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APA Group submission

March 27, 2024

SWQP / QSN Link Form of Regulation review

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1. Executive Summary

The National Gas Law (**NGL**) and National Gas Rules (**NGR**) appropriately recognise that different forms of regulation may be appropriate for pipelines with different characteristics. Gas pipelines (and pipeline systems) across Australia differ markedly in terms of the markets they serve, customer profiles, demand characteristics and investment requirements. The NGL and NGR allow different forms of regulation to be applied according to these features.

The South-West Queensland Pipeline (**SWQP**) is currently a non-scheme pipeline, meaning that it is subject to a lighter form of regulation. The SWQP is subject access obligations, information disclosure rules and a negotiate-arbitrate regime. However, the SWQP has never been subject to reference tariff regulation by the Australian Energy Regulator (**AER**) or the Australian Competition and Consumer Commission (**ACCC**).

APA recognises that the form of regulation for a pipeline can change if features of the pipeline or market context warrant such a change. However, in the case of the SWQP, a change to the form of regulation at this time would be:

- *unnecessary and unwarranted*, as there is no evidence that APA is exercising market power; and
- *ultimately damaging to the long-term interests of consumers*, as it would put at risk much-needed investment in pipeline capacity required to ensure security of supply and support the energy market in its transition to net zero.

Maintaining the current form of regulation will support efficient investment in, efficient operation and use of gas services for the long-term interests of consumers during this critical transition period. Non-scheme regulation will continue to provide a foundation for timely and efficient investment in the grid and will continue to provide essential support for the role of gas in the transition to net zero.

1.1. No evidence of market power being exercised

The terms of access to the SWQP have always been shaped by competitive forces. These competitive forces and the countervailing power of our customers have meant that APA has never been in a position to exercise market power or extract 'monopoly rents' in negotiating tariffs on the SWQP. There is support for this in the fact that no customer has sought to exercise their rights to seek arbitration in respect of services on the SWQP, notwithstanding that these rights have been available since 2017 (and were recently enhanced in March 2023).

Contrary to what might be expected of a firm exercising market power, APA has consistently invested to expand capacity on the SWQP to meet the needs of our customers and the market. Even as it has incurred significant investment costs and taken on considerable risk, APA has not sought to increase prices in real terms. SWQP prices have remained anchored to the terms of key foundation contracts which reflect the outcomes of effective competition. In negotiating new contracts, APA continues to be constrained by a range of alternatives available to shippers.

As a consequence, APA's long-term returns are no higher than necessary to compensate for the commercial risks associated with its investment and ongoing operation of the SWQP.

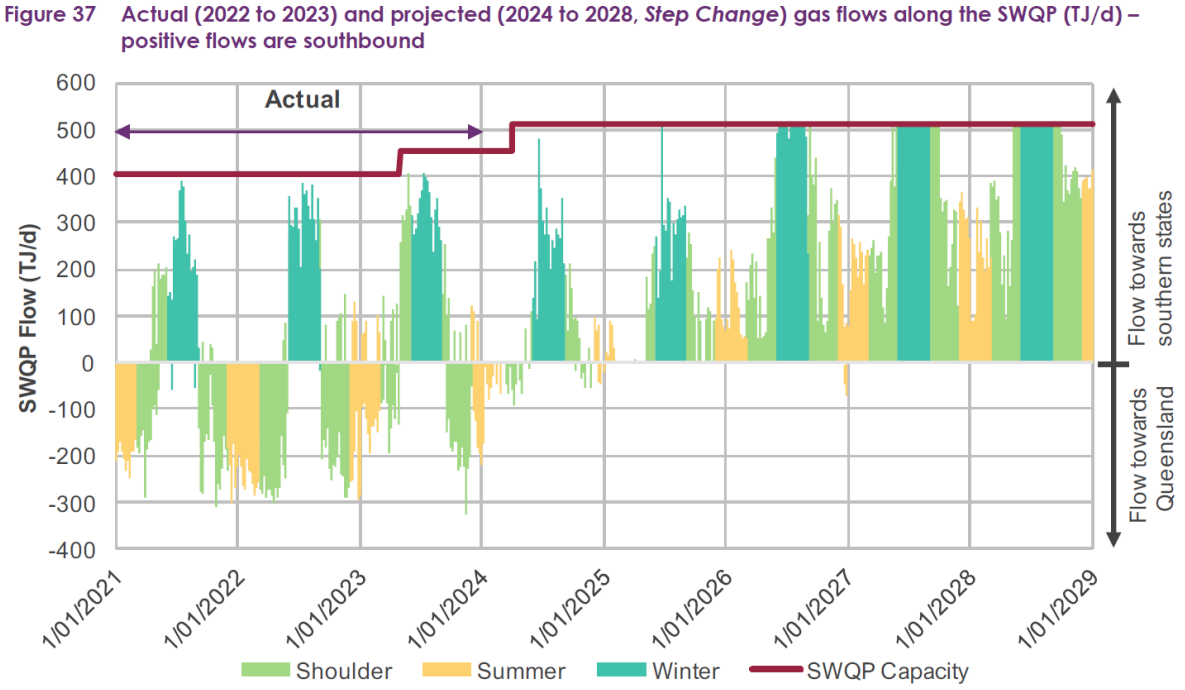
1.2. A heavier form of regulation is ill-suited to the SWQP

The investment requirements, demand outlook and customer profile of the SWQP make it ill-suited to a heavier form of regulation.[1] The SWQP is likely to require significant investment in the near term to ensure security of supply and support the market transition. However, the long-term demand outlook is uncertain, given the pace and dynamics of industry change.

Features of the full regulation framework – including criteria around approval of capital expenditure, regulatory process timeframes and the treatment of investment risk – mean that it would delay or put at risk critical and urgent investment – investment pertaining to energy infrastructure more generally, and specifically to the SWQP.

The current form of regulation has supported investment by APA on the SWQP and other parts of the east coast grid to meet market needs. The essential nature of the recent investments on the SWQP, and the need for further investment in the next few years are both recognised by AEMO in its recent Gas Statement of Opportunities (**GSOO**), most emphatically in Figure 1 (Figure 37 in the GSOO), which shows how timely APA's investment has been, and how acute the need for further investment is likely to be from winter 2026 onwards:[2]

Figure 1: Actual (2022 to 2023) and projected (2024 to 2028, Step Change) gas flows along the SWQP (TJ/d)



[1] APA notes in this context the distinction between gas transmission services and electricity transmission services. See page 13 of Expert report of J Balchin (Incenta), *Economic principles for deciding on the appropriate form of regulation for the South West Queensland Pipeline* (March 2024) (**Appendix F**) for a discussion of why electricity transmission is considered to have characteristics that warrant a heavier style of regulation.

[2] AEMO, *2024 GSOO*, Figure 37.

AEMO's 2024 GSOO relevantly makes the following observations, highlighting the urgent need for investment:

- AEMO forecasts risks of shortfalls on extreme peak demand days from 2025 and the potential for small seasonal supply gaps from 2026, predominantly in southern Australia, ahead of annual supply gaps that will require new sources of supply from 2028.
- From 2026 the southern supply-demand balance continues to tighten, and existing pipeline infrastructure becomes less able to deliver the volumes of gas required under extreme conditions, increasing the risks to peak day adequacy on the most extreme demand days.
- Northern producers need to deliver anticipated supplies, and from 2026 investments in currently uncertain sources of supply will be needed to meet both domestic requirements and contracted LNG export positions.
- In winter 2026 and 2027, the potential for small seasonal supply gaps is forecast in southern Australia under sustained high gas usage conditions.

The 2024 GSOO highlights that the next decade will be a crucial period for investment to support the energy transition whilst maintaining security of energy supply. Much of this investment is likely to carry considerable risk, given the uncertainty around the pace and shape of the market transition. The prospect of tariff regulation being imposed after risk has been assumed by investors with a view to capping any upside returns will create a real disincentive for investment at this critical juncture. It is likely to mean that investors are less willing to support investment which carries both upside and downside risk – and in some cases such investment may only be supported if long-term contracts or other risk mitigants are in place. This risk will be particularly acute where the AER seeks to regulate infrastructure that has not yet realised or has only just realised returns on its investment after periods of low demand or poor performance.

The importance of ensuring an environment conducive to ongoing investment in gas supply, storage and transport cannot be overstated, as was made exceedingly clear by AEMO in its 2024 VGPR, which states:

> "*Investment uncertainty in gas supply and infrastructure projects remains high…*"[3] and:
>
> *AEMO recognises that the investment environment for supply and infrastructure projects remains challenging and uncertain. Many potential projects identified in the 2023 VGPR have not materially progressed due to regulatory approval requirements, difficulty acquiring financing for natural gas projects, and market participants' resistance to making long-term commitments in an uncertain investment environment in the energy sector.*[4]

APA notes in this context that:

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[3] AEMO, *Victorian Gas Planning Report VGPR Update* (March 2024), p 4.
[4] AEMO, *Victorian Gas Planning Report VGPR Update* (March 2024), p 12. See also similar commentary on pp 55, 62.

- APA did not take its Financial Investment Decision (**FID**) on the Stage 3a and 3b expansion to the Board in February 2024 as originally planned. APA is still yet to take the matter to the Board, and so no decision as to whether to proceed at this time has yet been made. APA is acutely aware of the need for further capacity that is emerging (particularly noting the observations of AEMO as outlined above), but needs to balance this with the uncertainty regarding the regulatory framework. The outcome of this review, and any subsequent access arrangement, could negatively impact the assumptions underpinning the economic case of the expansion, being those stages that have already been completed/committed, and the further stages that have been planned and considered necessary to 'unlock' the capacity delivered by the earlier stages.
- While LNG imports is often suggested as a means of addressing supply issues, APA considers that the most economically efficient means of meeting gas demand is to develop domestic gas fields and rely on storage and transmission to move that gas to demand centres. APA notes this is supported by an analysis of public data.

Under full regulation any investment would need to be assessed by the AER under the criteria and timeframes set out in the NGR. This will place the AER in a difficult position of needing to assess whether there is a need for investment to maintain security of supply in the future in an environment of high market uncertainty, and in circumstances where the investment is likely to be time-critical. In many cases, the AER will need to consider pipeline investment against other options, which may include investment in other pipeline capacity, storage, LNG import capacity or development of other supply sources – in effect, the AER may be asked to 'pick a winner' out of various competing options.

It is not possible to exercise perfect judgement in assessing these matters, but at present the risks of misjudgement sit with the proponent of the investment alone. The consequences of misjudgement are becoming increasingly significant in this environment, where the stalling of investment could have significant consequences for security of supply and the progress of the energy market transition. APA notes in this context that there have been examples of regulatory delays contributing to the development of sub-optimal and less efficient outcomes (see Moomba Adelaide Pipeline System (**MAPS**) and South East Australia Gas Pipeline System (**SEA Gas**) case study discussed at **Appendix D**, section D.3.4(b)).

1.3. The current form of regulation is effective and should be retained

The current 'non-scheme' form of regulation has delivered real benefits for SWQP shippers and end-users, including:

- timely and efficient investment in the capacity needed to deliver gas to households, industrial customers and gas-fired power generators (**GPG**), particularly in the southern states. This investment has been critical for maintaining security of supply as southern gas supplies have been in decline. It also provides support for GPG capacity needed to facilitate phasing out of coal-fired generation and the transition to Net Zero;
- an ability for customers to negotiate flexible services and access arrangements, with an arbitration mechanism available to resolve any disputes (a mechanism that has never been called upon by any SWQP customer); and
- efficient usage of the pipeline.

This will continue if the SWQP remains a non-scheme pipeline.

The costs of changing to a heavier form of regulation in the current market environment are potentially very significant, both in respect of energy infrastructure more generally and the SWQP in particular. Large amounts of investment are expected to be required to maintain security of supply and support the energy market transition. Putting this investment at risk is manifestly not in the long-term interests of consumers.

1.4. The current form of regulation will be most effective in supporting the role of gas in the transition and achieving the National Gas Objective

There is ever increasing understanding that gas will play a key role in transitioning the energy market to net zero. This has again been reinforced by AEMO, in providing an overview of its 2024 GSOO, stating that:[5]

> *As Australia transitions to a net zero emissions future, gas will continue to be used by Australian households, businesses and industry, and support the reliability and security of the electricity sector*.

Further, the Hon Chris Bowen, Federal Minister for Climate Change and Energy has recently stated:[6]

> *Domestically, the Government has a target of 82 per cent renewable energy in our energy mix by 2030. As big and ambitious as this lift is, it will leave 18 per cent of our electricity mix as non-renewable…*
>
> *And as ageing coal-fired power stations leave the grid, that 18 per cent will increasingly be focussed on gas. Gas is a flexible fuel necessary for peaking and firming as we undertake this transformation….*
>
> *Unlike coal fired power stations (or, for that matter nuclear power stations), gas fired power stations can be turned on and off at very short notice, making them vital for peaking and firming. This is before we get to the needs of industrial manufacturers for gas as feedstock and direct energy.*

Gas infrastructure and GPG is therefore expected to play a key role in navigating an orderly and secure energy transition, as well as helping Australia meet its net zero targets.

AEMO has outlined how gas will support the achievement of the national energy objectives in its Integrated System Plan (**ISP**). AEMO stated that renewables, firmed with storage and backed up by GPG, is the lowest cost way to supply electricity on the pathway to net zero.

Since publishing the 2022 ISP, AEMO has recognised that GPG will play an even greater role during the transition by increasing its GPG forecasts in the Draft 2024 ISP (published in December 2023) by 60 percent. The Draft 2024 ISP also forecasts that around 8GW of the existing 11.2GW of GPG capacity already in the system is expected to retire, so around 13GW of new GPG needs to come online to support the massive increase in renewables.[7]

As outlined in section 4.2 of this submission, imposing a heavier form of regulation on the SWQP will inevitably delay the investment necessary to support GPG and facilitate the closure of coal power stations. This will increase the risk of Australia missing its emissions reductions targets.

For this reason, we consider that the current form of regulation best supports the long term interests of customers and the achievement of the National Gas Objective. The lighter form of regulation will facilitate the nimble investment required to help decarbonise the Australian energy system.

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[5] AEMO, *Overview of 2024 Gas Statement of Opportunities* (21 March 2024), p 1.
[6] Commonwealth Energy Minister, Hon Chris Bowen, *Speech to CEDA WA Energy Transition Summit,* 17 November 2023
[7] AEMO, *Draft 2024 Integrated System Plan (ISP)* (December 2023), p 10.

2. Current form of regulation best serves the long-term interests of consumers

2.1. The NGL provides for two different forms of regulation

APA recognises that different forms of regulation are available under the NGL, and that it may be appropriate to review the form of regulation for pipelines from time to time. The NGL and NGR allow different forms of regulation to be applied to different pipelines having regard to market circumstances and the characteristics of each pipeline.

2.1.1. The NGL framework recognises that heavier regulation will sometimes come at a significant cost to investment

Allowing a lighter form of regulation to be applied to some pipelines recognises that, in some cases, the costs of tariff regulation may outweigh any benefit. In developing regulatory arrangements for gas pipelines, it was recognised by the Productivity Commission (**PC**) that a heavier form of regulation (i.e. regulated access arrangements with reference tariffs) can bring with it significant costs, including:[8]

- the potential to distort or deter investment;
- time delays;
- constraints on commercial negotiations; and
- the high potential for regulatory error.

These costs are known to be particularly significant for assets with high investment requirements, uncertain demand, and/or customer desire for service flexibility.

It is for this reason that the NGL allows different forms of regulation (scheme or non-scheme) to be applied according to a pipeline's characteristics and market circumstances.[9] APA notes in this regard the distinction drawn by the PC and subsequent Expert Panel reviews between point-to-point gas transmission and other types of energy infrastructure such as electricity networks and gas distribution. As discussed in section 2.1.2 below, these reviews observed that certain features of point-to-point transmission pipelines are likely to point to a lighter form of regulation being appropriate.[10].

The framework for the AER's form of regulation review therefore directs attention to the expected costs and benefits of regulating a pipeline as a scheme or non-scheme pipeline. These include the potential effect on access to pipeline services and the costs to customers, end-users and the service provider.

When assessing the costs of a heavier form of regulation, regard must be had to the likely cost of delayed or abandoned investment, as noted by the PC. This is a much broader assessment than suggested by the AER's "*Form of Regulation Review: South West Queensland Pipeline Discussion Paper*" (March 2024) (**Discussion Paper**), which focuses on direct expenses associated with the administration of regulatory processes.[11]

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[8] Productivity Commission, *Review of the Gas Access Regime, Inquiry Report No. 31* (11 June 2004). The costs of tariff regulation are discussed throughout the report, and are summarised in Box 8.1.
[9] NGL, Chapter 3.
[10] Expert Panel on Energy Access Pricing, Expert Report to the Ministerial Council on Energy (April 2006).
[11] AER, *Discussion Paper*, section 4.2.3.

2.1.2. The form of regulation factors provide a framework for identifying where different forms of regulation will be more appropriate

The NGL also directs attention to the form of regulation factors in section 16. These include certain market factors which might influence a service provider's ability to exercise market power, such as availability of substitutes and countervailing power of customers.

These factors were developed by the Expert Panel on Energy Access Pricing, following on from the PC's recommendation to introduce a lighter form of regulation for some pipelines. In developing these factors, it was noted that one implication was that a heavier form of regulation might be better suited to network assets (such as an electricity network), while a lighter form of regulation may be better suited to a point-to-point pipeline.

For example, it was noted that:

- Electricity network services exhibit strong interdependencies (i.e. network economies and externalities) which generate efficiencies but also create barriers to contestability. The same could be said about gas distribution pipelines that are currently classified as scheme pipelines. For point-to-point gas pipelines on the other hand, the Expert Panel observed:[12]

  > *Network interdependence and externalities are less pronounced for gas transmission pipelines which more typically provide end-to-end services that can be operated independently without loss of efficiency. Thus, establishing means of contestability through tradable rights to pipeline capacity and pipeline-on-pipeline competition is more feasible in the gas transmission pipeline sector.*

- Countervailing power of customers will be more pronounced where '*customers are large or concentrated and can present a credible threat of bypass or of securing an alternative source of supply*'.[13] As discussed below, the countervailing power of large customers and threat of bypass (e.g. by use of swaps and/or alternative pipeline routes) has been a feature of the SWQP's history.
- More generally, the Expert Panel noted that 'as the demand for the supply of natural gas has grown in Australia, gas pipeline transportation has become more contestable and competing pipelines have emerged which supply gas to large demand centres from competing gas basins'.[14]

APA considers that the SWQP is a prime example of a pipeline with features which make lighter regulation more appropriate. Moving to a heavier form of regulation for the SWQP would introduce precisely the costs and risks identified by the PC, and any benefits will not adequately offset these costs to end-users.

2.2. The lighter form of regulation continues to be appropriate for the SWQP

Relevant features of the SWQP which support a lighter form of regulation include:

1. There has always been, and continues to be, a very real threat of competitive bypass. As it is a point-to-point pipeline (unlike an electricity network or gas distribution system), there is an ever-present risk that shippers will seek alternatives to SWQP transport for meeting their ultimate gas demand. As discussed below, the alternative that has been most frequently used by SWQP customers (and prospective customers) is swaps. However, at times of major expansions and

[12] Expert Panel on Energy Access Pricing, Expert Report to the Ministerial Council on Energy (April 2006), pp 48-49.
[13] Expert Panel on Energy Access Pricing, Expert Report to the Ministerial Council on Energy (April 2006), p 49.
[14] Expert Panel on Energy Access Pricing, Expert Report to the Ministerial Council on Energy (April 2006), p 50.

recontracting, customers have also considered alternative pipelines and other means of servicing their gas portfolios.

2. Given the nature of SWQP customers and the alternatives available to them, these customers are able to exercise significant countervailing power in negotiations.

The lighter form of regulation provides support for ongoing investment to expand the capacity of the SWQP, as well as an assurance to shippers that they will be able to access the capacity they need on reasonable terms. Over the past 5 years, APA has undertaken or committed to a number of substantial investments in expansion or augmentation of non-scheme pipeline capacity. This includes both incremental capacity investment as well as a larger project to increase winter peak capacity on the East Coast Grid (**ECG**) by around 25 per cent through additional compression and associated works on both the SWQP and MSP. APA has planned and committed to this project in response to acute concerns around security of gas supply in the southern states (including concerns expressed by AEMO, the ACCC and customers), as well as a need to support the market transition. APA has been able to respond quickly and efficiently to these market needs, in a way that will be unlikely to occur or will not be possible if the SWQP is the subject of heavier regulation.

More broadly, the current form of regulation has been (and continues to be) effective in ensuring that shippers have access to the capacity and services they require on the SWQP, on terms which reflect the outcomes of workable competition. This is clear from:

- continued expansion of the pipeline's capacity to meet the needs of shippers;
- efficient usage of the pipeline – including high levels of throughput, contracting and re-contracting;
- effective negotiations between APA and prospective users resulting in terms which reflect the outcomes of workable competition, without any need for recourse to arbitration;[15]
- innovation around service design and tariff structure; and
- timely and efficient investment to expand and augment the pipeline, where this has been necessary to meet the needs of shippers.

This will continue if the SWQP remains a non-scheme pipeline.

2.3. Moving to a heavier form of regulation at this time would be highly unusual and risky

A change to the form of regulation in circumstances such as the present would be highly unusual. Historically, where tariff regulation has been introduced, this has typically been in industries with stable long-term demand, relatively low risk and predictable investment requirements. It has also often been done as part of a broader program of sector liberalisation and/or privatisation.

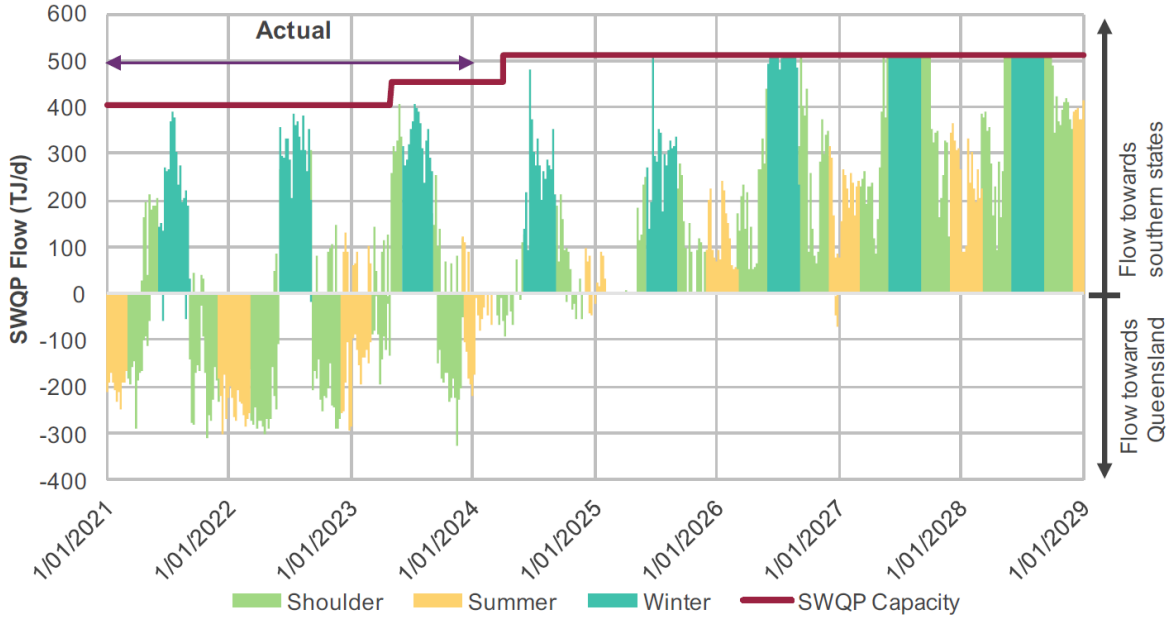
APA is not aware of any previous situations where an asset has been moved from a lighter form of regulation into full tariff regulation at a time of major industry transition with significant and lumpy investment requirements and uncertainty around long-term demand. The potential costs and risks associated with such a change need to be carefully considered.

As detailed in section 4 and **Appendix D**, in recent years, APA has invested approximately [redacted] in expanding the ECG (including investment on the SWQP) ahead of actual demand, for the specific purpose of ensuring there is sufficient capacity to manage what APA forecast to be a looming increase in 'peak demand'. The graph at Figure 37 of the 2024 GSOO (included above at section 1.2 and again below) clearly shows that APA's investment in this forward looking increase in capacity was absolutely timely and necessary, but more importantly it shows that APA will again need to

[15] The arbitration mechanism has never been called upon by any SWQP customer.

increase the capacity on the SWQP in order to ensure there are no constraints in moving gas from north to south.

Figure 37 Actual (2022 to 2023) and projected (2024 to 2028, *Step Change*) gas flows along the SWQP (TJ/d) – positive flows are southbound



3. No evidence of APA exercising market power

The terms of access to the SWQP have always been shaped by competitive forces. These competitive forces and the countervailing power of our customers have meant that APA has never been in a position to exercise market power or extract 'monopoly rents' in negotiating tariffs on the SWQP. Consequently, APA's long-term returns are no higher than necessary to compensate for the commercial risks associated with its investment and ongoing operation of the SWQP.

3.1. Constraints on the ability of SWQP owners to exercise market power

3.1.1. Market dynamics in the early years of the SWQP's operation

The SWQP was originally designed and constructed to transport Cooper Basin gas from Ballera to eastern parts of Queensland. The SWQP was one way (among others) for gas producers in the Cooper Basin to meet demand in south-eastern parts of Queensland.

The original terms of access to the SWQP were established through a competitive tender process run by the Queensland Government. The tender terms were later reviewed by the ACCC and the ACCC found the resulting returns to be reasonable.[16] These tender terms were subsequently reflected in ACCC-approved access arrangements for the SWQP.[17]

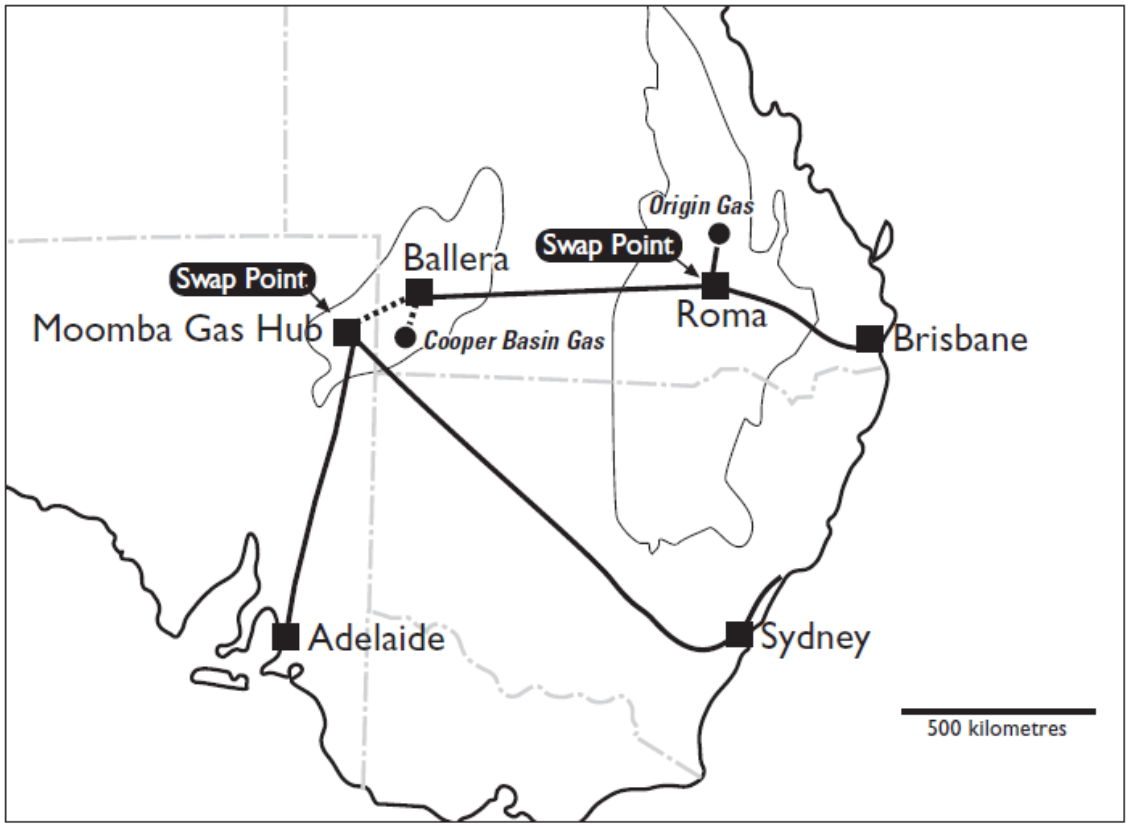
In the early years of its operation, demand for services on the SWQP was relatively limited. The original capacity of the SWQP was ~130TJ/day (eastern-haul), however contracted capacity over the first decades of the pipeline's history never reached this level. Starting contracted capacity was roughly half the pipeline's total capacity. Consequently, realised returns in these early years were relatively low, reflecting the downside risk associated with this investment.

Volumes on the SWQP (and therefore its financial performance) declined significantly in the mid 2000s, as producers identified alternatives to use of the SWQP. In particular, the development of the coal seam gas (**CSG**) fields in the Surat Basin unlocked producers' ability to enter into swaps at either end of the SWQP – greatly reducing their need for pipeline transport. Under these swap arrangements, producers at the western end of the SWQP were able to access gas at the eastern end in order to service customers in south-east Queensland. In return, producers at the eastern end could make use of Cooper Basin gas (gas at Ballera transported via the raw gas pipeline to Moomba for processing) – allowing those producers to reach southern markets *without any need to use the SWQP*.

[16] ACCC, *Queensland Gas Pipeline Access Regime Assessment of tender processes and reference tariff outcomes: A report to the National Competition Council* (May 2000), p 6.

[17] ACCC, *Final Approval: Access Arrangement for the Ballera to Wallumbilla Pipeline System (South West Queensland Pipeline)* (4 June 2002); ACCC, *Final Decision: Epic Energy Queensland Pty Ltd access arrangement revisions for the Ballera to Wallumbilla Natural Gas Pipeline (South West Queensland Pipeline)* (1 December 2004); ACCC, *Final Decision: Revised access arrangement by Epic Energy Queensland Pty Ltd for the Ballera to Wallumbilla Natural Gas Pipeline (South West Queensland Pipeline)* (1 November 2006).

Figure 2: Santos and Origin gas swap[18]



3.1.2. QSN link and foundation contract

It was in this context that Epic Energy, as the owner of the SWQP, entered into a foundation contract with AGL for the construction of the QSN Link (to be commissioned in 2008). This link would allow for processed Queensland gas to flow westbound on the SWQP to the southern states for the first time. This demand emerged because of the vast CSG reserves being uncovered in the Surat Basin.

Due to the significant under-utilisation of the SWQP at the time of this foundation contract, AGL had a high degree of countervailing power.

[18] Santos, *Cooper Basin and Origin in major gas swap agreement* (6 May 2004).

3.1.3. Expansion of the SWQP and expansion foundation contracts

Further development and commercialisation of the Surat Basin CSG reserves led to growth in demand for services to deliver this Queensland gas to southern markets.

As the largest of the Queensland producers, Origin undertook a competitive process to seek proposals for the transport additional gas from Wallumbilla to southern markets from 2012. There were three competing proposals:

- Epic Energy proposed expanding the SWQP and QSN Link by looping them, as well as adding compression services at Wallumbilla;
- APA (not yet the owner of the SWQP) proposed a new pipeline between Wallumbilla to a mid-point on the MSP; and
- a Hunter Valley Pipeline consortium proposed a new pipeline from Wallumbilla to Newcastle.

In a highly competitive process, Origin Energy selected the Epic Energy option to expand the SWQP. In developing its proposal, Epic Energy sought commitments from additional shippers to secure the viability of the pipeline looping and reached an arrangement with AGL [redacted] As a result, the capacity option offered by Epic Energy as part of the competitive tender process included capacity to meet the requirements of Origin and AGL. [redacted]
Reflecting Origin's countervailing power in negotiating this GTA in an environment of competition for the market, it included terms highly favourable to Origin, including [redacted]

The ACCC has recognised that this competitive process resulted in terms that were beneficial to those foundation shippers, reflecting the outcome of 'competition for the market':[19]

> *"In 2007, Epic and APA competed to develop a new pipeline to enable gas from Queensland to be transported into the southern states. Epic proposed reversing the flow and expanding the capacity of the SWQP and constructing the QSN, while APA proposed the construction of a new pipeline from Wallumbilla to Bulla Park. Epic ultimately won this contest, with AGL and Origin entering into foundation contracts in 2007 and 2009, respectively. The prices and other terms and conditions in these foundation contracts suggest that AGL and Origin both benefited from this competition.*
>
> *The outcomes of these two competitive processes suggest that 'competition for the market' can impose an effective constraint on the behaviour of new pipelines."*

The Origin and AGL foundation contracts for the SWQP expansion ***remain on foot today and continue to anchor western-haul service tariffs for new contracts on the SWQP***. The role of these foundation contracts, including the potential for new shippers to seek competing offers for supply from these foundation shippers, is set out in further detail in **Appendix C**. The competitive tension underpinning the terms of this foundation contract has continued to benefit all subsequent shippers.

3.1.4. Pricing under subsequent contracts has been anchored to foundation contracts

In the period since 2012, the SWQP has undergone further significant expansion, reflecting changing market dynamics and increased demand. While some support has been provided by long-term

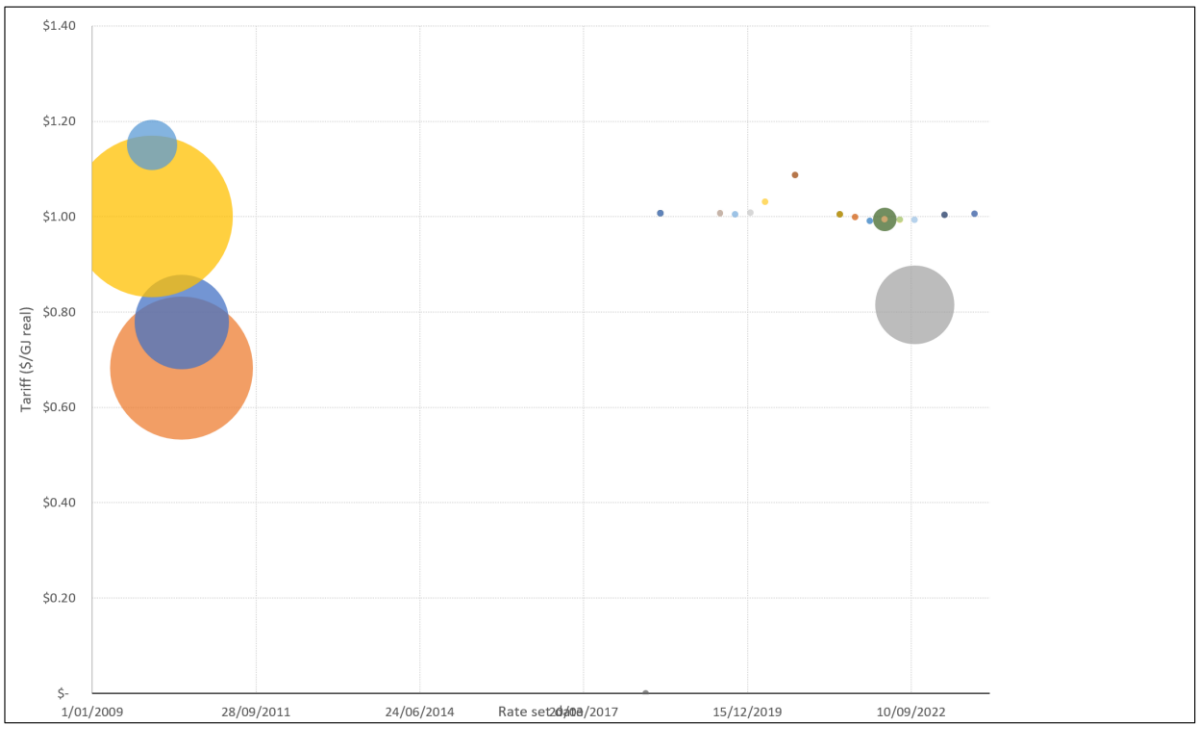
[19] ACCC, *Inquiry into the east coast gas market report* (April 2016), p 97.

contracts (including the foundation contracts discussed above), the SWQP's owners (including APA) have also taken significant risk in undertaking major expansions of the pipeline's capacity.

The risk taken on this investment has ultimately delivered customer benefits and a commensurate return for the SWQP's owners (including APA). In the period since 2008, the SWQP has gone from a pipeline with relatively limited demand and poor financial performance to one with high demand for its services. For customers, the capacity and flexibility has been there when needed, principally to supply peak winter demand in the southern states. This has ultimately benefited end-users through increased security of supply and greater inter-basin competition placing downward pressure on delivered gas prices.

Notwithstanding the significant investment cost and risk borne by APA and previous owners of the SWQP, prices for western-haul services have remained anchored to the foundation contract terms (see Figure 3 below). The terms of the foundation contracts have constrained APA's ability to offer any more favourable terms to new shippers, while competitive constraints have removed any scope to increase prices.

Figure 3: SWQP western haul pricing by contract date, ($/GJ real)



* the [redacted] contract shown above includes compression

3.1.5. Shippers continue to have alternatives to use of the SWQP

For APA's customers on the SWQP, pipeline transport is one input among others that is used to meet an ultimate need. The ultimate need will not be transport on the SWQP – on its own, gas transport between Wallumbilla and Moomba is of no value to a customer. Rather, the ultimate need will be the delivery of gas either to a retail customer base, industrial facilities, export facilities or GPG.

In this context, a shipper will rarely view SWQP firm capacity (contracted directly with APA) as a "must-have" service. Rather, SWQP firm capacity will typically be one option among many for meeting the customer's ultimate need.

For example:

- The largest SWQP customers have a portfolio of requirements, including residential customer demand, industrial customers and GPG facilities. These customers will also have a range of options for servicing that portfolio, including supply arrangements for multiple gas basins, swap arrangements and capacity on different pipelines. For example, a large retailer with residential and industrial customers in the southern states (as well as potentially some GPG capacity) could meet its requirements through a combination of southern supply sources, swap arrangements, storage to meet seasonal peaks, firm transport capacity across multiple pipelines, and short-term transport capacity including auction capacity, particularly when filling and refilling storage outside of the peak.
- Other customers may use the SWQP as part of managing a gas trading portfolio including power generation and retail across the east coast market. [redacted]
- Industrial customers may have more fixed requirements – for instance, to secure energy supply for facilities in fixed locations. However, these customers will still have a range of options for meeting these requirements. One set of options would include contracting separately with gas producers and pipeline operators for firm supply from different locations (using different pipeline routes). Alternatively, the customer could contract for delivery of gas to its facilities, with the supplier to arrange transport (in which case the supplier would be able to avail itself of the transport options outlined above). Finally, in some cases an industrial customer might take advantage of short-term capacity made available through the capacity trading and auction mechanisms. Industrial customers frequently use the services of gas supply consultants and nominating agents to understand and access these opportunities.

The availability of these alternatives means that shippers can exercise considerable countervailing power in negotiating new transportation arrangements. Shippers will frequently refer to the availability of these alternatives. In some cases, it will be readily apparent to APA that a shipper is exploring alternatives – for example if simultaneous inquiries are made for a particular demand point by an industrial customer and a larger shipper.

This is an important distinguishing feature of transmission pipelines such as the SWQP. Unlike distribution systems or electricity networks, point-to-point pipelines are not characterised by network effects and are much more susceptible to bypass. As set out in further detail at **Appendix C**, the potential for bypass, and the countervailing power that this confers on customers, has been a feature of the SWQP's history.

The countervailing power of customers has increased in recent years due to an expansion of the regulatory framework for non-scheme pipelines. Customers now have access to, and use, a wide range of information to aid negotiations – including service availability information, extensive cost data, and information on the average and individual prices paid by other customers. Customers also have access to an arbitration mechanism (governed by pricing principles and procedural rules set out in the NGR) to resolve any disputes.

These factors mean that APA is not, and has never been, in a position to exercise market power – for example, by restricting capacity or seeking material increases in tariffs.

3.2. APA has continued to expand the capacity of the SWQP, while not increasing prices in real terms

Observed outcomes on the SWQP are diametrically opposed to what would be expected under conditions of market power (or monopoly power). This reflects the historic and ongoing constraints on APA's ability to exercise market power.

If APA were in a position to exercise market power, it would be expected that:

- capacity on the SWQP would be restricted; and
- APA would seek to increase prices.

There is no evidence of either an attempt to restrict capacity or increase prices.

On the contrary, APA has consistently sought to ***increase*** capacity on the SWQP ahead of the capacity being required. APA's ECG expansion program is designed to increase system capacity by around 25 per cent through additional compression and associated works on both the SWQP and MSP. APA notes in this context that it is taking 'merchant risk' on this investment. Customers are currently contracting capacity on short time frames, which APA understand is largely in response to supply uncertainty. The short term nature of the contracts also operates to permit customers to assess their alternatives at the expiry of each contract term.

Moreover, even as it has incurred significant investment cost and taken on considerable risk, APA has not sought to increase prices. As noted above, SWQP prices have remained anchored to the foundation terms.

3.3. Long-term returns are no higher than necessary to compensate for risk

Over the life of the SWQP, the achieved return on investment has fluctuated, reflecting both upside and downside risk assumed by investors. In periods of low demand (particularly in the early years of its operations) returns to investors were relatively low. However, as demand and throughput has increased, returns have improved.

When considering whether to commit capital to expansion of ECG capacity, investors consider *expected* returns on their investment across the ECG. Decisions around investment across APA's network have been made with a view to expected returns on this investment, but always recognising the potential for variability in returns over time and across different parts of the network.

Achieved returns are necessarily more variable under lighter forms of regulation. Tariffs are typically set under long-term contracts, with parties assuming some risk that the market may develop in a way that is different to their *a priori* expectation. As there is usually no periodic resetting of tariffs under these long-term contracts, achieved returns are likely to fluctuate to a greater extent as demand rises or falls. This means that under lighter forms of regulation, a pipeline has increased systematic risk exposure, as well as greater exposure to longer term stranding risk.

This heightened risk exposure implies that the required return on investment will be higher under a lighter form of regulation, compared to heavier regulation. Under heavier forms of regulation, there are rules and mechanisms designed to ensure that service providers have a reasonable opportunity to recover their efficient costs – these include, for example, mechanisms to align the period of cost recovery with the expected economic life of pipeline assets, and to periodically reset tariffs to a higher level where demand is declining. The effect of these regulatory mechanisms is that, under heavier regulation, a degree of risk around future demand uncertainty is borne by consumers. Under a lighter form of regulation, the risks associated with future demand uncertainty are borne by the

service provider and its investors. Investors will typically take a longer term view of required returns, having regard to this uncertainty and risk.

For these reasons, the required return on investment in competitive industries will be higher than for monopoly businesses under full tariff regulation. The expert report of Mr Balchin (**Appendix F**) explains that firms operating in competitive markets will need to factor in both increased systematic risk exposure as well as stranding risk.

Table 1 below shows APA's return on its investment in the SWQP over the past decade. Due to a significant increase in demand for SWQP services, this has been a more successful period in the life of the pipeline than earlier periods. However, even in this period, the average pre-tax return on capital has only been around 8 per cent. This level of return is similar to what has been allowed by the AER for *full regulation* pipelines over the same period, and is considerably lower than returns earned by unregulated or lightly regulated businesses. It is certainly no higher than necessary to compensate investors for the risks associated with their investment in the SWQP as a non-scheme pipeline.

[redacted]

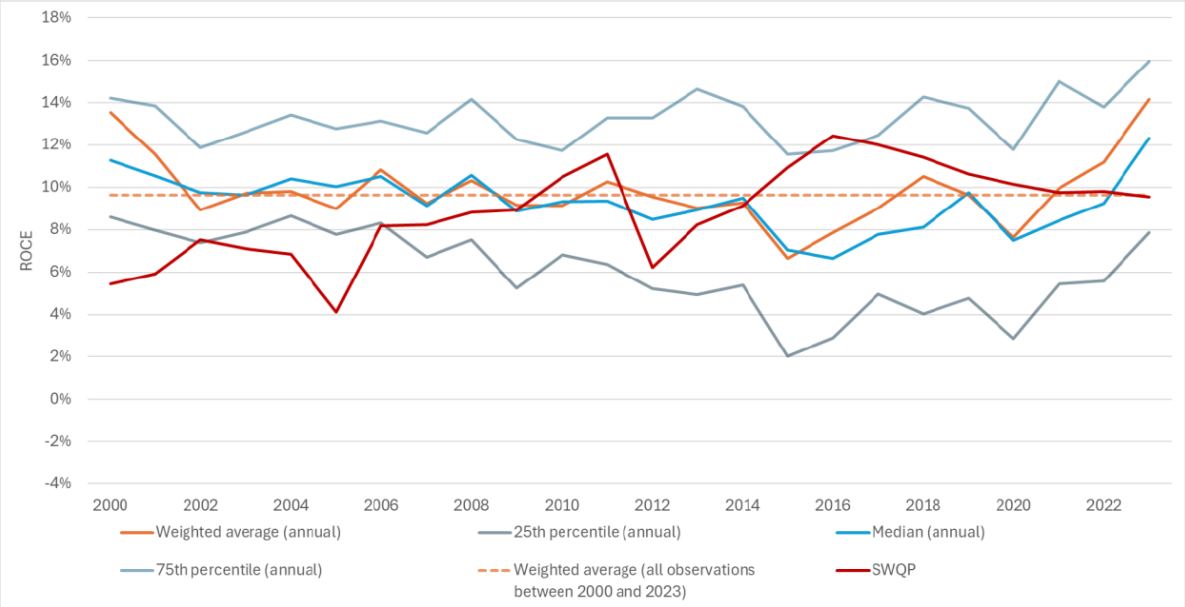
For the purposes of comparison with observed returns for US pipeline businesses, and based on APA's publicly reported financial information, Dr Hird has estimated a return on capital for the SWQP over the past two decades.[21] Dr Hird has sought to estimate this in a way that is comparable with the available data for the US businesses.

Dr Hird observes that average SWQP returns have been below the average return for US pipelines over the past two decades. Figure 4 below shows that the SWQP's return has been at or below the 75th percentile of US returns in the same year but has been below the 25th percentile in multiple years and that, in the most recent year, the SWQP return is close to the 25th percentile of US pipeline company returns.

[20] These calculations have been performed with a view to ensuring a 'like for like' comparison with US pipeline companies. Nothing in this calculation is intended to be, or should be interpreted as, determinative or indicative of appropriate asset valuation methodologies for the SWQP.

[21] Expert report of T Hird (CEG), *Consultation on form of regulation for the SWQP* (March 2024) (**Appendix J**).

Figure 4: Comparison of SWQP return on capital with US pipeline businesses[22]



Source: Bloomberg and APA's Financial Information Disclosure under Part 23 National Gas Rules, CEG analysis

3.4. The AER cannot rely on conclusions regarding 'monopoly pricing' from the ACCC's 2016 Gas Market Inquiry Report

The Discussion Paper refers to ACCC findings regarding 'monopoly pricing' in its 2016 East Coast Gas Inquiry Report.[23] The Discussion Paper also refers to the fact that tariffs have moved in line with inflation since 2016 as evidence that "monopoly pricing has continued".[24]

The ACCC's 2016 report was not specific to the SWQP and is now around eight years old. Moreover, the evidence cited in that report does not provide a sound basis for concluding that there is (or has been) monopoly pricing on the SWQP, or that a heavier form of regulation would be warranted.

The ACCC report cited three general concerns, which it said were indicative of monopoly pricing:

- rates of return that pipeline operators expect to earn on *incremental* investments;
- prices being charged by pipeline operators that have already recovered the cost of building the pipeline; and
- prices some pipeline operators are charging for as available, interruptible, back haul and bi-directional services.

The October 2016 expert report of Dr Tom Hird (**Appendix I**) addresses each of these ACCC concerns. Dr Hird demonstrates that these concerns do not support a conclusion that pipelines are engaging in monopoly pricing. On the contrary, Dr Hird notes that similar outcomes would be observed in many unregulated industries, including the most competitive industries in the economy.[25]

[22] Expert report of T Hird (CEG), *Consultation on form of regulation for the SWQP* (March 2024) (**Appendix J**), p 10, Figure 2-3.
[23] AER, *Discussion Paper*, p 13.
[24] AER, *Discussion Paper*, p 13.
[25] APA has commissioned a supplementary report from Dr Hird that considers any subsequent observations made by the ACCC in its interim updates on its Gas Inquiry 2017-2030. See Expert report of T Hird (CEG), *Consultation on form of regulation for the SWQP* (March 2024) (**Appendix J**).

Equally, the fact that prices have not changed in real terms over the past decade cannot reasonably be taken to indicate an exercise of monopoly power. Rather, an inability to raise prices in real terms above foundation contract levels points to the existence of real constraint and the absence of monopoly power.

3.5. Other indicators inconsistent with an exercise of market power

In the 2016 East Coast Gas Inquiry Report, the ACCC also considered other non-price indicators of whether pipeline service providers may be exercising market power. These non-price indicators included:

- whether access was being restricted or denied;
- any reductions in service quality;
- any anti-competitive bundling or tying; and
- any anti-competitive price discrimination.

The ACCC found no evidence of any of these practices which might indicate an exercise of market power.[26]

This continues to be the case today. APA has no incentive or ability to restrict access to the SWQP, reduce service quality or engage in anti-competitive behaviour. On the contrary, APA's incentive is to increase utilisation of the SWQP and ensure that the needs of shippers are met.

Reflecting these incentives, APA often engages in extensive negotiations with prospective customers. Throughout these negotiations APA will seek to accommodate the shipper's needs, to the extent practicable (subject to physical and engineering constraints). For example, shippers will often seek greater flexibility around availability and pricing of capacity to meet the needs of their portfolio, which may include flexible GPG capacity and/or seasonal load.

[redacted]

[26] ACCC, *Inquiry into the east coast gas market report* (April 2016), p 102.

4. A heavier form of regulation is unsuitable for the SWQP

As discussed above (in section 2) a heavier form of regulation will not be appropriate for all pipelines. It may be appropriate for pipeline systems where there is little or no countervailing customer power, stable demand and predictable investment requirements (e.g. a gas distribution system or electricity network). However, it is ill-suited to assets such as the SWQP with high short-term investment requirements and uncertain long-term demand.

Under the current form of regulation APA is prepared to commit to investment in the SWQP (and the ECG more broadly) ahead of contracting, on the basis of forecasts of future demand and revenues. However, in the current market environment there is considerable uncertainty around these forecasts and therefore the returns that will be realised – there is some potential for upside but also considerable downside.

The prospect of tariff regulation on the SWQP gives rise to considerable uncertainty and risk of truncation around the return on investment for current and future network expansion programs. Any process to regulate SWQP tariffs is likely to take at least two years – during this time there will be considerable uncertainty around the level at which any upside returns will be capped. This period of uncertainty would coincide with a critical period for investment in the ECG.

Any impact on investment in the SWQP could have flow-on effects on investment in complimentary infrastructure, including other parts of the ECG and/or non-pipeline infrastructure. For example, investment in GPG capacity and/or timely transition to new supply sources could be impacted.

4.1. SWQP faces significant investment requirements and an uncertain demand outlook

APA expects that significant investment will be required in the ECG (including the SWQP) over the next decade. The role of gas as a transition fuel supporting the energy market transition means that locations and patterns of demand for gas are likely to change considerably, including potentially increased demand for GPG capacity to support intermittent renewables. Supply locations may also change, with LNG imports potentially displacing some traditional supply sources. This is likely to mean that more peak capacity is required on some transmission pipelines, as well as potentially some augmentations to connect new demand or supply locations.

APA is currently part-way through a major expansion of ECG capacity in response to the decline in southern production and changing demand patterns. Further investment is likely to be required in coming years to bring on new sources of supply (e.g. supply from Beetaloo) and further support the energy market transition.

APA expects that it will need to plan and undertake these investments within short timeframes, in response to changes in the supply / demand balance. Long-term returns on these investments will also be increasingly uncertain, given uncertainty around longer-term demand for gas.

APA again note the conclusions in the 2024 GSOO, particularly AEMO's call for urgent investment to maintain security of supply.

4.2. In this context, a heavier form of regulation entails significant cost and risk

Regulation of reference tariffs on a pipeline such as the SWQP, even if it is applied in a perfect manner in accordance with the NGL and NGR, will erode incentives for efficient investment, and will introduce a regulatory process that will lead to delays in investment.

There are a number of ways in which regulation erodes investment incentives, which include:

1. Tariff regulation (with periodic reset of reference tariffs as part of an access arrangement review) will naturally truncate the range of returns that may be earned on investment. Consequently, expected returns (on average) will be lower and incentives for investment will be diminished. This 'truncation' effect will be most pronounced where there is a high degree of uncertainty around future demand and therefore returns.
2. Any risk of asset stranding may not be adequately accounted for in tariffs set under full regulation.
3. More generally, there will be uncertainty around how capex approval and cost recovery will be approached under full regulation, including how future uncertainty and stranding risk will be accounted for. While the AER has established tools for reviewing the prudency of capex and determining tariffs, these are yet to be applied to a pipeline like the SWQP operating in an uncertain and dynamic market.

A further significant cost of full regulation will be the delay to investment that does occur, as a result of AER approval being required as part of an access arrangement process. This delay is generally manageable where investment requirements can be foreseen several years in advance. However, it is potentially very costly is the case of an asset such as the SWQP, where investment decisions often need to be made quickly to address urgent market needs. APA also notes that this delay can result in the investment being abandoned, and/or the market pursuing a less efficient option – and again notes the example of MAPS and SEAGas (see **Appendix D** for a detailed discussion of this).

These are unavoidable consequences of the framework for reference tariff regulation under the NGL and Part 9 of the NGR.

4.2.1. Truncation of investment returns

Truncation risk is a well-documented economic cost associated with the application of cost-based regulation to assets with high investment requirements and uncertain demand. Truncation refers to the effect of tariff regulation capping any potential upside returns on a risky investment, while leaving the service provider to bear downside risk.[27]

Mr Balchin explains the economic problem as follows:[28]

> *The challenges with applying cost-based regulation to pipelines with high investment requirements and uncertain future demand are well established... The regulatory problem that future demand risk creates is known as the truncation problem, referring to a situation where conventional ex ante price regulation exposes the regulated business to the downside demand risk, but limits the ability of the service provider to capture the benefits of upside demand risk. The consequence is a "truncation" of the distribution of expected future returns under regulated pricing and an expected net present value of regulated cash flows of less than zero, contrary to the "NPV=0" principle that is a core objective of price regulation. The truncation of returns and likelihood of under-recovery of capital erodes incentives for otherwise efficient investment.*

When the gas access framework was originally being designed, the solution to this problem was to allow assets with high short-term investment requirements and uncertain long-term demand to be excluded from full regulation – either through a 'no coverage' determination, a light regulation

[27] For example, there is extensive discussion of truncation risk in the Productivity Commission's 2001 review of the gas access regime.
[28] Expert report of J Balchin (Incenta), *Economic principles for deciding on the appropriate form of regulation for the South West Queensland Pipeline* (March 2024) (**Appendix F**), p 28.

determination or exclusion from coverage. Consequently, the NGR framework for regulation of reference tariffs for scheme pipelines does not address this issue.

4.2.2. Limited tools under the NGR for addressing uncertainty and stranding risk

Under a lighter form of regulation, uncertainty and risk can be managed by APA and its customers. APA can calibrate its required return on investment to reflect the risk associated with a particular investment. It can also seek to share some risk with customers – for example through long-term contracts.

Much of this flexibility is removed under reference tariff regulation. There is no scope for the regulator to align the rate of return with the risk on a particular investment. Essentially the only tools available to address future uncertainty are the depreciation schedule and the potential for adjustment of tariffs in future access arrangement reviews. These are particularly blunt tools, which can result in the burden of future uncertainty largely falling on current customers.

Mr Balchin observes:[29]

> *The problems in applying the "reference tariff" regime to gas pipelines in a context of significant demand risk are perfectly foreseeable. The reference tariff regime was never designed to deal with significant demand uncertainty and the NGR do not allow for regulated prices to include compensation for stranding risk. …*
>
> *While the NGR make some provision to deal with demand risk through setting prices for multi-year regulatory periods and through adjustment of depreciation schedules, these measures are incomplete and inadequate. Addressing stranding risk by adjustment of depreciation schedules will tend to result in unnecessarily high prices in the near term to the potential detriment of customers, whilst also potentially not being sufficient to enable efficient costs to be recovered, this failing to provide an incentive for efficient investment.*

Mr Balchin also notes that certain features of the NGR will exacerbate the risk associated with asset stranding. These include the potential for redundant capital to be removed from the capital base, and limits on the speed at which tariffs may be altered in response to changing market dynamics.

4.2.3. Uncertainty around the regulatory approach to capex approval and cost recovery

The nature of demand and investment requirements on the SWQP are fundamentally different to those on other assets that are currently subject to full regulation. The demand outlook for the SWQP is highly uncertain, reflecting rapidly changing market dynamics. It is therefore very difficult to predict the need for capacity investment more than a year or two ahead of it being required.

As well as being difficult to predict, the need for investment on the SWQP is also interlinked with broader energy market developments. In considering the need for investment, APA needs to make judgements about the pace and dynamics of the energy market transition, including:

- the extent to which GPG capacity will be required to meet peak demand and/or provide firming capacity – which over the longer term will be linked to the rate of withdrawal of coal generation and development of renewable capacity;
- policies of state and federal governments relating to gas consumption, development of new supply sources, closure / maintenance of coal generation and support for renewables;
- progress in developing new gas supply sources; and

[29] Expert report of J Balchin (Incenta), *Economic principles for deciding on the appropriate form of regulation for the South West Queensland Pipeline* (March 2024) (**Appendix F**), pp 28-29.

- government policies towards LNG import terminals, LNG exports and domestic reservation.

If the SWQP becomes a scheme pipeline, the AER will need to assess whether further pipeline investments are 'justified' (under rule 79 of the NGR), in light of these uncertain market dynamics. This will potentially involve an assessment of different options for meeting an emerging market need – options which might include pipeline investment, support for import terminals, and/or intervention in the electricity market to influence GPG demand. Where pipeline investment is found to be 'justified', the AER will also need to consider appropriate cost recovery arrangements within the constraints of Part 9 of the NGR (including appropriate asset lives, depreciation schedules, etc.), having regard to longer-term demand uncertainty.

Assessing and making determinations about the likely future market dynamics is inherently difficult – to be making these assessment and determinations in the circumstances of a rapidly evolving market, subject to changing government policy and external forces that shape supply and demand, must be considered almost impossible. Under the current regulatory settings, the task of making these assessments as to the risks associated with making investments sits with the proponent and funder of the investment. If there is a change to the form of regulation, this responsibility moves to the AER, and this is not a task that the AER has previously had to undertake. For gas pipelines that are currently scheme pipelines (mostly distribution networks), investment requirements are generally more predictable and linked to longer term forecasts of residential market growth or decline. In the case of electricity networks, investment requirements are similarly more predictable. Moreover, in the case of electricity, a separate framework exists for network planning and assessment of investment options.[30]

There is therefore a high degree of uncertainty around how the AER will approach the assessment of capex proposals and cost recovery for a pipeline such as the SWQP. As well as making heavier regulation inappropriate, this is likely to have a chilling effect on investment.

4.2.4. Process delays

Where investment is approved by the AER, there is likely to be a significant delay to this investment, simply due to the timing and duration of tariff approval processes, and the expenditure criteria that must be applied under the NGR.

Currently, decisions to invest in additional ECG capacity are made less than two years ahead of the capacity being required. Most recently, the decision to proceed with Stage 2 of the ECG expansion program was made in May 2022, for delivery of additional capacity ahead of winter 2024. A decision on stage 3A was due to be made in February 2024, for delivery of additional capacity ahead of winter 2025 (as discussed below, this decision has now been suspended). Of course, these periods include the time for construction of the capacity enhancement itself. These short timeframes for decision-making and execution reflect rapidly changing market dynamics and uncertainty around the demand outlook.

Scheme pipeline regulation would not permit such nimble investment in response to market needs. If a scheme pipeline determination is made in relation to the SWQP any proposed capital expenditure would need to be included in either:

- an access arrangement proposal several years ahead of it being required; or
- an application under rule 80 of the NGRs.

[30] This includes the Integrated System Plan and Regulatory Investment Test processes under Chapter 5 of the NER.

Under either process, the proposal would then need to go through an extensive AER review process. Noting there are real disincentives to making investments under rule 80 (as the proponent would get no return on that investment until the start of the new access arrangement) it is highly likely that this could lead to a delay of several years – by which time market needs may have gone unmet, or a more costly solution implemented.

4.3. Regulatory uncertainty is already impacting ECG investment

APA is currently part-way through a major investment program designed to ensure sufficient capacity on the ECG between Queensland and the southern states. Unlike some previous expansion programs, this is being undertaken ahead of shipper contracts being signed – reflecting an urgent need to ensure security of supply as Longford gas supplies have declined faster than originally anticipated and GPG demand has increased. Given long lead times, the decline of production from Longford and the peakiness of demand, APA anticipated the need for 'needle point' capacity moving gas from north to south. The immediate next stage of the investment program will involve augmentation works on the Moomba to Sydney Pipeline (**MSP**), but this work is expected to deliver benefits for shippers across the network – particularly shippers (and prospective shippers) on the SWQP for whom the MSP augmentation will unlock access to additional capacity. Partly for this reason, APA has assessed the expected return on this investment across the ECG as a whole.

To date, APA is prepared to commit capital based on the need for additional capacity and expected returns across its network. However, there is considerable risk to returns over the investment horizon, given longer term demand uncertainty.

The prospect of scheme pipeline regulation on the SWQP significantly increases the uncertainty around this investment, for reasons outlined above.

APA had intended to seek Board approval for Stage 3A of the ECG expansion program in February 2024. Stage 3A was intended to provide additional capacity for north-south flow from 2025. However, a decision on Stage 3A has now been suspended in light of the current regulatory uncertainty.

4.4. A heavier form of regulation will put future investment at risk

Introducing heavier regulation on the SWQP at this stage would have a broader 'chilling effect' on investment required to meet future supply needs.

Much of the investment required to support the market transition and maintain security of supply is likely to carry considerable risk. Given the uncertainty around the pace and shape of the market transition, there is likely to be the potential for both upside returns and downside risk on any investment. The prospect of tariff regulation being imposed after risk has been assumed by investors with a view to capping any upside returns will create a real disincentive for investment at this critical juncture. It is likely to mean that investors are less willing to support investment which carries both upside and downside risk – and in some cases such investment may only be supported if long-term contracts or other risk mitigants are in place.

At the same time, potential customers may be less willing to provide support for major investment through long-term contracts. The prospect of future tariff regulation means that shippers may be less

willing to take a 'foundation' position, as they may be concerned that competitors will be able to avail themselves of a lower price in the future when regulation is imposed.

In short, the prospect of heavier regulation is likely to undermine the commercial frameworks and incentives that are needed to support major pipeline investment. Dr Hird's 2024 Report in **Appendix J** makes these same observations, noting (in the context of foundation contracts having been determined in a competitive market):[31]

112 There is no reason to disturb competitively determined prices just because the flip side of those prices resulted in a risk allocation that has, ex post, turned out to benefit one set of market participants over the other.

113 Of course, there is no regulatory action that can force customers to pay prices above the price that they contracted for and nor can regulation force customers to pay a price above their valuation of the service. Consequently, any disturbance to competitively determined prices can only ever be downward.

114 The end result of such regulatory action will be that investors in future pipelines/expansions refuse to take on risk. Put plainly:

- *a. to the extent that investors believe that the regulator will eliminate the reward for bearing risk whenever that risk crystallizes in a large ex post benefit to investors; then*
- *b. investor will refuse or limit the amount of volume and/or cost risk that they offer into competitive tenders; and*
- *c. ultimately, shippers or other parties (e.g., insurers) will bear that risk even if they are not the best placed to absorb or manage the risk;*
- *d. if shippers or other parties (e.g., insurers) are unwilling to bear that risk then new pipelines/capacity expansions will be either not occur or will be delayed until the near term demand is sufficiently high that the investment in capacity is low risk;*
- *e. ultimately, this will result in higher energy prices for end users.*

Moreover, under a heavier form of regulation, APA's investments in additional capacity on the ECG will require approval by the regulator, which can take significant time to progress, and will not be driven by commercial timelines or market needs. There is also a high degree of uncertainty around whether and when the AER would be prepared to approve capex for expansion projects as 'prudent', given the 'needle peak' capacity some of this capex might be required to serve, and uncertainty around future market developments.

An example of how heavier regulation could practically impact investment decisions is set out below.

Investment required to support movement of Beetaloo gas

Development of the Beetaloo basin is currently being explored as a means of securing supply for domestic markets and potentially for export. It is expected that Beetaloo gas will be critical for meeting demand as southern supply sources decline.

While the pipeline route from Beetaloo to the east coast and/or export facilities is currently uncertain, under a number of scenarios APA considers investment will be required to augment existing parts of the grid (including the SWQP) to allow Beetaloo gas to service these markets. APA recognises there remain many other uncertainties with respect to Beetaloo, including how much gas is in the basin

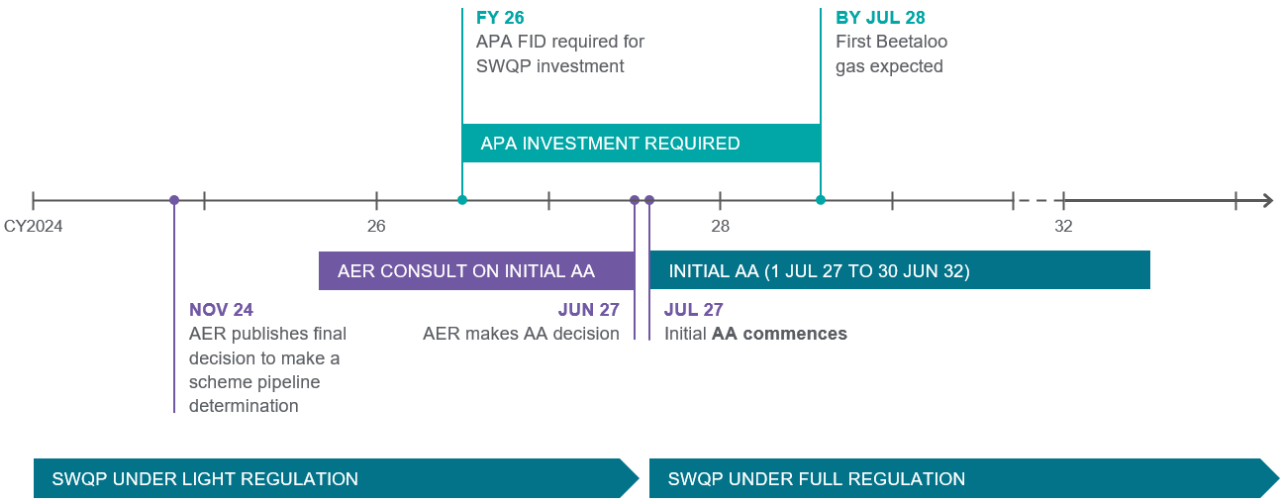
[31] Expert report of T Hird (CEG), *Consultation on form of regulation for the SWQP* (March 2024), [111]-[113]

and where the gas will be shipped to. However, based on a number of plausible development scenarios, APA's current expectation is that it will need to augment the SWQP, with some early indicative analysis suggesting this could be in the order of approximately $200 million in capital expenditure.[32]

On the basis of current timelines being targeted by Tamboran, which suggest developers are aiming for first gas from Beetaloo as early as 2028,[33] APA expects it would need to reach FID on at least some of the required pipeline augmentations in FY2026. This means if the AER decides to move to a heavier form of regulation for the SWQP, FID for these augmentations may be required in the middle of an access arrangement process – that is, while the AER is considering matters such as the RAB value, forecast demand and capex requirements, but prior to the AER's final decision on the SWQP's initial access arrangement.

In this scenario, it is quite possible that some capex would be required before the commencement of scheme pipeline regulation, as well as some capex during the initial access arrangement period. This means that the investment costs (if accepted by the AER as prudent and efficient) will need to be partially reflected in (a) the SWQP initial RAB and/or (b) forecast capex for the first access arrangement period for the SWQP.

Figure 5: Indicative overlapping timelines for Beetaloo-related SWQP investment decision-making and regulatory processes



To the extent the SWQP augmentation costs need to be:

(a) factored into the initial RAB – this will involve uncertainty around what RAB methodology the AER will use and how the methodology is to be applied to 'in flight' projects; and/or

(b) proposed as forecast capex requiring AER approval under the access arrangement process as "prudent" expenditure – the AER will need to make decisions about whether the investment is required and economically justified. This process would require the AER to making various assumptions and forecasts relating to Beetaloo gas, including:

- the likelihood of Beetaloo production and expected flow;
- the likely destination of that gas and in what volumes over what timeframe;

[32] High level estimate only.
[33] Tamboran Resources, *Half Yearly Report* (31 December 2023), p 6.

- the likely competitive dynamics – i.e. will Beetaloo gas be required to move south and in what volumes/capacity; whether other fields will get developed and at what rate existing fields will decline; and
- the likely peak capacity – i.e. what will peak demand be and what is the source of this demand likely to be (e.g. LNG import terminals, existing fields not declining as quickly as in the past, other new development in the south and price competitiveness of Beetaloo gas with these developments).

These matters are extremely complex and very difficult to predict. At present, APA would need to make those assessments and take the risk of investing in those circumstances. In a regulated environment, the AER will need to make these very difficult assessments.

If the SWQP becomes subject to full regulation, the uncertainty around how the AER might set the RAB and whether the AER would consider proposed augmentation capex “prudent” would present a significant risk to in-flight capex.

Appendix A Responses to AER consultation questions

A.1 Introduction

A.1.1 Assessment approach

1) Please provide any views on how the AER should approach making a form of regulation determination. In particular, provide views on how we should consider the various criteria and factors set out in the NGL.

In assessing which form of regulation is appropriate, the AER must have regard to how effective each form of regulation will be in promoting access to pipeline services, as well as the costs likely to be incurred under each form of regulation. APA notes in this respect that the AER appears to be considering a more limited approach to 'costs' than is actually required by the National Gas Law (**NGL**), particularly when considered in the context of the National Gas Objective (**NGO**).

The AER appear to have characterised the relevant costs of a heavier form of regulation as being limited to the direct regulatory costs associated with complying with the 'mechanics' of the regulatory regime. However it is clear that the costs to end-users of a heavier form of regulation can extend well beyond these direct compliance costs. APA has detailed in its submission that the relevant costs also include the costs inherent in any delay of, or deterrent to, investment under each form of regulation. APA's submission further explains why these costs will be particularly significant in the current environment.

The impact of regulation on investment must be a central consideration for the AER. The NGO directs attention to the promotion of efficient investment gas services for the long-term interests of consumers. APA notes the recent amendment to the NGO, which now requires consideration of efficient investments that contribute to, or are likely to contribute to, the achievement of emissions reduction targets. As explained in APA's submission, it is anticipated that significant investment will be required in the near term to maintain security of supply ***and support the transition to net zero***. Putting this investment at risk would be in direct conflict with the NGO.

This view is comprehensively supported in the expert report of Mr Balchin (Incenta Economic Consulting) at **Appendix F** (**Balchin Report**).[34] The Balchin Report discusses at length the criteria for determining the appropriate form of regulation, and the relevance of the NGO to that determination. In this context, we note the following summarising statements in the report:[35]

> *… the AER gives only cursory attention to potential 'economic' costs and benefits of scheme pipeline regulation including potential effects on efficient pipeline investment, as would be required in assessing consistency with the National Gas Objective. In our view, the potential for applying scheme pipeline regulation to APA's non-scheme pipelines to dissuade efficient investment should be a central consideration for the AER, presenting a potential economic cost to either or both pipeline users and gas consumers.*
>
> *…*

[34] Expert report of J Balchin (Incenta), 'Economic principles for deciding on the appropriate form of regulation for the South West Queensland Pipeline' (March 2024), see section 2 in particular.
[35] Balchin Report, p 4.

> *… In this report we explain the risks of capital under-recover and why the reference tariff regime for scheme pipelines does not adequately address the risk. We explain why applying the reference tariff regime in a situation of substantial medium to long term demand risk may result in regulatory outcomes contrary to the revenue and pricing principles of the National Gas Law, erode incentives for investment contrary to the National Gas Objective and to the interests of pipeline users and gas consumers'*

A.1.2 Key gas market trends

2. We are seeking views on the trends discussed in this chapter and how they may impact the use of the SWQP, and the extent of any market power APA may hold in providing services on the pipeline. We are also interested in whether there are other trends in relevant markets that currently, or in the future may, impact the supply of services and use of SWQP.

No evidence of exercise of market power

As articulated fully in APA's submission, **Appendices C – E** and the March 2024 expert report of Dr Tom Hird (**Hird 2024 Report**),[36] there is no evidence of the exercise of market power by APA in relation to the services offered on the SWQP. APA notes in summary that:

- The terms of access to the SWQP have been shaped by competitive forces. The ACCC has recognised that the foundation contracts were established in a competitive process and resulted in terms that were beneficial to the foundation shippers. The terms of these contracts still anchor the terms and conditions of subsequent contracts, thereby benefiting all subsequent shippers. See APA's submission at sections 1.1 and 3 and **Appendix C** for detail.

- Shippers continue to have alternatives to contracting with APA for the use of the SWQP. See APA's submission at section 3.1.5 for detail.

- APA's returns on the SWQP are no higher than necessary to compensate APA for the level of risk, with the average pre-tax return on capital being approximately 8% over the past decade. See APA's submission at section 3.3 for detail.

The AER appear to be considering placing a level of reliance on the ACCC's finding in its 2016 Gas Market Inquiry Report that there was 'evidence' of monopoly pricing on many pipelines, including for services on the SWQP.

APA has provided at **Appendix I** the report it commissioned from Dr Tom Hird in response to the ACCC's 2016 finding (**Hird 2016 Report**),[37] which provides a comprehensive review of the 'evidence' the ACCC identified and its conclusions regarding market power.

APA has since commissioned a supplementary report from Dr Hird that considers subsequent observations made by the ACCC in its interim updates on its Gas Inquiry between 2017 and 2030, which is provided at **Appendix J**. In summary, Dr Hird concludes that: [38]

> *What is important is that SWQP pricing for non-foundation customers has been anchored to the foundation contracts. This was true when the SWQP was predominantly providing*

[36] Expert report of T Hird (CEG), '*Consultation on form of regulation for the SWQP'* (March 2024) (**Appendix J**).
[37] Expert report of T Hird (CEG), '*Returns on investment for gas pipelines*' (October 2016).
[38] Expert report of T Hird (CEG), '*Consultation on form of regulation for the SWQP'* (March 2024) (**Appendix J**), paras [22]-[25]..

eastward services and is currently true when the SWQP is predominantly providing westward services.

These prices reflect the prices set during "competition for the market" at the time of the relevant tenders but they also reflect competition "within the market" - noting that foundation customers can and do use their contracted capacity to supply transport services to third parties on the SWQP in direct competition to the owner of the SWQP providing the same service.

In my view, so long as SWQP prices are anchored to foundation contract prices the only reasonable conclusion is that those prices are consistent with competitive market pricing.

There is no evidence in the AER discussion paper that would contradict or undermine this conclusion.

Relevant trends in the east coast energy market support non-scheme regulation

APA's view of the relevant trends in the east coast energy market largely accords with the factual information outlined in the Discussion Paper. As set out in APA's Submission and its relevant appendices (most particularly the Balchin Report at **Appendix F**), APA clearly support the retention of non-scheme regulation for the SWQP.

As noted not just by APA, but by AEMO and other market bodies, there is an 'urgent' need for significant levels of investment, and uncertain medium to long term demand on the SWQP (and indeed other parts of APA's gas transmission system). APA notes in particular the very recent assessment of AEMO (discussed below), identifying the risk of supply shortfalls and the need to urgent investment to address this risk.

The key characteristics of the current market are discussed in detail in APA's submission. These characteristics can be relevantly summarised as follows:

- The energy market in Australia needs to transition to a lower emission supply mix, which will require significant amounts of investment across all components of the supply chain.
- The recent 2024 AEMO Gas Statement of Opportunities (**GSOO**) clearly signalled the escalating needs for rapid and significant investment in the supply of gas to the east coast market, with emphasis on:
  - new investment being urgently needed if gas supply from 2028 is to keep up with demand from homes and businesses, and for gas powered generation (**GPG**);
  - annual GPG gas consumption is forecast to increase dramatically, which also drives a very significant increase in the winter peak demand (now forecast to increase to 3000TJ/day in the early 2040s); and
  - investments in gas production, storage and pipeline capacity that are urgently needed to reduce the risk of peak day shortfalls and to avoid annual supply gaps. AEMO specifically mentions the need for APA to continue its program of expansion on the east coast grid, noting this is necessary to mitigate the risk of southern gas supply shortfalls.
- There is uncertain medium to long term demand on the SWQP, which is recognised by the AER in its Discussion Paper. The medium to long term demand on the SWQP, and the east coast grid more generally, will be dependent on not only the substitution of lower emission fuels for gas by end users, but also on where new sources of domestic gas supply will be geographically located. If the majority of the new supply is located in the south, then demand on the SWQP may decline. However the demand outlook may be very different if major sources of supply are in northern Australia.

- The Beetaloo reserves are emerging as a potentially very significant source of domestic gas supply. APA is presently of the view that the development of the Beetaloo reserves will provide a cost effective and timely response to the supply issues currently impacting the east coast gas market. If the Beetaloo reserves are successfully developed, the transport of that gas to southern demand centres will require high levels of investment. While there is no definitive pipeline path to bring Beetaloo gas to southern demand centres at this stage, all scenarios require a very high level of investment in new pipelines, and a number of scenarios also require the augmentation of existing pipelines on the east coast grid, including the SWQP.

These trends are discussed in detail in APA's submission, particularly **Appendix D**.

A.1.3 Promotion of access to pipeline services

3. Can users currently negotiate fair and reasonable terms and conditions of access to the SWQP? Do you consider that any terms or conditions of access are unreasonable?

Users and potential users currently negotiate fair and reasonable terms and conditions of access to the SWQP with APA that are consistent with workable competition. APA's Submission, and particularly **Appendix C**, provides a significant amount of detail in respect of the competitive dynamics of the market in which the SWQP operates, the alternatives open to customers, and how those dynamics impact negotiations between APA and customers. APA has also provided an explanation of the competitive process which determined the price and terms of the SWQP foundation contracts, and how the price and terms of those contracts still serve to anchor new contracts. In summary:

- Constraints have applied from the time of the SWQP's initial construction through various market developments and expansions of the SWQP. The terms of access to the SWQP have been shaped by competitive forces. The ACCC has recognised that the foundation contracts were established in a competitive process and resulted in terms that were beneficial to the foundation shippers. Major foundation contracts remain on foot today.
- APA continues to be constrained by the countervailing power of our customers and the alternatives available to them, as well as the terms of long-term foundation contracts that were struck in a highly competitive environment.
- For APA's customers on the SWQP today, pipeline transport is one input among others that is used to meet an ultimate need. The ultimate need will not be transport on the SWQP – on its own, gas transport between Wallumbilla and Moomba is of no value to a customer. Rather, the ultimate need will be the delivery of gas either to a retail customer base, to industrial facilities, to export facilities or to GPG.
- In this context a shipper will rarely view SWQP firm capacity (contracted directly with APA) as a "must-have" service. Rather, SWQP firm capacity will typically be one option among many for meeting the customer's ultimate need.
- APA's returns on the SWQP are no higher than necessary to compensate APA for the level of risk, with the average pre-tax return on capital being approximately 8% over the past decade (this being a relatively successful period for the SWQP, compared to prior decades). See APA's submission section 3.3.
- The expert report of Dr Hird (**Appendix J**) shows that, when SWQP returns are compared on a like-for-like basis with returns on US pipelines, SWQP returns are at the lower end of the range of observed returns.

APA notes in this context that the relevant question the AER must consider is whether there is evidence of an exercise of market power by APA, or whether the outcomes observed are those that

are expected in an environment of workable competition. Where a party might express a hope that heavier regulation might deliver a reference price that is lower than the prevailing rate, and that this may enable them to get a lower priced contract, this should not be considered determinative evidence of market power.

In the absence of a comprehensive analysis, that must be performed in compliance with the relevant provisions under the NGL, it cannot be assumed that scheme pipeline regulation would deliver a lower reference tariff. The question of whether current terms or conditions are 'reasonable', should be considered with reference to the outcomes of workable competition, and not by comparison to what may or may not occur under a regulated regime. As clearly articulated in our submission, specifically in **Appendix C** and **Appendix E**, the outcomes observed on the SWQP accord with those that would be observed in an environment of workable competition.

4. Do you consider that APA is currently able to exercise a degree of market power in negotiating with users for access on the SWQP? If so, how does this impact negotiations?

Refer to Q3 response above.

5. If APA can exercise a degree of market power in supplying services on the SWQP, how effective is non-scheme pipeline regulation currently in constraining this market power and promoting access? Which elements of the current non-scheme regime are, or are not, working?

As set out in section 3 of APA's submission, there is no evidence of market power being exercised. This is in part due to the countervailing power of customers, which has been a feature of the SWQP's history (see **Appendix C**).

The countervailing power of shippers has been enhanced in recent years through changes to the regulatory regime for non-scheme pipelines. This regulatory regime has proved to be effective in promoting transparency, fair and reasonable terms and returns only sufficient to support investment.

As detailed in APA's submission and the Balchin Report at **Appendix F** (with particular reference to Section 6), there is clear evidence that the current non-scheme form of regulation has delivered real benefits for SWQP shippers and end-users, including:

- timely and efficient investment in the capacity needed to deliver gas to households, industrial customers and GPG, particularly in the southern states. This investment has been critical for maintaining security of supply as southern gas supplies have been in decline. It also provides support for GPG capacity needed to facilitate phasing out of coal-fired generation and the transition to Net Zero;
- an ability for customers to negotiate flexible services and access arrangements, with an arbitration mechanism available to resolve any disputes (a mechanism that has never been called upon by any SWQP customer); and
- efficient usage of the pipeline.

The 2017 reforms, which introduced Part 23 in the NGR (now Parts 10 and 12), enhanced the position of shippers through transparency measures and the introduction of the arbitration regime. APA notes that further changes to the regime – including a significant expansion of transparency measures – were made following the ACCC's review of the regulatory regime in its July 2019 Gas Inquiry Interim Report. In that report the ACCC found that the light-handed arrangements as they existed at that time (under the then Part 23 of the Rules) "appears to be working as intended and there are signs that it is having a positive effect on pipeline prices and the contracting environment".

The ACCC nonetheless recommended enhancements to the regime. Following this review, there were further transparency measures introduced in March 2023 that now require APA to publish highly detailed information, including in respect of the price of each service under each contract on each asset, including the SWQP.

In initiating a form of regulation review in February 2024, the AER has not permitted sufficient opportunity to fully assess whether these new measures will have their intended impact (to improve transparency and further improve the bargaining position of shippers), and to what extent.

The relevance of this to the AER's consideration of the appropriate form of regulation is emphasised in the Balchin Report at **Appendix F**, which provides a history of the current regulatory regimes, relevantly highlighting the preference the Productivity Commission has clearly articulated for lighter regulation on gas pipelines, noting that:[39]

> *Importantly for the current discussion, the [Productivity] Commission also considered the decisions and recommendations of the form of regulation should err on the side of light-handed regulation. That is, the Commission considered that regulation with access arrangements should be applied only where the net benefits of access arrangements are markedly greater than the benefits of light-handed regulation …*

6. How do you consider changes to the non-scheme pipeline regulatory regime (which commenced in March 2023) may affect the way access is negotiated or services are supplied on the SWQP? Will improvements to the information disclosure regime, and the access dispute framework affect users' ability to negotiate access?

As noted above in response to Q5, APA does not believe there has yet been an adequate opportunity to understand the further benefits to transparency that these reforms will bring to customers. The recent reforms provide for significant greater transparency than has previously been available to shippers.

7. Do you consider that regulating the SWQP as a scheme pipeline is needed to promote access to the SWQP? If APA is exercising a degree of market power in the supply of services on the SWQP, will scheme pipeline regulation help to constrain APA in the exercise of this market power?

Refer to Q2, Q3 and Q5 responses above.

8. What impact would making a scheme pipeline determination for the SWQP have on the promotion of access to services on the SWQP? In addition, and specifically, how will a scheme pipeline determination impact:

• the ability of users and prospective users to negotiate with APA for SWQP services

• the prices currently charged and the pricing structure (including premiums and fixed charges) for pipeline services on the SWQP

• the non-price terms (including contract terms and MDQs) offered or negotiated for pipeline services on the SWQP

• the pipeline services offered or not offered on the SWQP?

[39] Balchin Report, p 45, referring to Productivity Commission, *Review of the Gas Access Regime, Inquiry Report No. 31* (11 June 2004), p 228.

APA does not believe there will be any impact on access to services on the SWQP. There is currently no barrier to customers obtaining access to the SWQP, on terms and conditions that are comprehensively negotiated with APA and which reflect the outcomes of workable competition. Refer to Q3 and Q5 responses above.

A.1.4 Costs of scheme and non-scheme regulation

As stated above, when assessing the costs of a heavier form of regulation, regard must be had to the likely cost of delayed or abandoned investment, as noted by Productivity Commission and the Balchin Report. This is a much broader assessment than suggested by the Discussion Paper, which focuses on direct expenses associated with the administration of regulatory processes.

9. What are the costs incurred by an efficient service provider, an efficient user, and end users under full and light regulation? Are costs higher for full or light regulation?

APA considers that the costs under full regulation will be significantly higher, particularly to end users and particularly over the medium to long term. APA refers to its submission (particularly section 4) and the Balchin Report (**Appendix F**) in response to this question.

10. Do you have any views on the ability of APA to pass regulatory costs onto users of the SWQP, and users of the SWQP to pass on the costs of regulation to end users?

Currently, APA's ability to pass any cost increases through to individual customers is constrained by the terms of its contracts with those customers. This applies to regulatory compliance costs as well as any other changes in APA's costs that may occur over the term of a contract. APA generally cannot pass through cost changes unless a contract specifically provides for this. This forms part of the contractually agreed framework for sharing of risks between APA and the customer.

Under scheme pipeline regulation, regulatory costs would be factored into forecast expenditure for the purposes of determining reference tariffs.

A.1.5 Promotion of the National Gas Objective

11. How could regulating the SWQP as a scheme or non-scheme pipeline promote or help achieve the NGO? For example, how may each form of regulation impact: • the efficient investment in the SWQP and any other gas services (including the supply of natural gas) • the efficient operation of the SWQP and any other gas services (including the supply of natural gas) • the efficient use of the SWQP and any other natural gas services (including the supply of natural gas)?

A proper consideration of the NGO is imperative to the appropriate application of the criteria outlined in section 112 of the NGL, particularly the NGO requirement to promote efficient investment in natural gas services for the long-term interests of consumers of natural gas with respect to the federal and state emissions targets.

APA refers to its submission and section 2 of the Balchin Report (**Appendix F**) as to its position on the manner in which the NGO requires the AER to consider the question of 'costs' of scheme pipeline regulation as including the costs associated with delayed or avoided investment. APA notes that the investment it is referring to here is not only that which is necessary to secure efficient supply, but also

to support the essential role gas will have in the transition of the energy market and meeting emission targets.

The role of gas in the transition, and the importance of continued investment in supply, storage and transmission has been made even clearer in recent statements by AEMO. AEMO states:

> *While the scale of gas consumption remains uncertain through the energy transition, particularly in relation to gas usage for electricity generation, all scenarios identify the urgent need for new investments to maintain supply adequacy. Gas inadequacy risks over the short, medium and long term include…*
>
> - *Northern producers need to deliver anticipated supplies, and from 2026 investments in currently uncertain supply will be needed to meet domestic requirements and export positions.*[40]

AEMO further states:

> *In the south, investments in gas production, storage and transport are urgently needed to reduce the risk of peak day shortfalls and to avoid annual supply gaps.*[41]

Specifically in relation to shortfall risks, AEMO states:

> *While the risk of daily shortfalls under extreme peak demand conditions is reduced, additional investments above those assessed are needed to address the risk of daily peak supply shortfalls from 2025. The requirement for investment in peak day capacity increases dramatically from 2033 and could be delivered by a combination of the options assessed, new capacity from storage or gas plants in the south, or new pipelines which could provide alternative north to south transportation.*[42]

In respect of the importance of the NGO to the appropriate formulation of costs, the Balchin Report states that:[43]

> *... we think the AER's statement that the requirement to consider the costs to the various parties relates only the administrative (regulatory) cost is unnecessarily limited, inconsistent with the National Gas Objective and inconsistent with the broader context of economic regulation. In our view, the reference to costs in these clauses should be taken as a reference to economic costs and include the full suite of costs that may be imposed upon (or saved by) service providers, users and end-users as a consequence of changing the form of regulation.*

The importance of ensuring an environment conducive to ongoing investment in gas supply, storage and transport cannot be overstated, as was made exceedingly clear by AEMO in its 2024 VGPR, which states that "Investment uncertainty in gas supply and infrastructure projects remains high"[44] and:[45]

> *AEMO recognises that the investment environment for supply and infrastructure projects remains challenging and uncertain. Many potential projects identified in the 2023 VGPR have not materially progressed due to regulatory approval requirements, difficulty acquiring*

[40] 2024 GSOO, p 4.
[41] 2024 GSOO, p 60.
[42] 2024 GSOO, p 85.
[43] Balchin Report, p 11.
[44] AEMO 2024 VGPR Update, p 4.
[45] AEMO 2024 VGPR Update, p 12. See similar commentary at pp 55, 62.

> *financing for natural gas projects, and market participants' resistance to making long-term commitments in an uncertain investment environment in the energy sector.*

APA states its view on the potential impact on investment in its submission, noting that:

> *The next decade will be a crucial period for investment to support the energy transition whilst maintaining security of energy supply. Much of this investment is likely to carry considerable risk, given the uncertainty around the pace and shape of the market transition. The prospect of tariff regulation being imposed after risk has been assumed by investors with a view to capping any upside returns will create a real disincentive for investment at this critical juncture. It is likely to mean that investors are less willing to support investment which carries both upside and downside and risk – and in some cases such investment may only be supported if long-term contracts or other risk mitigants are in place. This risk will be particularly acute where the AER seeks to regulate infrastructure that has not yet realised or has only just realised returns on its investment after periods of low demand or poor performance.*

A.2 Form of regulation factors

A.2.1 Barriers to entry

12. What do you consider the barriers to entry to the market for gas pipeline services in competition with the SWQP are, and what are the extent of these barriers? Do you consider there is the potential for a new entrant to build a competing pipeline with the SWQP? Are there other ways that a new entrant may enter the market to compete with the SWQP?

Constraints on APA's ability to exercise market power arise from the options available to shippers when considering whether to acquire transportation services on the SWQP. In some cases (including at the time of entering into major foundation contracts) these options have included alternative pipelines. However in the context of a point-to-point pipeline such as the SWQP, shipper options are not limited to the construction of a competing pipeline – as discussed in detail in **Appendix C**, these can also include swaps, use of short-term capacity and alternative supply sources. Therefore the relevant question should not be limited to the issue of whether someone can build a duplicate pipeline.

The competitive dynamics of the market in which SWQP operates are detailed in APA's submission at sections 2.2 and 3.1, and more extensively in **Appendix C**. It is crucial to note that:

- For APA's customers on the SWQP today, pipeline transport is one input among others that is used to meet an ultimate need. The ultimate need will not be transport on the SWQP – on its own, gas transport between Wallumbilla and Moomba is of no value to a customer. Rather, the ultimate need will be the delivery of gas either to a retail customer base, industrial facilities, export facilities or GPG.

- In this context a shipper will rarely view SWQP firm capacity (contracted directly with APA) as "must-have" service. Rather, SWQP firm capacity will typically be one option among many for meeting the customer's ultimate need.

13. What market developments, if any, may affect the barriers to entry to construct a pipeline which would compete with SWQP?

Refer to Q12 response.

A.2.2 Network externalities

14. How does APA's operation of other pipeline and storage services impact how APA supplies services on the SWQP, and/or how users are able to access the SWQP? This may include matters such as the use of multi-asset agreements or bundling of services.

APA notes that this form of regulation factor was introduced into the regulatory framework with a view to distinguishing between point-to-point pipelines from assets that exhibit 'network externalities' (such as a distribution network or electricity system, where there typically is no option at all to bypass the system).

The relevant Expert Panel report notes that electricity networks will tend to exhibit strong interdependencies (i.e. network economies and externalities) which generate efficiencies but also create barriers to contestability. By contrast, in relation to gas transmission pipelines the Expert Panel observed:[46]

> *Network interdependence and externalities are less pronounced for gas transmission pipelines which more typically provide end-to-end services that can be operated independently without loss of efficiency. Thus, establishing means of contestability through tradable rights to pipeline capacity and pipeline-on-pipeline competition is more feasible in the gas transmission pipeline sector.*

The SWQP clearly does not exhibit network externalities in the same way as an electricity network or gas distribution system. It is a point-to-point link, that can be bypassed by customers. The history of the SWQP (**Appendix C**) demonstrates that shippers have the ability to bybass the SWQP – either through swap arrangements, alternative supply sources and/or seeking proposals for alternative pipeline routes.

Even where SWQP services are offered together with services on other pipelines (e.g. as part of a multi-asset service) this does not give rise to network externalities. A multi-asset service (for example between Wallumbilla and Culcairn) is still a point-to-point service with the same scope for bypass.

More generally, APA does not consider its operation of SWQP as part of a system supports any finding of market power:

- As noted above, the customer's ultimate need will not be transport on the SWQP – on its own, gas transport between Wallumbilla and Moomba is of no value to a customer. APA's system will not be the only option for the customer to obtain gas at the required demand point and the customer will not only have options in respect of how to move gas from point A to point B, but will in fact have options to acquire gas elsewhere and transport it by other means to point B.APA does offer multi-asset contracts and services, and seeks to serve the customers' needs through a competitively priced offer for transport of gas to a particular demand centre;
- These issues need to be considered over the medium to long term. As shown in **Appendix C,** when negotiating long term foundation contracts for major expansions of pipeline capacity, customers have looked at a range of options for meeting their ultimate needs, including alternative pipeline routes (for example Origin considered routes directly from Wallumbilla to the Hunter, which would have bypassed both the SWQP and MSP).

[46] Expert Panel on Energy Access Pricing, Expert Report to the Ministerial Council on Energy (April 2006), pp 48-49.

15. Does the ability of APA to provide other pipeline services affect the degree of any market power held by APA in supplying services on the SWQP, and if so, how?

No. Refer to Q14 response.

16. Are current ring-fencing and associate contract provisions in the NGL effective in managing any competitive advantage that APA would otherwise gain from operating other gas services?

Yes. APA notes that there is no material issue of vertical integration here. Other than for the Diamantina Power Station (discussed below), APA does not use the SWQP to serve any upstream or downstream interests. There is therefore no sense in which APA could gain a competitive advantage in upstream or downstream markets from its ownership of the SWQP, and APA has no incentive to discriminate in providing access.

In any event, APA is subject to significant ring fencing obligations which APA complies with.

APA notes in this respect the arrangements in respect of Diamantina Power Station are all undertaken at posted tariffs, and that the related contracts are provided to the AER under Rule 33.

17. How does APA's operation of any non-gas services, including those discussed above, impact how APA supplies services on the SWQP, and/or how users are able to access the SWQP?

APA's operation of any non-gas services does not impact how APA supplies services on the SWQP, nor how users are able to access the SWQP.

APA notes in this respect the arrangements in respect of Diamantina Power Station are all undertaken at posted tariffs, and that the related contracts are provided to the AER under Rule 33.

18. Does the provision of any non-gas services by APA provide APA with a degree of market power in the supply of service on the SWQP? If so, explain how.

No.

19. Are current ring-fencing and associate contract provisions in the NGL effective in managing any competitive advantage APA would otherwise gain from operating any other services?

Yes. Refer to response to Q16 above.

A.2.3 Countervailing market power

20. What factors, including those discussed above, do you consider impact the degree of countervailing market power of users, or prospective users?

APA is constrained by significant countervailing customer power in respect of its operation of the SWQP. This discussed in detail in APA's submission (section 3) and **Appendix C**.

APA again emphasises that the current terms of access to the SWQP have been shaped by competitive forces and the countervailing power of large customers. The ACCC has recognised that the foundation contracts were established in a competitive process and resulted in terms that were beneficial to the foundation shippers. The terms of these contracts still anchor the terms and conditions of subsequent contracts, thereby benefiting all subsequent shippers. See APA's submission at sections 1.1 and 3 and **Appendix C** for detail.

Moreover, shippers continue to have alternatives to contracting with APA for the use of the SWQP. See APA's submission at section 3.1.5 and **Appendix C** for detail.

21. If you are a user: • do you consider that you are able to negotiate reasonable terms and conditions of access (including on prices) to the SWQP • can you describe the process of negotiating with APA, for example, are there any elements of the negotiation process which are easier or more difficult to reach agreement on? • are there any factors which you consider make your ability to negotiate with APA easier or more difficult?

APA refers to examples of negotiation processes in APA's submission, most relevantly at section 3 and **Appendix C**.

A.2.4 Substitutes and elasticity of demand for pipeline services

22. Are any services on other pipelines a substitute for pipeline services on the SWQP? This can include pipelines which transport gas from an alternative source.

The competitive dynamics of the market in which SWQP operates are detailed in APA's submission at section 3, and more extensively in **Appendix C**.

23. Are there other viable substitutes to transport gas between Queensland and the southern states, such as LNG by road? Please explain why any alternative transport methods may or may not be viable substitutes.

Refer to Q22 response, section 3 of APA's submission and **Appendix C**.

24. To what extent are gas swaps a viable substitute for transporting gas via the SWQP and do they constrain any market power APA may hold? Have you used, or are you aware of the use of, gas swaps as an alternative to acquiring gas pipeline services on the SWQP? Please provide any details on scenarios where gas swaps are, and are not, viable alternatives to acquiring SWQP services.

Refer to Q22 response, section 3 of APA's submission and **Appendix C**.

Particularly relating to the viability of swap arrangements as an alternative to SWQP transport, APA refers the AER to the 2004 Santos/Origin swap arrangements as discussed in **Appendix C** at sections C.1.4 and C.3.

25. Have you ever considered constructing your own pipeline to bypass use of the SWQP? Provide any views on the costs of construction.

As discussed in section C.2 of **Appendix C,** Origin Energy conducted an intensely competitive process in 2008, in which three proponents competed to bring Origin's gas from Wallumbilla to southern markets:

- APA's proposal to construct a new pipeline from Wallumbilla to a midpoint on the MSP;
- A proposal for a new pipeline (the Hunter Gas Pipeline) from Wallumbilla to Newcastle; and
- Epic Energy's proposal to loop the SWQP/QSN Link from Wallumbilla to Moomba.

While the proposed costs to construct these options are not public, it is clear that each proponent considered their proposed option as a viable to meet Origin's gas transportation needs to southern markets.

26. For users of the SWQP, if the price of gas pipeline services on the SWQP increased, would you change your use of the pipeline? Provide any details on how your use of the SWQP may change. For example, would there be a certain point at which you would stop acquiring SWQP services from APA?

APA cannot comment on this. It has never sought to impose a real tariff increase on the SWQP.

However it is important to recognise that SWQP transportation costs make up a very small proportion of delivered gas costs. For example, the SWQP tariff makes up approximately 3 per cent of the delivered gas cost to a residential customer in Victoria.[47]

A.2.5 Substitutes and elasticity of demand for gas

27. If you think there are substitutes for the use of the SWQP, to what extent do you think they pose a constraint on any market power APA may have?

Refer to APA's submission at section 3.1, in particular section 3.1.5.

28. For industrial and commercial users: • What substitutes are available for industrial users of gas? What is the viability of these substitutes currently? Where the viability of substitutes is limited, why is this the case? • How will the viability of substitutes change in the medium and longer-term?

APA is providing the AER with information on its view of substitutes for end users of gas in its response to the s 42 information notice.

29. In relation to residential and small business users, how viable is electrification as a substitute for gas? What factors may limit this, and how may this change in the future?

See Q28 response.

30. How does the availability of substitutes for different classes of customers affect the extent of any market power held by APA in providing services on the SWQP?

The competitive dynamics of the market in which SWQP operates are detailed in APA's submission at sections 2.2 and 3.1, and more extensively in **Appendix C**.

APA again emphasises that:

- There is no evidence of market power in APA's operation of the SWQP. This reflects the range of options that have been, and continue to be, available to shippers to meet their ultimate needs. In combination with features of features of the non-scheme pipeline regulatory regime, this confers a high degree of countervailing power on customers.;
- For APA's customers on the SWQP today, pipeline transport is one input among others that is used to meet an ultimate need. The ultimate need will not be transport on the SWQP – on

[47] APA analysis, based on an SWQP tariff in the order of $1/GJ and an average cost of gas to a domestic Victorian customer in the order of $35.00 per GJ.

its own, gas transport between Wallumbilla and Moomba is of no value to a customer. Rather, the ultimate need will be the delivery of gas either to a retail customer base, industrial facilities, export facilities or gas-fired power generation (**GPG**). In this context a shipper will rarely view SWQP firm capacity (contracted directly with APA) as "must-have" service. Rather, SWQP firm capacity will typically be one option among many for meeting the customer's ultimate need. The options available to shippers will vary depending on their ultimate needs.

This is discussed in detail in **Appendix C**.

A.2.6 The extent of any market power held and exercised by APA on the SWQP

31. Do you consider that APA has market power in the supply of services on the SWQP? If so, to what extent does APA hold market power? Please explain your reasons for your views.

APA does not have the ability to exercise market power in supplying services on the SWQP.

See Q2 response, APA's submission section 3, **Appendix C** and **Appendix J** (expert report of Dr Hird).

32. Do you consider that APA is currently able to exercise market power in the supply of services on the SWQP, and if so, why is this the case? Reasons could include through the way that it negotiates price and non-price term conditions.

No. See response to Q31 above.

Further, APA notes in this context that the relevant question must still be one of whether there is evidence of an exercise of market power, or whether the outcomes observed are those that are expected in an environment of workable competition. Where a party might express a hope that heavier regulation might deliver a reference price that is lower than the prevailing rate, and that this may enable them to get a lower priced contract, this should not be considered determinative evidence of market power. In the absence of a comprehensive analysis, that must be performed in compliance with the relevant provisions under the NGL, it cannot be assumed that regulation would deliver a lower reference tariff. The question of whether current terms or conditions are 'reasonable', should be considered with reference to the outcomes of workable competition, and not with reference to what may or may not occur under a regulated regime. As clearly articulated in our Submission, specifically in **Appendix C** and **Appendix E**, the outcomes observed on the SWQP accord with those that would be observed in an environment of workable competition.

A.2.7 Should the AER make a scheme pipeline determination for the SWQP?

33. Considering the extent to which each form of regulation is likely to promote access to the SWQP, and the costs associated with each form of regulation, having regard to the NGO and form of regulation factors, do you consider that the AER should make a scheme pipeline determination for the SWQP? Please provide the reasons for your view.

No. APA refers to its submission and appendices.

Appendix B Initial feedback from investors [Confidential]

Appendix C Historic competitive constraints on the SWQP

The terms of access to the SWQP have always been subject to competitive constraints. Constraints have applied from the time of the SWQP's initial construction through various market developments and expansions of the SWQP. Today, APA continues to be constrained by the countervailing power of our customers and the alternatives available to them, as well as the terms of long-term foundation contracts that were struck in a highly competitive environment.

These constraints have meant that APA has never been in a position to exercise market power or extract 'monopoly rents' in negotiating tariffs on the SWQP.

C.1 Construction and early years of operation

C.1.1 Queensland Government tender process

In 1994, the Queensland Government ran a competitive process calling for tenders for the Ballera to Wallumbilla pipeline in which expressions of interest were called, and four parties were shortlisted and asked to submit more detailed proposals before a final selection was made. Tenneco Gas Australia (later known as Epic Energy Queensland Pty Ltd) (**Epic Energy**) and Tenneco Energy Australia (later known as Epic Energy Australia Pty Ltd) were named the successful bidders.

[redacted]

The pipeline became covered under the National Access Code with the introduction of the *Gas Pipelines Access 1998.* However, the Queensland Government included a derogation to allow the negotiated tariff arrangements to continue to apply under ACCC-approved access arrangements.

In 1999, the ACCC was asked by the National Competition Council (**NCC**) to deliver a report on this tender process, in the context of the NCC's assessment of the effectiveness of the Queensland Gas Access Regime.[49] The ACCC was asked to report on both:

- the conduct of the tender process and whether it conformed to the principles in the Code (relevant to the NCC's consideration of whether the Queensland access regime, including the derogations, should be certified under the national access regime); and
- reasonableness of the tariff outcomes (and consistency with the Code pricing principles).

The ACCC found that the tender process was "not broadly consistent with the Competitive Tender Process set out in the National Gas Code" because:[50]

- the tender process conducted by the Queensland Government was modified as it progressed;
- the Queensland Government continued to entertain non-conforming bids from Santos after its original bid failed to be short-listed; and
- the selection criteria were based on a delivered cost of gas, rather than being limited to the pipeline tariff.

[48] Firm Gas Transportation Agreement (**FGTA**) dated 11 September 1995.
[49] ACCC, *Queensland Gas Pipeline Access Regime: Assessment of tender processes and reference tariff outcomes* (May 2000), p 11.
[50] Ibid.

However the ACCC concluded that the resulting tariffs were nonetheless reasonable, on the basis that "the estimated [return on equity] ROE and [return on total funds employed] ROTFE for this pipeline … are both reasonable".[51]

The NCC, in its assessment of the effectiveness of the Queensland Gas Access Regime,[52] outlined the position of the Queensland Government regarding the derogations as follows:

> *Queensland's certification application provides the following explanation of the reasons for the derogations:*
>
> > *These arrangements were set by the then Queensland regulator prior to the finalisation of the Code and, apart from the Roma to Brisbane pipeline, were the basis upon which private sector investors:*
> >
> > - *entered into agreements with the Queensland Government to construct two important new pipelines in South West Queensland;*
> >
> > *…*
> >
> > *In recognition of the risks involved in these investments, the Queensland Government sought to preserve the arrangements by way of a transitional [grandfathering] measure in the form of the derogations (Qld Govt 1998).*
>
> *The Council understands that apart from reference tariff and tariff-related matters, the National Gas Code applies fully to the s.58 pipelines, with the ACCC as regulator.*

C.1.2 Construction and early operation of pipeline

Tenneco commenced construction of the SWQP in December 1995, which was completed by Epic Energy in December 1996.[53]

The original SWQP was built flowing eastbound between Ballera (Cooper Basin) and Wallumbilla to supply end users on the Roma to Brisbane Pipeline (**RBP**).

C.1.3 Emergence of basin-on-basin competition

At the time of the SWQP's construction, there was only very limited interconnectivity between state transmission systems and supply basins. At this point in time, one demand centre would typically only be supplied by one gas field, using one transmission pipeline.[54] For example, demand in South Australia and New South Wales demand was served by gas from the Cooper Basin delivered via MAPS and the Moomba to Sydney Pipeline (**MSP**) respectively, Victorian demand was served by Victorian gas fields, and Queensland demand was served by gas from the Surat Basin. The SWQP was one of the early drivers of basin-on-basin competition, as it allowed Queensland demand to also be served by gas flowing east from the Cooper Basin.

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[51] ACCC, *Queensland Gas Pipeline Access Regime: Assessment of tender processes and reference tariff outcomes* (May 2000), p 27.
[52] National Competition Council, *Queensland Access Regime For Gas Pipeline Services - Application for Certification under Section 44M(2) of the Trade Practices Act 1974 - Final Recommendation* (November 2002), p 22.
[53] Epic Energy, *Our History.*
[54] Productivity Commission, *Review of the Gas Access Regime, Inquiry Report No. 31* (11 June 2004), p 51.

However, by the early 2000s there was a significant movement towards interconnectivity as restrictions on the interstate sale of gas were removed.[55]

This relevantly involved the construction of:

- the Eastern Gas Pipeline (**EGP**) from Longford to Sydney – which allowed natural gas from the Gippsland Basin and Sole gas field in Victoria to be supplied into NSW, in competition with Cooper Basin gas already supplied to NSW via the MSP;
- the South Eastern Australia Gas Pipeline System (**SEA Gas**) – allowing Victorian gas to be supplied into South Australia, in competition with Cooper Basin gas already supplied to South Australia via the MAPS; and
- later, expansions and extensions to the SWQP (namely the QSN Link) – to allow gas from Queensland to be supplied into southern markets via the MSP and MAPS (discussed below).

APA understands that the development of the EGP and SEA Gas pipelines were influenced by:

- high Cooper Basin prices, which encouraged Bass Strait gas producers to compete for markets in Sydney and Adelaide; and
- regulatory / institutional delays associated with the expansion of MAPS, which caused customers to seek gas supply elsewhere.

These developments, and the use of gas swaps by producers (discussed below) contributed to an east coast grid where a market can be serviced by multiple basins that each use different gas pipelines.

C.1.4 Significant underutilisation of pipeline prior to major expansion projects

The original capacity of the SWQP was around 130TJ/day (eastbound, taking gas from the Cooper Basin to eastern parts of Queensland). However contracted capacity over the first decade and a half of the pipeline's operation never reached this level.

Starting contracted capacity was only around 66TJ/day, and while there was some increase in contracted capacity over the first decade, there was then a significant reduction in contracted and utilised capacity. Moreover, other opportunities to transport gas for new gas fired generation in eastern Queensland never eventuated due to Cooper Basin gas not being competitive compared to coal seam gas that was becoming available in eastern Queensland. Utilisation of contracted capacity also fell significantly as other options became available to shippers.

The drivers for this decline in demand for SWQP services included:

- the development of the CSG fields in the Surat Basin, which dramatically reduced demand from transportation of gas from the Cooper Basin via the SWQP; and
- a series of swap arrangements between Wallumbilla and Ballera producers, which allowed some Queensland gas from Ballera to reach southern markets after being processed at Moomba.

Each of these developments is discussed below.

[55] Productivity Commission, *Review of the Gas Access Regime, Inquiry Report No. 31* (11 June 2004), p 51.

Queensland CSG industry reduced demand for the SWQP

[redacted] due to CSG from the Surat Basin supplying Brisbane and Gladstone and displacing gas from Moomba which would have used the SWQP. The discovery and development of large CSG reserves in the Surat Basin effectively undermined the original business case for the SWQP – which was to transport gas from the Cooper Basin to those eastern demand centres.

The Queensland CSG industry developed faster than anticipated and customers in eastern Queensland were able to receive CSG produced closer to Brisbane, which was cheaper than the gas produced by south-west Queensland producers that required eastern haul shipping on the SWQP. This meant there was very little utilisation of the SWQP and eastbound forward haul volumes on the pipeline collapsed.

APA understands that gas producers in south-west Queensland worked very hard to protect their markets at the time, such that only very small volumes of CSG were shipped westbound for delivery to Mt Isa at the time via the CGP. [redacted]

[redacted]

[redacted]

[redacted]

[56] Santos, *Cooper Basin and Origin in major gas swap agreement* (6 May 2004).

- [redacted]
- [redacted]

[redacted]

-
-

This raw gas pipeline could not be the subject of a coverage determination under the Code[58], which meant it was not subject to any open access principles and was therefore not available to others for use.

The raw gas pipeline gave the SWQ Producers the ability to direct SWQ Cooper Basin production to higher value markets in the south, effectively denying the SWQP any easternhaul opportunities. This gas swap could theoretically have been executed without the SWQP being in place.

C.2 Competitive constraints around foundation contracts for major SWQP expansions

From 2008 the SWQP was subject to a series of extensions (including the QSN link) and ultimately the looping of the entire SWQP undertaken by the previous owner, Epic Energy. These extensions and expansions were underpinned by large foundation contracts with AGL and Origin.

The ACCC has recognised that the process to expand the SWQP and QSN Link for Origin and AGL was an example of a competitive process that benefitted both parties:[59]

> *In 2007, Epic and APA competed to develop a new pipeline to enable gas from Queensland to be transported into the southern states. Epic proposed reversing the flow and expanding the*

[58] Under the Code, the definition of a 'pipeline' to which a coverage determination could relate was limited to pipelines for transporting processed gas. This pipeline would not be subject to a scheme pipeline determination today, for the same reason.
[59] ACCC, *Inquiry into the east coast gas market report* (April 2016), p 120.

> *capacity of the SWQP and constructing the QSN, while APA proposed the construction of a new pipeline from Wallumbilla to Bulla Park. Epic ultimately won this contest, with AGL and Origin entering into foundation contracts in 2007 and 2009, respectively. The prices and other terms and conditions in these foundation contracts suggest that AGL and Origin both benefited from this competition. …*
>
> *The outcomes of these two competitive processes suggest that 'competition for the market' can impose an effective constraint on the behaviour of new pipelines.*

As noted by the ACCC, as part of the processes for building the QSN Link and expanding the SWQP, Epic entered into long-term foundation contracts with major shippers. These foundation contracts remain on foot today and continue to anchor SWQP pricing.

In order to understand the constraints on APA's ability to exercise market power on the SWQP, it is important to understand the commercial context in which the pricing and terms of these foundation contracts were struck.

C.2.1 Epic Energy and AGL foundation contract for QSN Link

In 2006/07 Epic Energy, as the owner of the SWQP, entered into a foundation contract with AGL for the construction of the QSN Link (to be commissioned in 2008), to facilitate transport of its Queensland gas to southern markets. The QSN Link is a sales gas pipeline between Ballera and Moomba. This link would allow for processed Queensland gas to flow westbound on the SWQP to the southern states for the first time. Paul Anthony, AGL's Managing Director at the time of the QSN Link stated:[60]

> *This AGL-Epic initiative will materially enhance the overall competitiveness of AGL's gas supplies into the east coast energy markets by driving basin-on-basin gas competition and pipeline-on-pipeline gas competition …*
>
> *It will introduce new competitive sources of gas into New South Wales, South Australia and Mt Isa gas markets to facilitate our future gas-fired power generation growth, and help secure supply into all the eastern states.*

This foundation GTA with AGL extended to

Due to the significant under-utilisation of the SWQP at the time of the AGL foundation GTA (see section C.1.4 above), AGL was able to exercise considerable countervailing power.

In 2008, construction of the AGL-contracted QSN Link and mid-line compression investment was completed. This increased the western-haul capacity across the SWQP and QSN to approximately 168TJ/day, . At this stage, the SWQP was effectively fully contracted for western-haul capacity,

C.2.2 Santos QN&T and Origin contract westbound capacity on the SWQP

In 2007 gas from Fairview (owned by Santos QN&T and Origin) came online.

[60] AGL, *AGL secures pipeline deal to link its gas to eastern markets* (13 July 2007).

C.2.3 Epic Energy and Origin foundation contract for SWQP looping expansion

By 2008 it had become apparent that there would be a need for increased transport capacity between the Queensland gas fields and southern markets.

In 2008, Origin undertook a competitive tender process to seek proposals for the transport of its gas from Wallumbilla to southern markets. There were three competing proposals:

- Epic Energy proposed expanding the SWQP and QSN Link by looping them, as well as compression services at Wallumbilla;
- APA Group proposed developing a pipeline from Wallumbilla to a mid-point location on the MSP (APA's Bulla Park compressor station), from where gas could be delivered either to Sydney, Culcairn (southern NSW) or Moomba. APA committed resources to securing the necessary pipeline easements and approvals; and
- A Hunter Valley Pipeline consortium that proposed to develop a new pipeline that would flow CSG from Wallumbilla to the Hunter region of NSW and then into the NSW gas distribution network.[61]

[61] See https://www.huntergaspipeline.com.au/about/.

[63] See Hastings Diversified Utilities Fund ASX Announcement: *HDF and Epic Energy confirms it has executed the financing documents for the SWQP Stage 3 (QSN3) expansion* (15 December 2009).

To secure the viability of the pipeline looping, Epic Energy sought additional shippers and reached an agreement with AGL, As a result, the capacity option offered by Epic Energy (as part of the competitive tender process) included capacity to meet Origin's and AGL's requirements.

In December 2011, the SWQP and QSN Link looping project, and associated mid-line and Wallumbilla compression elements, were completed.

C.2.4 Conversion to bi-directional operation and additional capacity expansions

Following the announcement of the development of LNG facilities at Gladstone,[65]

APA competed with for the construction of the Moomba compressor facility APA ownership and control of that facility has enabled APA to offer a wider range of services through the Moomba hub to all shippers than would have been possible if owned and controlled the compressor facility.

In 2014/15 APA completed work to make the SWQP (including the QSN and mid-line compression) fully bidirectional, including construction of the Moomba and Wallumbilla WCS3 compressor facilities.

In 2016 the SWQP was fully contracted eastbound Since this time, APA has made a number of investments to increase the flexibility of the use of the SWQP, much of which has not been underpinned by new contracts.

the SWQP was approximately 90% contracted in the westerly direction and approximately 45% contracted in an easterly direction.

[65] See Santos, *Santos and Petronas sign historic partnership for Gladstone LNG* (29 May 2008).

C.2.5 Major foundation contracts remain on foot today

The competitive dynamics outlined above have led to a situation where the majority of capacity on the SWQP is contracted by a few large shippers at a competitively determined prices for at least the next decade.

Moreover, as discussed below, these large foundation contracts effectively anchor pricing under new contracts on the SWQP – both for the larger shippers and smaller industrial customers. In effect, all shippers benefit from the competitive tension underpinning the establishment of these foundation contracts, and the countervailing power of the largest shippers.

C.3 Competitive dynamics surrounding the negotiation of new contracts

For APA's customers on the SWQP today, pipeline transport is one input among others that is used to meet an ultimate need. The ultimate need will not be transport on the SWQP – on its own, gas transport between Wallumbilla and Moomba is of little value to most customers. Rather, the ultimate need will be the delivery of gas either to a retail customer base, industrial facilities, export facilities or GPG located in end use markets in South Australia, NSW, Victoria, or Queensland.

In this context a shipper will rarely view SWQP firm capacity (contracted directly with APA) as "must-have" service. Rather, SWQP firm capacity will typically be one option among many for meeting the customer's ultimate need. These options will vary depending on the type of shipper and its ultimate needs.

The ACCC has previously noted the availability of options for shippers, including swaps, access to different basins and alternative pipelines. In the ACCC's public competition assessment of APA Group's proposed acquisition of Hastings Diversified Utilities Fund, the ACCC formed a view that:[66]

> *… on balance, it was unlikely that the common ownership of the MSP and QSN/SWQP would result in a substantial lessening of competition. If, in the future, gas flows from the south to north in eastern Australia, with or without the proposed acquisition, the owners of the MSP and QSN/SWQP would likely be constrained in their conduct by shippers' ability to:*
> - *use swaps;*
> - *source gas from a different basin;*
> - *use the EGP; and/or use the MAPS*.

Some options that are often available to shippers are discussed below.

C.3.1 Ability for producers to bypass the SWQP using swaps

One option for shippers has always been to bypass the SWQP altogether through use of swaps. As discussed above, swaps were used extensively in the early years of the SWQP's operation, allowing producers to bypass the SWQP. Swaps continue to be an option for shippers today.

APA has limited visibility of the number of swaps executed via the Gas Trading Exchange as these are not reported by AEMO. However, APA understands a significant amount of gas is swapped between shippers. AEMO reporting indicates that in the last year, 91 PJ of gas was supplied in Queensland by way of swaps that were concluded outside an AEMO-operated exchange.[67]

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[66] ACCC, *Public Competition Assessment: APA Group - proposed acquisition of Hastings Diversified Utilities Fund* (14 February 2013), [64].

[67] AEMO, *LNG & Short Term Transactions* (extracted 17 March 2024, for the period 13 March 2023 to 10 March 2024).

C.3.2 Foundation customers using contracted capacity to offer alternative supply options to prospective shippers

A key constraint on APA in negotiating new customer contracts is the ability for foundation customers to offer competing supply arrangements using their contracted SWQP capacity.

APA's foundation customers on the SWQP have contracted for a significant proportion of capacity on the SWQP. However, these shippers often do not need all of this capacity. Large shippers rarely make nominations for capacity up to their MDQ as they have contracted for a level of capacity that accommodates their peak day demand despite the seasonality in their overall demand profile. [redacted] As such, reserved but unutilised capacity is available on the SWQP consistently throughout the year, with the exception of a few peak days where shippers nominate their full MDQ. The amount of reserved but unutilised capacity available varies but follows seasonal demand patterns such that shippers can be reasonably certain the volume likely to be available.

[redacted]

[redacted]

As an alternative to offering capacity in secondary trading where the shipper may not be able to recover their take or pay liabilities, foundation customers can use this capacity to make offers to other prospective shippers and remove the need for those shippers to contract directly with APA. This may be an offer to provide just the available pipeline capacity or (more commonly) an offer for delivered gas, effectively bundling gas supply with available transport capacity. These offers effectively compete with offers made by APA for transport capacity.

In many cases, is likely to view an offer from a foundation shipper as more attractive than one from APA for two key reasons:

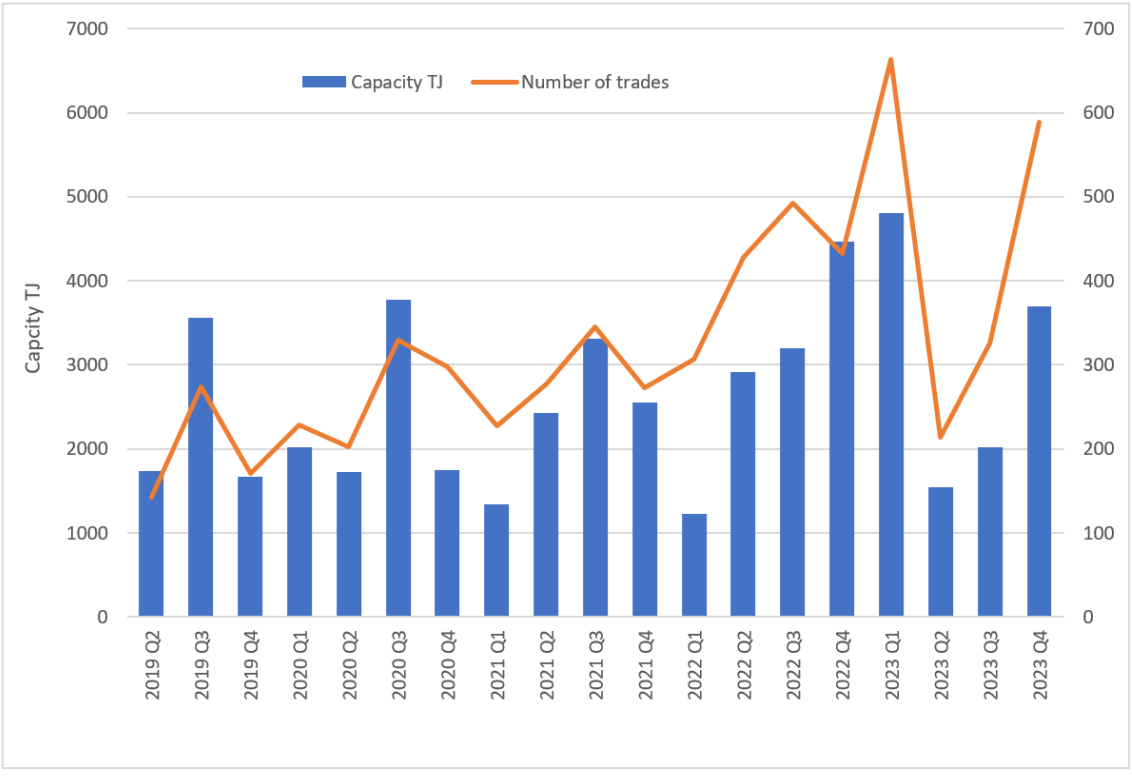
- **Efficiency**, as foundation shippers may be in a position to offer both the gas and transportation at a 'delivered' price, significantly reducing the administrative burden of contracting for each separately.

C.3.3 Direct access to contracted but unutilised capacity

Shippers can offer or procure spare capacity on the Capacity Trading Platform operated by AEMO in advance of the day ahead of the gas day or, where a shipper fails to sell any spare capacity prior to the nomination cut-off time, on the Day Ahead Auction a day ahead of the gas day. While shippers do not have any guarantee of the availability of capacity at auction, recent experience demonstrates that large amounts of capacity will usually be available. At least 1200TJ of capacity was available at auction every quarter between early 2019 and the end of 2023 (approximately 4 years).

There has been increasing use of auction capacity in recent years. The amount of available auction capacity is governed by shippers' supply of spare firm capacity. As might be expected, the number of trades and amount of capacity traded generally increases in summer months when contracted shippers have some spare capacity (see Figure 11).

Figure 11 Quantities won and number of trades at auction (SWQP) (TJ)[70]



More recently, in late 2022 and early 2023, trades also increased during summer as, APA understands, industrial customers bought record volumes from gas spot markets likely due to an

[70] AER, *Day Ahead Auction - Quantities won at auction* (extracted 15 March 2024); AER, *Day Ahead Auction – Number of trades* (extracted 15 March 2024).

outage of the QCLNG train (reducing exports) and a material increase in purchases of gas from GPG gentailers coinciding with heatwaves.[71]

Prices for securing capacity on the DAA are predominantly cleared at $0/GJ, as shown in Figure 12. During the same period, where prices did meaningfully exceed $0/GJ, the maximum price never exceeded the SWQP standing price (see Figure 13 below).

Figure 12 Proportion of trades at $0/GJ (Day Ahead Auction) (SWQP)[72]

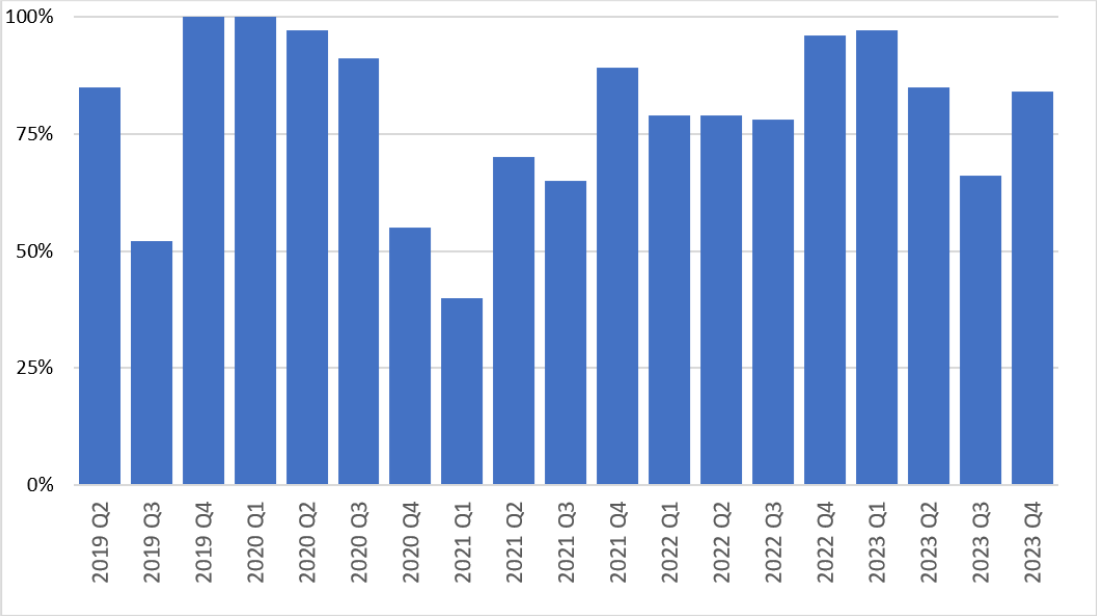
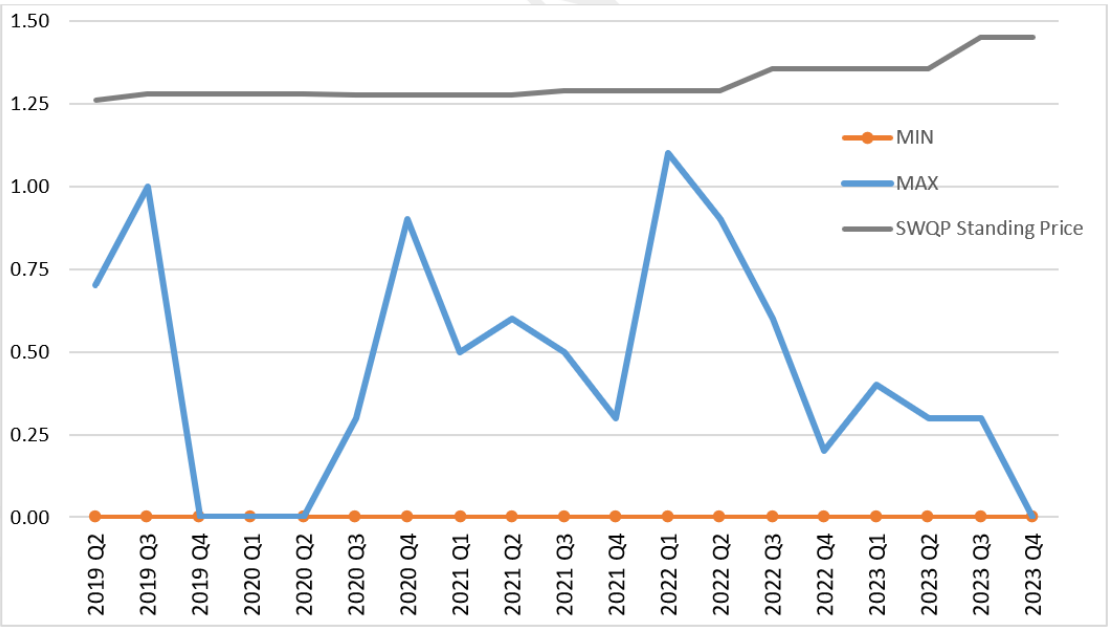


Figure 13 Price range of trades (Day Ahead Auction) (SWQP)[73]



[71] AER, *Wholesale markets quarterly Q1 2023: January – March 2023* (April 2023), p 15.
[72] AER, *Day Ahead Auction - Proportion of $0 quantities* (extracted 15 March 2024).
[73] AER, *Day Ahead Auction - Range of non-zero prices traded* (extracted 15 March 2024).

C.3.4 Access to alternative supply sources and transport arrangements

Prospective customers on the SWQP often have access to alternative sources of supply, including storage or supply from other basins using different pipeline routes.

Even when procuring its gas supplies, the customer then has alternative methods of transport, even if utilising the same gas pipeline.

C.3.5 Role of brokers and other intermediaries

As the examples above illustrate, intermediaries such as brokers are increasingly assisting shippers (particularly smaller shippers) to make the best use of the options available to them. With the assistance of a broker, shippers can employ multiple strategies simultaneously to meet their gas needs – including supply from multiple sources, long-term contracted capacity, trading, DAA capacity and swaps.

Brokers are sophisticated trading companies that facilitate spot trading of gas and secondary trading of transportation capacity).[74] Brokers have a depth of knowledge regarding gas markets that some smaller shippers and commercial and industrial shippers outside the energy sector may not have. Brokers often have long term relationships managing the commodity and transportation portfolios of

producers and shippers that provide them with significant visibility of forecast spare capacity such that they can 'match' upcoming trades.

Shippers may enter into a 'master gas spot agreement' with a trader to purchase gas and transportation capacity from the spot market on their behalf and then sell it directly to the shipper. This mechanism can be used by shippers without GTAs on foot as well as those with GTAs on foot who wish to avoid the cost of nominating additional capacity. These intermediaries have been highly active in recent years

C.3.6 Flexibility under Zero MDQ contracts

Many shippers enter into 'zero MDQ' contracts on the SWQP. These contracts provide shippers with certainty of price and non-price terms for use of a pipeline without any take or pay commitments.

Use of zero MDQ contracts has increased since introduction of the Day Ahead Auction procedures. Having a zero MDQ contract allows the shipper to participate in the auction (with agreed terms for use of any auction capacity), but without any commitment to take and pay for capacity.

The prevalence of these contracts indicates that shippers are aware of the options available to them and value that ability to switch between contracted transport and other options such as day-ahead capacity.

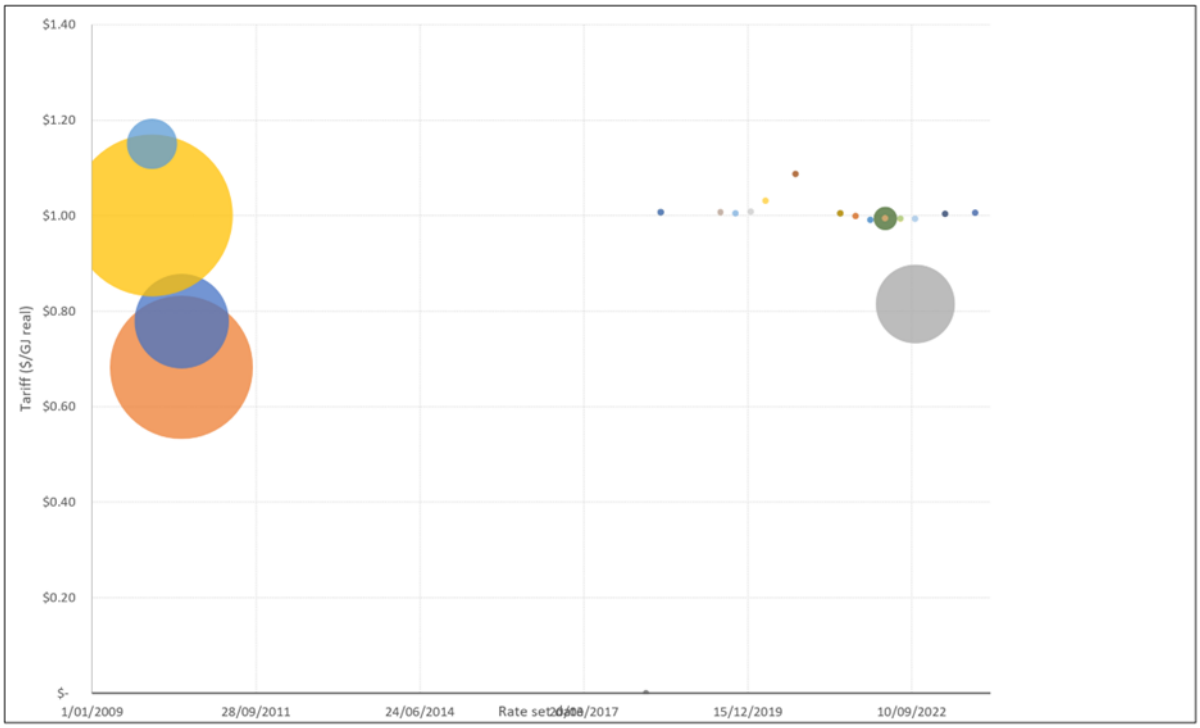
C.4 Contracted pricing on the SWQP

The constraints discussed above have meant that essentially all contracts entered into since the major foundation contracts have been priced in line with the largest of those foundation contracts

It should be noted that the major foundation contracts were entered into prior to APA acquiring the asset (ownership history of the SWQP is set out in section C.6 below). Since acquiring the SWQP, APA has simply set prices in line with the largest foundation contract. It has not been able to

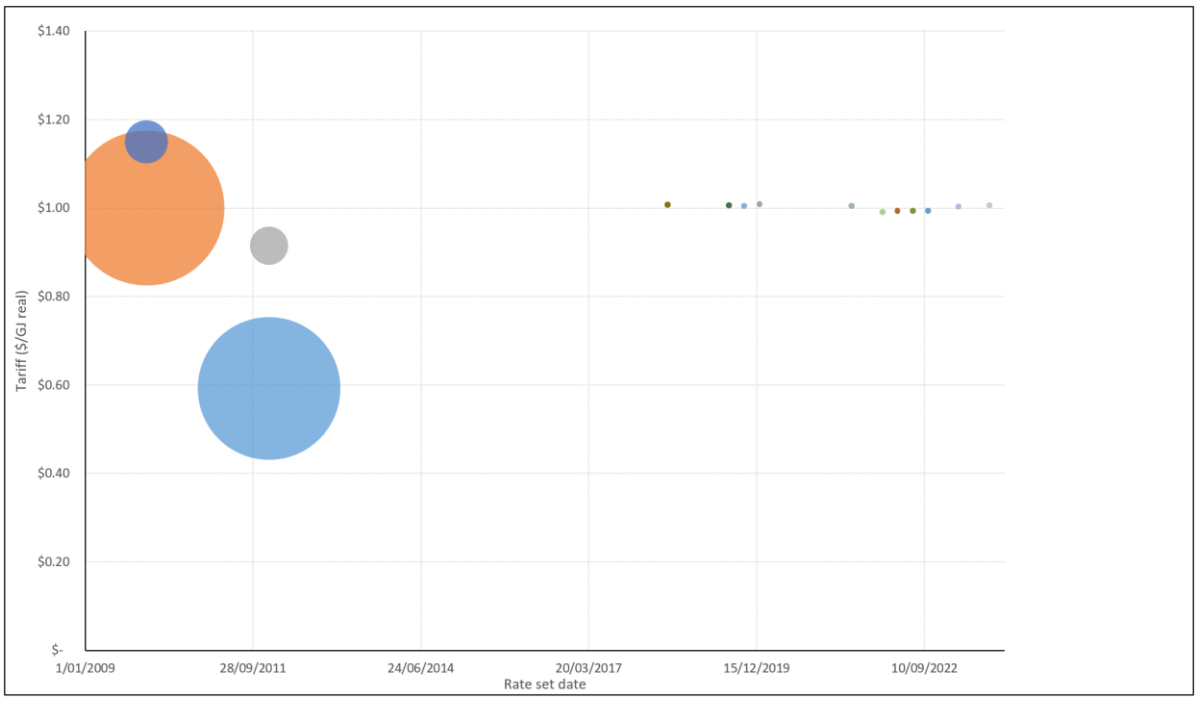
exercise market power in a way that would allow it to increase prices above the foundation contract level

Figure 15: SWQP western-haul contract pricing ($/GJ, real)



* The [redacted] contract includes compression

Figure 16: SWQP easternhaul contract pricing ($/GJ, real)



C.5 Regulatory history

The SWQP was a 'covered' pipeline in the early years of its life but has never been subject to reference tariff regulation by the AER or the ACCC. The SWQP became an uncovered pipeline from 2008 onwards and remains a non-scheme pipeline under the NGL today.

C.5.1 Queensland Government derogation requiring Queensland Minister to approve SWQP reference tariff

From the time of the pipeline's construction in 1996 until 2016, the SWQP was the subject of a Queensland Government derogation pursuant to the *Gas Pipelines Access (Queensland) Act 1998* (Qld). This meant that, although the original SWQP was regulated by the ACCC under the Code as a 'covered pipeline', the ACCC was precluded from reviewing the reference tariff and the reference tariff policy for the full forward haul service specified in the access arrangement, the reference tariff was instead approved by the Queensland Minister.

C.5.2 ACCC assessment of Queensland Gas Pipeline Access Regime

In September 1998 the Queensland Premier applied to the NCC to certify the effectiveness of the Queensland Third Party Access Regime for Natural Gas Pipelines (the Queensland regime).

The NCC asked the ACCC to advise it on whether the Queensland regime as it applies to four pipelines, including the SWQP, is broadly consistent with the National Gas Code. The ACCC produced a report in May 2000 in response to the NCC's request in which the ACCC relevantly found that:[76]

- the estimated return on equity (**ROE**) of 6.8% and the return on total funds employed (**ROTFE**) of 8.5% for the SWQP were both "reasonable" in the context of the 1996 financial and regulatory environment;[77] and
- the estimated ROE of 13.6% was within a reasonable range in the financial and regulatory environment at the time (2000).

C.5.3 Ministerial derogation approving SWQP reference tariff and reference tariff policy for the 1996 to 2016 period

On 19 May 2000 the *Gas Pipelines Access Act (Queensland) 1998* (Qld) (the **Act**) came into force. Relevantly:

- section 58(2) of the Act allowed the Queensland Minister for Mines and Energy to approve, by gazettal notice, a tariff arrangement for certain pipelines, including the SWQP.
- under section 58(2), an approved tariff arrangement was taken to be approved under the *Gas Pipelines Access Law* as the reference tariff and reference tariff policy for the access arrangement to be submitted under the law for the pipeline until the revisions commencement date for the access arrangement.

[76] ACCC, *Queensland Gas Pipeline Access Regime Assessment of tender processes and reference tariff outcomes: A report to the National Competition Council* (May 2000), pp 5-7.

[77] In the May 2000 report, the ACCC noted its approach to assessing access arrangements for the Queensland pipelines was fundamentally different to its usual approach in assessing access arrangements under the National Gas Code as in this instance the Commission had to work back from the typical end point – the reference tariff – to the estimated rate of return, rather than the other way around. The Commission estimated rates of return for each of the pipelines in accordance with the financial circumstances and typical regulatory approach prevailing in 1996, which differed from the year 2000 environment in notable ways, including a significantly lower cost of debt.

- under s 60, Part 8 of the Act continues to apply to SWQP until the regulator approves access arrangements for the pipeline.

On 9 June 2000 the Minister made derogations from the Code pursuant to Section 58 of the Act for the SWQP (the **Derogations**) by approving a Reference Tariff and Reference Tariff Policy for a period of 20 years to 2016. The Reference Tariff and Reference Tariff Policy were set out in Access Principles which specified revisions submission dates for AFT Services (11 June 2004) and for all other revisions (30 June 2016). The derogations were gazetted on 16 June 2000.[78]

C.5.4 ACCC approves 2002 SWQP Access Arrangement

On 17 August 2000 Epic Energy applied to the ACCC for approval of an access arrangement for SWQP under section 2.2 of the *National Third Party Access Code for Natural Gas Pipeline Systems* (the **Gas Code**).[79]

On 4 June 2002 the ACCC approved the access arrangement proposed by Epic Energy for a regulatory period of 18 June 2002 - 11 June 2004 (**2002 SWQP Access Arrangement**).[80] The ACCC noted in its final decision that the Derogation by the Queensland Minister prevented the Commission from reviewing the reference tariffs, reference tariff policy and related areas of the access arrangement until the revisions submissions date.

C.5.5 ACCC approves 2004 SWQP Access Arrangement

In 2004 Epic Energy proposed revisions to the 2002 SWQP Access Arrangement to the ACCC so that the AFT Services would become non-reference services, with terms and conditions to be negotiated.

The ACCC's Final Decision approving the 2004 SWQP Access Arrangement again noted that due to the derogations, the reference tariffs applicable to Epic's full forward haul service on the SWQP were not reviewable by the ACCC until 2016.[81]

C.5.6 ACCC approves 2006 Revised Access Arrangement

On 1 November 2006 the ACCC approved revisions to the 2004 SWQP Access Arrangement proposed by Epic Energy, which were largely of an editorial nature to correct typographical errors (**2006 SWQP Access Arrangement**).[82] The ACCC again noted the SWQP was subject to the Derogations which precluded the ACCC from reviewing the reference tariff and reference tariff policy for the full forward haul service (the only reference service available on the SWQP) until 30 June 2016.

C.5.7 Queensland regulation passed specifying SWQP is not a covered pipeline under NGL and National Gas Rules

On 1 July 2008 the NGL and *National Gas Rules* (**NGR**) commenced, replacing the Gas Pipeline Access Law and the Gas Code. The NGL and NGR were implemented in Queensland through the *National Gas (Queensland) Act 2008* and *National Gas (Queensland) Regulation 2008* (**NGR Regulations**).

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[78] Epic Energy, *Access Arrangement Proposal: Ballera to Wallumbilla Natural Gas Pipeline* (17 August 2000), Annexure A (Access Principles), [2.5]; see: Queensland Government, Gazette No. 39 (16 June 2000).
[79] Epic Energy, *SWQP Revised Access Arrangement Information* (November 2004).
[80] ACCC, *Final Approval: Access Arrangement for the Ballera to Wallumbilla Pipeline System (South West Queensland Pipeline)* (4 June 2002), p 2.
[81] ACCC, *Final Decision: Epic Energy Queensland Pty Ltd access arrangement revisions for the Ballera to Wallumbilla Natural Gas Pipeline (South West Queensland Pipeline)* (1 December 2004), pp 4-5.
[82] ACCC, *Final Decision: Revised access arrangement by Epic Energy Queensland Pty Ltd for the Ballera to Wallumbilla Natural Gas Pipeline (South West Queensland Pipeline)* (1 November 2006). .

Subsection 3(2) of the NGR Regulations provides that from the commencement date:

- the Derogation for SWQP "*is taken not to apply*" to the SWQP;
- the SWQP is taken to be a pipeline that is not a covered pipeline; and
- for the period 3 years from commencement, no person may apply for a coverage determination for SWQP.[83]

The removal of the SWQP derogation under the regulations reflected a commitment from Queensland in the Australian Energy Market Agreement to "phase out" derogations from the national regulatory framework.

C.6 Ownership timeline

The ownership history of the SWQP is summarised in the table below.

1996	SWQP developed by Tenneco after Queensland Government competitive tender process
~1997	Tenneco acquired the MAPS and SEP Subsequent transition to El Paso ownership, at which time El Paso and partners (then known as EPIC) also bought Dampier to Bunbury Natural Gas Pipeline (**DBNGP**), Pilbara Energy Pipeline (**PEP**) and BEP
~2003	El Paso entity went into liquidation as a result of the first DBNGP regulatory decision that set the initial capital base for that pipeline at a level below Epic's expectations
2004	Hastings, who were the minority shareholder in Epic, bought the Epic pipelines (with the exception of DBNGP), and placed them into the Hastings Diversified Utilities Fund (**HDUF**) entity and floated that entity
2008-2012	The SWQP and QSN Link were significantly expanded by Epic Energy under contracts with Origin and AGL
2013	APA Group acquired HDUF with contracts in place, and divested the MAPS and SEP pipelines[84] APA Group remains the owner the SWQP and QSN through an entity called APA (SWQP) Pty Limited

[83] *National Gas (Queensland) Regulation 2008* (Qld), s 3(2).

[84] Details of the ACCC's completed review of APA Group's proposed acquisition of Hastings Diversified Utilities Fund are available on the ACCC's public informal merger review here. The ACCC decided that the proposed acquisition, in conjunction with APA's section 87B undertaking, would not be likely to have the effect of substantially lessening competition in any market in contravention of section 50 of the *Competition and Consumer Act 2010* (Cth).

Appendix D SWQP investment environment

APA is acutely aware of the need for timely and efficient investment to support the energy market transition. For the SWQP and ECG this means ensuring that sufficient capacity is available to meet residential, industrial and GPG demand in the southern states as southern production declines. This demand is increasingly variable and uncertain, meaning that investment decisions need to be made in short timeframes and assuming a high degree of risk, and will incorporate consideration of 'needle peak' demand requirements.

APA closely monitors gas market dynamics, having regard to various sources including its own operations, interactions with shippers and publicly available materials. Investment decisions are based on a range of information, including:

- internal market modelling;
- GSAs in place or under negotiation;
- pipeline usage trends;
- industry trends;
- feedback from gas producers and shippers; and
- external forecasts, including reports by the ACCC and AEMO (including annual Gas Statement of Opportunities and Victorian Gas Planning Reports).

These sources indicate that the environment in which APA makes investment decisions is characterised by **highly variable** and **highly uncertain** demand, a dynamic which APA expects will continue and likely become more acute as the energy market transition accelerates.

This appendix sets out at a high level an overview of the current investment environment and a description of each of these decision-making processes together with case studies illustrating how these processes have historically unfolded and may be carried out in future.

D.1 Investment environment is characterised by uncertainty and variability

APA expects that significant investment will be required in the ECG (including the SWQP) over the next decade. The role of gas as a transition fuel supporting the energy market transition means that locations and patterns of demand for gas are likely to change considerably, including potentially increased demand for GPG capacity to support intermittent renewables. Supply locations may also change, with LNG imports potentially displacing some traditional supply sources (although APA notes in this context that on the basis of public data, the development of new domestic supply would be the more economically efficient solution). This is likely to mean that more peak capacity is required on some transmission pipelines, as well as potentially some augmentations to connect new demand or supply locations.

However the timing, location and nature of investment needs is highly uncertain. Much depends on the pace and trajectory of the energy market transition, and decisions of governments seeking to influence this.

APA expects that it will need to plan and undertake these investments within short timeframes, in response to changes in the supply / demand balance. Long-term returns on these investments will also be increasingly uncertain, given uncertainty around longer-term demand for gas and the infrequent but significant peak demands, primarily for GPG.

D.1.1 Supply and demand balance in the southern states is tight and will remain so as southern supplies dwindle

AEMO forecasts indicate that southern gas supplies are declining faster than previously anticipated. Southern supplies are now expected to deplete at a rate that will bring about risks of shortfalls on peak demand days from 2025 as well as seasonal shortfalls from 2026 onwards. These shortfalls will necessitate new sources of supply from 2028.[85]

On the east coast, gas is primarily sourced from the Surat-Bowen basin (Qld), the Cooper basin (SA), and three basins off Victoria's south coast including the Gippsland basin. Gas from these basins is transported across the interconnected east coast gas grid for use by large industrial customers, households, gas-fired generation plants or sold to international LNG buyers by way of the large export terminals in Queensland. Historically, gas flows north to Queensland for export during periods where demand in southern states is not high (typically summer) and to southern states during periods of high southern demand (typically winter due to high demand for household heating) – see Figure 17 below.

Figure 17 Net import or export to or from Queensland from the southern states (PJ/month)[86]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2019	-1.8	-1.2	-0.1	2.4	5.7	6.4	8.1	8.2	4.8	1.6	1.0	0.2	35.4
2020	-1.0	0.2	-0.2	-0.6	5.3	9.0	10.0	7.6	2.0	-2.4	-3.7	-6.2	20.1
2021	-5.0	-4.8	-4.1	-1.6	2.3	3.5	7.2	3.8	-3.6	-3.2	-5.6	-6.1	-17.2
2022	-6.2	-5.9	-6.8	-6.6	-2.7	6.2							-22.0

Negative value represents net flow from other jurisdictions into Queensland, positive value represents net flow from Queensland into other jurisdictions

Despite this seasonality, southern states are heavily reliant on southern supply to meet peak demand. As shown in Figure 18, the majority of southern demand has historically been supplied by the Gippsland Basin Joint Venture (**GBJV**) legacy fields that supply the Longford Gas Plant (light purple). While the Longford Gas Plant has historically been able to increase production in line with seasonal peaks in demand other production facilities in Victoria (Orbost and Lang Lang) are unable to as they are limited by either the processing capacity of the facility or the supply capacity of the gas fields.[87] As such, in future southern demand will be increasingly reliant on storage and supply from Queensland via the SWQP during peak winter periods (see 'Step Change' scenario in Figure 19).

[85] AEMO, *Gas Statement of Opportunities* (March 2024) (**2024 GSOO**), p 4.
[86] AEMO, *Gas Supply and System Adequacy Risks* (July 2022).
[87] AEMO, *Victorian Gas Planning Report* (March 2023), p 8.

Figure 18 Observed gas supply used to meet peak southern demand in 2022 (TJ/d)[88]

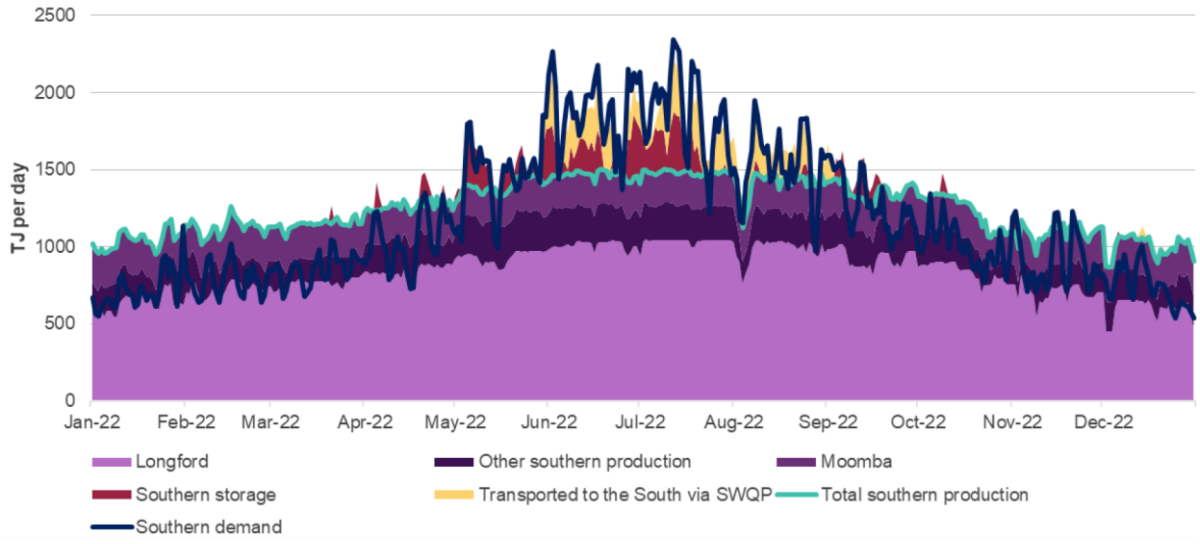
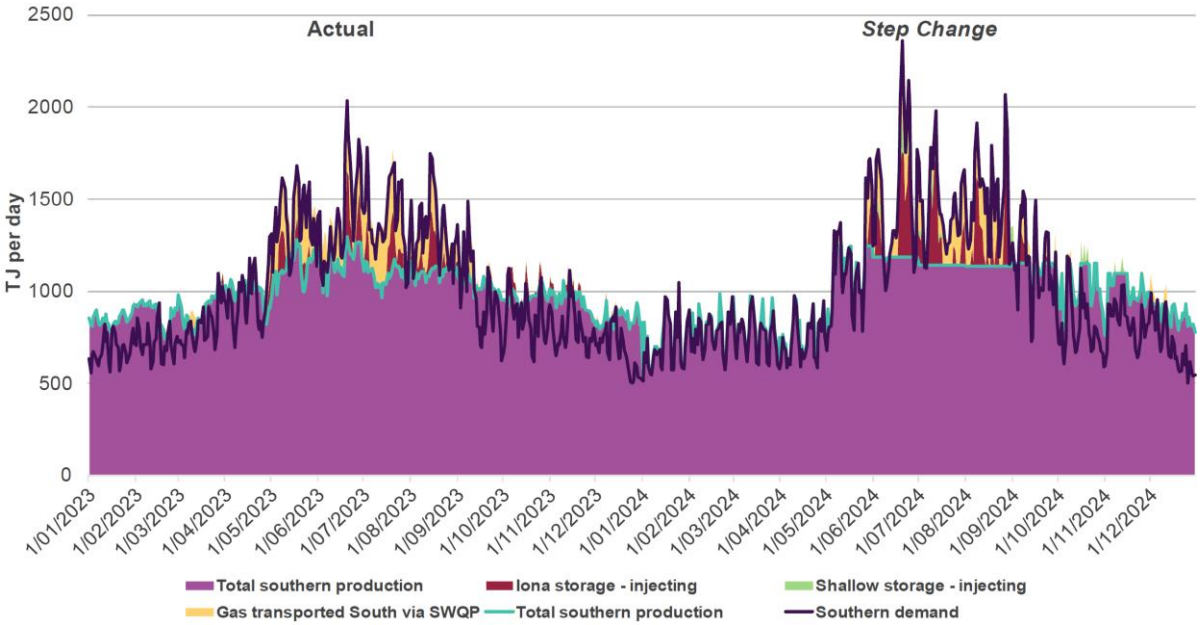


Figure 19 Observed gas supply used to meet peak southern demand in 2023, and forecast committed supply to meet demand in 2024, Step Change scenario (TJ/d)[89]

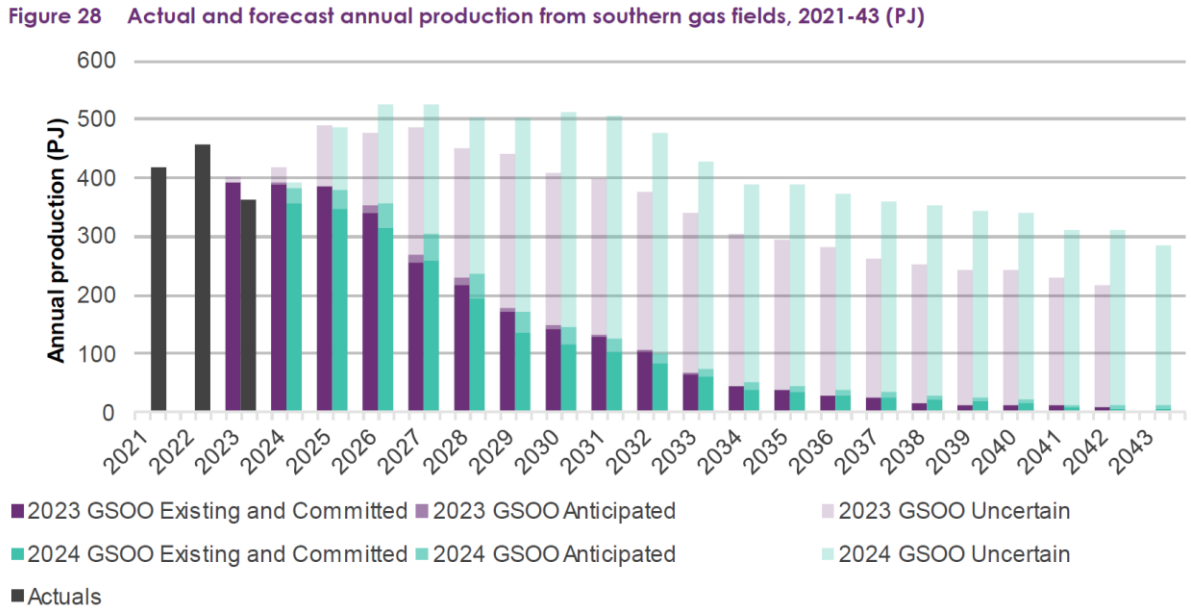


In 2016, AEMO predicted the final year of gas production for 2P developed reserves in the Gippsland basin to be 2028.[90] Now, AEMO predicts southern gas fields will rapidly decline from 2025 onwards, a decline that is largely attributable to rapid depletion of the Gippsland basin (see Figure 22 below). Reserves at Longford are expected to decline significantly between 2024 and 2027. This decline may be hastened by having accessed higher production earlier than planned during 2022 to avoid

[88] AEMO, *Gas Statement of Opportunities* (March 2023) (**2023 GSOO**), Figure 34.
[89] 2024 GSOO, Figure 35.
[90] AEMO, *Gas Statement of Opportunities* (March 2016), p 12.

winter shortfalls as aquifer-driven reservoirs such as the BGJV legacy fields experience rapid and unpredictable decline at the end of their life.[91]

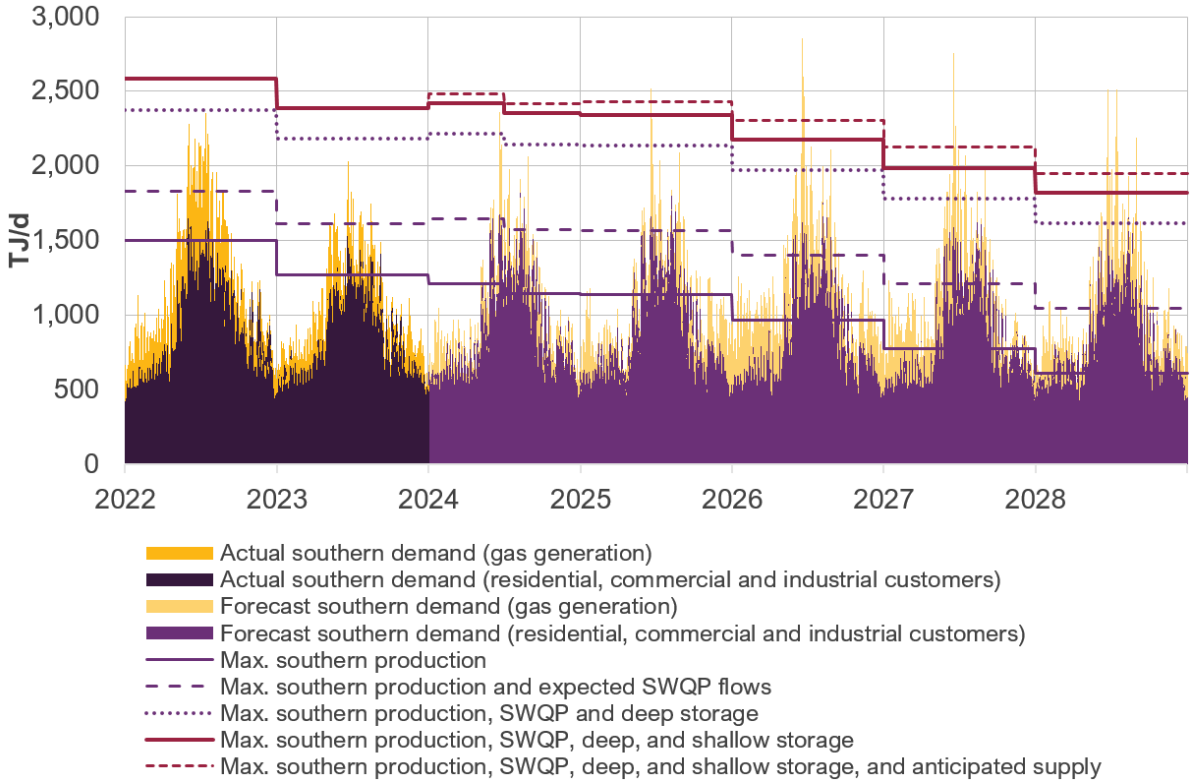
Figure 20 AEMO forecast of production from southern gas fields[92]



Within the term of the 2024 GSOO outlook period, this is clearly expected to result in increasingly frequent supply shortfalls to meet winter peaks starting 2025. Under extreme weather conditions, the existing capacity provided by storages is still forecast to be insufficient to avoid gas shortfalls. Absent significant investment to bring additional supplies to southern markets, AEMO forecasts seasonal (rather than just needle-peak) shortfalls over the winter months.[93]

[91] 2023 GSOO, p 48.
[92] 2024 GSOO, Figure 28.
[93] 2024 GSOO, p 60 et seq.

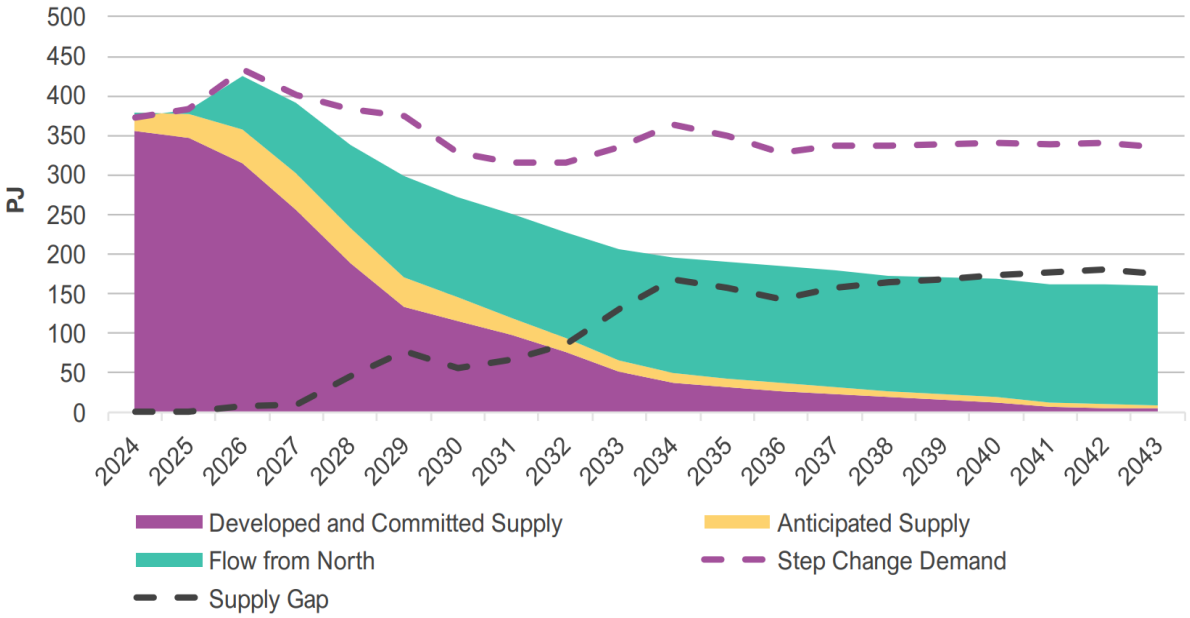
Figure 21 Actual daily southern gas system adequacy since January 2022, and forecast to 2028 using existing, committed and anticipated projects (TJ/d)[94]



Perhaps more concerningly, AEMO notes that near-term solutions to resolve peak day shortfalls are limited.

[94] 2024 GSOO, Figure 34.

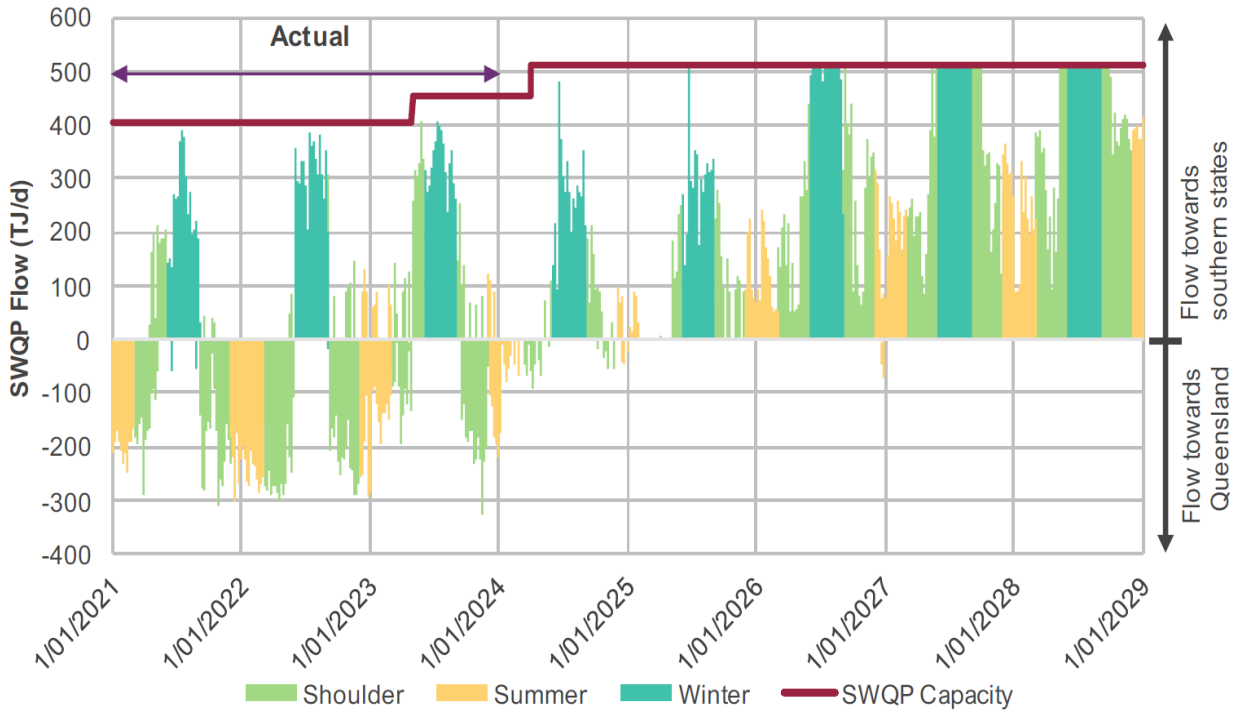
Figure 22 Projected annual adequacy in southern regions, Step Change scenario, with existing, committed and anticipated developments, 2024-43 (PJ)[95]



While it is clear that southern supplies are dwindling, the rate of this decline and extent of shortfall risk over the coming decade remains uncertain and could occur as early as 2026.[96] AEMO makes clear that this depends on a range of factors – including producers' assessment of remaining reserves, forecast demand conditions and broader energy market dynamics (including expected need for GPG capacity). AEMO forecasts that this will also result in SWQP flow to southern markets year-round and, without further expansion, SWQP flows towards southern states will be constrained over the winter months (see Figure 24).[97]

[95] 2024 GSOO, Figure 41.
[96] 2024 GSOO, p 67.
[97] AEMO, 2024 GSOO, p 65, Fig.37

Figure 23 Actual (2022 to 2023) and projected (2024 to 2028, Step Change) gas flows along the SWQP (TJ/d)



D.1.2 GPG capacity will be required to firm supply as coal-fired plants are retired

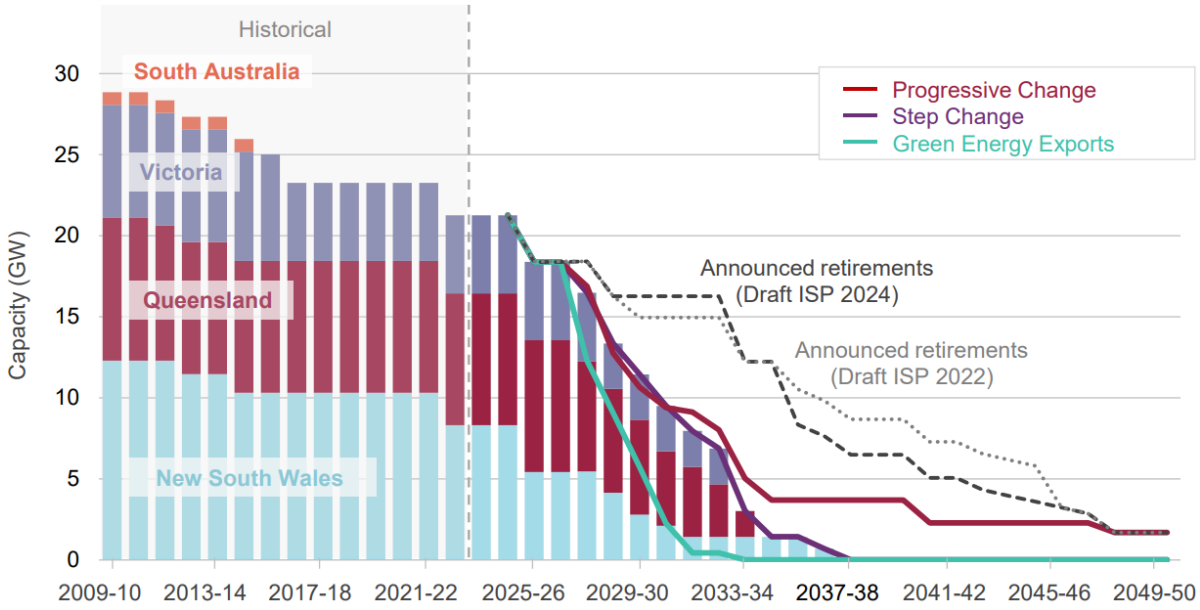
It is also expected that the typical patterns of gas demand will change and become more unpredictable as the energy transition accelerates. While total demand for gas is likely to decline over time, that demand is expected to become peakier – AEMO's 2024 GSOO emphasises the critical role of GPG in the NEM:

- GPG will be of increasing importance to firm supply as coal-fired plants are retired; and
- increased reliance on VRE causes "peaky" gas demand during periods of low sunlight, early sunset and due to weather variability.[98]

AEMO's 2024 ISP indicates that 90% of coal generation is expected to be retired by 2034-35 and completely withdrawn by 2038.[99] Nationally, coal retirements are occurring more rapidly than previously expected. Though retirements announced by coal-fired generators indicate a gradual decline approaching 2050, in all scenarios forecast by AEMO (including the most likely 'Step Change' scenario), coal retirement is expected to occur more rapidly than the announcements suggest as operating costs increase, maintenance costs remain high, fuel security declines and ownership becomes less attractive while competition from lower-cost renewable energy in the wholesale market remains strong (see Figure 24).[100]

[98] 2024 GSOO, p 7.
[99] AEMO, *Draft 2024 Integrated System Plan* (2024) (**2024 ISP**), p 46.
[100] Ibid.

Figure 24 Coal capacity, NEM (GW) (2009-10 to 2049-50) [101]

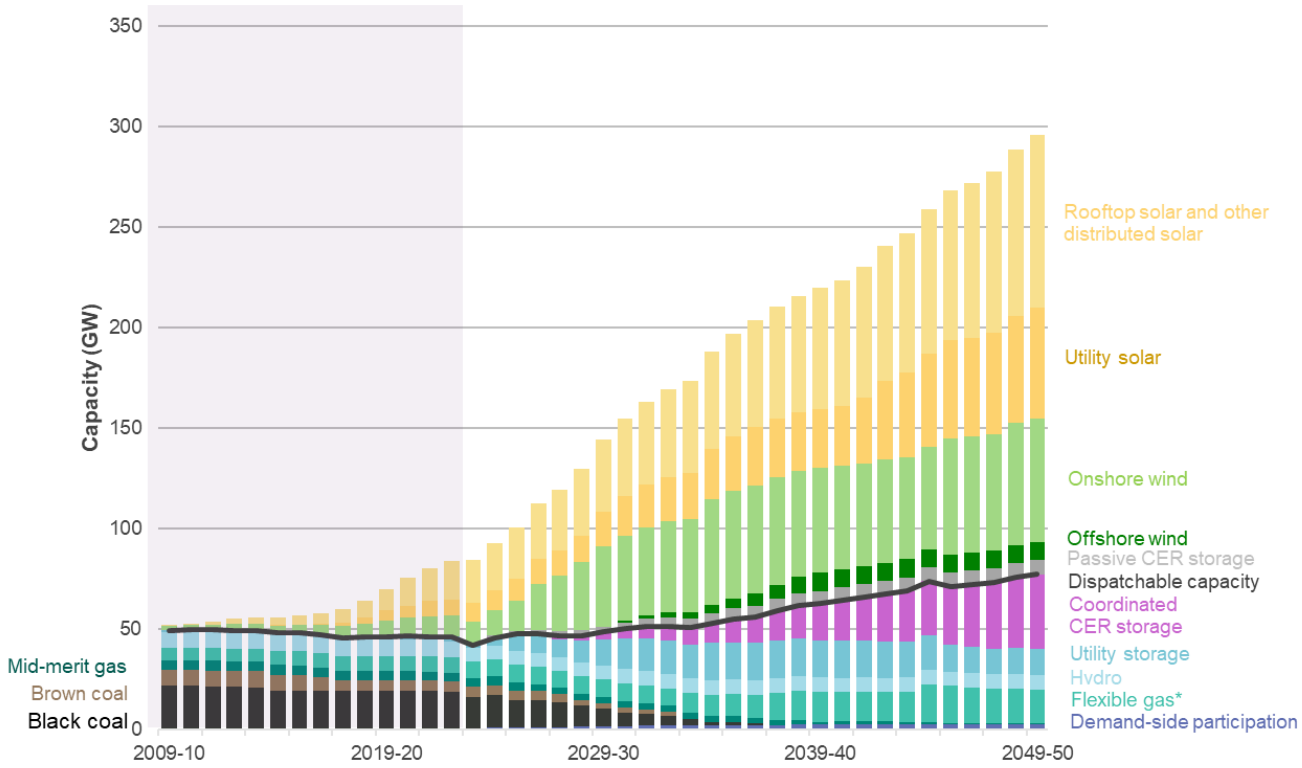


AEMO notes that the most likely 'Step Change' scenario calls for over 74GW of firming capacity to be in place to respond to a dispatch signal (see Figure 25 below).[102] Today's NEM has approximately 45GW, ~21GW of which is met by coal-fired generation, ~12.5GW from flexible gas, ~7 GW from hydro generation, 3.6GW from dispatchable energy storage and ~1GW from demand-side (see Figure 26 below).[103] AEMO's modelling suggests that ~14GW of the 21GW provided by coal-fired generation is expected to withdraw by 2030.[104]

AEMO expects that without coal-fired generation, the NEM will still require at least 17.5 GW of flexible gas-fired generation will be required for peak loads and firming and this critical need will remain through to 2050.[105] Importantly, AEMO forecasts requirements at this level on the basis that it is accompanied by ~60GW of dispatchable storage in the form of batteries, pumped hydro or alternative storage, while these are complementary to GPG and liquid-fuelled generation. As AEMO has previously noted, any shortfall in one area will require additional investment in another.[106]

[101] Draft 2024 ISP, Figure 15.
[102] Draft 2024 ISP, p 69.
[103] AEMO, *Draft 2024 ISP chart data* (21 December 2023) (**Draft 2024 ISP chart data**), Figure 2.
[104] Ibid.
[105] Ibid.
[106] Ibid.

Figure 25 Forecast NEM capacity to 2050, Step Change scenario[107]



The sustained need for GPG capacity as the energy transition accelerates is in large part due to the role of gas in firming electricity supply in a system which is expected to have a high reliance on VRE. VRE output is variable on an intra-day basis during periods of low sunlight, creating evening as well as potential night-time and morning peaks in demand for gas. VRE output is also seasonal and will have more limited output during winters as there are fewer daylight hours – during these periods, GPG-related gas demand peaks to supplement this reduction at the same time that gas is required to heat households. Seasonality is particularly pronounced in southern states that experience colder winters, whereas northern states and industrial consumers experience less seasonality due to lower demand for heating.

Indeed AEMO's 2024 GSOO, now aligned to the draft 2024 Integrated System Plan, is forecasting a much greater role for GPG, both in peak day and annual demand, relative to the 2023 GSOO:

	2041 Peak Day (TJ/day)	**2041 Annual volumes (PJ)**
2023 GSOO	2,033	69
2024 GSOO	3,154	194

Figure 26 and Figure 27 show how AEMO's forecasts of gas generation demand have dramatically changed just in the last year (between the 2023 and 2024 GSOO). AEMO's forecast of gas volumes

[107] Ibid.

required for GPG have significantly increased, and its forecasts of peak capacity requirements have also increased by over 50%. This illustrates the degree of uncertainty around forecasting demand and pipeline capacity requirements in the current market environment.

Figure 26 2023 GSOO: Actual and forecast NEM gas generation annual consumption (PJ/y) and seasonal maximum daily[108]

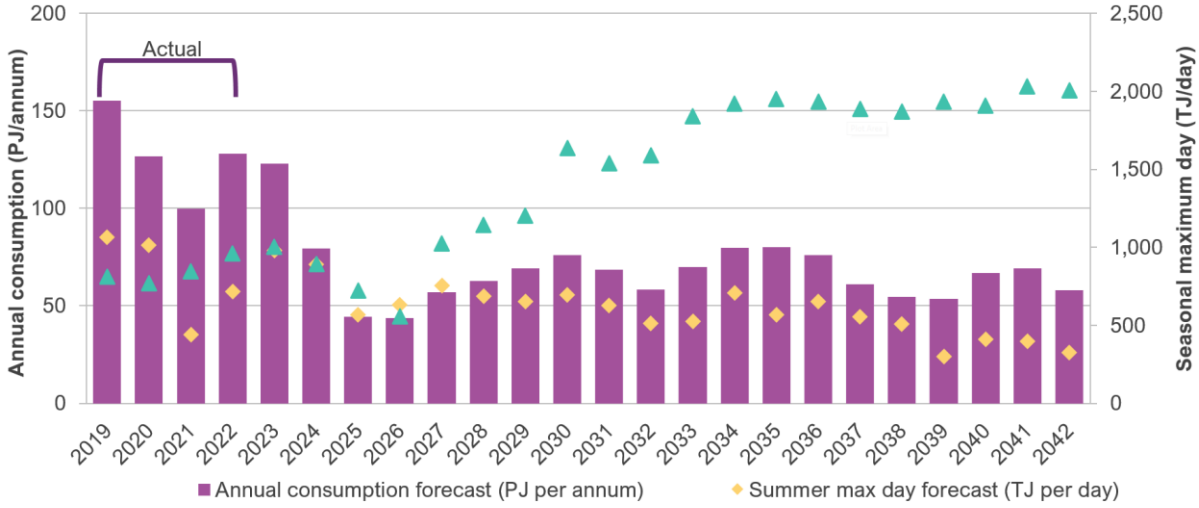
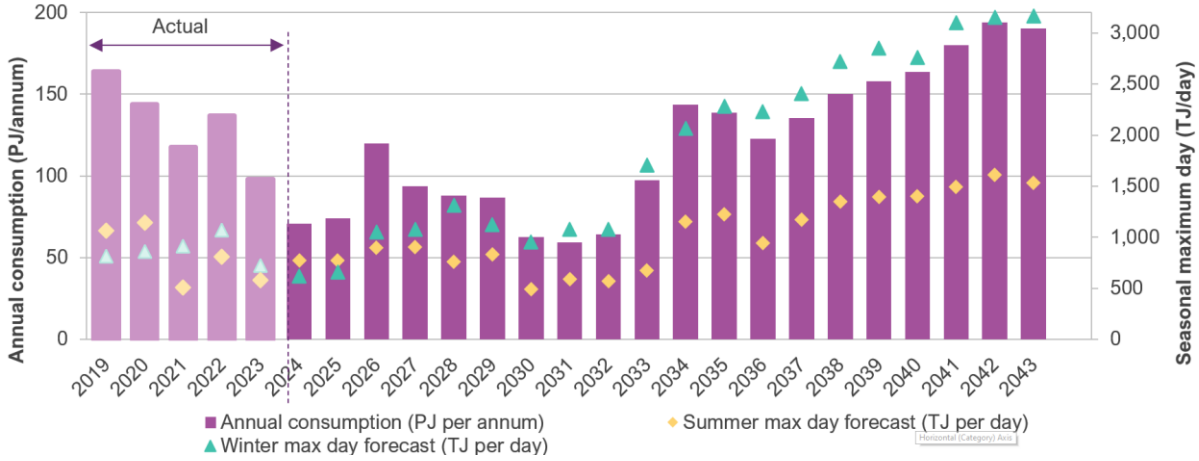


Figure 27 2024 GSOO: Actual and forecast NEM and Northern Territory gas generation annual consumption (PJ/y) and seasonal maximum daily demand (TJ/d), Step Change scenario[109]



D.1.3 Uncertain demand and high variability pose a challenge to forecasting and therefore create significant risks for investments

As noted by AEMO in the 2024 GSOO, these dynamics pose a challenge to forecasting GPG consumption and can lead to significant variations in forecasts.[110] As shown in Figure 28 and Figure 29 below, actual consumption (indicated by the black circles) has significantly exceeded GSOO forecasts in most years between 2019and 2023. Even on a year-ahead basis, AEMO's GPG forecasting accuracy has been variable. This uncertainty of demand in turn creates uncertainty for

[108] 2023 GSOO, Figure 2.
[109] 2024 GSOO, Figure 2.
[110] 2024 GSOO, p 97.

pipeline service providers who must make decisions regarding whether to invest in significant supporting infrastructure and bear the risk of demand not materialising. The AER also acknowledged this risk in a submission to the Victorian Government in 2021 regarding the Gas Substitute Roadmap, noting that new gas infrastructure investments would be necessary to ensure reliability and safety of supply but also that demand uncertainty has a dampening effect on new investment.[111]

Figure 28 Gas annual consumption forecast comparison, gas generation[112]

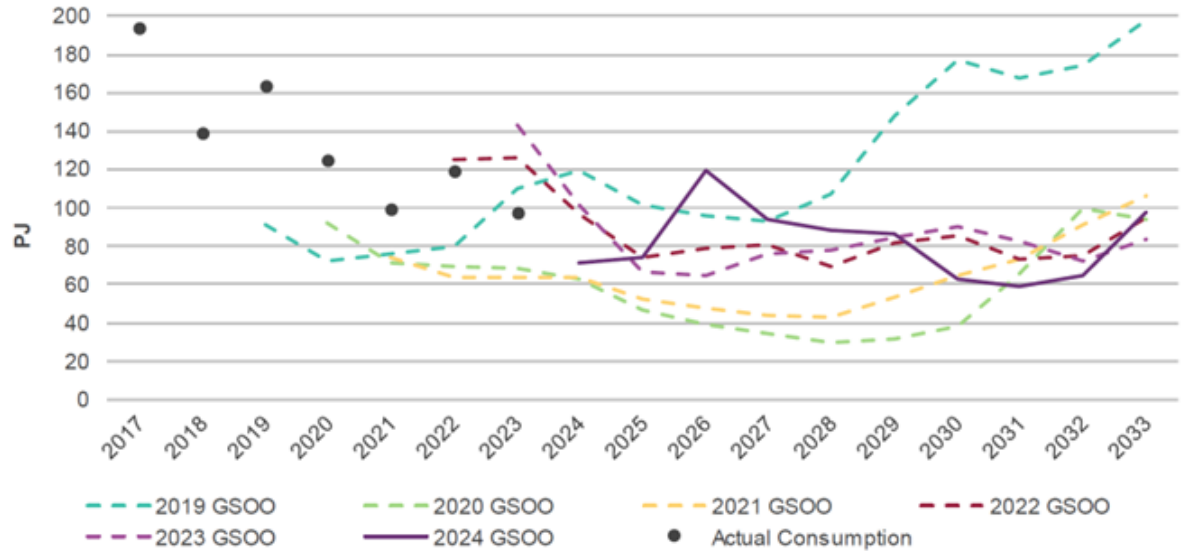


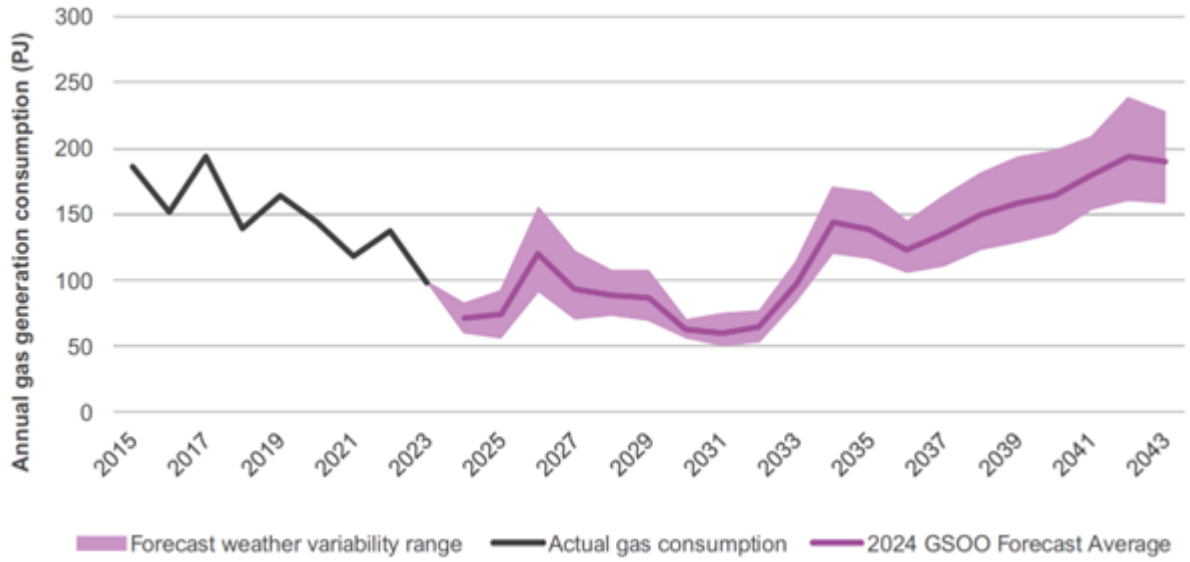
Figure 29 Year ahead historical forecast accuracy, gas generation in the NEM, total consumption (PJ)

	2019	2020	2021	2022	2023
Year ahead forecast	91	92	74	125	143
Actual consumption	164	126	99	119	98
Forecast accuracy	-44%	-27%	-26%	5%	46%
Source	2019 GSOO	2020 GSOO	2021 GSOO	2022 GSOO	2023 GSOO

This uncertainty and variability is expected to continue and likely increase in the next two decades - AEMO forecasts growing variability in GPG consumption due to weather conditions (see Figure 30).

[111] AER, *AER submission – Victoria's Gas Substitution Roadmap consultation paper – 2 August 2021* (2 August 2021), p 2-5. Available here.
[112] 2024 GSOO, Figure 60.

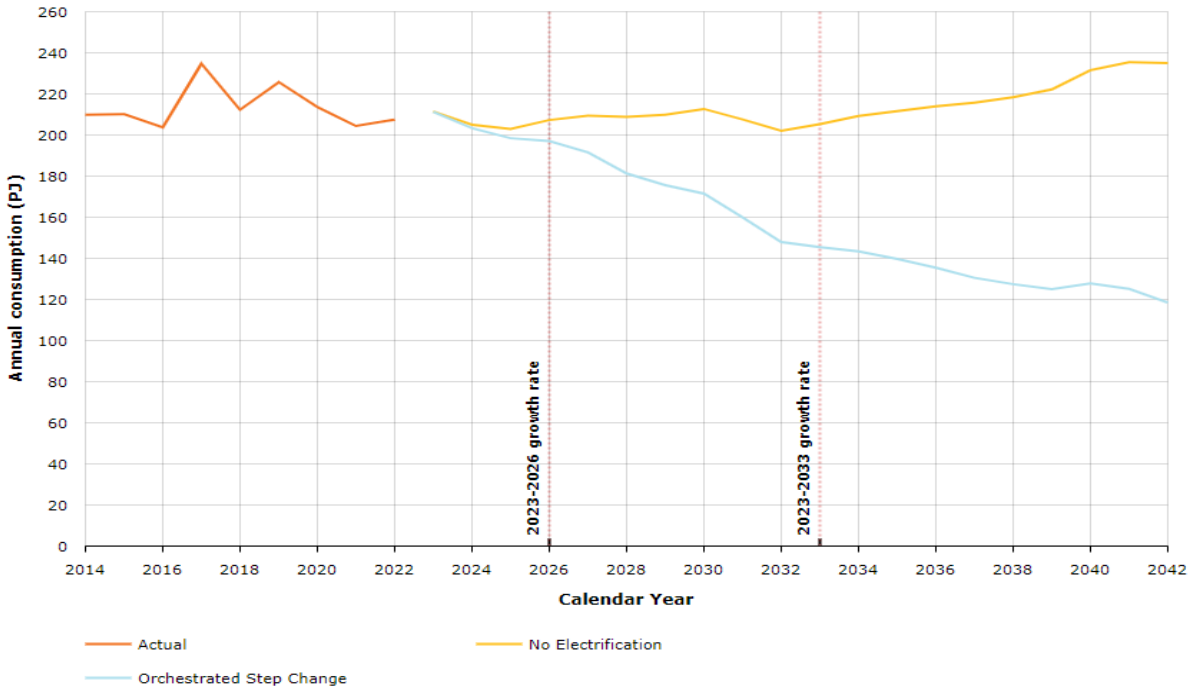
Figure 30 Actual gas generation consumption and forecast variation in consumption due to weather conditions Step Change scenario[113]



Further, demand uncertainty for gas is likely to develop over the coming decades as the Victorian Government implements the Gas Substitution Roadmap and pursues electrification initiatives required under AEMO's Orchestrated Step Change scenario. Figure 31 shows the wide range of potential demand scenarios.

[113] Ibid, Figure 25.

Figure 31 Victorian gas consumption scenarios (actual and forecast)[114]



D.1.4 Case study: investment expected to be required in the near term to maintain security of supply (Beetaloo)

AEMO's 2024 GSOO states that significant new northern gas supply will be required to support LNG export demand and domestic consumption in northern and southern load centres, and that the southern region is forecast to rely heavily on gas supplied from northern fields via the SWQP:[115]

> "*Significant new northern supply is required across all options assessed to support forecast LNG export demand, and domestic consumption in northern (including the Northern Territory) and southern load centres. The southern region is forecast to rely heavily on gas supplied from northern fields via the SWQP in all options….*
>
> *Current LNG export contracts are due to expire during the mid-2030s, meaning the level of residual demand following that period for exports is highly uncertain. The continuation of LNG exports, and the magnitude of support that northern LNG producers can offer to domestic consumers, will be largely dependent on the development of supply volumes subject to renewed export contracts.*
>
> *In total, the 2024 GSOO indicates approximately 7,000 PJ of extra northern gas (above what AEMO considers committed and anticipated) will be required during the period to 2043. The uncertain supply developments reported to AEMO via 2024 GSOO survey responses is*

[114] AEMO, *Interactive tool: Gas Annual consumption Total* (21 April 2023; extracted 19 March 2024). Filters applied: Region 'Victoria', Scenario 'Actual', 'No Electrification' and 'Orchestrated Step Change'. See NATIONAL ELECTRICITY FORECASTING (aemo.com.au).

[115] AEMO, 2024 Gas Statement of Opportunities, p 86 et seq.

nearly equivalent to this requirement. Further exploration, development and appraisal in northern regions is likely to be required to prove and commercialise reserves and resources".

APA considers Beetaloo represents a viable and likely alternative source of additional supply to meet the need identified by AEMO, including because:

- the Beetaloo basin is one of the richest hydrocarbon reserves in the southern hemisphere – as demonstrated by AEMO's GSOO supply data (as at December 2023) which indicates that the largest reserves are contained in the Bowen/Surat basin (2P) and the Beetaloo/Georgina basin (2C);[116] and

- on 26 February 2024, Tamboran (ASX: TBN) announced that its SS-1H well had achieved a level of production that provides the Company with confidence to progress drilling activities during 2024[117] and also that Tamboran had increased its estimate of Beetaloo Basin 2C gas resources to 2.1 trillion cubic feet.[118]

However in order for the Beetaloo basin to be economic to develop, it will be necessary to produce significant volumes of gas from that reserve. As it is not obvious that Australian domestic markets will be able to absorb as much gas as will need to be produced, APA anticipates the majority of the gas will be for export, with a proportion allocated to domestic demand.

Development of the Beetaloo resource will likely require significant investment in long life infrastructure to be undertaken in order to secure Australia's energy future and its transition to a lower carbon economy.

APA has investigated options to get Beetaloo gas to market, and early scoping works suggest that its lowest cost to market will be to use existing shared infrastructure:

- APA and Tamboran are working together to connect the initial Beetaloo wells (with relatively low initial volumes) to the Amadeus Gas Pipeline.

- As production volumes start to ramp up, the lowest cost route to southern markets will likely be via Carpentaria Gas Pipeline reversal to deliver the gas from Mt Isa to a new Ballera compression hub, and then SWQP and MSP/MAPS to southern markets. As volumes increase:

[116] AEMO, *2024 Gas Statement of Opportunities Supply Data* (21 March 2024).
[117] [https://www.investi.com.au/api/announcements/tbn/8cb35ed7-0c6.pdf.]
[118] [https://www.investi.com.au/api/announcements/tbn/841ac958-0de.pdf.]

On 23 June 2023, APA announced that it had entered into an initial agreement to commence work to connect Tamboran's Beetaloo Basin assets to the Amadeus Gas Pipeline.[119] In order to meet Tamboran's plans to achieve first commercial gas production by 2028, APA will need to make a Final Investment Decision (**FID**) by mid-2026 to bring Tamboran's gas to market. To attract capital, APA will require a stable investment environment, and certainty that investors will be able to receive a commercial return on invested capital as well as a return of the invested capital over time.

However, as discussed in section 4.4 of APA's submission, the current SWQP Form of Regulation review will introduce significant uncertainty to the decision-making process for these investments, which will not be resolved by the time FID is required. If the AER's review is completed as scheduled in late 2024 and the AER decides to make a scheme pipeline determination in relation to the SWQP (which will take effect in mid-late 2025), an access arrangement will not be in place by the time APA needs to reach FID.

Further, proceeding with this investment under an access arrangement process places the AER in the position of deciding whether the proposed investment is prudent, and does not require the AER to make a decision on a commercial balance of risks and rewards for all parties. The access arrangement process also places risks on end users, when those risks could be better managed by the producer and the pipeliner.

D.2 Nimble investment decision-making under non-scheme regulation

The majority of APA's transmission pipelines forming part of the ECG are subject to non-scheme regulation. In these circumstances, APA's decision-making process in respect of making investments ranges from as little as 3 months for simple upgrades to 5 years for complex extensions and involves engagement with internal and external stakeholders including regulators.

A summary of APA's usual decision-making process and example of its application in relation to the recent expansion of the ECG is set out below.

D.2.1 APA decision-making process

Table 2 below outlines the high-level decision-making process APA typically follows for new growth capex opportunities, including in relation to SWQP investments.

Table 2 Indicative steps in APA decision-making process for growth capex investment[120]

1.	**Maintain up to date knowledge of market dynamics and participants**	
2.	**Deal origination**	a. APA either: i. proactively approaches market participants to commence discussions (where APA self-initiates in response to APA identifying potential opportunities where market factors may require an APA solution); or ii. is approached by market participants seeking solution from APA (informal or formal procurement process).

[119] [https://www.apa.com.au/news/asx-releases/2023/apa-signs-initial-agreement-with-tamboran-resources/.]
[120] Steps 3-5 may not be applicable in some situations.

3.	**Initial discussion to scope concept and opportunity** (subject to procurement processes if applicable)	a. Refine and detail concept. b. Seek initial understanding of execution practicality and project economics. c. Go/no go decision point on practicalities of the concept.
4.	**Concept assessment**	a. Frame potential infrastructure solution including key details. b. Possible engagement of Capacity Planning team to determine pipeline sizing and equipment requirements. c. Provide non-binding indicative concept assessment to customer, which may include indication of cost and timing. d. Enhance understanding of execution practicality and project economics.
5.	**Customer feedback on non-binding indicative concept assessment** (subject to procurement processes if applicable)	a. Go/no go decision point. b. Refine concept for further consideration.
6.	**Non-binding indicative offer (NBIO)**	a. Elaborate on non-binding indicative concept assessment. b. Engage with engineering, access and approvals and cost estimating teams for detail on the proposed solution. c. Seek Investment Committee approval in certain situations prior to issuing NBIO to the customer. d. Further enhance understanding of execution practicality and project economics
7.	**Customer feedback on NBIO**	a. Go/no go decision point. b. Refinement if proceeding with further work.
8.	**Early works agreement**	a. More detailed engineering, access and approvals and cost estimating to further detail the solution including provision of cost and schedule estimates. b. Pre-FEED through to FEED and may involve ordering long lead items.

	c. Early works agreements are often extended and expanded to gain further clarity on the scope and cost of the project as well as to maintain schedule. d. Seek to gain detailed understanding of execution practicality and project economics.
9. Project agreement negotiations	a. Negotiation of agreements for the design and development of the project including with respect to key commercial elements. b. Negotiation of long term GTAs. c. Investment Committee and Board approval with respect to key commercial elements before proceeding with the customer. d. Provision of Commercial Offer. e. Set execution pathway and project economics.
10. Project design and development	*Note: Steps 9c and 9d may also happen in this phase depending on the structure of project development.*
11. Project construction, commissioning and handover to operations	a. Operating under a development agreement. b. Asset commissioning and commencement of services.

D.2.2 Case study - Recent ECG expansion

In 2020, as part of its usual market monitoring of internal and external forecasting as described above, APA became aware of a looming risk to winter gas supply risks from 2023 in the event southern demand exceeded supply. APA recognised the changing nature of customer requirements and has sought to meet those requirements through specific products (winter-only firm contracts). APA also anticipated the need for 'needle point' capacity moving gas from north to south to ensure security of supply in the coming years and identified an opportunity to incrementally expand the ECG to meet this demand in two stages (see Figure 32):

- Stage 1, the construction of a single site of compression on each of the SWQP and MSP increasing gas transportation capacity by 12 per cent; and
- Stage 2, the construction of an additional compressor station on each of the SWQP and MSP adding a further 13 per cent of gas transportation capacity.

Figure 32 East Coast Gas Grid expansion (Stages)

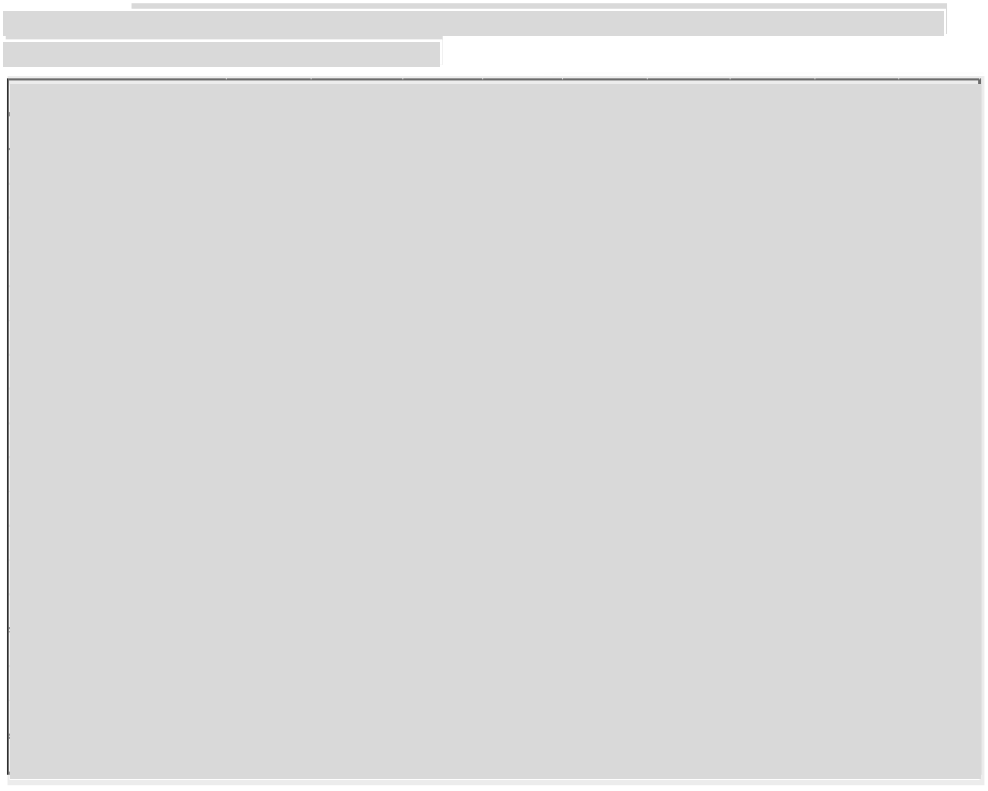
APA was able to reach FID on Stage 1 in May 2021 within 6 months from the initial proposal[121]

When APA reached FID on Stage 1, it did not have any part of the expansion capacity contracted with customers. APA made its decision to expand based on analysis of expected demand for capacity. In particular, the supply portfolios of key shippers showed that historical gas supplies from Victoria would need to be supplemented with gas from other sources. On this basis, APA believed demand would exceed nameplate capacity of the SWQP and MSP for southernhaul flows as early as winter 2023.

The following market observations underpinned this conclusion:

[121] APA, *ASX Announcement: APA commences 25% expansion of east coast grid, enters into agreement with Origin Energy* (5 May 2021).

- demand on the East Coast is highly seasonal with southern demand peaking in winter - APA understood that shippers would value flexibility and the ability to meet these seasonal demand peaks;
- APA considered demand was likely to increase as APA's ECG would be the logical route to domestic and LNG markets for new gas resources, such as Beetaloo/McArthur and Galilee and Bowen Basins and AEMO considered development of these basins would require complementary investment in pipeline infrastructure to enable delivery of gas to southern consumers;[122]
- tariffs for transport from the Wallumbilla Gas Supply Hub to NSW were competitive;
- the Australian Domestic Gas Security mechanism together with the availability of gas supplies in Queensland ensured there would be sufficient supply requiring transportation capacity; and
- importantly, the regulatory framework was stable – based on the application of the coverage criteria under the NGL at the time, APA considered it was unlikely the ECG would be brought under heavier regulation.



[122] AEMO, *2021 Gas Statement of Opportunities* (2021), p 60.

APA also had strong commercial incentives to move quickly in meeting customer demand. APA's customers potentially have a number of alternatives to additional capacity on the SWQP and MSP to meet southern demand, such as:

- increased production in Victoria;
- purchasing imported gas by way of the Port Kembla Gas Terminal, which at the time FID was taken on Stage 1 was expected to become operational in early 2022; and/or
- increased investment in storage near southern demand centres.

Only a year after reaching FID on Stage 1, APA was able to commence Stage 2 expansion. APA was able to take a market-driven approach in progressing the expansion project that took into account continuing customer demand for transportation capacity[123] as well as current and future competitive conditions.

D.3 Decision-making under scheme pipeline regulation

In contrast to the nimble decision-making process available to pipeline service providers under non-scheme regulation, under scheme regulation investments must satisfy the NGR capital expenditure criteria and must be assessed as part of the lengthy access arrangement approval process which may take up to 2 years.

[123] APA, *ASX Announcement: APA commences stage two of east coast gas grid expansion* (25 May 2022).

D.3.1 Capital expenditure criteria

Under scheme pipeline regulation, a service provider will need to have any proposed capital expenditure approved by the AER in order for it to be included in the calculation of reference tariffs. Only AER-approved 'conforming capital expenditure' can be included in the pipeline capital base for the purposes of calculating reference tariffs.[124]

Conforming capital expenditure is capital expenditure that meets the following criteria:[125]

- capital expenditure must be such as 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; ***and***
- the capital expenditure must be justifiable on a number of grounds stated in the Rules including:
  - the overall economic value of the expenditure is positive;[126]
  - the present value of revenue to be generated as a result of the expenditure exceeds the present value of the capital expenditure;[127] or
  - the capital expenditure is necessary: to maintain and improve the safety of services; to maintain the integrity of services; to comply with a regulatory obligation or requirement; or maintain capacity to meet levels of demand for services existing at the time the capital expenditure is incurred (as distinct from an expansion of pipeline capacity).[128]

These criteria are well suited to assessment of proposed expenditure for distribution networks where expenditure is mostly linked to incremental demand growth. They are ill-suited to a pipeline such as the SWQP with uncertain demand and variable investment requirements.

It is highly uncertain whether the type of investment required on the SWQP would meet these criteria at the time investment decisions need to be made. As discussed above, investment decisions increasingly need to be made ahead of capacity being contracted and at a time when demand is highly uncertain.

Any assessment against these criteria for a pipeline such as the SWQP will necessarily involve judgements about the future evolution of the energy market – including future demand for gas; optimal means of meeting this demand; and the development path for new supply sources, many of which may not require transportation via the SWQP.

D.3.2 Ex post review and capital redundancy provisions

Even where forecast capex is approved by the AER, there remains a risk that it will be disallowed or removed from the capital base in future access arrangement reviews. This may occur either if the expenditure is deemed 'non-conforming' in retrospect, and therefore not included in the capital base under rule 77(2)(b), or removed as redundant capital under rule 85.

Again, these risks are particularly acute in the case of investment undertaken in an environment of market uncertainty.

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[124] NGR, r 78(b).
[125] NGR, r 79.
[126] NGR, r 79(2)(a).
[127] NGR, r 79(2)(b).
[128] NGR, r 79(2)(c).

D.3.3 Access arrangement approval process

As noted above, service providers must propose capital expenditure in relation to scheme pipelines as part of the access arrangement approval process. The access arrangement proposal is one step in a broader 2-year process which requires engagement with the AER as well as stakeholders.

A summary of this process is set out in the table below.

Responsible party	Step	Maximum	NGR
Service provider	Service provider must submit reference service proposal	12 months prior to the review submission date	46
AER	Reference service proposal published	As soon as practicable	47A(6)(d)
AER / Stakeholders	Deadline for stakeholder submissions on reference service proposal	+15 business days	47A(6)(e)
AER	Reference service proposal decision	+ 6 months	47A(9)
Service provider	Submit full access arrangement proposal	+ 3 months	46(1A)
AER	Publish full access arrangement proposal	As soon as practicable ***or*** + 30 business days (if the AER considers the proposal or information is deficient, to allow the service provider to correct the deficiency)	58(1)-(2)
AER / Stakeholders	Deadline for stakeholder submissions on full access arrangement proposal	+ 20 business days	58(1)(c)
AER	Consider submissions, issue draft decision and invite submissions	No time frame specified	59
AER	Invite submissions	+ 20 business days	59(5)(c)(iii)
AER	Final decision	+ No time frame specified; total elapsed time 8-10 months	62(7)-(8)
Total	-	**~ 2 years**	-

D.3.4 Investment approval timeframes under scheme pipeline regulation

(a) VTS case study

As the AER is aware, APA owns and operates the VTS which transports gas within Victoria, supplying both metropolitan Melbourne and country areas, as well as to NSW via the interconnect with the MSP at Culcairn and to South Australia via the SEAGas pipeline. The VTS is a scheme pipeline under the NGL and NGR and operates under an access arrangement.

In 2020, both AEMO's GSOO and Victorian Gas Planning Report predicted a shortfall in gas supplies in the VTS to meet winter demands as early as 2023 driven by a faster than expected decline in gas supplies from Longford. Even with the ECG expansion that was expected to be able to meet

demand in Sydney, allowing 100 TJ/day of gas to be redirected from Sydney to Melbourne, APA forecast tight supply demand balance approaching the second half of the access arrangement period (2023-2027). Peak Victorian demand was expected to be met by Lochard's expansion of the Iona storage facility to 570 TJ/day. At the time, Iona's existing injection capacity of 530 TJ/day was constrained by the SWP to 448 TJ/day.[129]

APA submitted the 2023-2027 VTS access arrangement proposal to the AER in December 2021, following a significant period of stakeholder engagement. The proposal included plans to expand the SWP through construction of the Stonehaven and Pirron compressors by 2024-2025 to enable injection capacity at 570 TJ/day at the Iona storage facility, amounting to an additional 102 TJ/day of supply to the VTS during the winter peak period.[130] Other projects including two FSRU projects west of Melbourne and were also proposed to boost supply to Victoria but had not yet reached FID.

The timing of the proposed Stonehaven and Pirron expansions were heavily influenced by the regulatory framework - APA was not confident pre-ordering long lead time items (notably, the compressors) prior to the AER approving the capital expenditure in its Final decision.

APA's initial proposal was rejected by the AER in its Draft Decision six months later in June 2022.[131] The AER's reasoning included its view that based on the 2021 GSOO and taking into account APA's ECG expansion, shortfalls were only forecast under extreme weather conditions for one day in 2023 and one day in 2024 over the 2023-2025 period. In these circumstances, the AER considered APA's proposal was not justified.[132]

In the interim, APA had been approached by the Victorian Government and AEMO to investigate the possibility of a fast-tracked solution to install a second compressor at Winchelsea before winter 2023. In light of the AER's Draft Decision, APA revised its proposal to accept the AER's rejection of its proposal with respect to the SWP and instead propose the Winchelsea compressor supported by the Victorian Government. While the AER ultimately approved the revised submission in December 2022, it did so two years after the process was initiated by APA and in a manner that necessitated Government intervention to ensure security of supply.[133]

(b) MAPS and SEA Gas

The rigidity of the regulatory regime has also had a profound impact on the development and long-term viability of the MAPS and the SEAGas pipeline, both of which are not fully utilised today.

In 2001, while MAPS was 'covered' and subject to full regulation, it had a significant queue for capacity. At the time, Epic Energy would have been required to undertake significant and costly investment in looping to meet the demands for pipeline capacity. The next revision to the access arrangement was not due for a further 5 years in 2006 and it was not clear whether as part of that process the regulator would approve an average price for all users, or would require marginal users to pay the costs of developing marginal capacity.

[129] APA, *A look at plans for Victorian Transmission System* (1 December 2021), p 31.
[130] Ibid.
[131] AER, *Draft Decision: APA Victorian Transmission System - Access arrangement 2023–27* (30 June 2022).
[132] AER, *Draft Decision: APA Victorian Transmission System - Access arrangement 2023–27* (Attachment 5 Capital Expenditure) (30 June 2022), p 54.
[133] AER, *Final Decision: APA Victorian Transmission System - Access arrangement 2023–27* (9 December 2022); AEMO, 2024 VGPR Update, p 62: "*There are minimal options to materially increase the transportation capacity of the SWP from Port Campbell to Melbourne. AEMO has identified one small option which could expand the capacity by approximately 20 TJ/d. Beyond this, modelling shows multiple significant bottlenecks limiting options to increase capacity without substantial investment*."

Delays caused by regulation brought divided volumes across the MAPS and SEA Gas pipelines, and today both of these pipelines remain underutilised.

(c) Regulatory time frames and potential impact on future investment

For reasons outlined above, APA expects that it will need to make major investment decisions within the next two to three years in order to mobilise the capacity needed to maintain security of supply.

As discussed above, one of these decisions is likely to be in relation to SWQP augmentations needed to transport gas from the Beetaloo Basin to southern demand centres and export facilities (see discussion in section D.1.4 above). On the basis of current timelines being targeted by Tamboran, which suggest developers are aiming for first gas from Beetaloo as early as 2028,[134] APA expects it would need to reach a final investment decision (FID) on at least some of the required pipeline augmentations in FY2026. This means if the AER decides to move to a heavier form of regulation for the SWQP, FID for these augmentations may be required in the middle of an access arrangement process – that is, while the AER is considering matters such as the RAB value, forecast demand and capex requirements, but prior to the AER's final decision on the SWQP's initial access arrangement.

If the SWQP becomes subject to full regulation, the uncertainty around how the AER might set the RAB and whether the AER would consider proposed augmentation capex "prudent" would present a significant risk to this and other future investment decisions.

More broadly, uncertainty around the application of tariff regulation will impact decisions to invest in non-redeployable capital in a number of ways:

- Given the risks in Australia's energy future, exacerbated by various government policies on decarbonisation and reducing greenhouse emissions, these investments are now more risky than they have been in years past. The current AER Rate of Return Instrument does not acknowledge the differences in risk between electricity and gas transmission assets, inherently determining a regulated rate of return that is not commensurate with the risks associated with the investment. Should the regulatory framework apply regulation to a new pipeline from its commencement, the RORI will act as a barrier to attracting capital to these investments.

- Should a pipeline be subject to regulation some time after it has commenced operation, the spectre of regulation may inhibit shippers from contracting with the pipeline proponent. Foundation shippers may be reluctant to sign foundation agreements if they perceive that they will suffer a "first mover disadvantage" – that subsequent (competing) shippers may be awarded a lower price should regulation be imposed part way through a pipeline's life. In a

[134] Tamboran Resources, "*Half Yearly Report*" (31 December 2023), p 6.

stable light regulation environment, foundation contracts could manage these risks between the contracting parties.

- Where a foundation shipper requires the contract to include a “most favoured nation’ clause that would deliver the (lower) regulated tariff to the foundation shipper, the pipeline investor is presented with an unmanageable risk to future cash flows that would increase the risk associated with the investment, further presenting barriers to investment.

In an environment where large amounts of investment are likely to be required in short timeframes to maintain security of supply and support the transition to net zero, this regulatory uncertainty poses a real risk to the long-term interests of consumers.

Appendix E Theory of workably competitive markets and role of foundation contracts

This appendix provides an overview of the economic theory relating to the operation of workably competitive markets, including the different forms of workable competition, the outcomes that may be expected in a workably competitive markets, and the role of foundation contracts. This provides an important foundation for understanding the history of the SWQP and the outcomes that are observed today.

When viewed within this economic framework, it is clear that SWQP services have always been subject to the constraints of effective and workable competition. This is reflected in observed outcomes, including long-term foundation contracts, tailoring of services to the needs of individual customers, efficient investment and risk allocation.

Economic theory provides a clear warning against moving to a form of regulation that does not appropriately recognise these market features.

E.1 Workable competition can take different forms

Professor Willig explains the general principles of workable competition as follows:[135]

> *Workably competitive markets can take on a variety of forms with various economic features and outcomes that depend on the character of the products and services offered by the firms in the market. An appropriate generalization is that in a workably competitive market, a firm has active and/or potential rivals whose actual or responsive conduct constrains or disciplines the firm to perform with economic efficiency. The resulting economic efficiency includes the dimensions of pricing, quantities and qualities of the outputs the firm supplies, operational productivity, and capital investments for replacement and progressivity. The constraint or discipline that the firm experiences in a workably competitive market arises from the prospect of loss of business to rivals. If the firm does not price attractively enough, or produce enough output to the tastes and needs of its customers, or keep its costs down or sufficiently maintain and advance its abilities and infrastructure, then its rivals will be motivated and able to divert its sales to their own benefit. This prospect of lost business provides direct motivation to the firm that faces workable competition to conduct its business efficiently.*
>
> *It is a general principle that workably competitive markets result in economic outcomes that are favorable for economic efficiency, for social welfare as indicated by real social income, and for the associated public interest.*

The three forms of workably competitive markets identified by Professor Willig are:

- perfect competition;
- differentiated product oligopoly; and
- perfectly contestable markets where potential entrants can compete for the market, and are able to divert business from any incumbents.

Professor Willig considers, based on the features of gas transmission services, that the model of workable competition in contestable markets applies to these services. Professor Willig observes that key features of gas transmission – including the negotiation of individualised terms of service

[135] Expert report of R D Willig, '*The outcomes of workably competitive markets for pipeline services*' (September 2018) (**Appendix H**) (**Willig Report**), [8]-[9].

with sizeable heterogenous customers – are entirely consistent with the model of workable competition in contestable markets.[136]

E.2 Product differentiation and differential pricing are features of workably competitive markets

Economic theory highlights that service differentiation is an important feature of workably competitive markets with heterogenous customers.

Professor Willig explains:[137]

> *It is economically efficient and a conventional business practice for an incumbent with pervasive increasing returns to scale to contract individually with its sizable customers with individual heterogeneous deals. As discussed above, it can be expected, consistent with applicable workable competition and economic efficiency, that the prices reflected in these individual deals will be differential and demand-based. It can also be expected that the individual contracts will include heterogeneous other terms that respond to any particular needs of the customers, including, for example, assurances of deliveries' timeliness, reliability, and adaptability to the customer's dynamic circumstances.*

This is a particular feature of SWQP services. APA will often negotiate bespoke arrangements with individual customers, tailored to their individual needs.[138]

E.3 Foundation contracts will reflect competitive outcomes

Foundation contracts will, by definition, reflect the outcomes of effective competition. Foundation contracts will typically be the product of a competitive process to develop additional capacity – either by building a new pipeline or substantially expanding / augmenting an existing pipeline. In order to secure contracts for this additional capacity, prospective service providers will bid a competitive package of price and service commitments.

Dr Hird explains:[139]

> *Foundation contracts reflect a competitively determined average price per unit of capacity on a pipeline – both actual foundation contract capacity and expected future sales of capacity above and beyond foundation contract capacity. Prices in foundation contracts are, therefore, a valid competitively determined price for pipeline capacity that reflects the average cost of all capacity expected to be sold (in foundation contracts and otherwise).*

The terms of access to the SWQP continue to be governed by the terms of foundation contracts. These contracts were struck at a time when the SWQP's owners were competing with a range of options for extension of the pipeline and supply of additional capacity.[140]

The terms of these foundation contracts reflect the outcomes of effective competition. There is therefore no sense in which the current terms of access to the SWQP could be said to reflect an exercise of market power.

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[136] Willig Report, [54]-[55].
[137] Willig Report, [35].
[139] Expert report of Dr T Hird (CEG), '*Workably competitive outcomes for gas pipelines*' (May 2019) (**Hird 2019**), (**Appendix G**) [15].
[140] See **Appendix C Historic competitive constraints on the SWQP**, section A.2.3.

E.4 Pricing in workably competitive markets with foundation contracts

Under foundation contracts, pricing and other terms of access will reflect ***expected*** costs and demand for services over the term of the contract. Typically, there will not be mechanisms to adjust or reset pricing if cost or demand outcomes deviate from these expectations. In particular:

- pricing will generally not adjust up / down if actual demand for pipeline services turns out to be lower / higher than expected at the time of contracting; and
- pricing will generally not adjust up / down if actual costs turn out to be higher / lower than expected at the time of contracting (sometimes with limited exceptions for specific tax or other cost imposts).

The implication is that parties to foundation contract arrangements share in upside / downside risk around demand and cost expectations. A service provider will often take the risk that demand may be materially lower than expected or costs materially higher than expected. The customer may assume other risks, such as commodity price risk. Parties may also use contractual mechanisms designed to mitigate risks to some extent – for example most favoured nation (**MFN**) clauses may be sought by the customer to protect against the risk that later users could benefit from tariffs lower than foundation tariffs.

Economic theory supports the preservation of risk allocation frameworks reflected in foundation contracts. Interfering with these commercially agreed risk allocations is likely to harm the interests of both foundation shippers and service providers.

Dr Hird states:[141]

> *There are clear economic efficiency reasons to prefer leaving the pipeline owner with the risks associated with cost and volume variability. This is because the pipeline owner has the primary control over both of these factors. It therefore follows that it is best placed to manage these risks. Indeed, a pipeline owner who can simply raise prices when volumes fall has little incentive to prevent volumes from falling (or incentive to attempt to attract new volumes if this simply serves to lower revenues from existing volumes).*
>
> *An additional concern with disturbing the originally negotiated risk allocation (and expected profile of asset values) is that doing so runs the risk of removing upside where pipelines are more successful than expected while leaving pipeline owners stuck with the downside on pipelines that are less successful than expected. This would effectively fail to allow for the recovery of stranding risk.*

While pricing under foundation contracts will reflect ***expected*** costs and demand for services, actual costs and demand may deviate materially from these expectations. This can result in actual returns that are materially lower or higher than was expected at the time of entering into the foundation contract and committing to investment.

E.4.1 Under conditions of workable competition, historical 'excess' returns cannot be relied on as evidence of monopoly power

A common regulatory fallacy is to associate high realised returns on investment in contestable markets with an exercise of market power. However in the context of workable competition in contestable markets – particularly where pricing is set under long-term foundation contracts – such outcomes merely reflect the upside being realised on a risky investment (just as low historical returns would reflect the realisation of downside risk). Mr Balchin explains that in a workably competitive

[141] Hird 2019, [82]-[83].

market, whether a firm is ultimately able to recover its costs – or indeed whether it can recover more than its cost and higher returns – depends on the dynamics of the market over time.[142]

Mr Balchin states that:[143]

> *Defining monopoly rents in terms of historical capital recovery is inconsistent with how competitive markets work. In a competitive market, firms do not mark down the value of their assets as revenue is received, and then reduce charges as capital is recovered. Investments are made based on forecasts of the future, and subsequent pricing and operating decisions are made with reference to forward-looking factors.*

More broadly, it has been observed that economic theory does not support drawing conclusions of substantial market power based purely on historical rates of return. The American jurist Richard Posner has described such an exercise as 'treacherous', noting that "there is not even a good economic theory that associates monopoly power with a high rate of return".[144]

E.4.2 Capping upside returns would create a strong disincentive for potentially risky investment

Both Dr Hird and Mr Balchin emphasise that, if the effect of regulation was to cap any upside while leaving the service provider with downside risk, this would create a strong disincentive for investment.[145] This was precisely the risk identified by the Productivity Commission in its 2004 review of the gas access regime, giving rise to its recommendation for lighter forms of regulation to be applied to some pipelines.[146]

E.5 Investment and risk allocation in workably competitive markets

In a workably competitive market, decisions around investment and risk allocation will be based on the best available information and judgement of market participants. Ultimately, the information will be 'sorted', and decisions made regarding efficient investment and service delivery.

Dr Hird explains:[147]

> *It is difficult to overestimate the importance of this 'information sorting' role of competitive markets. Whether the issue at hand is investing in R&D for a smartphone or the capacity/functionality of a new/existing gas pipeline, it is the interactions between customers and producers at the 'coal face' that creates the knowledge about whether proceeding is efficient. Moreover, it is the allocation of risks and rewards during the development of the project that ensures that producers both have the appropriate incentives to proceed and have the incentives to manage the project as efficiently as possible into the future.*
>
> *An actual competitive process, such as for the supply of foundation contracts on a pipeline, synthesises all of this information and all of the relevant risks (and willingness to bear those risks) and reflects these in a final set of prices and contract terms. In simple terms,*

[142] Expert report of J Balchin (Incenta), *Economic principles for deciding on the appropriate form of regulation for the South West Queensland Pipeline* (March 2024) (**Appendix F**) (**Balchin Report**), p 21.
[143] Balchin Report, p 6.
[144] *Blue Cross Blue Shield v. Marshfield Clinic* 65 F.3d 1406 (7th Cir. 1995).
[145] Hird 2019, [83]; Balchin Report, pp 28-29.
[146] Productivity Commission, *Review of the Gas Access Regime, Inquiry Report No. 31* (11 June 2004), section 4.4.
[147] Hird 2019, [90]-[91].

> *competitive bidding for a major project gives rise to both expensive and intensive assessments of costs and risks and, ultimately, reliable estimates of cost-based prices.*

This is how decisions are currently made regarding investment and service delivery on the SWQP. APA makes decisions to invest based on the best available information and consultation with its customers. However the risk that it may invest too little / too much; too early / too late; or in the wrong places, is ultimately borne by APA and its shareholders.

If the SWQP were to move to a heavier form of regulation, the AER would need to become involved in this decision-making, and at least some of this risk would be shifted to end-users.

E.6 Effects of misdirected regulatory intervention

Professor Willig notes that governmental intervention over market power concerns is unnecessary and likely counterproductive in workably competitive markets.[148]

Moreover, Professor Willig explains that where there is governmental or regulatory intervention to address market power concerns in a market that is not workably competitive, such intervention will only promote economic efficiency "*if and only if it were effectively guided by outcomes that would be expected if the market were workably competitive*".[149]

E.6.1 Service and customer features

Professor Willig explains that any regulatory intervention must recognise the particular features of a market's products and services:[150]

> *It is crucial for economic efficiency and for financial sustainability that regulatory intervention be guided by the results that would follow from the kind of workable competition suited to the character of the market's products and services. Workable competition has markedly different elements and traits in markets with different kinds of outputs produced with technologies having different characteristics and aimed at different sorts of consumer demands. Economic logic and experience (see Section IV.F below for the example of the U.S. Railroad industry) show that disastrous industry performance can result from regulatory intervention that is based on a form of workable competition that is inconsistent with the character of the market's products.*

Specifically in relation to contestable markets, Professor Willig warns against any form of regulation based on fully allocated costs, since this would be inconsistent with differential demand-based pricing that is observed in workably competitive contestable markets:[151]

> *Workable competition in a contestable market is driven by the threat that entrants would divert business from the incumbent(s) if the current prices and other terms made that profitable. Such workable competition is consistent with pervasive scale and scope economies and the resulting natural monopoly. Under these circumstances, economic efficiency generally requires differential demand-based pricing (formally termed Ramsey Pricing, but not implemented formulaically), and avoidance of pricing according to fully allocated costs or other accounting conventions that neglect consideration of demand and the value of the service to the customer. Economic efficiency also requires contractual deals between the supplier and sizable customers with individualized terms of service, pricing and*

[148] Willig Report, [ii].
[149] Willig Report, [iii].
[150] Willig Report, [11].
[151] Willig Report, [vii].

> *volume discounts. Workable competition in a contestable market is consistent with these market outcomes.*

Professor Willig's recommendations clearly support a lighter form of regulation being applied to pipelines such as the SWQP, since this lighter form of regulation permits a tailoring of services to individual customer needs.

E.6.2 Nature of investment requirements

Mr Balchin emphasises the nature of pipeline investment requirements as a key factor to be considered in determining the appropriate form of regulation. Mr Balchin explains the need to distinguish between:[152]

- pipelines facing high near-term investment requirements and uncertain longer term demand; and
- pipelines facing relatively predictable investment requirements (e.g. for asset renewal and forecast new connections) and a more stable demand outlook.

The SWQP clearly falls into the former category.

Mr Balchin explains that there is a particular risk associated with the application of tariff regulation to pipelines facing high near-term investment requirements and uncertain longer-term demand:[153]

> *The challenges with applying cost-based regulation to pipelines with high investment requirements and uncertain future demand are well established both in academic economics literature (see Appendix A) and in past policy reviews of the Australian framework for gas pipeline regulation (reviews undertaken by the ACCC and Productivity Commission are addressed below). The regulatory problem that future demand risk creates is known as the truncation problem, referring to a situation where conventional ex ante price regulation exposes the regulated business to the downside demand risk, but limits the ability of the service provider to capture the benefits of upside demand risk. The consequence is a "truncation" of the distribution of expected future returns under regulated pricing and an expected net present value of regulated cash flows of less than zero, contrary to the "NPV=0" principle that is a core objective of price regulation. The truncation of returns and likelihood of under-recovery of capital erodes incentives for otherwise efficient investment.*
>
> *The problems in applying the "reference tariff" regime to gas pipelines in a context of significant demand risk are perfectly foreseeable. The reference tariff regime was never designed to deal with significant demand uncertainty and the NGR do not allow for regulated prices to include compensation for stranding risk. The regulatory regime of ex ante price regulation that applies to scheme pipelines was designed in the 1990s under premises of indefinite use of pipelines and constant or increasing demand…*
>
> *These are limitations of the NGR rather than potential outcomes of regulatory discretion. Regardless of any "sympathy" that the AER might have for a pipeline service provider facing material demand uncertainty and stranding risk, the current NGR regime for ex ante price regulation is too rigid to allow this risk to be properly addressed.*

[152] Balchin Report, section 5.
[153] Balchin Report, pp 28-29.

Mr Balchin's analysis clearly supports maintaining the current form of regulation for the SWQP. Mr Balchin considers that the non-scheme framework is an effective and fit-for-purpose regulatory regime for a pipeline with the characteristics of the SWQP.[154]

[154] Balchin Report, chapter 6.

Appendix F Expert report of J Balchin (Incenta), *Economic principles for deciding on the appropriate form of regulation for the South West Queensland Pipeline* (March 2024)

Appendix G Expert report of T Hird (CEG), *Workably competitive outcomes for gas pipelines* (May 2019)

Appendix H Expert report of R D Willig, *The outcomes of workably competitive markets for pipeline services* (September 2018)

Appendix I Expert report of T Hird (CEG), *Returns on investment for gas pipelines* (October 2016)

Appendix K Expert report of T Hird (CEG), Consultation on form of regulation for the SWQP (March 2024)