

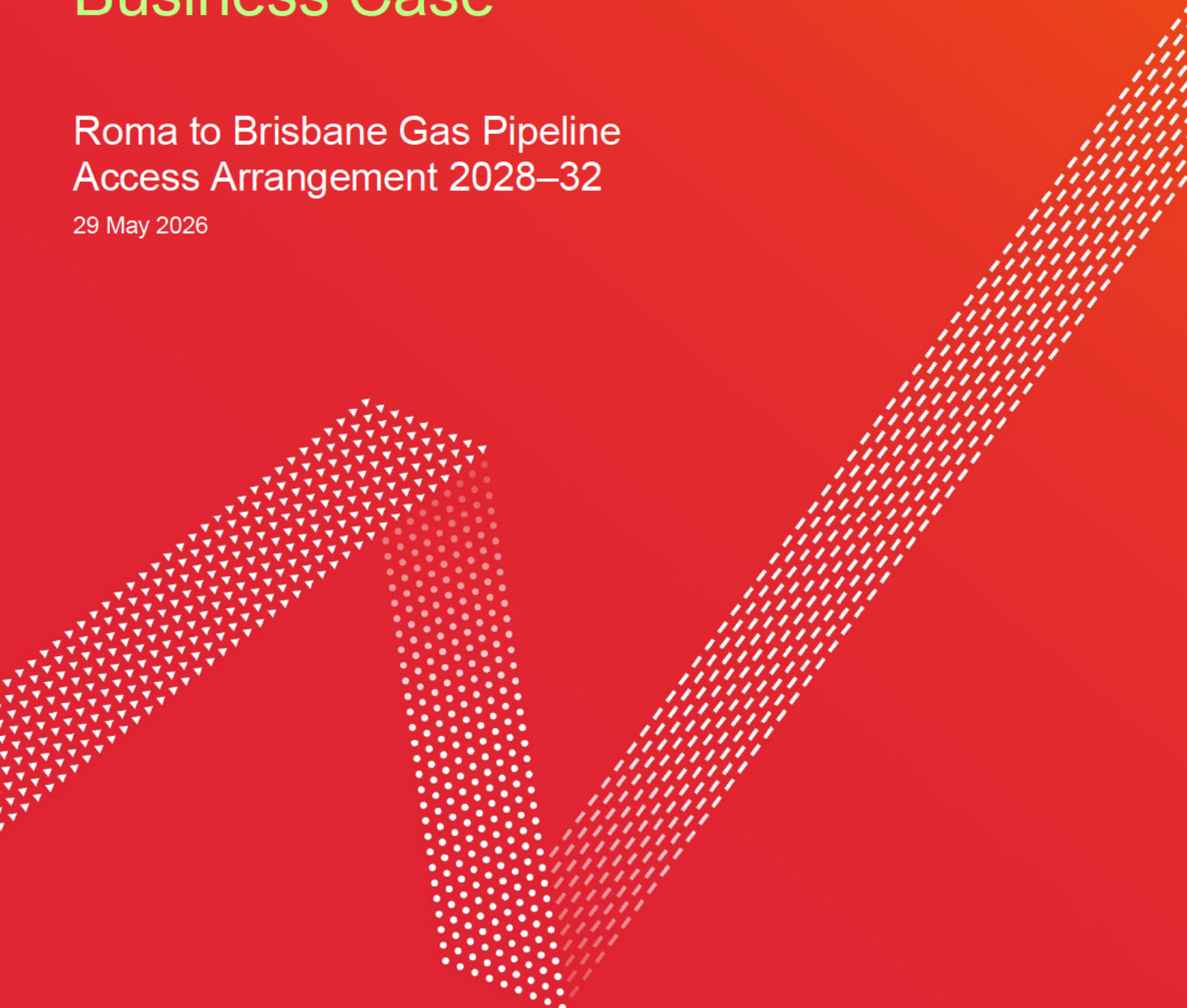


Australia's energy
infrastructure partner

DN250 – Supply Security Project Business Case

Roma to Brisbane Gas Pipeline
Access Arrangement 2028–32

29 May 2026



Contents

1. Overview	4
2. Program details	6
2.1. Background	6
2.2. Summary of options considered	6
2.3. Consistency with the National Gas Rules and other regulations	7
2.4. Proposed costs for FY28-FY32	7
3. DN250 Suspension	8
3.1. Project objective and scope	8
3.2. Background	8
3.3. Assessment of options	8
3.4. Proposed costs for FY28-FY32	13
4. AC Mitigation	15
4.1. Project objective and scope	15
4.2. Background	15
4.3. Assessment of options	15
4.4. Proposed cost for FY28-FY32	17

document control

Printed versions of this document are only valid on the date of print. For the latest version, please refer to the electronic version stored on the AP&L SharePoint site.

Table 1-1: Revision Record

Version	Changes Made
0.1	Initial draft
0.2	Feedback received from document review
0.3	Additional detail requested

Table 1-2: Review and Distribution

Name	Role	Action	Sections
	Specialist – Asset Lifecycle	Initial draft	All
	Engineer - Pipeline	Review and Input	5
	Business Operations Lead	Review and Input	3-4
	Manager of Asset Operations SEQ	Review and Input	6
	Manager Capacity & Long Term Planning	Review and Input	All
	Team Lead Asset Engineering - Qld	Review and Input	All

This document requires the following approvals. Approvals are inserted as an object in the table below (preferred) or stored with the approved document in electronic version on the Project Site in Project Server.

Table 1.3: Approvals

Name	Role	Approval	Date Approved
	Head of Asset Operations Qld	Approval	
	General Manager – Gas Operations East	Approval	

Other project specific approvers can be added if required.

Delegation Policy

1. Overview

Number/ identifier	A-2_DN250
Description of Issue/ Project	The DN250 section of the RBP between Brassall and Ellengrove is nearing end-of-life and exhibiting increasing integrity degradation, with remaining defects located in complex, high-cost dig environments. Continuing to operate the DN250 would require extensive and escalating integrity works that are neither prudent nor efficient. Transitioning customers to the DN400 and suspending the DN250 provides a lower-cost, lower-risk long-term solution, avoiding substantial future dig expenditure and ensuring safe, reliable supply. The preferred option aligns with NGR 79 and represents the lowest sustainable cost for maintaining service integrity
Options considered	The following options have been considered: DN250: - Option 1: Continue the pipeline dig program on the DN250 Option 2: Continue suspension of DN250 Pipeline and decommissioning of surface assets no longer required. - Option 3 - Finalise stage 2a and defer further works - Option 4 – replace the DN250 pipeline AC Mitigation: - Option 1 – Do Nothing: Leaves AC voltage levels uncontrolled. Not prudent. Option 2 – Targeted AC Mitigation (Preferred): Risk-based mitigation at locations with elevated AC interference. - Option 3 – Maximum Mitigation: Full-corridor mitigation; effective but significantly higher cost with limited incremental benefit.
Proposed Solution	Following completion of Phase 2a, Phase 3 of the Supply Security Project will continue towards suspension of the DN250 Pipeline and decommissioning of surface assets no longer required.
Estimated Cost	\$16.4 million
Relevant standards	- AS 2885.3 Pipelines: Gas and Liquid Petroleum Operations and Maintenance. - RBP Pipeline Licence
Stakeholder Engagement	Scope discussed during RBP Access Arrangement Stakeholder Meetings #3 (25/11/2025); #4 (10/02/2026); and #5 (31/03/2026)
Consistency with National Gas Rules (NGR)	As it reduces the ongoing capital cost and improves the safety and reliability of the RBP the pipeline integrity management work complies with the capital expenditure criteria in Section 79 of the NGR because it: is necessary to maintain and improve the safety and integrity of services (79(2)(c)(i) and (ii)); and

- would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services (79(1)(a)).

2. Program details

2.1. Background

The Roma to Brisbane Pipeline (RBP) comprises parallel DN250 and DN400 gas transmission pipelines sharing a common easement from Wallumbilla to metropolitan Brisbane. The DN250 is nearing end-of-life and exhibiting progressive integrity degradation, with remaining defects increasingly located in complex, high-cost dig environments such as beneath the Ipswich Motorway and within flood-prone areas. Continuing to operate the DN250 would require extensive and escalating integrity works that are neither prudent nor efficient.

APA has been implementing a staged program across multiple access arrangement periods to transition customers from the DN250 to the more robust DN400 pipeline and suspend the DN250 in sections where it is no longer required. Completed phases have suspended the DN250 between Wallumbilla and Brassall, with Phase 2a currently addressing the remaining sections between Brassall and Bellbird Park. Once transitioned, customers are reliably supplied from the DN400 via upgraded pressure regulation, heating and backup power systems.

2.2. Summary of options considered

This business case addresses two related components of the DN250 program: the DN250 Supply Security Project (Section 3) and AC Mitigation (Section 4). The following options were assessed for each component.

DN250 Suspension (Section 3)

1. **Option 1 – Do Nothing:** Continue operating the DN250 and maintain integrity through ongoing dig programs. Not prudent due to the scale and cost of 139 planned digs in constrained locations.
2. **Option 2 – Transition customers to the DN400, suspend the DN250 and decommission redundant surface assets (Preferred):** Maintains reliable supply while avoiding substantial future integrity expenditure. Estimated cost \$12.889 million.
3. **Option 3 – Finalise Phase 2a and defer further works:** Defers rather than avoids expenditure and is not consistent with prudent asset management.
4. **Option 4 – Replace the DN250 pipeline:** Indicative cost of approximately \$300 million for 396.8 km of new pipeline, duplicating capacity already provided by the DN400. Not prudent or efficient.

AC Mitigation (Section 4)

1. **Option 1 – Do Nothing:** Leaves AC voltage levels uncontrolled. Not prudent.
2. **Option 2 – Targeted AC Mitigation (Preferred):** Risk-based mitigation at locations with elevated AC interference. Estimated cost \$1.250 million.
3. **Option 3 – Maximum Mitigation:** Full-corridor mitigation; effective but significantly higher cost with limited incremental benefit.

Detailed options assessment, risk analysis and financial evaluation for each component are presented in Sections 3 and 4 respectively.

2.3. Consistency with the National Gas Rules and other regulations

The proposed program satisfies the capital expenditure criteria under Rule 79 of the NGR, as it is necessary to maintain the integrity and safety of pipeline services and reflects expenditure that a prudent service provider acting efficiently would incur. The works align with the requirements of AS 2885.3 (Operations and Maintenance) and applicable pipeline licence obligations. Suspending the DN250 avoids significant future integrity costs while ensuring customer supply is delivered through the more robust DN400 asset, achieving the lowest sustainable cost of service provision

2.4. Proposed costs for FY28-FY32

The expenditure has been developed on a prudent, efficient, and evidence-based basis, drawing on asset condition data, detailed scope development, historical delivery experience, and current market-tested contractor rates under APA's national vendor arrangements. The proposed program represents the **lowest sustainable cost** approach to maintaining safety, reliability, and continuity of service, consistent with the capital expenditure criteria in **NGR Rule 79**.

Table 2–3 Total cost for DN250 Supply Security business case (\$'000s Real 2026-27)

Description	FY28	FY29	FY30	FY31	FY32	Total
RBP - DN250 Suspension	4,795	5,525	1,171	1,155	2,274	14,920
RBP - DN250 AC Mitigation (Oakey to Bellbird Park)	288	289	290	291	292	1,449
FY Total	5,084	5,814	1,460	1,446	2,565	16,368

3. DN250 Suspension

3.1. Project objective and scope

Phase 2a of the DN250 Supply Security Program addresses the remaining operational sections of the DN250 pipeline between Riverview and Bellbird Park. The objective of this phase is to ensure continuity of safe and reliable gas supply to existing DN250 customers while enabling the progressive suspension of the DN250 asset as its mechanical integrity continues to deteriorate. The project will transition customer supply to the DN400 pipeline, supported by the installation of dual heating, pressure regulation and backup power systems where required, allowing integrity works to proceed without customer impact. Phase 2a forms a critical enabling step for Phase 3, which will complete the suspension and decommissioning of remaining DN250 infrastructure.

Phase 3 of the DN250 Supply Security Program completes the transition away from the ageing DN250 pipeline by fully suspending the remaining sections and decommissioning above-ground facilities across six legacy compressor stations (Yuleba, Condamine, Kogan, Dalby, Oakey and Gatton). These facilities are no longer required once gas transmission is fully redirected to the DN400. Decommissioning includes the removal of DN250-related equipment, demolition of obsolete buildings and structures, and rationalisation of site layouts. DN250 pipework will remain in situ, but all redundant equipment will be removed to reduce long-term maintenance obligations and safety risk. This phase ensures supply reliability by relying exclusively on the DN400 pipeline, supported by upgraded pressure regulation, heating and backup power systems implemented under earlier phases.

3.2. Background

The DN250 pipeline is experiencing age-related integrity degradation, and its remaining defects are increasingly located in challenging areas—such as beneath transport corridors or within flood-prone land—making excavation complex, costly and high-risk. While large portions of the DN250 have already been suspended (Kogan to Brassall), the Brassall to Bellbird Park segment must remain temporarily operational due to land-access constraints at Riverview and flooding issues at Redbank. Phase 2a therefore focuses on establishing alternative supply paths and preparing the network for the safe suspension of the remaining DN250 sections by redirecting flows through the DN400. This approach ensures that customer supply is maintained while avoiding future costly and impractical dig programs on the DN250.

3.3. Assessment of options

- Option 1 – Do Nothing
- Option 2 – Transition Supply to DN400, suspend DN250 & Fully Decommission DN250 Surface Assets (Preferred Option)
- Option 3 – Finalise Stage 2a and defer further works
- Option 4 – replace the DN250 Pipeline

Option 1 – Do Nothing

Under this option, the DN250 would continue to operate without intervention. This would necessitate extensive integrity dig programs in inaccessible urban locations, including areas under and adjacent to the Ipswich Motorway, requiring multi-year planning and approvals and resulting in multi-million-dollar costs. Continued operation would also exacerbate corrosion risks, compromise compliance with AS 2885.3, and expose customers at Redbank and Riverview to increased supply-security risk. As such, Option 1 is not prudent, not financially viable, and inconsistent with good industry practice.

Option 2 – Transition Supply to DN400 and Suspend DN250 (Preferred Option)

Option 2 replaces the DN250 supply path with the DN400 pipeline, enabling safe suspension of the DN250 from Riverview to Bellbird Park. This option maintains supply security for existing

customers, mitigates emerging integrity risks, and avoids the substantial future expenditure associated with the DN250 dig program. Option 2 is the only credible and practicable solution, delivering a more reliable supply path and ensuring compliance with relevant standards while avoiding disproportionate future costs.

Option 3 - Finalise stage 2a and defer further works.

Under this option, APA would complete the approved Stage 2a customer transitions to the DN400 pipeline but would not proceed with broader suspension or decommissioning of the DN250. The DN250 and associated facilities would remain in situ, subject to reactive management of integrity and safety risks.

While this option reduces near-term capital expenditure, it does not minimise costs over the life of the asset. Retention of the DN250 would result in ongoing operating expenditure associated with integrity monitoring, cathodic protection, AC interference management and periodic remediation, despite the pipeline no longer providing material transmission services.

In addition, ageing surface facilities would continue to present safety, compliance and maintenance risks, with these risks expected to increase over time as the asset further deteriorates. Deferring suspension works would therefore expose consumers to higher expected future costs without delivering corresponding service benefits.

This option would defer, rather than avoid, expenditure and is not consistent with prudent asset management or the least-cost provision of pipeline services. Accordingly, Option 3 is not considered prudent or efficient under the National Gas Rules.

Option 4 – replace the DN250 pipeline

Under this option, APA would replace the existing DN250 pipeline with a new pipeline constructed broadly along the same alignment. This would involve significant capital expenditure associated with construction, land access, approvals and commissioning.

Replacement would address integrity risks; however, it would duplicate capacity that is already efficiently provided by the DN400 pipeline. The DN400 has sufficient capacity and capability to supply all affected customers and represents a lower-risk, lower-cost asset.

As customers would not receive incremental service or reliability benefits beyond those achievable through transition to the DN400, replacement of the DN250 would not represent the least-cost means of meeting current or forecast demand. In addition, construction would introduce avoidable execution, safety and delivery risks, particularly in constrained corridors.

Given the materially higher capital costs and lack of commensurate benefit, this option does not align with the AER's prudence and efficiency tests. Option 4 has therefore been discounted as economically inefficient and not consistent with good industry practice.

3.3.1. Risk assessment

The risk assessment demonstrates that retaining the DN250 in service (Option 1) results in a high inherent risk profile across safety, operational, financial and compliance categories. In contrast, Option 2 reduces these risks to negligible levels by eliminating reliance on an ageing and increasingly inaccessible asset. The primary customer impact risk—loss of supply to the Riverview and Redbank offtakes—is fully mitigated under Option 2 through alternative supply from the DN400. Overall, Option 2 delivers a substantial improvement in residual risk and represents the only option consistent with APA's safety and compliance obligations.

Table 3-1: Risk assessment – DN250 Supply Security

Risk Area	Potential Impact	Option 1: Do nothing	Option 2: Efficient proactive expenditure	Option 3: Finalise Stage 2a only	Option 4: Replace the DN250 Pipeline
		Inherent risk rating	Residual risk rating	Residual Risk rating	Residual Risk rating
Health & Safety	Fatality or injury	Moderate	Negligible	Moderate	Negligible
Environment	n/a	Low	Negligible	Negligible	Negligible
Operational	Disruption 1–3 months	High	Low	Low	Low
People		Moderate	Negligible	Negligible	Negligible
Compliance	Regulatory breach	High	Negligible	Negligible	Negligible
Reputation & Customer	Adverse media, negative feedback	High	Negligible	Negligible	Negligible
Financial	Force Majeure and repair costs	High	Negligible	Negligible	Negligible
Untreated risk		HIGH	LOW	MODERATE	LOW

Option 1

The 'Do Nothing' option carries a high risk that Pipeline Dig Program will be required in inaccessible locations of the asset under and adjacent Ipswich Motorway. Dig up complexity would run in the millions of dollars and require months or years of planning and approvals to complete, if approved to proceed by DTMR.

Option 1 is not financially acceptable, and as such, it is not prudent nor consistent with good practice.

Option 2

Option 2 addresses the need to maintain supply security for customers that are currently supplied via the DN250 to enable safe suspension of that pipeline.

The existing RBP DN250 customers will be supplied from the RBP DN400 pipeline, with dual heating, pressure regulation and backup power supply facilities installed as required.

Option 2 also involves the full decommissioning of all DN250-related surface infrastructure across the remaining compressor station sites, while leaving the DN250 pipework safely in situ. This includes the removal of all DN250 equipment, with shelter structures assessed for potential reuse at other APA locations where practical. By eliminating obsolete equipment, Option 2 ensures the cathodic protection (CP) system can be upgraded to meet the requirements of AS 2832.1 and AS 2885.3, supporting ongoing compliance and reducing long-term corrosion risk. This proactive approach avoids the escalating servicing costs associated with ageing CP units, simplifies site configuration, reduces spares requirements and removes safety and operational risks linked to

unused above-ground assets. Option 2 therefore represents the most efficient and prudent course of action, consistent with good industry practice and APA's long-term asset management strategy.

Option 3

Option 3 reduces customer supply risk by completing Stage 2a and transitioning customers to the DN400 pipeline, ensuring that existing customers can continue to be supplied from a reliable alternate source. However, unlike Option 2, the associated DN250 surface infrastructure would remain in service and continue to require ongoing inspection, maintenance and safety management activities.

The retained compressor station facilities, piping, cathodic protection equipment, electrical assets, buildings and associated infrastructure would continue to deteriorate with age despite providing little or no operational benefit once customer supply has been transferred to the DN400. As these assets age, APA would incur ongoing expenditure to manage safety, environmental and compliance obligations, including inspection, maintenance, asset preservation, cathodic protection management and remediation of deteriorated equipment.

Retaining redundant infrastructure also increases the likelihood of future safety incidents, asset failures, compliance issues and unplanned maintenance activities. While these risks can be managed, they cannot be eliminated without decommissioning and removing the redundant facilities. Consequently, Option 3 leaves APA with a moderate residual risk profile and a continuing maintenance obligation that provides limited customer benefit. The option therefore defers, rather than avoids, future expenditure and does not represent the lowest sustainable lifecycle cost of providing pipeline services.

Option 4

Option 4 effectively mitigates the integrity and reliability risks associated with the existing DN250 pipeline by replacing the asset with a new pipeline. This option achieves a low residual risk outcome across safety, operational and compliance categories and would provide a modern asset with improved long-term integrity performance. However, the risk reduction achieved is not materially greater than that delivered under Option 2, as all customers can already be supplied reliably via the existing DN400 pipeline. The option also introduces significant delivery risks associated with approvals, land access, environmental constraints, construction activities and commissioning over approximately 396.8 km of pipeline corridor. Given the estimated capital cost of approximately \$300 million and the duplication of capacity already provided by the DN400, the incremental risk reduction is not proportionate to the expenditure required. As a result, Option 4 is considered technically feasible but economically inefficient and does not represent a prudent or least-cost solution.

Option 2 is the only credible and practicable option.

3.3.2. Financial assessment

Table 3–2: Option assessment – DN250 Supply Security project (\$ Real 30 June 2026)

Option	Estimated cost	Treated residual risk rating	Benefit / Disbenefit
Option 1 – Do Nothing	>\$14.92M	High	Does not mitigate Operational, Compliance, Reputation or Financial risk.
Option 2 – Transition Supply to DN400, suspend DN250 & Fully Decommission	\$14.92M	Low	Efficiently mitigates risk across all categories identified in Table 3-1

DN250 Surface Assets (Preferred Option)			
Option 3 – Finalise Stage 2a and defer further works (Phase 3)	\$7.9M	Mod	Does not mitigate the Health & Safety risk mitigates Risk and defers but does not avoid cost.
Option 4 – replace the DN250 Pipeline	~\$300M	Low	Mitigates risk across all categories but at a significantly higher cost.

Financial analysis indicates that Option 1 (“Do Nothing”) would ultimately cost more than the Phase 2a program due to the scale and complexity of the required dig program, which includes excavations in constrained, high-risk environments with uncertain timelines and significant approval dependencies. Conversely, Option 2 delivers a defined, manageable and efficient expenditure profile, enabling the suspension of the DN250 and avoiding major future integrity costs. Phase 2a is estimated at \$7.5 million (Real, June 2026) and represents the most cost-effective means of managing end-of-life risks while maintaining customer supply. Option 2 therefore represents the prudent and economically preferred solution.

Table 3–2: Financial assessment – DN250 Supply Security project (\$ Real 30 June 2026)

	Description
Option 1 – Do Nothing	- Requires a large and costly dig program, including 139 excavations in constrained and built-up areas, many under or adjacent to the Ipswich Motorway. - Involves multi-million-dollar works with long approval lead times and significant construction and safety risks. - Leaves the DN250 exposed to ongoing deterioration, including corrosion risks and insufficient CP in some areas. - Cannot support ILI due to the absence of a pig launcher at Ellengrove, limiting inspection capability. - Is not prudent or efficient, and inconsistent with good industry practice due to escalating costs and compliance risks.
Option 2 – Transition Supply to DN400, Suspend DN250 & Decommission Surface assets (Preferred Option)	- Redirects all remaining DN250 customers to the more reliable and higher-capacity DN400 pipeline, ensuring secure and uninterrupted supply. - Eliminates the need for future integrity digs on the DN250 by suspending the pipeline, avoiding substantial multi-million-dollar excavation costs and high-risk works. - Allows APA to decommission redundant DN250 surface assets, reducing long-term maintenance requirements and operational risks. - Addresses inspection constraints (e.g., no pig launcher at Ellengrove) by shifting supply to the DN400, which can be maintained more effectively. - Provides a defined, efficient expenditure profile for removing obsolete equipment and upgrading CP systems. - Avoids high future costs associated with corrosion, emergency repairs and compliance breaches.

	- Reduces ongoing O&M costs by rationalising six redundant DN250 sites. - Ensures long-term compliance with AS 2832.1 and AS 2885.3, lowering regulatory and safety risk. - Represents the lowest sustainable lifecycle cost, meeting prudence and efficiency requirements under NGR 79. - Represents the only viable and economically justified option, delivering the lowest sustainable cost and aligning with prudent, efficient expenditure under the NGR.
Option 3 - Finalise stage 2a and defer further works.	- Defers, rather than avoids, future expenditure, resulting in higher whole-of-life costs due to ongoing integrity and maintenance requirements. - Retains ageing infrastructure that continues to present increasing safety, compliance and reliability risks. - Requires continued expenditure on inspection, cathodic protection and reactive remediation, despite declining asset utility. - Not consistent with prudent and efficient investment, as it prolongs reliance on a deteriorating asset without delivering incremental service benefit.
Option 4 – replace the DN250 pipeline	- Involves substantial capital expenditure (~\$300 million) to construct a replacement pipeline duplicating existing DN400 capacity. - Delivers limited incremental benefit to customers, as demand can already be met by the DN400. - Introduces significant construction, delivery and approval risks in constrained corridors. - Does not represent the least-cost option for meeting service requirements, and is therefore inconsistent with NGR prudence and efficiency criteria.

3.4. Proposed costs for FY28-FY32

The total forecast capital expenditure for **DN250 Supply Security Project** over the FY28–FY32 access arrangement period is **\$14.92 million (Real \$2026-27)**. This forecast represents the cost of the works required to transition remaining DN250 customers to the DN400 pipeline, decommissioning redundant DN250 surface facilities, and completing associated works required to support the safe suspension of the DN250 pipeline following customer transition to the DN400. The expenditure has been developed on a **prudent, efficient, and evidence-based basis**, drawing on detailed scope definition, site-specific design requirements, historical delivery experience for comparable works, and current market-tested contractor rates under APA's national vendor arrangements. The timing and scale of the forecast reflect the need to mitigate near-term integrity and supply-security risks associated with continued DN250 operation while avoiding the significantly higher costs and delivery risks of extensive integrity dig programs. The proposed expenditure enables completion of an essential enabling phase of the DN250 Supply Security Program and represents the **lowest sustainable cost** approach to maintaining safe, reliable supply, consistent with the capital expenditure criteria in **NGR Rule 79**.

Table 3–3: Estimated annual cost DN250 Supply Security Project (\$'000s Real 2026-27)

Description	FY28	FY29	FY30	FY31	FY32	Total
-------------	------	------	------	------	------	-------

DN250 Supply Security - Phase 2a					
Project Management	\$89,207	\$107,301			
Access and Approval	\$44,723	\$53,794			
Detailed Design	\$448,950	\$540,010			
Procurement	\$501,404	\$603,104			
Construction	\$2,369,933	\$2,850,623			
Commissioning	\$55,531	\$66,795			
Handover	\$77,847	\$93,637			
Total	\$3,587,596	\$4,315,264			
DN250 Suspension - Phase 3					
Document Management	\$6,919	\$6,914	\$6,953	\$6,981	\$13,997
Land and Approvals	\$15,223	\$15,211	\$15,297	\$15,359	\$30,794
Engineering & Design	\$110,156	\$108,922	\$101,421	\$136,743	\$226,337
Procurement	\$52,818	\$52,778	\$53,075	\$53,292	\$106,846
Construction	\$823,332	\$826,568	\$799,641	\$750,550	\$1,515,303
Commissioning & Handover	\$41,285	\$41,255	\$41,486	\$41,656	\$83,517
Project Management	\$157,460	\$157,747	\$152,681	\$150,687	\$296,519
FY Total	\$1,207,193	\$1,209,395	\$1,170,554	\$1,155,268	\$2,273,314

4. AC Mitigation

4.1. Project objective and scope

The objective of the AC Mitigation program is to assess and mitigate AC-induced corrosion risks along the DN250 pipeline between Oakey and Bellbird Park, where proximity to high-voltage transmission and distribution infrastructure has resulted in elevated steady-state induced voltages. These voltages pose a risk of AC corrosion, personnel safety hazards and potential interference with cathodic protection (CP) systems on nearby foreign structures. The program includes AC current-density testing, evaluation of CP performance, and implementation of targeted mitigation measures to ensure compliance with relevant standards and regulatory requirements.

4.2. Background

The DN250 pipeline corridor runs parallel to multiple high-voltage power lines, resulting in steady-state AC induction and elevated touch and step potentials in some locations. These conditions were confirmed through APA's 2023 AS 4853 Level 3 Electrical Hazard Assessment, which identified locations experiencing load-flow-induced (LFI) voltage and earth-potential-rise (EPR) impacts. As the DN250 is being progressively suspended from normal operation, changes to CP inspection frequency and criteria are also required. The AC Mitigation program will therefore validate AC corrosion susceptibility through current-density testing at high-voltage areas identified in CP surveys and will re-assess the applicability of the 100 mV depolarisation criterion for suspended assets.

4.3. Assessment of options

The options considered for the access arrangement period are:

- Option 1: Do nothing
- Option 2: Option 2 – Targeted AC Mitigation (Preferred Option)
- Option 3: Maximum Mitigation

4.3.1. Risk assessment

Risk assessment results indicate that AC-induced corrosion, safety hazards, and regulatory non-compliance remain at Extreme risk levels under Option 1. Both Options 2 and 3 reduce these risks to Low, though Option 2 does so more efficiently through targeted intervention. Option 2 therefore provides the optimal risk-benefit balance.

Table 4–1: Risk assessment – AC Mitigation

Risk Area	Potential Impact	Option 1 :		Option 2 & 3:	
		Likelihood / Impact	Inherent risk rating	Likelihood / Impact	Risk rating
Health & Safety	Fatality or injury	Unlikely / Major	High	Rare / Major	Low
Environment	n/a	n/a	n/a	n/a	n/a
Operational	Disruption 1-3 months	Unlikely / Major	High	Rare / Major	Low
People	n/a		n/a	n/a	n/a

Compliance	Regulatory breach	Frequent / Minor	Moderate	Remote / Minor	Negligible
Reputation & Customer	Adverse media, negative feedback	Unlikely / Minor	Low	Rare / Minimal	Negligible
Financial	n/a	n/a	n/a	n/a	n/a
Untreated risk		HIGH		LOW	

Option 1 - Do Nothing

This option would leave AC voltage levels uncontrolled, significantly increasing the risk of AC-induced corrosion, CP interference, and electric-shock hazards for field personnel. It would also lead to non-compliance with AS 2832.1 and other regulatory requirements. Deferred expenditure under this option would be outweighed by the very high cost of future corrosion repairs and associated safety, environmental and operational impacts. Option 1 is therefore not prudent, nor acceptable under good industry practice.

Option 2 - Targeted AC Mitigation (Preferred Option)

Option 2 involves implementing mitigation measures only in locations where testing identifies AC voltages or current densities above recommended thresholds. This targeted approach ensures compliance with AS 2832.1, AS 2885.3 and AS 3000, while minimising CP interference and enabling registration of the CP system with the Electrical Safety Office (ESO). Current output will be reduced where appropriate once updated depolarisation criteria are approved. Option 2 delivers the lowest-cost effective mitigation strategy and balances risk, practicality, and efficiency.

Option 3 - Maximum Mitigation

Option 3 addresses the same risks as Option 2 but applies mitigation on 53 CP sites across the full length of the DN250 corridor. While this option is highly effective, it carries significantly higher upfront capital costs and presents greater execution complexity. It is therefore less efficient than Option 2.

4.3.2. Financial assessment

The financial assessment shows that maintaining the current state without mitigation would expose the pipeline to increasing corrosion risk, leading to potentially substantial future repair costs and regulatory non-compliance. Proactive mitigation represents a more cost-effective approach, as targeted investment in AC control measures reduces the likelihood of expensive corrective works and operational disruptions. While more comprehensive mitigation options are available, these carry higher upfront expenditure with limited incremental benefit. The preferred option therefore balances cost and risk by implementing mitigation only where testing confirms elevated AC interference, ensuring prudent and efficient use of capital consistent with the National Gas Rules.

Table 4–2: Option assessment – AC Mitigation (\$ Real 30 June 2026)

Option	Estimated cost	Treated residual risk rating	Benefit / Disbenefit
Option 1	N/A	High	Does not mitigate Health & Safety, Operational or Compliance risk.

Option 2	\$1.449M	Low	Efficiently mitigates Health & Safety, Operational and Compliance risk.
Option 3	\$10.187M	Low	Mitigates Health & Safety, Operational and Compliance risk but at a significantly higher cost

Table 4–3: Financial assessment – AC Mitigation

	Description
Option 1 - Do Nothing	- Leaves the DN250 exposed to progressive corrosion due to ageing CP units and coating defects, increasing the likelihood of future failures. - Risks non-compliance with AS 2832.1 and the RBP pipeline licence as CP systems deteriorate and fail to provide adequate protection. - Avoids short-term expenditure but results in significantly higher long-term costs due to corrective corrosion repairs and potential asset failure. - Considered not technically acceptable, nor prudent or consistent with good industry practice.
Option 2 - Targeted AC Mitigation (Preferred Option)	- Implements AC mitigation only at locations where testing identifies elevated AC voltages or current densities, ensuring a risk-based and efficient approach. - Ensures compliance with AS 2832.1, AS 2885.3 and AS 3000, while reducing CP interference and supporting ESO registration of the CP system. - Allows for adjustment of CP output once revised depolarisation criteria are approved, improving system stability and minimising interference with neighbouring infrastructure. - Provides a cost-effective balance between risk reduction and capital investment, avoiding the higher expenditure required under maximum-mitigation scenarios. - Reduces safety, operational and financial risks to low levels, delivering the optimal risk-benefit outcome.
Option 3 - Maximum Mitigation	- Applies comprehensive AC mitigation across the full length of the DN250 corridor, not just high-risk locations. - Provides the highest level of AC-corrosion protection, but delivers only marginal added benefit compared with targeted mitigation. - Involves substantially higher upfront capital expenditure and greater execution complexity than Option 2. - Although technically effective, it is less efficient and does not represent the lowest-cost way to achieve compliance and risk reduction.

The preferred option that appropriately balances costs and risks is Option 2, mitigating AC current density at locations to be determined from AC assessment report and focusing on mitigation only at necessary section with very high AC Voltage level.

4.4. Proposed cost for FY28-FY32

The AC Mitigation program is planned to be delivered progressively across the access arrangement period, with works carried out by a combination of APA field personnel and specialist

contractors as required. Consistent with the previous access arrangement cycle, funding is proposed to support mitigation at three currently identified sites along the DN250 corridor and allows for identification of more sites throughout the period. Annual expenditure is evenly allocated across FY28–FY32 to provide a stable, efficient delivery profile and to align mitigation activity with field resource availability.

The total forecast expenditure for the period is set out in the table below with funds allocated each financial year for detailed design, installation of mitigation systems and post-installation verification activities at the rate of 1.5 sites per year.

Table 4-4: Estimated yearly cost AC Mitigation (\$'000s Real 2026-27)

Description	FY28	FY29	FY30	FY31	FY32	Total
DN250 AC Mitigation (Oakey to Bellbird Park)	288	289	290	291	292	1,449

Table 4-5: Cost breakdown AC Mitigation per site (\$'000s Real 30 June 2026)

Description	Total
Labour / Internal Resources	\$91,515
Materials / Purchase Orders	\$26,865
Machinery Hire / External Services	\$11,769
Excavation and Civil Construction	\$53,496
Design & Technical Review activities	\$8,559
Total	\$192,204