CITIPOWER

POST IMPLEMENTATION REVIEWS

CP ATT 6.01 – PUBLIC

2026–31 REGULATORY PROPOSAL

Table of Contents

1. Introduction

This document provides a summary of our post implementation reviews (PIRs) for our largest ICT projects

As a standard business practice, we perform close out reports for ICT projects that have been finalised.

The Australian Energy Regulator (AER) requires us to provide a PIR for the largest ICT projects completed over the previous five years, as outlined in the AER's Non-network ICT capex assessment approach. The PIR should include:

- a comparison of the actual cost to the proposed cost in the business case
- comparison of the actual timeframe to complete the project with the forecast timeframe
- a comparison of the actual achieved benefit to the forecast benefit (as best estimated) in the business case
- an explanation of any material variations in costs, delivery timeframe, and benefits realised.

2. Summary

We have provided PIRs for the following projects undertaken during the 2021–26 regulatory period:

Recurrent

- End user device replacement
- Market compliance
- Windows 10 upgrade
- Oracle fusion upgrade.

Non-Recurrent

- Improved gateway services
- Field service management system replacement
- Five-minute settlements.

Table 1 below provides a summary of the PIRs contained within this document.

TABLE 1 POST IMPLEMENTATION REVIEW SUMMARY

TYPE	PROJECT	AER ALLOWANCE ($2021)	ACTUAL COST	SCHEDULE	BENEFITS
Recurrent	End user device replacement	2.7	3.3	On time	Met
	Market compliance	1.4	3.4	On time	Met
	Windows 10 upgrade	n/a	1.2	n/a	n/a
	Oracle Fusion upgrade	0.9	0.8	1 month delay	Met
Non-recurrent	Improved gateway services	0.5	1.2	On time	Met
	Field service management system replacement	3.8	3.9	4-month delay	Met
	Five-minute settlements	8.9	12.1[1]	On time	Met

Note: All costs are totex. Actual costs relate to the year in which the expense was incurred while AER allowances are all in $2021

[1] 1.5m of actuals occurred prior to the 2021–26 regulatory period.

3. PIRs

3.1 End user device replacement

3.1.1 Project details

Our 2021–26 regulatory proposal included a business case which outlined the need to replace end user devices[2]. This includes computers, laptops, mobile phones and tablets, and meeting room technology. Our field and office staff use these devices to complete day-to-day work. The use of business applications on devices is embedded in all our business and operational processes and at the core of our current level of productivity performance.

As end user devices reach the end of their useful life, their performance deteriorates, they become technically obsolete and capacity constrained and have increased security risks. As a result, devices may no longer perform their intended role and prevent users from undertaking efficient business processes.

This project seeks to replace these devices as they reach the end of their useful life to ensure we can continue to deliver customer services and a cost efficient, safe, reliable network.

3.1.2 Project costs and timeframes

Table 2 sets out the actual cost of the project against the AER approved allowance while Table 3 sets out the expected and actual start and close dates.

As data is not yet available for FY25 or FY26, this data relates to the first three years of the regulatory period only.

This was not a project with a fixed start and end date. End user devices were replaced as they reached the end of their useful life. This cyclic approach results in expenditure being incurred annually as outlined in the device replacement business case. The expenditure incurred exceeded allowance due to a combination of increased device purchase price and a change in device types required.

TABLE 2 PROJECT COSTS ($M)[3]

		CAPEX	OPEX	TOTAL
CitiPower	AER allowance ($2021)	2.7	-	2.7
	Actual cost	3.3	-	3.3

[2] CP BUS 7.12 - Device replacement - Jan2020 – Public

[3] Actual costs are in nominal dollars while AER allowances are all in $2021

TABLE 3 PROJECT TIMEFRAME

EXPECTED		ACTUAL	
START	**CLOSE**	**START**	**CLOSE**
FY22	FY24	July 2021	June 2024

3.1.3 Project benefits

The benefits associated with this project are set out in the table below.

TABLE 4 PROJECT BENEFITS

BENEFIT TYPE	BENEFIT ACHIEVED	BENEFIT DESCRIPTION
Business operations	Yes	As the use of devices is embedded in the day-to-day operations of our business, this project has ensured all employees are able to utilise reliable working devices such as laptops, mobile phones and meeting room technology to efficiently execute their role and maintain. As a result, continued business operations have been maintained
Cyber security	Yes	Ensuring currency of end user devices through the application of cybersecurity patches from the vendor has reduced the risk of a cyber-attack.
Safety	Yes	Our mobile devices have a number of workplace applications which provide vital information on electrical assets or safety management. Mobile devices have also enabled employees to contact emergency services during events such as fire, traffic accident, road hazard or medical emergency. Due to the high-risk nature of electrical field work, having access to mobile communications has provided significant safety benefits.
Supply reliability	Yes	Having access to working mobile devices has allowed work, including jobs relating to power outages, to be remotely dispatched and promptly resolved, with the updated network status being communicated to interfacing systems in real time.

Customer experience	Yes	The provision of all customer services continues to be supported through the use of devices: • Every contact centre agent utilises a laptop to action customer phone calls. • The provision of all customer services is supported through ICT employees utilising various device types[4]. • Back-end processes such as the delivery of meter data and network billing to market indirectly benefits customers. Without devices to support these processes, retailers would be unable to provide the related services to their customers.

3.2 Market compliance

3.2.1 Project details

We operate under a number of rules and obligations that define internal and external processes, including what data and support our IT systems must provide. When the AEMC[5] and other government and regulatory bodies to make structural changes to the Rules, this results in changes to regulated guidelines, procedures and obligation. The 2021–26 general IT compliance business case[6] outlined the need to update IT systems to ensure compliance with new industry obligations. During the first three years of the regulatory period, the following changes were introduced and systems updated to ensure compliance:

- Industry Change Forum (ICF) modifications
- Customer switching
- Business to Business (B2B) procedural changes
- Market standing data review changes
- ACCC Customer Data Rights (CDR)
- Premium feed in tariff cessation
- ACS and Tariff updates.

3.2.2 Project costs and timeframes

Table 5 sets out the actual cost of the project against the AER approved allowance while Table 6 sets out the expected and actual start and close dates.

As data is not yet available for FY25 or FY26, Table 5 relates to the first three years of the regulatory period only.

This is not a project with a fixed start and end date but rather rolling changes to regulatory obligations. Therefore, for the purposes of comparison, actual expenditure relating to FY22, FY23 and FY24 is

[4] This includes customer gateway services, requests to re-energise or de-energise a site or the actioning of customer requests received via the market gateway.
[5] Australian Energy Market Commission (AEMC)
[6] CP BUS 7.14 - General compliance - Jan2020 – Public

compared to the allowance for this same period. Regulatory changes were delivered to the required timeframe.

Since 2021, we have seen an increased number of compliance driven modifications to improve operations, controls and processes in the Retail Electricity Market Procedures Framework when compared to the previous regulatory period. For this reason, actual expenditure incurred has exceeded allowance.

TABLE 5 PROJECT COSTS ($M)[7]

		CAPEX	OPEX	TOTAL
CitiPower	AER allowance ($2021)	1.4	-	1.4
	Actual cost	3.4	-	3.4

TABLE 6 PROJECT TIMEFRAME

EXPECTED		ACTUAL	
START	CLOSE	START	CLOSE
FY22	FY24	July 2021	June 2024

3.2.3 Project benefits

TABLE 7 PROJECT BENEFITS

BENEFIT TYPE	BENEFIT ACHIEVED	BENEFIT DESCRIPTION
Regulatory compliance	Yes	As a participant in the NEM, we are required to ensure compliance with the National Electricity Rules (NER). Non-compliance with the rule changes could result in: • Financial penalties, loss of our license to operate in the market and reputational damage • Adverse impacts to our interactions in the NEM and other participants Through application of the system changes to enable regulatory compliance, we have avoided these breaching these obligations.

[7] Actual costs are in nominal dollars while AER allowances are all in $2021

Customer benefits	Yes	Making the system changes have benefited customers as out lined below. • Customer switching: The introduction of a rule change by AEMO and associated system changes has sped up the process for customers to transfer to a new retailer and access services. • MSATS standing data review: Changes were made to ensure key information about a customer's site including metering details and responsible parties is standardised, complete, accurate and useful. • B2B procedure updates: An update in May 2023 to the B2B procedures in respect of managing re-energisations and de-energisation requests ensured the current site status was known to participants and mitigated the risk of customers being left off supply.

3.3 Windows 10 upgrade

3.3.1 Project details

Deployed in 2012, our Windows 7 operating system was reaching end-of-life in January 2020. An upgrade of our existing laptops and desktops to Windows 10 was required.

This project upgraded all corporate laptops and desktops to Windows 10 and replaced any devices which were not compatible. As a result, we have a corporate operating system which is secure, supported and compatible with newly purchased hardware.

3.3.2 Project costs and timeframes

Table 8 sets out the actual cost of the project against the AER approved allowance while Table 9 sets out the expect and actual start and close dates. As this was not a project that we sought funding for in the 2021–26 period there is no attributable AER allowance or expected timeframe.

TABLE 8 PROJECT COSTS ($M)[8]

		CAPEX	OPEX	TOTAL
CitiPower	AER allowance ($2021)	-	-	-
	Actual cost	1.2	-	1.2

TABLE 9 PROJECT TIMEFRAME

EXPECTED	ACTUAL

[8] Actual costs are in nominal dollars while AER allowances are all in $2021

START	CLOSE	START	CLOSE
N/A	N/A	Apr 2020	May 2022

3.3.3 Project benefits

The benefits associated with this project are set out in the table below.

TABLE 10 PROJECT BENEFITS

BENEFIT TYPE	BENEFIT ACHIEVED	BENEFIT DESCRIPTION
Business operations	Yes	The roll of all corporate devices from windows 7 to windows 10 was achieved with minimal interruptions to business operations. A remote deployment method and device refresh process was created and utilised. This was essential due to the COVID-19 pandemic and enabled ICT personnel to seamlessly upgrade corporate devices.
Customer experience	Yes	The enterprise continues to provide high levels of customer service through improved security, performance and stability across our devices.
Regulatory compliance	Yes	The enterprise continues to meet our life support obligations and comply with other market rules pursuant to Australian Energy Market Operator (AEMO) procedures, National Electricity Rules (Rules) and Electricity Distribution Code (the Code).
Software incompatibility	Yes	The enterprise has mitigated the risk of software incompatibility and security through the upgrade to Windows 10 and guaranteed access to Windows support 24X7 at no additional charge.

3.4 Oracle Fusion Upgrade

3.4.1 Project details

CitiPower operates a number of different applications to support Market Systems. In order for these different applications to communicate with each other, an integration layer is required to facilitate and control the routing of messages/transactions within market systems, between other organisational systems (i.e. SAP) and with external market participants. CitiPower's integration layer was on Oracle Fusion (version 12.1) and supports services such as:

- New connection, alteration, abolishment and solar preapproval requests

- Customer meter data requests
- Issuing of fault management to field crews
- Market data information exchange between core market systems.

While our enterprise had taken a prudent approach by remaining on the Oracle Fusion version 12.1 platform for as long as practicable, increasing risks had necessitated an upgrade to version 12.2. In addition to general need for lifecycle management, the key driver was implementation of the Australian Energy Market Commission's (AEMC) five-minute settlement (5MS) rule for dispatch and financial settlement within the NEM (instead of the previous 30 minutes) by 1 October 2021 which had demanded an upgrade of our meter data management system (MDMS). The upgrade of MDMS to the new version would have meant MDMS would be unable to connect to the existing Oracle Fusion v.12.1 database, requiring costly workarounds.

We had originally forecast the upgrade to occur in FY24 however brought it forward to FY21 due to this dependency.

3.4.2 Project costs and timeframes

Table 11 sets out the actual cost of the project against the AER approved allowance while Table 12 sets out the expect and actual start and close dates.

The project experienced minor cost increases due to unforeseen complexities in the testing and production environments, and a planned delay to avoid risks associated with simultaneous go-live with another major project.

TABLE 11 PROJECT COSTS ($M)[9]

		CAPEX	OPEX	TOTAL
CitiPower	AER allowance ($2021)	0.9	-	0.9
	Actual cost	0.8	-	0.8
Powercor	AER allowance ($2021)	2.0	-	2.0
	Actual cost	1.9	-	1.9

TABLE 12 PROJECT TIMEFRAME

EXPECTED		ACTUAL	
START	CLOSE	START	CLOSE
FY24	FY24	Mar 2020	Jun 2021

[9] Actual costs are in nominal dollars while AER allowances are all in $2021

3.4.3 Project benefits

The benefits associated with this project are set out in the table below.

TABLE 13 PROJECT BENEFITS

BENEFIT TYPE	BENEFIT ACHIEVED	BENEFIT DESCRIPTION
Compliance	Yes	The MDMS upgrade was incompatible with Fusion v12.1 and would have prevented our ability to fully complete the 5MS project. By upgrading to v12.2 the MDMS upgrade can be completed, to enable the 5MS compliance requirements.
Financial	Yes	By upgrading to the current version, there is a cost saving benefit of $1.5m by avoiding increased operating support expenditure. By remaining on vendor support, we will continue to receive timely software fixes at no additional cost, compatibility with integrated software and patches/ fixes to mitigate cybersecurity threats.

3.5 Improved gateway services

3.5.1 Project details

The revised Customer Enablement proposal[10] included the ability for a customer to track progress of their request and the delivery of a unified customer gateway. In response, a new cornerstone customer gateway has been built to serve as a virtual front counter. This customer gateway, referred to as myEnergy, provides a single one stop shop for customers to access the new and existing online services via a single view. These initiatives were delivered together with additional services in the unified gateway which were not funded by the business case but delivered an enhanced customer experience.

We also delivered new online services in the unified gateway to enable a customer to submit feedback or submit a claim for compensation then track progress of the request. These new services were undertaken without regulatory funding.

3.5.2 Project costs and timeframes

Table 14 sets out the actual cost of the project against the AER approved allowance while Table 15 sets out the expected and actual start and close dates.

The inclusion of new online services that were not included in the initial business case resulted in actual expenditure exceeding the allowance received, but was considered crucial to a comprehensive user experience.

The customer enablement proposal outlined delivery of improved gateway services over 12 months during the FY23 financial year. The project was commenced at an earlier date and completed in 11 months with migration to the production environment by January 2022.

[10] CP RRP BUS 7.02 - Customer enablement - Dec2020 – Public

TABLE 14 PROJECT COSTS ($M)[11]

		CAPEX	OPEX	TOTAL
CitiPower	AER allowance ($2021)	0.5	-	0.5
	Actual cost	1.2	-	1.2

TABLE 15 PROJECT TIMEFRAME

EXPECTED		ACTUAL	
START	CLOSE	START	CLOSE
FY22	FY23	Feb 2021	Jan 2022

3.5.3 Project benefits

The benefits associated with this project are set out in the table below

TABLE 16 PROJECT BENEFITS

BENEFIT TYPE	BENEFIT ACHIEVED	BENEFIT DESCRIPTION
Unified gateway	Yes	Previously multiple methods were utilised by customers to access services. The old services used manual forms and the corporate website. Once submitted, they could not be traced by a customer. Single sign on enables access to multiple services
Track and trace	Yes	The old process lacked visibility. Once submitted requests could not be traced by the customer. Generally, it was only on conclusion that contact was made. Personalized status updates at key milestones delivered as part of the customer claims or feedback journey. Customers are kept informed via SMS updates or can login to the gateway at any time to view progress.

[11] Actual costs are in nominal dollars while AER allowances are all in $2021

Claims	Yes	Customers would download a form from the website and submit via email or post. Enhanced customer experience through the digitalisation of the customer claims process which enables customers to submit and track the request via the unified gateway
Feedback	Yes	Customers initiated feedback via a telephone call to the Contact Centre or by completing a form on the corporate website. Customers are now able to submit feedback via the unified gateway.

3.6 Field service management system replacement

3.6.1 Project details

The Field Service Management business case[12] outlined that the current solution, which was an integral component of the automated integrated works management processes, required replacement due to the withdrawal of vendor support in December 2023. If we failed to invest in timely replacement of our FSM solution it was expected we would experience cost increases in the delivery of field services, as well as a deterioration in network reliability delivered to our customers and expose our field crew to increased safety risk. The replacement product, Salesforce Field Services (SFS) successfully went live in October 2023. This replacement enabled us to continue with automation of our field delivery processes.

3.6.2 Project costs and timeframes

Table 17 sets out the actual cost of the project against the AER approved allowance while Table 18 sets out the expect and actual start and close dates.

The project expenditure was largely in line with the proposed allowance. The business case proposed that the project commence in FY22 and complete in FY23. SFS was in use from October 2023.

TABLE 17 PROJECT COSTS ($M)[13]

		CAPEX	OPEX	TOTAL
CitiPower	AER allowance ($2021)	3.8	-	3.8
	Actual cost	3.9	-	3.9

TABLE 18 PROJECT TIMEFRAME

EXPECTED	ACTUAL

[12] CP RRP BUS 7.15 - Field Service Management Solution - Dec2020 – Public

[13] Actual costs are in nominal dollars while AER allowances are all in $2021

START	CLOSE	START	CLOSE
FY22	FY23	May 2022	October 2023[14]

3.6.3 Project benefits

The benefits associated with this project are set out in the table below

TABLE 19 PROJECT BENEFITS

BENEFIT TYPE	BENEFIT ACHIEVED	BENEFIT DESCRIPTION
Regulatory compliance	Yes	The replacement solution SFS has retained the ability to record and report costs to the regulator.
Customer experience	Yes	The replacement solution has retained the ability to provide real time information to customers, including ETRs[15]
Process	Yes	A long-term strategic solution has been implemented which has enabled us to continue with automation of our field delivery processes.

3.7 Five Minute Settlement (5MS)

3.7.1 Project details

Prior to 1 October 2021, the majority of CitiPower meters and associated systems were collected, store and send meter data in 15 or 30 minute increments.

- On 28 November 2017, the Australian Energy Market Commission (AEMC) amended the National Electricity Rules (Rules) to implement 5MS to change the financial settlement period for the electricity wholesale market from 15- or 30-minute intervals to 5 minutes to align with the operational dispatch of electricity. The 5MS rule change was to commence on 1 October 2021 and applies to any meters installed from 1 December 2018.
- As the impact of this rule change is significant, AEMC staggered compliance requirements by meter type between October 2021 and December 2022 to reduce the cost and implementation burden on metering providers.

The program commenced prior to the start of the Electricity Distribution Price Review (*EDPR*) 2021–26 period and spanned from FY20 to FY24 across 3 phases.

[14] The replacement product SFS went live in October 2023. The project remained open until Sept 2024 to implement further enhancements.

[15] ETR – estimated time of restoration

Phase 1 implemented most system and process changes to achieve 5MS compliance, focusing on the fundamentals of receiving, storing, sending and billing 5-minute data for unmetered supply and foreign owned meters by October 2021.

Phase 2 implemented system and process changes to AMI meters that were installed after 1 December 2018 to enable collection and storage of data in 5-minute intervals by 1 December 2022.

Phase 3, implemented after the compliance dates had been met, performed enhancements to impacted market systems, uplifted security standards and benchmarks relating to the new changes and remediated defects from earlier phases.

3.7.2 Project costs and timeframes

Table 20 sets out the actual cost of the project against the AER approved allowance while Table 21 sets out the expect and actual start and close dates.

The key requirement of this project was to meet AEMC's compliance deadlines to make 5-minute data available in the market and the project delivered on time to both compliance deadlines of October 2021 then December 2022. Cost increases were incurred due to:

- increased development effort and testing during the project to ensure changes were implemented on time,
- purchasing additional processing power, and
- resolution of unforeseen technical issues as part of the testing phases.

However, a portion of these costs were incurred prior to the start of the 2021–26 regulatory period.

TABLE 20 PROJECT COSTS ($M)[16]

		CAPEX	OPEX	TOTAL
CitiPower	AER allowance ($2021)	8.9	-	8.9
	Actual cost	12.1[17]	-	12.1

TABLE 21 PROJECT TIMEFRAME

EXPECTED		ACTUAL	
START	CLOSE	START	CLOSE
FY20	FY23	Sept 2019	Sept 2023

[16] Actual costs are in nominal dollars while AER allowances are all in $2021
[17] 1.5m of actuals occurred before 2021–26 regulatory period

3.7.3 Project benefits

The benefits associated with this project are set out in table below.

TABLE 22 PROJECT BENEFITS

BENEFIT TYPE	BENEFIT ACHIEVED	BENEFIT DESCRIPTION
Regulatory Compliance	Yes	Meet phase 1 and phase 2 compliance dates of October 2021 and December 2022, respectively.
Financial	Yes	Avoided potential AER enforcement action of $100k + $10k daily fine, per entity, if compliance dates were missed.
Financial	Yes	Avoided ESC enforcement order of $1.6m + $80k daily fine + potential license revocation, per entity, if compliance dates were missed

CITIPOWER

For further information visit:

Citipower.com.au

CitiPower and Powercor Australia

CitiPower and Powercor Australia

CitiPower and Powercor Australia