements scoped for later tranches where not realised, including improvements to cost and performance (from a reduction in outage cancellations), and uplifts to customer experience (from an externally facing digital application interface).

Despite winding down early, the program delivered several important functional improvements to the outage management process. Specifically, it provided Transmission Access Planners with greater visibility of outage date changes, streamlined several workflows, and helped ensure consistency in network access request management through a number of ERP enhancements and new tools.

AusNet has acknowledged several lessons from the TOMIP program and, since the project was completed, has in-housed project governance to improve accountability and financial stewardship around delivery. AusNet has also now commenced a larger Transmission Access and Switching Management (TASM) project to standardise and digitise how access requests and switching instructions are created, tracked, and managed. Lessons learned from TOMIP have informed TASM's design and delivery approach.

Program budget

Budget dimension	CapEx	Program OpEx (PropEx)	Total Cost (TotEx)
Program budget (original approved)	\$1.50M	\$0.00M	\$1.50M
Program budget (final actuals)	\$1.92M	\$0.00M	\$1.92M

Program Budget - Transmission Allocation

Transmission budget dimension	CapEx	Program OpEx (PropEx)	Total Cost (TotEx)
Percentage allocation to Transmission Business	100%	0%	100%
Transmission budget	\$1.50M	\$0.00M	\$1.50M
Transmission actuals (final actuals)	\$1.92M	\$0.00M	\$1.92M

Program schedule

Original approved		Actual achieved		
Project start	Go-live*	Project completion	Actual go-live**	Actual project completion
19/07/2021	N/A	30/06/2024	17/08/2023Error! B ookmark not defined.	17/08/2023

^{*} TOMIP was a continuous improvement initiative, delivering incremental enhancements, and therefore did not have a single planned go-live date.

Program Benefits

Summary of key benefits	Benefit Achieved	Benefit type	Realisation
Improved organisational efficiency through streamlined workflows and the use of autofill templates, reducing manual effort and improving data consistency.	Yes	Organisational Efficiencies	17/08/2023 ERP enhancements delivered at project completion
Improved outage management processes by enhancing visibility and tracking of outage date changes and ensuring greater consistency in the management of network access requests.	Yes	Organisational Efficiencies	17/08/2023 Implementation of rescheduling tracker and network access guideline tools at project completion

 $[\]ensuremath{^{**}}$ The final go-live date has been aligned to project completion due to gaps in available data.

Improved cost and performance outcomes by reducing the volume of outage cancellations.	No	Cost and Performance	No measurable reduction in cancelled volumes or costs
Improved customer experience with a new interface for external applicants to submit network access requests, making the process easier and faster.	No	Customer Experience	Concerns about the system's ability to flag unsuccessful applications created a risk of mistrust from customers.

6. Asset Risk Management (ARM) Waves 1-4

Project details

Project description

The Asset Risk Management (ARM) program was established to provide AusNet with a systematised, data-driven approach to managing network asset risk.

Historically, asset replacement at AusNet relied on age or static assessments, leading to inefficiencies and limited optimisation of replacement expenditure.

To address this, the ARM models were developed to leverage machine learning, utilising asset and condition data to support accurate risk assessments. This enabled AusNet to build capability to quantify failure probabilities and consequences, helping to optimise investment decisions.

Strategically, the intention of the program is to shift AusNet from reactive, age-based renewal to advanced analytics enabled risk optimisation, supporting the building digital capabilities that enhance long-term asset management and operational resilience.

Project delivery commentary

The project was delivered over four waves, creating risk models across approximately 70 transmission, distribution and gas pipeline asset classes. The top priority asset classes have foundational machine learning models developed, with the remaining supported by basic models.

The models have been used by AusNet's Asset Management team to support optimisation decisions, and for the first time, have enabled a single view of asset risk across all in-scope asset classes. This has increased methodology standardisation and reduced key person risk by less reliance on specialised asset class engineers.

However, project benefit realisation has been impacted by the following factors. The result means that the ARM models have not yet become core operational tools.

- 1) The first challenge has been around data accuracy and quality. Model testing highlighted unforeseen gaps in underlying data which in some cases inhibited the reliability of model outputs. For example, Asset Condition Reports, which are important for understanding Asset Health, are not consistently stored in AusNet's ERP and there are numerous instances where incorrect tagging of asset characteristics impacts the reliability of model outputs. Consequently, engineers are regularly performing adjacent analysis to sense check the outputs, impeding the intended efficiency benefits of the models.
- 2) Secondly, there were some cyber security barriers that were faced. A review of access controls and authentication found that AusNet's Azure resources were not aligned with best practice and that network security settings & access security settings were overly permissive. As a result, the models had to be turned off. The specific cyber issue has since been resolved, with some residual technical challenges still hampering the ability to have these models embedded into operations.
- 3) Finally, the solution architecture has also presented challenges. The original design was completed as part of a proof of concept in 2017. Given the large

volume of data being used, the data pipelines were not efficient for extraction from systems meant that at times, data was incomplete. This remains a challenge with solutions being explored to resolve.

Delivery continuity also proved to be a challenge. The waves were delivered over multiple years by several different delivery partners and numerous internal team members. Organisational restructures and the loss of key personnel during this time have also made continuity challenging. Given the specialised nature of the code base of the models, there is key resource dependence and whilst knowledge sharing activity has commenced, this remains an ongoing risk that is being managed.

Despite these challenges, the program delivered several important successes and AusNet are committed to leveraging the learnings of the models to contribute to better risk-based investment decisions.

Project budget (Wave 1-4)

Budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Project budget (original approved)	\$14.39M	\$0.00M	\$14.39M
Project budget (final actuals)	\$14.70M	\$0.00M	\$14.70M

Project Budget - Transmission Allocation (Wave 1-4)

Transmission budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Percentage allocation to Transmission Business	27%	0%	27%
Transmission budget	\$3.89M	\$0.00M	\$3.89M
Transmission actuals (final actuals)	\$3.95M	\$0.00M	\$3.95M

Project Schedule (Waves 1-4)

Original approved		Actual achieved		
Project start	Go-live	Project completion	Actual go-live*	Actual project completion
18/01/2021	28/02/2023	31/05/2023	31/10/2023	30/04/2024

^{*}The actual go-live date reflects the final milestone in the project's staged go-lives and has been selected as it marks the date where the majority of deliverables were deployed.

Project benefits

Summary of key benefits	Benefit Achieved	Benefit type	Realisation
Development of functional Asset Risk Management (ARM) models that provide a foundation for future productionisation.	Yes	Functional Value	31/10/2023 Development of ARM models across asset classes.
Optimised capital efficiency through automated asset risk models that assess cost, risk, and performance across scenarios and optimise forward asset expenditure.	Partial	CapEx Deferral	FY23* One-off deferred CapEx benefits.
Improved ability to manage asset risk performance and safety outcomes.	Not Currently	Risk & Safety	ARM models are not yet productionised.
Improved ability for the asset management team members to perform their roles more effectively.	Not Currently	Organisational efficiencies	ARM models are not yet productionised.

^{*}Note: CapEx deferral benefits refer to one-off deferrals captured in FY23 during Waves 2/3 based on model-informed decisions. No additional benefits are being realised as models are currently turned off.

7. Information Management Platform Extension

Program details

Program description

The Information Management Platform (IM) is AusNet's central data and analytics platform. Established in 2017, it was designed with the intention to replace AusNet's fragmented, siloed systems with a single, scalable platform and create a single source of truth for data across the organisation. Through to 2021, the IM platform contained only limited data and capability. This initiative extended both, uplifting platform capability and delivering data provisioning and ingestion of datasets to support additional business use cases.

The scope of this project focused on ingesting ten core datasets from operational and enterprise systems and implementing advanced capabilities such as real-time processing, geospatial analytics, and Al/ML enablement. From a use case perspective, this project was an enabler for asset analytics, including power transformers, as well as key projects including the Distributed Energy Market Pilot and the Rapid Earth Fault Current Limiter Program.

Program delivery commentary

The project was delivered through a Data & Insights Tribe, combining a core team of senior designers and leads (internal AusNet staff) with a team of data engineers from delivery partner, WIPRO.

Total investment in the project was ~ \$5.5M, with approximately one-third of that allocated to AusNet's Transmission line of business (~\$1.7M). The project was completed under budget and the IM platform now plays an important role in transmission network operations, ingesting a number of key datasets and supporting analytics across multiple areas of the business.

The project did face delivery challenges that led to a three-month delay and meant some benefits were only partially realised. The project scope expanded over time as additional initiatives reliant on the data platform were introduced. Additionally, technical constraints (e.g. system integrations that were not feasible) and resourcing constraints (e.g. a shortage of offshore data engineering capacity from delivery partner, WIPRO) impacted progress and contributed to delivery delays. In some cases, these constraints resulted in benefit realisation being only partly achieved. For example, data accessibility did improve through the ingestion of a several key data sets, but the need for technical expertise limited self-service and reduced efficiency gains.

Despite these challenges, the project was largely successful, and IM platform now plays an important role in transmission network operations, ingesting a number of key datasets and supporting analytics across multiple areas of the business.

Program budget

Budget dimension	CapEx	Program OpEx (PropEx)	Total Cost (TotEx)
Program budget (original approved)	\$6.17M	\$0.07M	\$6.17M
Program budget (final actuals)	\$5.46M	\$0.06M	\$5.51M

Program Budget - Transmission Allocation

Transmission budget dimension	CapEx	Program OpEx (PropEx)	Total Cost (TotEx)
Percentage allocation to Transmission Business	30%	89%	31%
Transmission budget	\$1.85M	\$0.06M	\$1.91M
Transmission actuals (final actuals)	\$1.64M	\$0.05M	\$1.69M

Program schedule

Original approved		Actual achieved		
Project start	Go-live	Project completion	Actual go-live	Actual project completion
04/01/2021	01/08/2021	31/08/2021	29/11/2021	8/12/2021

Program Benefits

Summary of key benefits	Benefit Achieved	Benefit type	Realisation
Fulfilment of data acquisition requirements to enable delivery of several key business projects.	Yes	Delivery enablement	29/11/2021 Enabled asset analytics use cases, including power transformers, as well as key projects like the Distributed Energy Market project.
Enhanced digital capabilities supporting faster execution, decision making and workforce autonomy.	Yes	Capability and culture uplift	29/11/2021 Elevated data culture and data literacy across the digital workforce.

Cost efficiencies across the information management landscape through capex avoidance on other data platforms (e.g. Oracle Autonomous Data Warehouse).	Partial	CapEx avoidance	29/11/2021 Achieved ongoing avoidance of additional CapEx investments into some adjacent data platforms, but not for SNET.
Enables easy access to clean, governed data via easy-to-use tools.	Partial	Organisational Efficiencies	Data accessibility did improve, but the need for technical expertise limited self-service and reduced efficiency gains.

8. Asset Management Framework System (Joan)

Program details

Program description

The Asset Management Framework System project (Joan) aimed to develop a Minimum Viable Product (MVP) for an advanced data analytics platform to support asset management decision-making. The platform was designed to leverage generative AI and machine learning, with a chat-based interface to provide easier access to relevant data insights for decision-making.

Joan leveraged outputs from the Asset Risk Management (ARM) models, together with other asset management data, to generate insights on asset risk, cost, and performance.

The goal of this MVP stage was to prove the concept and show that such a platform could meaningfully support decision-making, while also building AusNet's capability in asset management and positioning the organisation for future innovation in this space.

Program delivery commentary

The project was delivered in partnership with IBM, drawing on IBM Consulting (for development), IBM Research (for optimisation and generative AI), and IBM Design (for user experience), alongside AusNet's internal resources.

The total investment in the Joan project was ~ \$4.2M, with approximately one-third of that allocated to AusNet's Transmission line of business (~\$1.3M). The MVP project was completed, and functional prototype was delivered. However, the ability to use outputs for decision making was hindered by the quality of underlying data inputs. Similar challenges also affected the Asset Risk Management (ARM) models, notably gaps and incomplete tagging of asset data in ERP and other systems. As a result, usage of Joan was limited, and the project was discontinued after the completion of MVP. The project ultimately closed \$600k under budget as delivery was stopped once the limitations were identified.

The project faced several challenges which pushed back delivery by four months. Finalising the commercial agreement with IBM was delayed, causing IBM Research's engagement to commence three months late. In addition, developers from IBM were based in the US, which made connecting to AusNet systems difficult and, as a result, development was carried out in IBM's environment and then deployed into AusNet's environment before production. This approach often left limited time for production readiness activities, like code and data security checks, which contributed to delays.

Despite these challenges, the project was successful in delivering a functional prototype and provided a number of learnings that have strengthened AusNet's capability in AI and advanced analytics.

Program budget

Budget dimension	CapEx	Program OpEx (PropEx)	Total Cost (TotEx)
Program budget (original approved)	\$4.60M	\$0.20M	\$4.80M
Program budget (final actuals)	\$4.04M	\$0.16M	\$4.20M

Program Budget - Transmission Allocation

Transmission budget dimension	CapEx	Program OpEx (PropEx)	Total Cost (TotEx)
Percentage allocation to Transmission Business	32%	30%	32%
Transmission budget	\$1.47M	\$0.06M	\$1.53M
Transmission actuals (final actuals)	\$1.29M	\$0.05M	\$1.34M

Program schedule

Original approved		Actual achieved		
Project start	Go-live	Project completion	Actual go-live	Actual project completion
22/09/2023	01/03/2024	26/04/2024	22/07/2024	31/07/2024Error! B ookmark not defined.

Program Benefits

Summary of key benefits	Benefit Achieved	Benefit type	Realisation
Demonstrated feasibility of advanced analytics platform to support asset management decisions.	Yes	Functional Validation	31/07/2024 Functional MVP was delivered.
Creation of intellectual property and learnings that strengthen AusNet's capability in Al & advanced analytics.	Yes	Capability Development	31/07/2024 Functional MVP was delivered.
Greater efficiency of CapEx spending driving more reduction of OpEx.	No	Cost Efficiency	Not progressed beyond MVP due to underlying data limitations.
Improved network performance & regulatory reliability targets.	No	Improved Network Performance	Not progressed beyond MVP due to underlying data limitations.

9. SCADA EMS Upgrade

Project details

Project Description

The Supervisory Control and Data Acquisition (SCADA) Energy Management System (EMS) platform is used to supervise and control equipment across AusNet's electricity transmission and distribution networks in real time. It is critical to transmission network planning and management and the integrations with AEMO for national energy market operations, as well as to CitiPower/Powercor and United Energy as integrated distributors.

In November 2020, the EMS Platform was entering end-of-life (no vendor support), resulting in increased exposure to operational and cyber security risks, as well as no access to patches, bug fixes or feature enhancements that are available for subsequent versions of the software.

The SCADA EMS Upgrade project was established to mitigate the risk of operating without adequate vendor support for a mission critical system.

Project delivery commentary

The SCADA EMS Upgrade successfully delivered its intended outcomes, mitigating end-of-life risks for the platform and positioning the Transmission business for future capability expansion.

The project had a schedule delay due to limited availability of resources with the specialised skills required for AusNet's customised SCADA instance. Only a small number of AusNet staff hold the necessary expertise to delivery SCADA related work, and competing priorities during this period reduced their capacity to support this project. Onboarding new staff to reach proficiency in this area typically takes around six months. External vendor support was engaged, but this decision was delayed, and the delivery partner's specialist with AusNet SCADA experience was committed to other work.

Although the project timeline was delayed, there was no impact on cost, with delivery achieved within budget and planned benefits realised.

Project Budget

Budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Project budget (original approved)	\$2.20M	\$0.01M	\$2.21M
Project actuals (final actuals)	\$2.30M	\$0.00M	\$2.30M

Transmission budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Percentage allocation to Transmission Business	50%	0%	50%
Transmission budget	\$1.10M	\$0.00M	\$1.10M
Transmission actuals (final actuals)	\$1.15M	\$0.00M	\$1.15M

Project Schedule

Original approved		Actual achieved		
Project start	Go-live	Project completion	Actual go-live*	Actual project completion
02/11/2020	19/11/2021	28/02/2022	17/10/2022	19/06/2023

^{*}The actual go-live date reflects the final milestone in the project's staged go-lives and has been selected as it marks the date where the majority of deliverables were deployed.

Project Benefits

Summary of key benefits	Benefit Achieved	Benefit type	Realisation
Mitigation of operating and security risk, including cyber, by ensuring vendor support and associated security patching until 2027.	Yes	Cyber Resilience	SCADA EMS upgraded to e- terra platform V3.3, extending GE support to 2027.
Delivery of enhanced functionality and capability to the business through fixes or feature enhancements that are included in subsequent versions of the software.	Yes	Functional Enhancements	22/07/2022 EMS V3.3 features deployed and active.

10. Transmission Landholder Access

Project details

Project Description

As activity on the transmission network increased in the lead-up to 2024, regulators directed Transmission Network Service Providers to strengthen customer engagement. The Transmission Landholder Access Project was AusNet's response, designed to:

- Comply with Essential Services Commission (ESC) requirements mandating monthly reporting on land access-related complaints.
- Fulfil Energy Safe Victoria (ESV) directives to enhance communication with transmission landholders and build capability for the collection, retention, and ongoing management of landholder contact and property information.

The project utilised AusNet's existing CRM solution, which had previously been used almost exclusively by the Distribution business. As part of this initiative, the CRM was utilised to provide additional customer management capabilities to the Transmission business, including:

- Creating an easy-to-use 'enhanced preferences' form where Transmission
 Landholders can update their contact information, communication
 preferences and provide land access requests or preferences via the AusNet
 website.
- Building an integration between AusNet website and CRM so that
 Transmission Landholder information can be automatically updated and
 matched to property holdings and assets registered in the database, which
 over time will become the central source of truth for landholder data for use
 across AusNet's business.

Project delivery commentary

IBM was engaged as the delivery partner for this program. The project was well resourced and effectively managed to meet an external deadline set by the regulator. Governance and steering committee structures functioned effectively, with decisions made quickly to keep delivery on track. Scope was also well controlled, with late requirement changes from the business appropriately managed and not allowed to disrupt delivery.

Delivery and go-live were completed on time and under budget, with all intended benefits achieved. The decision to consolidate into a single deployment, rather than two, proved effective, with no issues arising at go live.

Project Budget

Budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Project budget (original approved)	\$0.42M	\$0.63M	\$1.04M
Project actuals (final actuals)	\$0.30M	\$0.47M	\$0.77M

Project Budget - Transmission Allocation

Transmission budget dimension	CapEx	Project OpEx (PropEx)	Total Cost (TotEx)
Percentage allocation to Transmission BusinessError! Bookmark not defined.	100%	100%	100%
Transmission budget	\$0.42M	\$0.63M	\$1.04M
Transmission actuals (final actuals)	\$0.30M	\$0.47M	\$0.77M

Project Schedule

Original approved Error! Bookmark not defined.		Actual ac	chieved	
Project start	Go-live	Project completion	Actual go-live	Actual project completion
02/09/2024	16/12/2024	01/02/2025	04/12/2024	14/02/2025

Project Benefits

Summary of key benefits	Benefit Achieved	Benefit type	Realisation
Maintaining regulatory compliance.	Yes	Regulatory compliance	04/12/2024 Delivered with go- live
More timely engagement with transmission landholders using preferred communication channels.	Yes	Customer outcomes	04/12/2024 Delivered with go- live
Improved the accuracy, accessibility and safe retention of landholder contact and property data, including Personally Identifiable Information data.	Yes	Organisational efficiencies Customer outcomes	04/12/2024 Delivered with go- live
Laid the groundwork for future automation to support broader transmission engagement activities.	Yes	Organisational efficiencies	04/12/2024 Delivered with go- live

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