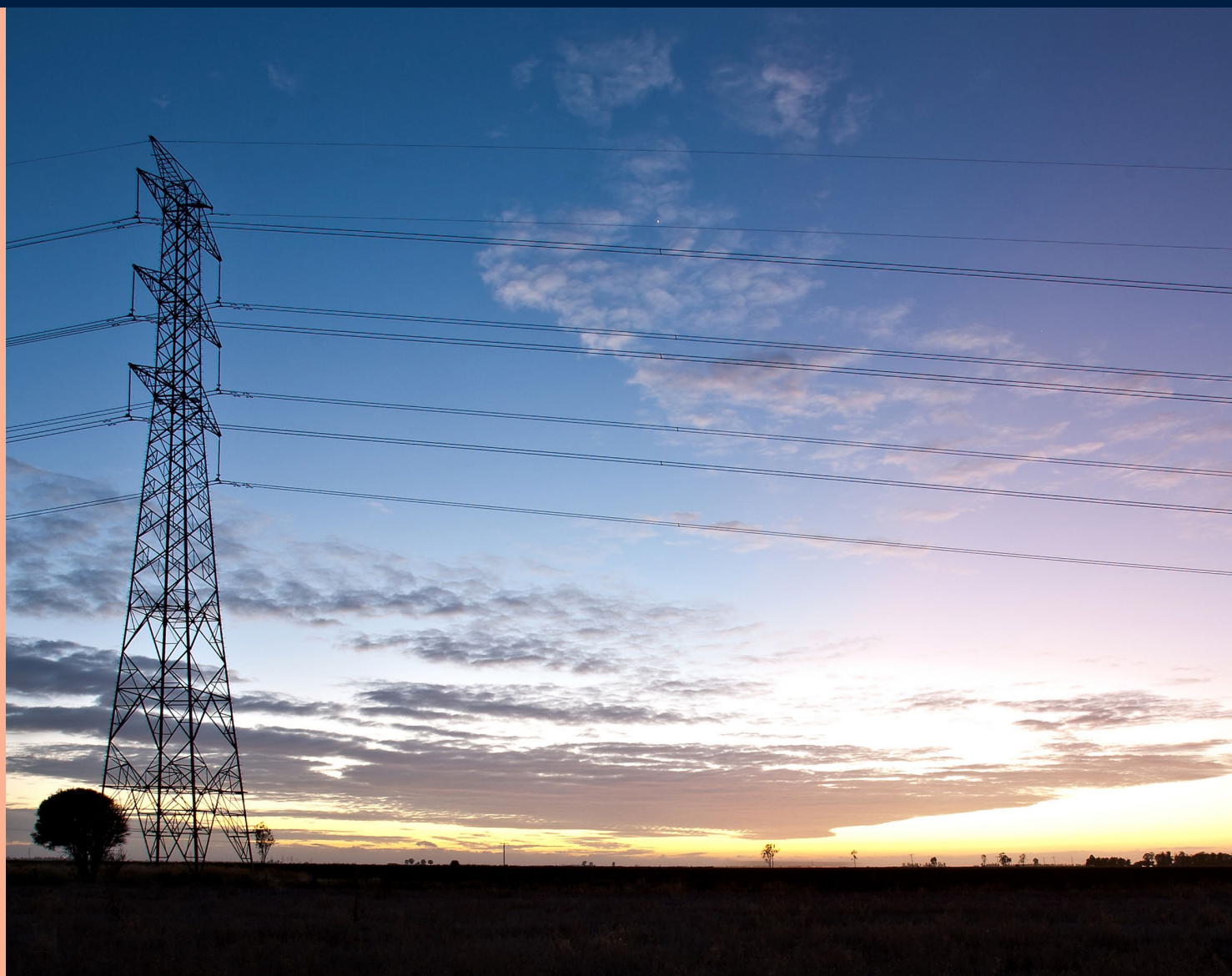
January 2026

Powerlink 2027-32 Revenue Proposal

Appendix 5.05

Operating Expenditure Step Changes Approach



1. Purpose

This appendix outlines the approach Powerlink has taken to identify and assess potential operating expenditure step changes for the 2027-32 regulatory period. This is a supporting appendix to provide further information in relation to the step changes that we describe in Chapter 5 Operating Expenditure of our Revenue Proposal, and information on step changes that we considered but ultimately did not progress.

We have sought three step changes in operating expenditure in our 2027-32 Revenue Proposal. Within the upcoming regulatory period we are also likely to incur additional costs associated with our regulatory obligations that we have not progressed as step changes. We will need to manage these costs within our regulatory operating expenditure allowance.

2. Step changes considered

2.1. Approach to step changes

As part of our Revenue Proposal development, we sought feedback from key internal stakeholders to identify potential step changes for the 2027-32 regulatory period. Initially, 21 potential operating expenditure step changes were identified. We undertook an initial evaluation of these potential step changes against the step change categories identified in the Australian Energy Regulator's (AER's) Better Resets Handbook (July 2024) of:

- new regulatory obligation step change
- capital expenditure (capex)/operating expenditure (opex) substitution step change, and
- step change driven by major external factor(s) outside the control of a business.

Following this, we further assessed against the following criteria to determine:

- if the cost (or saving) had already been realised in the base year
- if the cost was material[1], or could be absorbed
- the likelihood of the cost being realised
- if the cost could be treated under other provisions within the National Electricity Rules (Rules), and
- if the cost was related to the provision of prescribed services.

By applying these criteria, we reduced the potential step changes to be assessed in further detail to four.

We engaged with the Revenue Proposal Reference Group (RPRG), a subset of our Customer Panel that represents our customers and other stakeholders, the AER and the AER's Consumer Challenge Panel (CCP) on several occasions throughout this process. As a result of our evaluation and consideration of feedback, we proposed four step changes in our draft Revenue Proposal in September 2025. Following further assessment, this has subsequently been reduced to three step changes that are included in our Revenue Proposal.

We have included a detailed overview and justification of each of these three step changes in our Revenue Proposal (refer Chapter 5 Operating Expenditure) for which we have chosen to pursue a regulatory expenditure allowance. Table 1 outlines these and all other step changes considered during the development of our Revenue Proposal.

[1] We applied an initial materiality threshold of $1m per annum to guide whether a step change should be assessed further.

Table 1 Potential step changes considered

Name	Details	Approx value for 2027-32 ($million real, 2026/27)
Step changes proposed in our Revenue Proposal		
Security uplift	Regulatory obligation. Costs associated with complying with our obligations for physical security under the *Security of Critical Infrastructure Act 2018 (SOCI Act)* and subsequent amendments.	16.4
Transition to cloud-based services	External factor – increase in cloud-based services. Costs associated with the implementation and ongoing licensing of new cloud-based information technology. In the past, these activities were treated as capital expenditure. However, following clarification on accounting rules relating to the implementation and configuration of software-as-a-service (SaaS) platforms in early 2021, these costs are now treated as operating expenditure.	60.0
Overnight network monitoring	External factor – addressing an AEMO concern. Costs to address Australian Energy Market operator (AEMO) concerns regarding a single overnight operator.	8.7
Step changes assessed and not progressed		
Synchronous condenser maintenance	Regulatory obligation. Costs incurred in maintaining synchronous condensers commissioned within the regulatory period. These synchronous condensers ensure that Powerlink (as the System Strength Provider (SSSP) for Queensland under the *National Electricity Amendment (Efficient Management of System Strength on the Power System) Rule 2021* can meet the system strength services required under the Australian Energy Market Operator's (AEMO's) annual System Strength Report. Not progressed – the transitional provisions of clause 11.143.18 of the Rules allow for the inclusion of incremental operating expenditure related to synchronous condensers in the Contingent Project Application.	19.0
Land Management Code	Regulatory obligation. Costs associated with complying with our expected obligations under a new State Government Land Management Code, which is currently under development. Not progressed – immaterial, accommodate within rate of change	1.6
Network Complexity	External factor. Costs incurred in addressing future challenges associated with operating in a complex and evolving transmission network. Not progressed – overlaps with the overnight network monitoring step change and elements of the capital expenditure program. Additional costs uncertain and difficult to forecast.	38.2

Name	Details	Approx value for 2027-32 ($million real, 2026/27)
Arc flash compliance	Regulatory obligation. Costs associated with complying with new obligations under the *Electrical Safety Rules (ESR) 2024 Act* in relation to arc flash safety. Not progressed – immaterial, accommodate within rate of change.	0.5
Upgrade of fire systems	Regulatory obligation. Change in Code requiring fire panel upgrades at prescribed Powerlink sites. Mandatory 10-year replacement of smoke detectors to be introduced from January 2027. Not progressed – immaterial, accommodate within rate of change.	0.3
Decommissioning works	No category. Significant Decommissioning activities planned due to asset age and lack of enduring need. Not progressed – not aligned to step change categories, partially within base year.	34.0
Employee background checks	Regulatory obligation. To meet Powerlink's *SOCI* obligations, it is essential that Powerlink identify all critical workers and conduct a security check on each identified employee. Powerlink's current in-house processes require significant improvement to comply with the new obligations under the Act and to address the concerns with privacy and confidentiality. Not progressed – immaterial, accommodate within rate of change.	0.1
Cybersecurity support	External factor. In response to increasing external threats, PQ has increased their cyber security support. A new commercial contract has been in place since September 2024. Not progressed – immaterial, included in base year.	0.1
Real-time line ratings	No category. A Real time ratings trial of transmission lines is currently underway. If successful, it will lead to additional capital expenditure for installation of devices and increase network capacity (potentially deferring capital investment). The devices installed will require ongoing operating expenditure (maintenance). Not progressed – immaterial, not aligned to a step change category, uncertain timing.	0.1

Name	Details	Approx value for 2027-32 ($million real, 2026/27)
Tower signage	A change in signage material and mounting arrangements is expected to extend the signage life considerably beyond the current 10-year life expectancy. Even though we expect a cost saving, we do not expect a reduction in Opex in the short-term, with savings expected to occur in the 10+ window. Not progressed – immaterial, timing uncertain.	0.2
AEMS implementation	Capex/Opex substitution. The new AEMS and associated systems will be progressively brought online from 2025/26 onwards and will require extensive training and configuration over time. Not progressed – included in capital program.	0.0
System security network support agreements	Regulatory obligation. Additional grid support agreements are likely to be required as we transition to renewables. These agreements ensure that Powerlink (as the System Strength Service Provider (SSSP) for Queensland under the *National Electricity Amendment (Efficient Management of System Strength on the Power System) Rule 2021* is able to meet the system strength services required under the AEMO's annual System Strength Report. Not progressed – the Rules allows for recovery of these costs through annual pricing.	227.0
Legal services	External factors. Significant number of high-profile projects to be delivered and expecting to see an increase in litigation claims related to these. Both internal resourcing and external services expected to increase. Not progressed – not directly related to the prescribed network, as most major projects progressed outside of revenue determination process.	0.5
Warehousing facilities	External factors. Due to supply chain issues, Powerlink is now operating under a hybrid Just-In-Time and Just-In-Case warehousing strategy. Additional warehousing sites and equipment are being leased/acquired in response to this new strategy but are predominantly required to support non-prescribed activities. Not progressed – not related to the prescribed network.	0.0
Substations non-routine activities	External factors. An increase in replacement costs has been observed in relation to capacitor replacements at Static Var Compensator (SVC) sites. Where further delays to replacement capex are expected, this trend is expected to continue. Not progressed – immaterial, accommodate within rate of change.	0.6

Name	Details	Approx value for 2027-32 ($million real, 2026/27)
Environmental offset management	Regulatory obligation. Under the *Environment Protection and Biodiversity Conservation Act 1999* Powerlink has an obligation to offset its impacts to nationally significant (protected) animals, plants, habitats, or places. In some ongoing projects, it is not possible for Powerlink to completely avoid or mitigate these impacts, and as a result, the number of environmental offsets that must be managed is expected to increase in the future. Not progressed – majority of costs directly allocated in line with capital works, with minor other costs not related to the prescribed network.	0.8
Climate reporting and disclosure	Regulatory obligation. Expect an increase in costs associated with climate reporting and disclosure obligations from 2025/26. Not progressed – immaterial, included in base year.	0.3

2.2. Step changes proposed in our Revenue Proposal

2.2.1. Security uplift

Background

Powerlink is a critical energy provider under the *Security of Critical Infrastructure Act 2018 (SOCI Act)*. The SOCI Act requires that owners of critical infrastructure assets implement a risk management plan to mitigate material risks associated with cyber and information hazards, personnel hazards, supply chain hazards, and physical and natural hazards. In addition, the Australian Department of Home Affairs has implemented regulatory reforms through the *Security Legislation Amendment (Critical Infrastructure) Bill 2022* which requires Powerlink to comply with a series of Rules associated with the protection of electrical infrastructure assets deemed 'critical' by the Australian Government.

Powerlink has undertaken comprehensive review and evaluation of our security risks and mitigation measures, as well as compliance to the SOCI legislation and has identified initiatives to be delivered to uplift physical (protective) security controls and manage our physical security risks. In line with the advice from ASIO on the challenging and declining security operating environment for critical infrastructure entities, our increased security measures will see our security needs remain, ongoing with an increase in our focus and deployment of additional measures leading up to the 2032 Brisbane Olympics.

Establishing a 24-hour Security Control Room

As the owner and operator of Queensland's high-voltage electricity network, Powerlink needs an effective framework for detecting and managing threats. [redacted]

Uplift of site security and monitoring

The initiative aims to increase specialist security capability and implement security upgrades to various sites. [redacted]

Estimate of opex step change

Powerlink will incur costs in relation to SOCI compliance and uplift of security within our selected base year, financial year 2025/26. It is anticipated that the security control room will be operational by the final quarter of 2025/26 and therefore a portion of the recurrent costs will be included in the base year revealed costs. Costs associated with the uplift to site security and monitoring systems related to this step change are also expected to be partially included within the base year with progressive change and implementation throughout the year and into the 2027-32 regulatory period. We anticipate base year costs of $5.6 million ($real, 2026/27) in relation to the security control room and site security and monitoring.

Costs relating to these activities are expected to increase over the next regulatory period as we progressively uplift security practices and fully implement the security control room. Operating expenditure relating to prescribed services is anticipated to be approximately $8.9 million ($real, 2026/27) annually for the 2027-32 regulatory period, within the Controllable Opex category.

After considering the base year inclusions and the rate of change, the total cost associated with this step change is estimated at approximately $3.3 million per year, or $16.4 million in total for the 2027-32 regulatory period. This predominately relates to the operational costs of running the new security control room [redacted]

We have assumed that 78% of these costs are for the benefit of prescribed services. We have excluded costs expected to be incurred in our base year from this step change for the upcoming regulatory period and will revise our forecast to reflect the revealed costs for the base year in our Revised Revenue Proposal.

Pass through application

A pass through application has been submitted to the AER for the recovery of SOCI related costs in the current 2022-27 regulatory period. This step change is seeking the recovery of costs above what is included in the base year and able to be accommodated through the rate of change.

Evaluation of step change

Table 2 outlines the evaluation of the Security uplift step change.

Table 2 Security uplift evaluation

Criteria	Evaluation	Details
Aligned to step change categories	✓	The step change is driven by regulatory obligations relating to the management of physical hazards under the Security of Critical Infrastructure (SOCI) Act 2018, the Security Legislation Amendment (Critical Infrastructure) Bill 2022.
Related to prescribed services	✓	This step change relates to a mix of prescribed and non-prescribed services. Only prescribed services costs have been included in the step change.
Not in base year	✓	There are some costs relating to site security within the base year. Full recurrent costs of a security control room and the uplift of site security and monitoring are not included in the base year and cannot be delivered within the rate of change.
Materiality >$1m/year	✓	Opex costs related to prescribed services are anticipated to be approximately $8.9m annually for the 2027-32 regulatory period. Costs (for prescribed services) of $5.6m are forecast to be incurred within the 2025/26 base year. The value of the step change is approximately $3.3m annually, after allowing for some growth from the base year.
Likelihood of realisation	✓	Additional costs of compliance are forecast in the 2027-32 regulatory period.
Other provisions within Rules	✓	There are no reasonable alternative treatment methodologies for these costs within the Rules. Costs within the current regulatory period may constitute a cost pass through.

2.2.2. Transition to Cloud-Based services

Background

Powerlink's information technology (IT) environment comprises a combination of on-premises systems and cloud-based services. For the 2027-32 regulatory period, Powerlink has identified a comprehensive IT investment program, with expenditure classified as either capital expenditure or operating expenditure in accordance with the applicable accounting standards.

In April 2021, the International Accounting Standards Board clarified its definition of intangible assets which led to most Software-as-a-Service (SaaS) costs no longer meeting that definition. As a result, costs that may historically have been capitalised as capital expenditure are now generally required to be expensed as operating expenditure.

Consistent with this accounting treatment, Powerlink's IT investment program for the 2027-32 regulatory period is forecast to comprise approximately 28% capital expenditure and 72% operating expenditure, reflecting the increasing transition to cloud-based services. The full IT investment program for the 2027-32 regulatory period, including the expected accounting classification, is set out in Appendix 4.06 – IT Plan 27-32.

Estimate of opex step change

The total operating expenditure for the 2027-32 regulatory period is forecast to be $68.4 million ($real, 2026/27) for prescribed services. After adjusting for the revealed costs within the base year and the rate of change, the step change forecast is reduced to $60.0 million for the 2027-32 regulatory period, within the Other Controllable Opex category.

Evaluation of step change

Table 3 outlines the evaluation of the Transition to Cloud-based services step change.

Table 3 Cloud based services evaluation

Criteria	Evaluation	Details
Aligned to step change categories	✓	The step change is driven by an increasing trend of cloud-based solutions.
Related to prescribed services	✓	This step change relates to a mix of prescribed and non-prescribed services. Only prescribed services costs have been included in the step change.
Not in base year	✓	There are some costs relating to the customisation and configuration of cloud-based services within the base year. A bottom up forecast of future costs has been developed and cannot be absorbed within the standard growth provisions.
Materiality >$1m/year	✓	Additional opex costs related to prescribed services are expected to be between $9.9m and $16.9m annually ($60.0m for the Regulatory Period).
Likelihood of realisation	✓	Opex costs related to cloud-based services are forecast in the 2027-32 regulatory period.
Other provisions within Rules	✓	There are no reasonable alternative treatment methodologies for these costs within the Rules.

2.2.3. Overnight network monitoring

Background

The Australian Energy Market Operator (AEMO) has emphasised the need for enhanced operational oversight, particularly during periods of low demand and high renewable generation. Additionally, past incidents in the NEM and internationally have highlighted the significant risks of single-controller operations, especially during complex or cascading events. Increasing resources overnight enables cross-checking of decisions, reduced the risk of human error and supports continuous situational awareness as well as mitigates workplace health and safety risks.

This enhanced oversight requires increased staffing in control rooms overnight to ensure real-time system stability and rapid response to contingencies as well as for the timely coordination of increasing customer connections requiring operational coordination in real-time, often within short timeframes to align to power system security guidelines for re-securing post contingent. This step change allows Powerlink to transition to two system controllers on overnight shifts, addressing the regulatory direction, operational best practice, incident learning, and broader workforce and safety considerations.

Estimate of opex step change

The total cost associated with prescribed services for this step change is forecast at $8.7 million ($real, 2026/27) for the upcoming 2027-32 regulatory period, within the Controllable Opex category. This is based on the total cost to roster one additional controller for each 12-hour overnight shift throughout the year.

Evaluation of step change

Table 4 outlines the evaluation of the overnight network monitoring step change.

Table 4 Overnight network monitoring evaluation

Criteria	Evaluation	Details
Aligned to step change categories	✓	This requirement represents an external factor outside the control of the business; whilst not a regulatory requirement by the National Electricity Rules it has been directed by an external party (AEMO).
Related to prescribed services	✓	This regulatory change applies to prescribed services only.
Not in base year	✓	Network monitoring costs are included in the base year, however, the cost for additional System Controllers required to meet an additional person overnight have not been included.
Materiality >$1m/year	✓	Cost to transition is $1.7m/year over the regulatory period which cannot be accommodated within the rate of change provisions.
Likelihood of realisation	✓	Additional costs of adherence to this directive are forecast in the 2027-32 regulatory period.
Other provisions within Rules	✓	There are no reasonable alternative treatment methodologies for these costs within the Rules.