

Options to improve gas pipeline regulation

Regulation Impact Statement for Decision

2021

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Abbreviations

Term	Definition
2015-16 East Coast Review	The AEMC's 2015-16 Eastern Australian Wholesale Gas Market and Pipelines Framework Review
2015-16 Inquiry	The ACCC's 2015-16 Inquiry into the eastern and northern Australian gas markets
2017-18 Economic regulation review	The AEMC's 2017-18 Review into the scope of economic regulation applied to covered pipelines
AA	Access arrangement
ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
BB	East coast and NT Natural Gas Services Bulletin Board (given effect through the NGL, the Regulations and Part 18 of the NGR)
CBA	Cost benefit analysis
CCA	<i>Competition and Consumer Act 2010</i>
CEA	Competitive effects analysis
COAG	Council of Australian Governments
CRBM	Commonwealth Regulatory Burden Measure
COAG	Council of Australian Governments
CTP	Competitive tender process
Examination	Dr Michael Vertigan's Examination of the current test for the regulation of gas pipelines (December 2016)
Energy National Cabinet Reform Committee (ENCRC)	A Committee of National Cabinet, comprising state, territory and Commonwealth Ministers.
Energy Senior Officials	Senior officials from state, territory and Commonwealth energy departments.
ERA	Economic Regulation Authority (Western Australia)
Gas Code	National Third Party Access Code for Natural Gas Pipeline Systems
GBB	Western Australian Gas Bulletin Board (given effect through the <i>Gas Services Information Act 2012</i> (WA), the Gas Services Information Regulations 2012 (WA) and the Gas Services Information Rules.
GMRG	Gas Market Reform Group
Greenfield exemption	A 15-year exemption from coverage that can be obtained by a pipeline prior to commissioning
GSA	Gas Supply Agreement
NCC	National Competition Council
NGL	National Gas Law
NGO	National Gas Objective
Non-scheme pipeline	A pipeline that is not a scheme pipeline (i.e. because it has not been subject to the coverage test or has been found not to satisfy the coverage test).
NGR or Rules	National Gas Rules
OGW	Oakley Greenwood
Part 23	Information disclosure and arbitration framework applied to non-scheme pipelines.
RCV	Recovered capital value
Regulations	Regulations made under the National Gas Law
Relevant regulator	The AER for pipelines in eastern Australia and NT and the ERA in Western Australia.
Scheme pipeline	A pipeline that has been found to satisfy, or deemed to satisfy, the coverage test and is therefore subject to full or light regulation.
Shippers	This term is used to refer to both prospective and existing shippers.
SP	Service provider
Vision	Energy Ministers' Australian Gas Market Vision (December 2014)

Executive Summary

This Decision Regulation Impact Statement (RIS) sets out the preferred option to improve the gas pipeline regulatory framework. This follows the release of a consultation RIS on 1 November 2019, which sought stakeholder feedback on a number of potential problems with the current regulatory framework and four options to address these problems, one of which was to maintain the status quo.

As outlined in more detail below, the DRIS identifies Option 3B as the preferred option. Implementation of this option, which is subject to the agreement of the Energy National Cabinet Reform Committee, will address all of the problems identified in this DRIS that are currently having a detrimental effect on economic efficiency (productive, allocative and dynamic) and consumers more generally. While it has not been possible to quantify all of the costs and benefits associated with this option, the net economy-wide benefit is expected to exceed \$1.18 billion under the high impact scenario and \$235 million under the low impact scenario.

At a general level, Option 3B provides for the implementation of a simpler regulatory framework that will continue to support the safe, reliable and efficient use of and investment in pipelines, while also:

- posing a more effective constraint on exercises of market power by service providers;
- facilitating better access to pipelines that would not otherwise provide such access;
- providing greater support for commercial negotiations between shippers and service providers (i.e. through more transparency, including greater price transparency, and improvements to the negotiation framework and dispute resolution mechanisms); and
- streamlining the governance arrangements.

Together, these changes expected to result in lower transportation costs, improved access to pipelines, lower search and transaction costs and a range of other significant cost savings, investment and efficiency benefits. They are also expected to result in a material reduction in the risks associated with the regulatory framework and facilitate more effective competition in gas transportation and in upstream and downstream markets.

Relative to the other options that were considered, Option 3B is expected to yield the greatest net benefit for the community, which is why it is the preferred option.

The process by which this conclusion was reached is outlined below.

What is a RIS?

Regulatory impact statements are carried out by governments when considering whether action is required to address a specified problem.

When conducting a RIS, consideration must first be given to whether there is a problem that warrants action. If the case for action is established, consideration must then be given to the objectives of this action and the set of feasible options that could be implemented to address the identified problem.

The purpose of a Decision RIS is to identify the option that yields the greatest net benefit for the community (having regard to the results of the regulatory impact assessment and the consultation process) and to set out how it will be implemented, monitored and reviewed.

Why has a RIS been undertaken and what problems does it seek to address?

Gas pipelines are often subject to regulation because they exhibit natural monopoly¹ characteristics (i.e. because investments in pipelines are indivisible, economies of scale exist, and sunk costs are large). These characteristics mean that access to an existing pipeline is often more economically efficient than constructing a new pipeline. These characteristics can also accord the service provider with substantial market power, which can be exercised in a number of different ways over both existing capacity (e.g. by engaging in monopoly pricing, restricting or denying access, or favouring affiliates in related markets) and new capacity (e.g. by blocking competition from other potential pipelines).

Irrespective of the form it takes, exercises of market power can have a detrimental effect on economic efficiency and consumers more generally. This is because the exercise of market power can result in prices being set above, and/or the supply of services below, what would occur in a workably competitive market. This can, in turn, have a detrimental effect on the efficient operation of the gas market, upstream and downstream markets and the broader economy, because it can result in lower than efficient levels of production, consumption and investment.

To address identified market failures of the nature described above in Australia, COAG agreed to implement an industry specific regulatory framework for gas pipelines, which came into effect in 1997. In the intervening period the regulatory framework has been subject to a number of significant reviews and refinements.

For example, in 2016 concerns were raised by the Australian Competition and Consumer Commission (ACCC),² the Australian Energy Markets Commission (AEMC)³ and Dr Michael Vertigan (AC)⁴ about the threat of regulation not posing an effective constraint on the behaviour of pipelines, because the test for regulation (the coverage test) was not directed at the right market failure. Concerns were also raised about the information available to shippers seeking access to pipelines and the imbalance in bargaining power faced by shippers when negotiating access to unregulated pipelines.⁵

To address these concerns, a new information disclosure and arbitration framework (referred to as 'Part 23') was introduced in August 2017, which applies to previously unregulated pipelines (non-scheme pipelines) that are providing third party access. In 2019, the AEMC also made a number of changes to the National Gas Rules (NGR) and recommended a number of changes to the National Gas Law (NGL) to strengthen various aspects of the regulatory framework that applies to scheme (covered) pipelines.

Despite these recent improvements, a number of potential problems with the regulatory framework have been identified by the AEMC,⁶ ACCC,⁷ the Gas Market Reform Group

¹ The term 'natural monopoly' is used to refer to a situation where a single firm can supply a market at a lower overall cost than if it were supplied by multiple firms.

² ACCC, Inquiry into the east coast gas market, April 2016.

³ AEMC, Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review, 23 May 2016.

⁴ Vertigan, M., Examination of the current test for the regulation of gas pipelines, 14 December 2016.

⁵ ACCC, Inquiry into the east coast gas market, April 2016 and Vertigan, M., Examination of the current test for the regulation of gas pipelines, 14 December 2016.

⁶ AEMC, Final Report: Review into the scope of economic regulation applied to covered pipelines, 3 July 2018.

⁷ ACCC, Gas inquiry report 2017-2020 Interim report, July 2019.

(GMRG),⁸ NERA Economic Consulting (NERA),⁹ the Brattle Group (Brattle)¹⁰ and stakeholder consultation undertaken as part of this RIS (including through the survey conducted by Oakley Greenwood (OGW).¹¹ for this RIS).

Table E.1 provides a summary of the problems that have been identified with the regulatory framework that have been confirmed through stakeholder feedback on the Consultation RIS.

Table E.1: Summary of problems with the current regulatory framework

Focus area	Problems
1. When a pipeline should be subject to regulation	The problem identified with this aspect of the regulatory framework is that the use of the coverage test, (used to determine whether a pipeline that is not voluntarily providing third party access should be required to do so), can result in under-regulation and inefficient investment in and use of these pipelines.
2. Forms of regulation and movements between the alternative forms of regulation	<p>The problems identified with this aspect of the regulatory framework are that:</p> <ul style="list-style-type: none"> (i) the inconsistencies and overlap between light regulation and Part 23 increases regulatory complexity and administrative burden, resulting in unnecessary costs and inefficiencies; (ii) the use of the coverage test as a gateway from Part 23 to full regulation can result in under-regulation, leaving shippers more exposed to exercises of market power by service providers; and (iii) the current forms of regulation do not effectively deal with potential exercises of dynamic market power (i.e. the service provider blocking competition from other service providers), which can further entrench the incumbent service providers' market power and prevent the efficiencies associated with competition for the development of new pipelines and augmentations flowing through to the market.
3. Governance for when and how to regulate decisions	The current governance arrangements give rise to unnecessary costs and delays in decision making, particularly in relation to third party access and greenfield exemption determinations.
4. Information disclosure requirements	<p>The problems identified with this aspect of the regulatory framework are that:</p> <ul style="list-style-type: none"> (i) there is limited information available to shippers negotiating access to non-reference services on full regulation pipelines; and (ii) there are a number of deficiencies in the information reported by Part 23 and light regulation pipelines (including as a result of the availability of exemptions) that are affecting the adequacy, quality and reliability, accessibility and usability of the reported information. <p>Together these problems can hinder the ability of shippers to negotiate access to services, impose additional search and transaction costs on shippers and result in inefficient decision-making. They could also make shippers more susceptible to exercises of market power.</p>
5. Negotiation frameworks and dispute resolution mechanisms	<p>The problems identified with this aspect of the regulatory framework are that:</p> <ul style="list-style-type: none"> (i) differences in the negotiation frameworks applying under the various forms of regulation impose unnecessary costs and delays on negotiating parties and hinder the ability of shippers to negotiate effectively with service providers; (ii) the threat of arbitration by smaller shippers may <u>not</u> be viewed as credible by all service providers, which can make this group of shippers more susceptible to exercises of market power by service providers; and (iii) aspects of the full regulation dispute resolution mechanism are not as effective or efficient as they could be, which undermines the constraint it is intended to impose on service providers.

⁸ GMRG, Advice to the former COAG Energy Council on the retention of light regulation, February 2018.

⁹ NERA, International Review of Pipeline Regulation, 28 June 2019.

¹⁰ Brattle, Financial Information Disclosed by Gas Pipelines in Australia Under Part 23 of the National Gas Rules, August 2019.

¹¹ OGW, Gas Shippers Survey, September 2019.

As this table shows, the problems principally relate to:

- (a) the threshold used to determine when a pipeline should be subject to economic regulation (including in relation to greenfield developments and pipelines that are not voluntarily providing third party access);
- (b) the forms of regulation that can be applied to a pipeline if they are subject to regulation and how movements between the alternative forms of regulation occur;
- (c) the governance arrangements applying to when to regulate and how to regulate decisions;
- (d) the information disclosure obligations that service providers are subject to under the various forms of regulation; and
- (e) the negotiation frameworks and dispute resolution mechanisms applying under the various forms of regulation.

Further detail on these problems and the feedback that stakeholders provided is contained in chapters 3 to 7.

Why is Energy National Cabinet Reform Committee action required and what are its objectives?

The problems that have been identified with the current regulatory framework are complex and interrelated. These problems are having a detrimental effect on economic efficiency and consumers more generally, because they are, to varying extents:

- leaving shippers exposed to exercises of market power by service providers,¹² which can result in lower than efficient levels of consumption, production and investment across the gas market, upstream and downstream markets, and the broader economy (e.g. because prices are higher than they would be in a workably competitive market);
- allowing incumbent service providers to use their market power to restrict competition, which can prevent the efficiency gains associated with competition from flowing through to the gas market, upstream and downstream markets and broader economy;
- giving rise to information deficiencies and asymmetries, which can result in inefficient consumption, production and investment decisions across the gas market, upstream and downstream markets and the broader economy; and
- imposing unnecessary costs and risks on shippers, service providers, regulators and decision-makers and, in some cases, delaying access to pipelines.

The problems that have been identified with the current regulatory framework are both a 'market failure' (i.e. because the market is not working to allocate resources in the most efficient manner) and a regulatory issue that warrant further action by the Energy National Cabinet Reform Committee.

¹² This may occur because of under-regulation, or because the threat of a stronger form of regulation being applied or the dispute mechanism being triggered is not credible.

In keeping with the National Gas Objective (NGO)¹³ and the Vision for the Australian Gas Market (Vision),¹⁴ the objectives of Energy National Cabinet Reform Committee action are to implement a more efficient, effective and integrated regulatory framework that:

- supports the efficient operation of the gas market and the long term interests of gas users; and
- is fit for purpose, targeted and proportionate to the issues it is intended to address.

Some of the more specific objectives of Energy National Cabinet Reform Committee action are to:¹⁵

- (a) provide a framework for seeking access to pipelines;
- (b) pose a more effective constraint on service providers' market power;
- (c) support efficient investment and innovation in pipeline services and continue to provide for the safe, reliable and efficient operation and use of pipelines;
- (d) reduce the degree of information asymmetry and imbalance in bargaining power that shippers and interconnecting parties can face when negotiating with service providers;
- (e) have a regulatory framework that is as simple and well-integrated as possible, promotes clarity and consistency and minimises administrative burdens and compliance costs; and
- (f) support the current and future opportunities and challenges facing the gas and pipeline industries.

Chapter 3 provides further detail on the objectives of Energy National Cabinet Reform Committee action.

What consultation has been undertaken?

To facilitate stakeholder consultation, a Consultation RIS was published on 1 November 2019. The Consultation RIS identified a number of potential problems with the current regulatory framework and four options to address these problems, one of which was to maintain the status quo. The remaining options either involved the adoption of a higher threshold for regulation (Option 2), a lower threshold for regulation (Option 4), or the retention of the existing threshold for regulation but a range of other improvements to the framework (Option 3).

Stakeholders were provided 11 weeks to provide written feedback on the potential problems and policy options identified in the Consultation RIS. They were also invited to attend public forums in Perth, Brisbane, Sydney and Melbourne. The forums were attended by a large number of gas market participants, including pipeline service providers, gas producers, retailers and gas users. A number of bilateral discussions were also held with stakeholders in Perth, Brisbane, Sydney, Melbourne and Adelaide.

In total, 28 written submissions were received in response to the Consultation RIS, one of which was provided on a confidential basis. The majority of submissions were provided by companies and associations with interests across the gas supply chain, including:

¹³ The National Gas Objective is set out in section 23 of the NGL:

"The objective of this Law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas."

¹⁴ Energy Ministers, Australian Gas Market Vision, December 2014

¹⁵ COAG Energy Council, Terms of Reference of the Gas Pipeline RIS, 21 December 2018.

- **Pipeline service providers:** AGIG, Allgas, APA, ATCO, Epic, Jemena, Tasmanian Gas Pipeline (TGP) and Australian Pipelines and Gas Association (APGA);
- **Gas and LNG producers:** APLNG, ConocoPhillips (COPA), Shell and the Australian Petroleum Production and Exploration (APPEA);
- **Retailers:** AGL, Alinta, EnergyAustralia and Origin; and
- **Users and user associations:** Qenos, Chemistry Australia, Energy Users Association of Australia (EUAA), Major Energy Users (MEU) and NSW Business Chamber (BC).¹⁶

Submissions were also received from the ACCC, the Australian Energy Regulator (AER), Energy Consumers Australia (ECA), the National Competition Council (NCC) and two gas market consultants (Lewis Grey Advisory (LGA) and Energy Matrix).¹⁷

An overview of the feedback that stakeholders provided is set out below.

Stakeholder feedback on the potential problems with the existing regulatory framework

As part of the Consultation RIS, stakeholders were asked whether they agreed with the potential problems with the regulatory framework identified by the AEMC, ACCC, GMRG, NERA and Brattle, and by shippers that participated in the OGW survey. The list of potential problems identified in the Consultation RIS included the 11 problems identified in Table E.1 and the following potential problems:

- (a) the requirement for all pipelines providing third party access to be subject to some form of regulation could result in over-regulation; or
- (b) the application of a lighter form of regulation to pipelines with a greenfield exemption (i.e. a 15-year no coverage determination) could distort pipeline investment incentives.

The majority of stakeholders that responded to these questions agreed with the problems in Table E.1 relating to when and how a pipeline should be regulated, the information disclosure requirements, negotiation frameworks and dispute resolution mechanisms. The majority of stakeholders (including a number of pipeline owners), did **not**, however, agree with the additional problems identified in (a) and (b) above. That is, they did not agree that the requirement for all pipelines providing third party access to be subject to regulation was resulting in over-regulation, or that the application of a lighter form of regulation to pipelines with a greenfield exemption was distorting investment.

Stakeholders were more divided on the issue of whether the current governance arrangements are giving rise to unnecessary costs and delays, with a number of user associations and gas market consultants agreeing this is a problem, while the NCC and a number of pipeline owners did not.

Further detail on the feedback that stakeholders provided on the potential problems is provided in chapters 4-7.

Stakeholder feedback provided on the policy options

In addition to being asked about the problems, stakeholders were asked for their views on the four policy options that were identified in the Consultation RIS. In short, very few stakeholders supported a single policy option as proposed. Rather, stakeholders

¹⁶ Note the NSW Business Chamber stated in its submission that it supported the EUAA's submission. So, for the purposes of assessing the stakeholder feedback, it has been assumed to hold the same view unless a contrary view is expressed in its submission.

¹⁷ Copies of the non-confidential submissions can be found on the Energy Ministers' website See <http://www.coagenergycouncil.gov.au/publications/council-releases-gas-pipeline-regulation-impact-statement-consultation>

supported individual aspects of each option. Importantly, no stakeholders advocated the retention of the status quo, which demonstrates the widespread acceptance of the need for reform.

Across the individual elements of each policy option, stakeholder views were quite mixed as the following summary highlights:

- When a pipeline should be regulated:
 - **Access to pipelines:** While a small number of stakeholders that own pipelines advocated a full exemption for pipelines that lack market power, other pipeline owners advocated a movement to an open access model. Between these two ends of the spectrum, were user associations, retailers and the ACCC, who supported the retention of the existing approach, with third party access pipelines subject to some form of regulation and the market power-NGO test used to determine whether pipelines not voluntarily providing access should do so.
 - **Greenfield exemption:** While some service providers called for a strengthened greenfield exemption, a number of user associations and a retailer questioned the need for such an exemption in the regulatory framework. In between these two positions, a number of other stakeholders (including the ACCC) suggested the existing incentives (i.e. the 15-year no coverage determination and competitive tender provisions) be retained and potentially amalgamated.
- **Forms of regulation and movement between forms of regulation:** There was broad support for the movement to two forms of regulation, with the stronger form based on the existing full regulation regime and the lighter form based on the existing Part 23 framework. The majority also agreed that the coverage test should be removed as a gateway between the lighter and stronger forms of regulation and that the existing form of regulation test (potentially with some changes to the hurdle embodied in this test) should be used to determine what form of regulation should apply to a pipeline. As to the potential inclusion of dynamic market power constraints, most service providers were opposed to this proposal, while others supported the inclusion of these measures.
- **Governance arrangements for when and how to regulate decisions:** Stakeholders expressed mixed views on who the decision-maker should be in relation to when and how to regulate decisions. User associations, the ACCC, AER and other stakeholders supported the movement to a single decision-maker, while service providers, the NCC and a retailer supported the retention of the existing arrangements.
- **Information disclosure requirements:** Most stakeholders agreed with the proposed improvement to the disclosure obligations for full regulation pipelines and that the quality and reliability, accessibility and usability of information should be improved. Differing views were, however, expressed on the form that price reporting should take and what exemptions should be available for the disclosure obligations.
- **Negotiation frameworks and dispute resolution mechanism:** The majority of stakeholders agreed a single negotiation framework should be implemented and that the scheme pipeline dispute resolution mechanism should be strengthened. They also agreed that steps should be taken to strengthen the credibility of the threat of a dispute being triggered by smaller shippers, although differing views were expressed on how this should be done and what, if any, role the relevant regulator should play.

As part of the Consultation RIS, feedback was also sought on the effectiveness of Part 23, which was implemented in August 2017. In short, the majority of stakeholders (including

pipeline owners, user associations, retailers, producers, the ACCC, AER and ECA) thought that Part 23 had been effective in facilitating access to previously unregulated pipelines and is posing a more effective constraint on the behaviour of service providers. While there was broad support for the retention of Part 23, most stakeholders agreed that some refinements to the information disclosure and dispute resolution mechanism were required to address the problems identified in Table E.1.

Further detail on the feedback that stakeholders provided on the policy options and on Part 23 is provided in chapters 4-7.

What policy options have been considered in the Decision RIS?

As a result of the feedback provided by stakeholders, two additional reform options have been identified: Option 3A and Option 3B. As their names suggest, these options are variants of Option 3 from the Consultation RIS. Option 3 has therefore been replaced by these two reform options. All the other reform options that were identified in the Consultation RIS are largely unchanged. Further detail on options 3A and 3B and the other policy options considered as part of this Decision RIS is provided in Table E.2.

In total five policy options have been considered as part of the Decision RIS, which differ in a number of respects, but for ease of reference have been named on the basis of the pipelines to be regulated and the forms of regulation they could be subject to:

- **Option 1:** Maintain the status quo.
- **Option 2:** Regulation of pipelines with substantial market power, with regulated pipelines subject to either:
 - a stronger form of regulation based on full regulation; or
 - a lighter form of regulation based on a strengthened Part 23.
- **Option 3A:** Regulation of third party access pipelines plus those not voluntarily providing access if they satisfy third party access test, with pipelines subject to either:
 - a stronger form of regulation based on full regulation; or
 - a lighter form of regulation based on a strengthened Part 23.
- **Option 3B:** Regulation of all pipelines, with pipelines subject to either:
 - a stronger form of regulation based on full regulation; or
 - a lighter form of regulation based on a strengthened Part 23.
- **Option 4:** Regulation of all pipelines, with pipelines subject to either:
 - a stronger form based on direct price control; or
 - a lighter form of regulation based on a strengthened Part 23.

As the name of the options indicate, Option 2 provides for a *winding back* of regulation from the position reached in 2017 when all pipelines providing third party access became subject to some form of regulation. Options 3B and 4, on the other hand, provide for an expansion of the scope of regulation to include **all** pipelines, with the key difference between these two options being the form that the stronger form of regulation would take.

Table E.2: Policy options considered for Decision RIS

Element		Option 1 (Status quo)	Option 2	Option 3A	Option 3B	Option 4
When should pipelines be regulated	Access to pipelines providing 3 rd party access	Maintain current approach, with all pipelines providing 3 rd party access subject to some form of regulation.	Allow 3 rd party access pipelines to obtain an exemption from regulation if they can demonstrate they do not have substantial market power.	Maintain the current approach, with all pipelines providing 3 rd party access subject to some form of regulation	Require <u>all</u> pipelines to provide 3 rd party access and to be subject to some form of regulation. For transitional purposes, those pipelines that have already obtained a 15-year no coverage determination and are not providing third party access would be exempt from the obligation to provide third party access for the remaining term of the exemption period	
	Access to pipelines not voluntarily providing 3 rd party access	Maintain current approach to enabling access to be sought to pipelines not voluntarily providing 3 rd party access if the coverage test is satisfied.	Allow access to be sought to pipelines not voluntarily providing 3 rd party access if market power-NGO test satisfied.			
	Greenfield exemption	Maintain current approach, with new pipelines able to obtain a 15-year no coverage determination if the coverage test is not satisfied and the terms and conditions of access for pipelines developed through a competitive tender process able to be locked in for up to 15 years.	Single greenfield exemption to enable new pipelines with a full exemption from regulation if the pipeline can demonstrate it will not have substantial market power over the exemption period.	Single greenfield exemption to enable new pipelines to obtain an exemption from the stronger form of regulation, and where relevant, lock in the outcomes of competition, for up to 15 years where it can be demonstrated that the pipeline is unlikely to have substantial market power over the exemption period.	No greenfield exemption	
Forms of regulation and the movement between the alternative forms	Forms of regulation	Maintain the existing forms of regulation (i.e. full, light and Part 23).	Adopt the following forms of regulation: <ul style="list-style-type: none"> Stronger regulation – based on full regulation (i.e. negotiate-arbitrate with reference tariffs approved by the regulator and a regulatory-oriented dispute resolution mechanism). Lighter regulation – based on the existing Part 23 (i.e. a negotiate-arbitrate model with information disclosure and a commercially-oriented dispute resolution mechanism), which would be strengthened through the inclusion of the safeguards that currently apply to light regulation, but not the prohibition on inefficient price discrimination. For transitional purposes, the 5.5 pipelines currently subject to light regulation would be transitioned to the new lighter form of regulation unless the service provider elects to be subject to the stronger form of regulation.		Adopt the following forms of regulation: <ul style="list-style-type: none"> Stronger based on direct price or revenue control Lighter based on strengthened Part 23. 	
	Dynamic market power measures	Maintain the existing approach, which does not explicitly deal with service providers trying to block new entry.	Service providers would be: <ul style="list-style-type: none"> required to comply with pipeline interconnection principles set out in the NGR prohibited from increasing the charges payable by existing shippers to cross-subsidise the development of new capacity (subject to limited exceptions specified in the NGR) and would be required to disclose more information on the costs of extensions and expansions. 		Service providers would be required to: <ul style="list-style-type: none"> comply with interconnection principles in the NGR use incremental pricing if the cost of new capacity would result in the price of existing capacity rising. 	
	Monitoring and referral	Maintain existing approach, which provides for limited monitoring by the relevant regulator and no referral function.	Relevant regulator to more actively monitor the behaviour of service providers and to refer pipelines for a form of regulation assessment if it suspects market power is being exercised.			
	Form of regulation test	Retain existing tests with coverage test continuing to act as a gateway.	Remove coverage test and use existing form of regulation test to determine whether the stronger or lighter form of regulation should apply (note the form of regulation test and/or decision-maker's information gathering powers would be modified to address concerns raised about the information asymmetries faced by the decision-maker and to align it with other elements of the reform options).			

Element		Option 1 (Status quo)	Option 2	Option 3A	Option 3B	Option 4
Governance for when and how to regulate decisions	Decisions to be made	Retain the exiting governance arrangements (NCC/Minister for when to regulate decisions and NCC for form of regulation decisions).	Decisions on: <ul style="list-style-type: none"> regulatory exemptions third party access greenfield exemptions form of regulation. 	Decisions on: <ul style="list-style-type: none"> third party access greenfield exemptions form of regulation. 	Decisions on: <ul style="list-style-type: none"> greenfield exemptions form of regulation. 	Decisions on form of regulation.
	Decision-maker		Relevant regulator (AER/ERA)			
Information disclosure requirements	Information to be disclosed	Retain the existing information disclosure requirements across the forms of regulation.	All service providers to publish the following unless they obtain an exemption: <ul style="list-style-type: none"> Basic Information (see Box 8.1), which includes pipeline information, service information, service availability information, service usage information, standing terms for each service offered by the pipeline and information on the prices actually paid by shippers. Historical financial and demand information. 			
			Information on prices paid by other shippers based on weighted average price plus minimum and maximum prices for each service.	Information on the prices paid by other shippers to be based on the individual prices (including key terms and conditions) paid by shippers.		
			n.a.	Disclosure requirements amended to address the identified information deficiencies and improve the quality, reliability, accessibility and usability of the information (see Box 8.1).		
	Exemptions from disclosure requirements	Retain the existing exemptions from disclosure under Part 23 and light regulation.	<ul style="list-style-type: none"> No exemptions from disclosure requirements for regulated pipelines. Pipelines with an exemption from regulation (see above) that provide 3rd party access can obtain exemption from historical financial and demand information, but must disclose Basic Information. 	<p>The following exemptions from the information disclosure obligations would be available:</p> <ul style="list-style-type: none"> Pipelines that are not providing third party access would be able to obtain an exemption from publishing the Basic Information and the historical financial and demand information. Pipelines that are providing third party access, but have a single user or have a nameplate capacity less than 10 TJ/day would be able to obtain an exemption from the obligation to publish historical financial and service usage information. <p>If a pipeline no longer satisfies the exemption criteria, the exemption would be revoked.</p>		
Negotiation frameworks and dispute resolution mechanism*	Negotiation framework	Retain existing negotiation frameworks for full/light regulation and Part 23.	Single negotiation framework to apply under all forms of regulation (see Box 8.2).			
	Threat of dispute by smaller shippers	Retain the existing arrangements (i.e. no specific measures to strengthen the threat for smaller shippers).	Strengthen credibility of the threat of arbitration for small shippers by changing the dispute related cost provisions.	The credibility of the threat of smaller shippers triggering a dispute would be strengthened by: <ul style="list-style-type: none"> changing the dispute related cost provisions allowing user bodies to be joined to proceedings involving smaller shippers allowing smaller shippers to elect to have a dispute involving a pipeline subject to the lighter form of regulation mediated by a regulator appointed party (who would be required to report back to the regulator on the outcomes of the mediation). 		Strengthen the credibility of the threat of arbitration for smaller shippers on lighter regulation pipelines by: <ul style="list-style-type: none"> changing the dispute related cost provisions allowing user bodies to be joined to arbitral proceedings allowing smaller shipper to elect to have dispute heard by the relevant regulator
	Dispute resolution mechanisms	Retain the existing dispute resolution mechanisms.	Maintain the Part 23 commercially-oriented mechanism for lighter regulation and the scheme pipeline regulatory-oriented mechanism for stronger regulation. The scheme pipeline dispute resolution mechanism would be strengthened in the manner set out in Box 8.3.			Maintain Part 23 dispute resolution mechanism for lighter regulation.

Further detail on the policy options that have been considered as part of this Decision RIS is provided in Chapter 8.

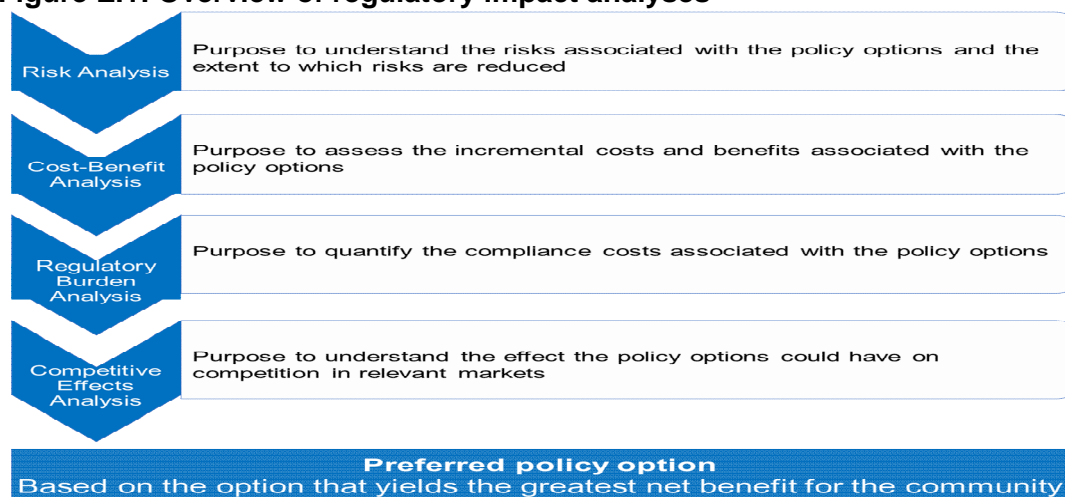
How has the regulatory impact of the policy options been assessed and what do the results of this assessment show?

The purpose of a RIS is to identify whether there is a need for government action, and if so, what form it should take, which should be based on the option that yields the greatest net benefit for the community. To help identify the policy option that will yield the greatest net benefit, the following analyses were undertaken:

- A risk analysis, which involved an assessment of the risks associated with the status quo and the extent to which risk is reduced or potentially increased under each option.
- A cost-benefit analysis (CBA), which involved a quantitative and qualitative assessment of the costs and benefits of the incremental benefits associated with each policy option relative to the status quo (i.e. if there was no intervention). The quantitative element of the CBA was undertaken by PricewaterhouseCoopers (PwC) and focused on direct costs associated with the reform options and the benefits associated with pipelines moving to the stronger form of regulation in the CBA. The other costs and benefits associated with the reform options, some of which are quite significant, have been assessed qualitatively.
- A regulatory burden analysis, which involved an assessment of the incremental compliance costs associated with each option using the Commonwealth Regulatory Burden Measure (CRBM) compliance costing tool. This quantitative analysis was undertaken by PwC.
- A competition effects analysis (CEA), which involved a qualitative assessment of the impact of each policy option on competition, with particular emphasis placed on:
 - the effect the options are expected to have on barriers to entry, information asymmetries and search and transaction costs, and bargaining power; and
 - whether any of the options are expected to limit the number or types of participants, limit the ability or incentive of participants to compete, or limit the choices available or the information required to negotiate effectively.

Figure E.1 provides an overview of how these different analyses are used to identify a preferred policy option.

Figure E.1: Overview of regulatory impact analyses



It is worth noting that while the focus of the four forms of analysis differs, there is some overlap between them (e.g. the costs used in the regulatory burden analysis are also taken into account in the CBA). There are also some elements of the reform options that perform well under one analysis, but not under another (e.g. an element of the reform option may give rise to a benefit in the CBA, but may also constitute a risk in the risk analysis). It is important therefore to consider the overall regulatory impact of the reform options and any duplication or trade-offs that may exist between the various analyses, rather than focusing on the results of individual analyses.

To this end, a comparative assessment of the reform options has been undertaken. This assessment has been conducted using a ranking system, with a ranking of 1 implying the most favourable impact and 5 the most negative impact. Where more than one option has the same impact, they are given the same ranking. Note that the differences between ratings are not standardised across the analyses, so in some cases they may imply quite a big difference between the options, while in others they may imply a small difference (for example, the difference between a ranking of 1 and 3 in the CEA is expected to be small because there is little difference between the competitive effects of options 3A, 3B and 4, while the difference between the same rankings in the CBA is more significant).

The results of the comparative assessment are summarised in Table E.3.

Table E.3: Comparative ranking of policy options

Impact	Option 1	Option 2	Option 3A	Option 3B	Option 4
Risk analysis	5	3	1	1	4
CBA	5	4	2	1	3
CRBM	1	2	3	4	5
CEA	5	4	3	1	1

As Table E.3 shows, no single option was ranked 1 across all forms of the regulatory impact analysis. However, on balance, Option 3B, which was ranked as 1 in the risk analysis, CBA and CEA, and 4 in the CRBM, is expected to yield the greatest net benefit across the five options. In relation to the CRBM, it is worth noting that while the regulatory burden associated with Option 3B is higher than options 1, 2 and 3A, the difference is relatively small¹⁸ and is expected to be more than offset by the benefits associated with this option. This option is therefore expected to yield the greatest net benefit for the community.

Further detail on how the regulatory impact assessment was undertaken and the results of the different analyses is provided in Chapter 9.

What is the preferred option?

Having regard to the feedback provided by stakeholders and the results of the regulatory impact assessment, the preferred option is **Option 3B**.

This option will address all of the problems identified in Table E.1, which are having a detrimental effect on economic efficiency (productive, allocative and dynamic) and consumers more generally. Relative to the other options, Option 3B will also:

- Result in a material reduction in the risks associated with the regulatory framework.
- Generate the highest net benefit in terms of the CBA, primarily as a result of:

¹⁸ The start-up cost for Option 3B is estimated to be just \$0.72 m higher than it is under options 2 and 3A and the ongoing costs are estimated to be \$0.44 m p.a. higher than the equivalent costs under Option 3A and \$1.75 m p.a. higher than the costs under Option 2.

- the productivity, investment and other efficiency benefits arising as a result of:
 - lower transportation costs on pipelines subject to either the stronger or lighter forms of regulation; and
 - improved access to pipelines that would not otherwise provide third party access;
- the reduction in search and transaction costs arising as a result of the proposed improvements to information disclosure; and
- the cost savings associated with simplifying the regulatory framework.

While it has not been possible to quantify all of the costs and benefits associated with this option, the net economy-wide benefit is expected to exceed \$1.18 billion under the high impact scenario and \$235 million under the low impact scenario.

- Facilitate more effective competition in the pipeline segment of the supply chain and in upstream and downstream markets.

Option 3B is therefore expected to yield the greatest net benefit for the community, which is why it is the preferred option.

Relative to the other options, Option 3B is also more consistent with the NGO, the Vision for the Australian gas market and the objectives of Energy National Cabinet Reform Committee action, which are to implement a more efficient, effective and integrated regulatory framework that:

- supports the efficient operation of the gas market and the long term interests of gas users; and
- is fit for purpose, targeted and proportionate to the issues it is intended to address.

Further detail on what Option 3B entails and the transitional arrangements that would apply under this option can be found in Table E.4.

Table E.4: Preferred Option – Option 3B

Element		Description
When should pipelines be regulated	Access to pipelines	<p>All pipelines required to provide 3rd party access and subject to some form of regulation.</p> <p>For transitional purposes, those pipelines that have already obtained a 15-year no coverage determination and are not providing third party access would be exempt from the obligation to provide third party access for the remaining term of the exemption period</p>
	Greenfield exemption	<p>A greenfield exemption would be available to new pipelines, where it can be demonstrated that the pipeline is unlikely to have substantial market power over the exemption period.¹⁹ This incentive would provide the pipeline with an exemption from the stronger form of regulation and give effect to any competitive outcome to develop the pipeline for up to 15-years.</p>
Forms of regulation and the movement between the alternative forms	Forms of regulation	<p>Pipelines subject to one of two forms of regulation, with the:</p> <ul style="list-style-type: none"> ▪ Stronger form of regulation based on the existing full regulation (i.e. negotiate-arbitrate with reference tariffs approved by the regulator and a regulatory-oriented dispute resolution mechanism). ▪ Lighter form of regulation based on the existing Part 23 (i.e. a negotiate-arbitrate model with information disclosure and a commercially-oriented dispute resolution mechanism), which would be strengthened through the inclusion of the safeguards that currently apply to light regulation, but not the prohibition on inefficient price discrimination.²⁰ <p>For transitional purposes:</p> <ul style="list-style-type: none"> ▪ the pipelines currently subject to full regulation will become subject to the new stronger form of regulation ▪ the pipelines currently subject to Part 23 will become subject to the new lighter form of regulation ▪ the 5.5 pipelines currently subject to light regulation would be transitioned to the new lighter form of regulation unless the service provider elects to be subject to the stronger form of regulation.
	Dynamic market power measures	<p>Service providers would be:</p> <ul style="list-style-type: none"> ▪ required to comply with pipeline interconnection principles set out in the NGR ▪ prohibited from increasing the charges payable by existing shippers to cross-subsidise the development of new capacity (subject to limited exceptions specified in the NGR).²¹ and would also be required to disclose more information on extension/expansion costs.
	Monitoring and referral functions	<p>The relevant regulator would be required to more actively monitor the behaviour of service providers and to refer pipelines for a form of regulation assessment if it suspects market power is being exercised.</p>

¹⁹ For example, because the pipeline has been developed as a result of a competitive process with the terms and conditions of that process made available to other users, or there are some other constraints that are expected to pose a constraint on the exercise of market power over the exemption period.

²⁰ Price discrimination will in most cases be efficiency enhancing. A notable exception to this is when a service provider favours an affiliate. To prevent this form of price discrimination, the associate contract provisions will be extended to all pipelines. These provisions, amongst other things, prohibit service providers from entering into or giving effect to contracts that have an anti-competitive effect or favour an affiliate (unless approved by the relevant regulator).

²¹ This is to cater for situations where existing users benefit from the augmentation and should therefore contribute to the expenditure.

Element		Description
	Form of regulation test	The coverage test would be removed and the existing form of regulation test would be used to determine whether a stronger or lighter form of regulation should apply (note the test and/or decision-maker's information gathering powers would be modified to address the concerns raised about the information asymmetries faced by the decision-maker when deciding on the form of regulation and some other minor modifications to the test would also be made ²² – changes to the test will be consulted on as part of the consultation on the legal package).
Governance for when and how to regulate decisions		The relevant regulator (AER/ERA) would be responsible for deciding whether to grant a greenfield exemption and for making form of regulation decisions.
Information disclosure requirements	Information to be disclosed by <u>non-exempt</u> service providers	<p>All non-exempt service providers would be required to publish:</p> <ul style="list-style-type: none"> ▪ The Basic Information set out in Box 8.1. ▪ Historical financial and demand information. <p>Information on the prices paid by other shippers would be based on the individual prices (including key terms and conditions) paid by shippers (except in SA which proposes to derogate from this aspect of the reforms).</p> <p>The disclosure requirements would also be amended in the manner set out in Box 8.1 to address the identified information deficiencies and improve the quality and reliability, accessibility and usability of the information.</p>
	Exemptions from disclosure requirements	<p>The following exemptions from the information disclosure obligations would be available:</p> <ul style="list-style-type: none"> ▪ Pipelines that are not providing third party access would be able to obtain an exemption from publishing the Basic Information and the historical financial and demand information. ▪ Pipelines that are providing third party access, but have a single user or have a nameplate capacity less than 10 TJ/day would be able to obtain an exemption from the obligation to publish historical financial and service usage information. <p>If a pipeline no longer satisfies the exemption criteria, the exemption would be revoked.</p>
Negotiation frameworks and dispute resolution mechanism*	Negotiation framework	A single negotiation framework would apply under both forms of regulation (see Box 8.2).
	Threat of dispute for small shippers	<p>The credibility of the threat of smaller shippers triggering a dispute would be strengthened by:</p> <ul style="list-style-type: none"> ▪ changing the dispute related cost provisions ▪ allowing user bodies to be joined to proceedings involving smaller shippers ▪ allowing smaller shippers to elect to have a dispute involving a pipeline subject to the lighter form of regulation mediated by a regulator appointed party (who will be required to report back to the regulator to help inform the monitoring process).
	Dispute resolution mechanisms	<p>The Part 23 commercially-oriented mechanism would be maintained for the lighter form of regulation and the scheme pipeline regulatory-oriented mechanism would be used for the stronger form of regulation.</p> <p>The scheme pipeline dispute resolution mechanism would be strengthened in the manner set out in Box 8.3.</p>

²² The test would also be amended to: (a) allow the decision-maker to have regard to the results of the regulator's monitoring of the service provider's behaviour; and (b) remove the requirement to consider whether information is available to shippers to enable them to negotiate be removed, because under all of the policy options being contemplated service providers would be required to publish basic information.

What are the next steps?

Subject to Energy National Cabinet Reform Committee agreeing to implement the preferred option, the amendments to the NGL, NGR and Regulations that will be required to give effect to the option would be prepared for public consultation. Feedback received through this consultation would inform a final package of amendments, which is expected to be considered by the Energy National Cabinet Reform Committee in 2021.

If the package is approved, then:

- the required changes to the NGL would be progressed through the South Australian Parliament by the South Australian Minister for Energy and Mining; and
- following the proclamation of changes to the NGL, the required amendments to:
 - the Regulations would be made by the South Australian Governor; and
 - the NGR would be made by the South Australian Minister for Energy and Mining as initial rules.

Unlike other jurisdictions in Australia, NGL changes and Regulations created by South Australian regulatory processes do not automatically apply in Western Australia. Western Australia adopts a modified version of the NGL under the *National Gas Access (WA) Act 2009* and Western Australia needs to enact its own legislative instruments for any NGL related reforms to apply.

Subject to the completion of the regulatory amendment process, it is anticipated that the new framework would commence in 2022.

1. Introduction

On 10 August 2018, the former Council of Australian Governments' (COAG) Energy Council asked Senior Officials to prepare a RIS to examine options to improve gas pipeline regulation. This request was made in response to concerns that were raised through a number of reviews about whether the existing regulatory framework is fit for purpose and provides a coherent and proportionate response to the problems it seeks to address.

In keeping with the terms of reference that was approved on 19 December 2018,²³ the RIS has identified and evaluated options to deliver a more efficient, effective and well-integrated regulatory framework for gas pipelines, which has involved an examination of:

- the existing forms of regulation that may be applied to scheme pipelines (i.e. full regulation or light regulation), non-scheme pipelines (i.e. the information disclosure and arbitration framework) and greenfield pipelines, alternatives to these forms of regulation and possible improvements;
- the existing tests used to determine whether regulation should apply and, if so, what form of regulation should apply, including the coverage test, the form of regulation test, the 15-year no-coverage test for greenfield pipelines and the exemption regime under the information disclosure and arbitration framework; and
- related institutional, governance and process arrangements, including whether the process for applying for and determining whether regulation should apply and the form of regulation to apply to a pipeline are fit for purpose, timely, accessible, low cost and conform with best practice regulation.

As part of the RIS process, a review has also been undertaken of the effectiveness of the information disclosure and arbitration framework set out in chapter 6A of the NGL and Part 23 of the NGR (for ease of reference this new framework is referred to as Part 23), implemented in August 2017. This review was carried out in response to a decision by the former Energy Council in December 2016²⁴ that a review of the new framework should be conducted two years after the commencement of its operation.

To facilitate consultation on these issues and to enable the Energy Ministers to make an informed decision about the options to improve the gas pipeline regulatory framework, a Consultation RIS was published in November 2019 and a number of public forums were conducted. In total 28 written submissions were received from organisations with interests across the gas supply chain and from the ACCC, AER, NCC and ECA. A number of one-on-one discussions were also held with pipeline operators, producers, retailers, gas users, third party intermediaries and analysts.

In addition to this stakeholder consultation, advice was obtained from a number of independent experts, including:

- NERA, who was retained to carry out an international review of gas pipeline regulation.
- OGW, who was retained to conduct a survey of shippers to get their views on how effective Part 23 has been and whether any improvements may be required.

²³ Energy Senior Officials, Terms of Reference - Regulation Impact Statement on Gas Pipeline Regulation Reform, 19 December 2018.

²⁴ COAG Energy Council, Meeting Communique, 14 December 2016.

- Brattle, who was retained to carry out a review of the financial information recently reported by service providers subject to Part 23. Brattle was also retained to provide advice on the effect that price transparency and a prohibition on inefficient price discrimination could have on the behaviour of service providers.
- PWC, who was retained to undertake the quantitative elements of the CBA and the CRBM.

Consideration was also given to the findings of various reviews and inquiries that have been conducted by the ACCC, AEMC and GMRG over the last five years.

The stakeholder submissions, together with the advice provided by independent experts and the findings of the ACCC, AEMC and GMRG have informed the assessment of both the significance of the problems with the current regulatory framework and the policy options that could be implemented to address the problems. They have also informed the regulatory impact assessment that has been carried out to identify the preferred option (i.e. the option that yields the greatest net benefit for the community).

The remainder of this Decision RIS is structured as follows:

- Chapter 2 outlines the rationale for regulating gas pipelines and provides an overview of the regulatory framework that currently applies to gas pipelines in Australia and how gas pipelines are regulated in other jurisdictions.
- Chapter 3 describes the problems that have been identified with the current regulatory framework and the objectives of Energy National Cabinet Reform Committee action in addressing these problems.
- Chapters 4-7 provide further detail on the problems with the current regulatory framework and the ways in which these problems could be addressed, with:
 - Chapter 4 focusing on when a pipeline should be subject to economic regulation and the governance arrangements for when and how to regulate decisions;
 - Chapter 5 focusing on the form of regulation that should be applied to a pipeline if a decision is made that it should be regulated and movements between forms of regulation;
 - Chapter 6 focusing on the information disclosure requirements for pipelines that are subject to regulation; and
 - Chapter 7 focusing on the negotiation framework and dispute resolution mechanisms that apply under the various forms of regulation.
- Chapter 8 provides an overview of the policy options that have been identified to address the problems identified in chapters 4-7.
- Chapter 9 sets out how the regulatory impact assessment has been undertaken and the results of this assessment.
- Chapter 10 identifies the preferred option and outlines how the preferred option would be implemented, monitored and reviewed.
- Appendix A provides further detail on the gas pipeline regulatory framework that currently applies in Australia.
- Appendix B provides an overview of the reviews that have been undertaken by the ACCC, AEMC and GRMG on the regulatory framework, as well as the findings of the OGW shipper survey and Brattle's review of the financial reporting by pipelines subject to Part 23.

- Appendix C sets out the results of the risk assessment element of the regulatory impact assessment.
- Appendix D provides further detail on the CBA that has been undertaken as part of the regulatory impact assessment.

2. Rationale for regulating gas pipelines and how pipelines are currently regulated

Gas pipelines are often subject to regulation because they exhibit natural monopoly²⁵ characteristics (i.e. because investments in pipelines are indivisible, economies of scale exist,²⁶ and sunk costs are large). These characteristics mean that access to an existing pipeline is often more economically efficient than constructing a new pipeline. They can also accord the service provider with substantial market power, the exercise of which can have a detrimental effect on economic efficiency (allocative, productive and dynamic efficiency) and consumers more generally.

In economic terms, this is referred to as a 'market failure' because the market does not work to allocate resources in the most efficient manner across the gas transportation market, upstream and downstream markets, and the broader economy. In such circumstances, there may be scope for government to intervene to improve efficiency and to achieve better outcomes for gas shippers and consumers.

The term 'may' is used in this context because the presence of a market failure is a necessary, but not sufficient condition, for government intervention. Intervention should only occur if it leads to a better outcome than that which would occur in its absence, after accounting for the costs of implementing the intervention.

The remainder of this chapter provides further detail on the rationale for regulating gas pipelines and how pipelines are currently regulated in Australia and other jurisdictions. Further detail on the regulatory framework that is currently in operation in Australia can be found in Appendix A.

2.1 What is the rationale for regulating gas pipelines?

There are a number of potential ways in which a service provider of an existing pipeline may exercise its market power, which can broadly be categorised as follows:

1. Existing pipelines may be able to exert market power over existing capacity by, for example, engaging in monopoly pricing, or in the case of vertically integrated service providers, restricting or denying access, or favouring an upstream or downstream affiliate through discriminatory terms of access (referred to as 'static market power').
2. Existing pipelines may be able to exert market power over new capacity and block competition from other pipelines over time by, for example, restricting or denying interconnections, or pricing new capacity below the incremental cost of developing the new capacity (referred to as 'dynamic market power').
3. Existing pipelines may be able to restrict competition from shippers for the supply of secondary capacity by, for example, restricting or prohibiting capacity trading.

The latter of these forms of market power has been addressed in eastern Australia and the Northern Territory²⁷ through the capacity trading reforms that were implemented in

²⁵ The term 'natural monopoly' is used to refer to a situation where a single firm can supply a market at a lower overall cost than if it were supplied by multiple firms.

²⁶ Economies of scale exist when there are large fixed costs (costs that are invariant to the volume of output) and low marginal costs (costs that do vary with output). As a consequence, the average cost of producing output (total cost divided by volume) declines as output expands, and a firm producing a large volume can do so at a lower average cost than firms producing smaller volumes.

²⁷ Note that Energy Ministers agreed, at the request of the Northern Territory Government, to implement a derogation that will delay the application of the day-ahead auction on facilities located wholly or partly in the Northern Territory.

late 2018.²⁸ The remainder of this section therefore focuses on the first two forms of market power and why regulation may be required to address the market failures associated with these forms of market power.

2.1.1 Exercises of static market power

A service provider can exercise its market power in a number of ways. It can, for example, charge monopoly prices for its services, restrict or deny access to the pipeline, reduce the quality of services, impose unreasonable terms and conditions on shippers and/or engage in discriminatory behaviour. All of these behaviours can have an adverse effect on economic efficiency and consumers more generally, because they can result in prices being set above, and/or the supply of services below, what would occur in a workably competitive market. This can, in turn, have a detrimental effect on the efficient operation of the gas transportation market, upstream and downstream markets and the broader economy, because it can result in lower than efficient levels of production, consumption and investment.

While there are a number of different ways in which market power may be exercised, the two most commonly cited ways are monopoly pricing and the restriction or denial of access (see Box 2.1 for more detail on these two forms of market power).

Box 2.1: Monopoly pricing and the restriction or denial of access

Monopoly pricing

The term ‘monopoly pricing’ is defined as prices that significantly exceed the long-run average cost of supply for a sustained period, or more simply prices in excess of what would prevail in a workably competitive market. Monopoly pricing can adversely affect gas users because it can:

- result in higher delivered gas prices being paid by users and/or lower ex-plant gas prices being received by producers; and
- cause significant transfers of wealth from producers and gas users to service providers.

Monopoly pricing can also have adverse consequences for the productive, allocative and dynamic efficiency of the gas, upstream and downstream markets and the broader economy, because it can result in:

- lower than efficient levels of gas use and investment in downstream facilities;
- lower than efficient levels of gas production and investment in exploration and reserves;
- inefficient utilisation of and investment in pipelines; and
- potential distortions in gas flows across the market, which can prevent gas from flowing to where it is valued most.

Restriction or denial of access

Similar inefficiencies to those described for monopoly pricing can arise if a service provider restricts or denies access to a pipeline. The other concern that is usually associated with this type of behaviour is that if it is engaged in by a vertically integrated service provider, it may limit competition in the upstream or downstream market in which the service provider competes, which can have adverse consequences for economic efficiency in those markets.

Even if a vertically integrated service provider does provide access to the pipeline, it may still use its market power to limit competition in the upstream or downstream market in which it competes by providing access to its affiliate on more favourable terms (e.g. through discriminatory prices and/or non-price terms and conditions) or other anti-competitive behaviours).

²⁸ These reforms provide for, amongst other things, the introduction of a capacity trading platform, a day-ahead auction of contracted but un-nominated capacity and a number of other measures that are designed to make capacity more fungible and to facilitate more capacity trading.

In its 2015-16 Inquiry into the east coast gas market (the '2015-16 Inquiry'), the ACCC examined the prevalence of these two forms of market power and found that monopoly pricing was far more prevalent than the restriction or denial of access. Elaborating on this further, the ACCC noted that the majority of pipelines in Australia are vertically separated and operating on an open access basis and do not therefore have an incentive to discourage access.²⁹

In principle, a service provider's ability and/or incentive to exercise market power may be constrained in some way. It may, for example, be constrained by the countervailing power³⁰ held by shippers, or competition from either another pipeline (see Box 2.2) or an alternative energy source. The strengths of these constraints were examined by the ACCC as part of its 2015-16 Inquiry. In short, the ACCC found that the countervailing power of shippers and competition from other pipelines and alternative energy sources, were not posing an effective constraint on service providers in the east coast.³¹

Similar views have been reached in other jurisdictions, such as New Zealand, the United States, Canada, Great Britain and the European Union. In these jurisdictions gas pipelines are regulated by default through sector specific legislation and while some jurisdictions provide for exemptions to be obtained if a pipeline lacks market power (or for smaller or single user dedicated pipelines), there are few, if any, examples of major transmission pipelines being unregulated because they lack market power.³²

Box 2.2: Competition from other pipelines

A pipeline can potentially face two types of competition from other gas pipelines:

- direct competition, which involves two or more independently owned pipelines transporting gas from the same gas field to the same destination, or
- indirect competition, which involves two or more independently owned pipelines competing to supply gas from different fields to the same destination.

Both direct and indirect pipeline competition can create conditions for competition in the market, depending on factors such as geographic location of supply and demand centers. The mere presence of alternative routes for the source of supply or connections to the same demand point of alternative supply sources does not in and of itself imply that pipeline competition is effective (i.e. will eliminate market power).

The extent of this constraint will depend on the relative costs of the gas supply sources involved, the distance it must be transported and the capacity of the pipeline and gas field in question. Furthermore, if competition comes from alternate routes or sources of supply, it may not result in competition for any offtakes along the route. For example, while Sydney and Canberra are both served by the Moomba to Sydney Pipeline and the Eastern Gas Pipeline other delivery points on these two pipelines are only serviced by a single pipeline.

While the ACCC found that there were few constraints on the behaviour of *existing* pipelines, it did note the potential for the market power of *new* pipelines to be constrained for a period of time where there has been competition *for* the market. Provided there is effective competition to develop and build the new capacity, then shippers should, as the ACCC noted, be able to use the competitive tension between prospective service

²⁹ ACCC, Inquiry into the east coast gas market, April 2016, p. 102.

³⁰ Countervailing power arises when buyers have characteristics (e.g., size or commercial significance) that enable them to credibly threaten to bypass the pipeline (e.g. by building their own pipeline or sponsoring new entry).

³¹ ACCC, Inquiry into the east coast gas market, April 2016, p. 98.

³² NERA Economic Consulting, International Review of Pipeline Regulation: Vol. 1 – Synthesis and Reform Options, 28 June 2019, p. 60.

providers to negotiate long-term transportation contracts that are not affected by the exercise of market power.³³

Although competition for the market is possible, once it has occurred and the investment made, the service provider may be able to exercise its static market power when entering into new contracts (or varying existing contracts) with shippers. That is, while foundation shippers may be protected in relation to the services they have procured for the term of the foundation contract, other shippers that were not a party to the original competitive process may still be exposed to exercises of market power. Foundation shippers may also be exposed to market power when procuring additional services, or when entering into new contracts. Competition for the market cannot therefore be relied upon to constrain the exercise of static market power over the longer term.

As noted above, exercises of market power by a service provider can have an adverse effect on economic efficiency and consumers more generally. Regulation may therefore be required where the market itself does not provide sufficient limits on the incentive and/or ability of service providers to exercise market power.

2.1.2 Exercises of dynamic market power

In addition to exercising market power over shippers, service providers may be able to use their market power to block efficient competition from new pipelines (or future rounds of competition for the market) where competition is viable (see Box 2.3) and, in so doing, further entrench their static market power. The service provider could, for example, block the entry of a new pipeline by:

- preventing other service providers from interconnecting to their pipeline, or by charging excessive prices for doing so; and/or
- pricing extensions or expansions below the incremental cost of providing the new capacity and recouping the difference from existing shippers.

Box 2.3: When could competition be viable?

Outside the Victorian Transmission System (VS), competition can occur between pipeline operators to construct new transmission capacity. For example:

- if incremental demand is located in close proximity to an existing pipeline, but it could not be met by the existing capacity of the pipeline, then this demand could either be met by the development of a new pipeline by an alternative operator or an expansion of the existing pipeline by the incumbent service provider;
- if incremental demand is located in close proximity to two pipelines (owned by different parties), but it could not be met by the existing capacity of either pipeline, then this demand could potentially be met by the development of a new pipeline by an alternative operator or one of the existing pipelines being expanded by the relevant service provider; and
- if incremental demand was located some distance from an existing pipeline, then it could either be met by the development of a new pipeline by an alternative operator that would interconnect with the existing pipeline, or by an extension of the existing pipeline by the incumbent service provider.

In each of these examples there could be competition for the development of new capacity, although competition between expansions and new pipelines is only likely to occur where the existing pipeline has exhausted its economies of scale (given its initial design), or is attempting to exercise market power.³⁴

³³ ACCC, Inquiry into the east coast gas market, April 2016, pp. 96-97.

³⁴ Though in the case of full regulation pipelines, this would be mitigated by expansions automatically being covered.

Regulation may therefore be required to limit a service provider's ability to use its market power to restrict competition from other pipelines over time and the productive, allocative and dynamic efficiency benefits that could flow from this competition. Regulatory intervention may also be required to facilitate future rounds of competition for the market so that the service provider of an existing pipeline does not become the de-facto sole builder of all pipelines connected to that existing pipeline.

2.2 How are gas pipelines regulated in Australia?

2.2.1 Background

The national gas access regime was originally implemented by state, territory and Commonwealth governments in 1997 through the *Gas Pipeline Access (South Australia) Act 1997* (GPAL) and the National Third Party Access Code for Natural Gas Pipeline Systems (the Gas Code). The stated objective of the Gas Code was to:³⁵

- “...establish a framework for third party access to gas pipelines that:*
- (a) facilitates the development and operation of a national market for natural gas; and*
 - (b) prevents abuse of monopoly power; and*
 - (c) promotes a competitive market for natural gas in which customers may choose suppliers, including producers, retailers and traders; and*
 - (d) provides rights of access to natural gas pipelines on conditions that are fair and reasonable for both Service Providers and Users; and*
 - (e) provides for resolution of disputes.”*

Following a number of reviews in the early 2000s by the Productivity Commission,³⁶ Warwick R. Parer,³⁷ and the Expert Panel on Energy Access Pricing,³⁸ the former Ministerial Council on Energy agreed in 2006 to:³⁹

- implement a new legal, governance and regulatory framework for gas pipelines; and
- make a number of refinements to the regulatory framework to introduce:
 - an objects clause (the NGO) and revenue and pricing principles,⁴⁰ which were implemented to provide decision-makers with greater guidance on the matters to be considered when making decisions and to limit the risk of regulatory error;
 - a light handed regulatory option for scheme (covered) pipelines, which was implemented to minimise regulatory costs and reduce the risk of regulatory error in cases where the pipeline's market power is constrained in some way; and
 - a 15-year no coverage option for greenfield pipelines and a 15-year exemption from price regulation for international pipelines, which were implemented to counter the adverse effect regulation may have on greenfield investments.⁴¹

³⁵ Gas Code, November 1997, p. 1.

³⁶ Productivity Commission, Review of the Gas Access Regime, 11 June 2004.

³⁷ Parer, W R, Towards a Truly National and Efficient Energy Market, 2002.

³⁸ Expert Panel on Energy Access Pricing, Report to the Ministerial Council on Energy, April 2006.

³⁹ MCE, Review of the National Gas Pipeline Access Regime – Decision, May 2006.

⁴⁰ These principles, which are set out in s. 24 of the NGL, state amongst other things that service providers should be provided a reasonable opportunity to recover at least the efficient costs of providing services, the rate of return should be commensurate with the regulatory and commercial risks involved in providing reference services and regard should be had to the costs and risks of under and over investment and under and over utilisation of a pipeline.

⁴¹ These amendments to the regulatory framework were made in September 2006, while the other amendments were made when the new regulatory framework came into effect in July 2008.

The new regulatory framework commenced on 1 July 2008 and was given effect through Chapters 3-6 of the NGL and Parts 4-12 of the NGR.

The next major change to the regulatory framework occurred in 2017 in response to reviews by the ACCC,⁴² AEMC⁴³ and Dr Michael Vertigan AC,⁴⁴ which found that the threat of regulation was not posing an effective constraint on the use of market power by unregulated (non-scheme) pipelines. In response to these reviews, the former COAG Energy Council agreed to amend the regulatory framework to implement a new information disclosure and arbitration framework for non-scheme pipelines. This was given effect through the inclusion of Chapter 6A in the NGL and Part 23 in the NGR.

More recently, the AEMC has made a number of changes to the NGR and has also recommended a number of changes to the NGL to strengthen various aspects of the regulatory framework that applies to scheme (covered) pipelines (see Appendix B).

The remainder of this section provides an overview of the regulatory framework that currently applies to gas pipelines. Further detail can be found in Appendix A.

2.2.2 Key elements of the regulatory framework

Following the introduction of Part 23 in August 2017, all pipelines that are providing third party access⁴⁵ are now subject to some form of economic regulation, with pipelines that are classified as:

- **Scheme pipelines** (also referred to as ‘covered pipelines’) subject to either:
 - **Full regulation:** Pipelines subject to this form of regulation must periodically submit an access arrangement (AA) to the relevant regulator for approval of the price and non-price terms and conditions of access to the reference service(s). While regulatory approval of the AA is required, the regulatory framework allows service providers and shippers to agree to different conditions of access, but if a dispute arises, the dispute resolution body⁴⁶ is required to give effect to the AA.
 - **Light regulation:** Pipelines subject to this form of regulation do not require regulatory approval of their prices or terms and conditions of access. They are, however, required to comply with a number of provisions in the NGR that are intended to facilitate commercial negotiations, reduce the information asymmetries shippers can face in negotiations and prohibit price discrimination unless it is conducive to do so. A regulatory oriented dispute resolution mechanism is also available if a dispute about access arises.⁴⁷

In addition to these measures, which are intended to pose a constraint on monopoly pricing, scheme pipelines are prohibited from engaging in conduct that would prevent or hinder access.^{48, 49} They are also subject to ring fencing and associate contract

⁴² ACCC, Inquiry into the east coast gas market, April 2016.

⁴³ AEMC, Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review, 23 May 2016.

⁴⁴ Vertigan, M., Examination of the current test for the regulation of gas pipelines, 14 December 2016.

⁴⁵ Under rule 585(5) of the NGR, a pipeline is considered a third party access pipeline if any pipeline services are offered or provided, directly or indirectly, to any person other than: (i) the service provider (i.e. the person that owns, operates or controls) of the pipeline; (ii) a related body corporate of the pipeline service provider; or (iii) a joint venture in which the pipeline service provider, or a related body corporate of the service provider is a joint venture participant.

⁴⁶ The dispute resolution body is the AER in the east coast and NT and the Energy Disputes Arbitrator in WA.

⁴⁷ *ibid.*

⁴⁸ See s. 133 of the NGL.

⁴⁹ They are also prohibited from bundling services unless it is reasonably necessary.

provisions in the NGL,⁵⁰ which are intended to prevent vertically integrated service providers from adversely affecting competition in related markets (e.g. by providing access to an associate on more favourable terms than its competitors).

The NCC is currently responsible for determining what form of regulation should apply to scheme pipelines (see Box 2.5 for more detail).

- **Non-scheme pipelines** subject to **Part 23**:⁵¹ Like light regulation, pipelines subject to Part 23 are required to comply with provisions in the NGR that are intended to facilitate commercial negotiations and reduce the information asymmetries shippers can face in negotiations. A commercially-oriented arbitration mechanism is also available if a dispute about access arises, which must be conducted by a commercial arbitrator (selected from a pool established by the relevant regulator) and completed within 50-90 business days.

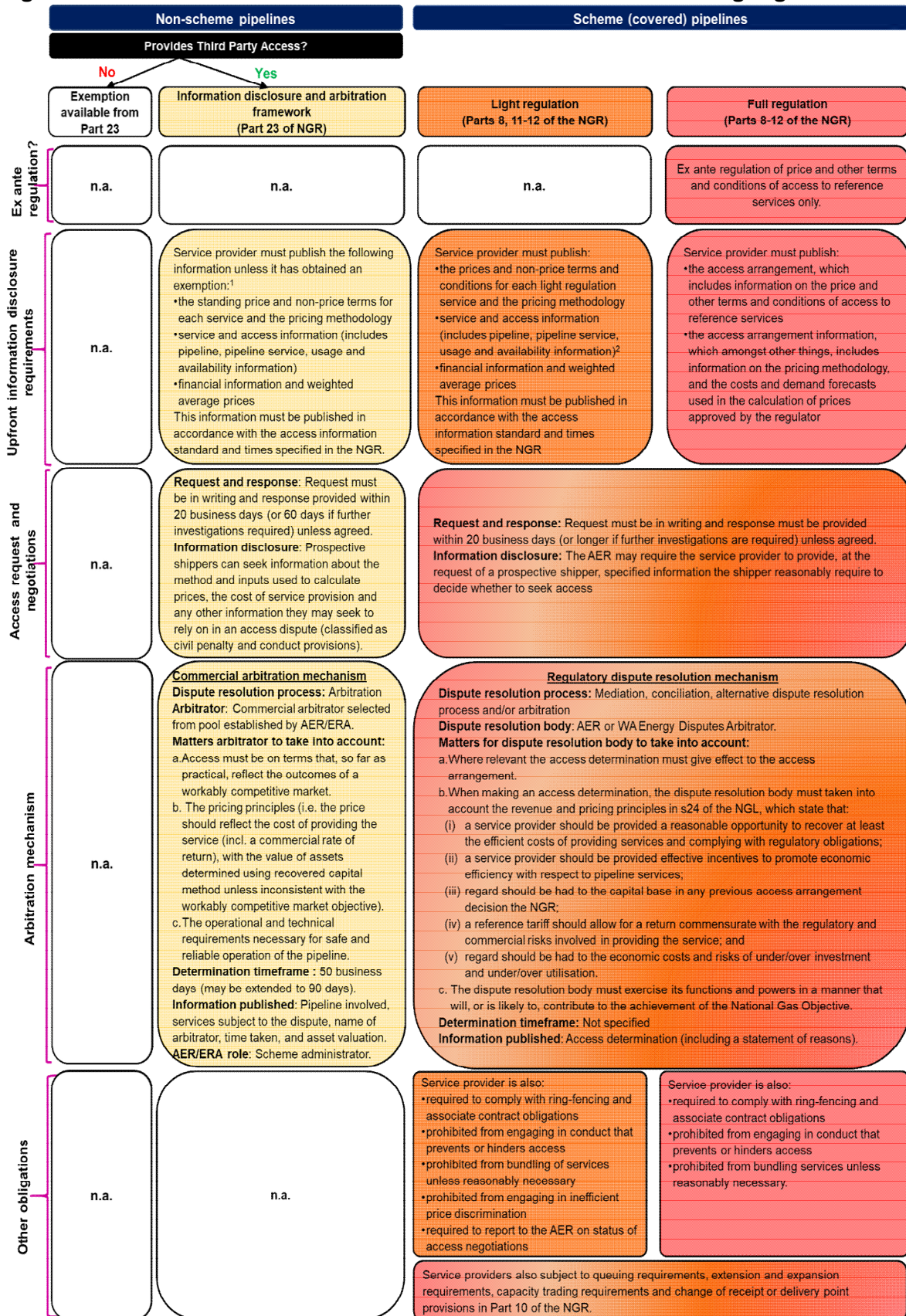
The relevant regulator under each of these forms of regulation is the AER in the east coast and NT, and the Economic Regulation Authority (ERA) in WA.

Further insight into the differences between these three forms of regulation, which are all variants of the negotiate-arbitrate regulatory model, can be found in Figure 2.1. Box 2.4 provides further detail on how a pipeline can become a 'scheme' pipeline and who is responsible for making this decision.

⁵⁰ See sections 137-148 of the NGL.

⁵¹ Note that non-scheme pipelines that are not providing third party access are not automatically exempt from the information disclosure and arbitration framework. Rather, the pipeline operator must apply for an exemption and satisfy the regulator it is not offering or providing third party access.

Figure 2.1: Main differences between the alternative forms of existing regulation



Notes:

- Exemptions from the publication of upfront information are available if:
 - the service provider only supplies a single user – in this the service provider is exempt from publishing all of the information; or
 - the average daily injection rate is less than 10 TJ/day over the immediately preceding 24 months – in this case the service provider is exempt from publishing all of the listed information except the pipeline and pipeline service information.

Note that while a service provider may be exempt from publishing this information, prospective shippers may still request this information during the negotiation process.

- The information to be reported differs for distribution pipelines depending on whether or not they constitute a 'large distribution pipeline' (i.e. with MDQ > 10TJ/day and maximum pressure capability of > 4MPa).

Box 2.4: How a pipeline can become a scheme (covered) pipeline

A pipeline can become a scheme pipeline in one of four ways under the NGL:⁵²

- (a) if the pipeline was deemed to be a covered pipeline when the Gas Code came into effect and coverage has not subsequently been revoked;
- (b) if a coverage application is made to the NCC and the relevant Minister,⁵³ having regard to the NCC's recommendation, is satisfied the coverage test is met;
- (c) if the pipeline is developed through a regulator approved competitive tender process; or
- (d) if an unregulated pipeline voluntarily submits an AA to the regulator and the approved AA is in place.

The **coverage test** referred to in (b) is set out in s. 15 of the NGL and requires the relevant Minister, having regard to the NCC's recommendation, to be satisfied the following criteria are satisfied:

- access (or increased access) to the services provided by means of the pipeline would promote a material increase in competition in at least one other market (criterion (a));
- it would be uneconomic to develop another pipeline to provide the services provided by means of the pipeline (criterion (b));
- access (or increased access) to the services provided by means of the pipeline can be provided without undue risk to human health or safety (criterion (c)); and
- access (or increased access) to the services provided by means of the pipeline would not be contrary to the public interest (criterion (d)).

In deciding whether or not the coverage criteria are satisfied, the NCC and Minister are required to have regard to the NGO.

The regulatory framework also provides for coverage to be revoked if the relevant Minister, having regard to the NCC's recommendation, finds that at least one of the coverage criteria is not satisfied.

Box 2.5: How form of regulation decisions are made for scheme pipelines

The NCC is responsible for deciding what form of regulation should apply to a pipeline that: (a) becomes a scheme pipeline; or (b) is already a scheme pipeline but an application is made for light regulation to be applied or revoked.^{54, 55} When making its determination, the NCC must apply the form of regulation test. This test requires the NCC to consider:⁵⁶

- the likely effectiveness of full and light regulation in promoting access to services, and
- the effect of full and light regulation on the costs that may be incurred by an efficient service provider, efficient users and prospective users, and end-users.

In doing so, the NCC must have regard to the following **form of regulation factors** (s. 16 of NGL):

- the presence and extent of any barriers to entry in a market for pipeline services;
- the presence and extent of any network externalities between a service provided by the service provider and other natural gas services it provides, or other services provided in other markets;
- the extent to which any market power possessed by a service provider is, or is likely to be, mitigated by any countervailing market power possessed by a user or prospective user;
- the presence and extent of any substitute, and the elasticity of demand, in:
 - a market for a pipeline service in which a service provider provides that service; and
 - a market for, electricity or gas (as the case may be); and
- the extent to which there is information available to a prospective user or user, and whether that information is adequate, to enable the prospective user or user to negotiate on an informed basis with a service provider for the provision of a pipeline service.

The NCC must also have regard to the NGO and any other matters it considers relevant. Like a coverage decision, the form of regulation can change over time if conditions change.

⁵² See Chapter 3 and Chapter 10, Part 3 of the NGL

⁵³ The identity of the 'relevant Minister' will depend on whether the pipeline is a transmission or distribution pipeline and if the pipeline crosses jurisdictions. For example, if the pipeline is a cross boundary transmission pipeline, the relevant Minister is the Commonwealth Minister but if the transmission pipeline is situated wholly within a jurisdiction, the relevant Minister will typically be the State or Territory Minister (the one exception is Queensland where the relevant Minister is the Commonwealth Minister). See definitions section of NGL.

⁵⁴ Provisions in the NGL currently allow service providers to apply the NCC for a determination that the services provided by the pipeline be subject to light regulation (see s. 110 of the NGL). If a pipeline is subject to light regulation, then service providers can advise the NCC that they wish to be subject to full regulation. Other interested parties can also apply to the NCC for a light regulation determination to be revoked (see ss.112-118 of the NGL).

⁵⁵ Note that if the pipeline has been classified as a 'designated' pipeline in the Regulations or in the application Act of a participating jurisdiction, then the form of regulation cannot be changed.

⁵⁶ Section 122 of the NGL.

For those pipelines that are **not** voluntarily providing third party access, the regulatory framework currently allows prospective shippers to submit an application to have the pipeline classified as a scheme pipeline and compelled to provide third party access if the coverage test is satisfied (see Box 2.4). If the coverage test is satisfied, the pipeline will be subject to either full regulation or light regulation.

The regulatory framework also includes the following mechanisms, which have been introduced at various points to try and counter the adverse effects that stronger forms of regulation may have on new pipeline developments and, in the case of the first mechanism, to lock in the benefits of competition for the market for all shippers:^{57, 58}

- The **Competitive Tender Process (CTP)**, which allows proponents of new pipelines (e.g. governments, local councils or shippers) to apply to have a proposed tender approved as a competitive tender. If approved by the regulator, the price and other conditions of access determined through the tender can form the basis of an AA that can apply for up to 15 years. A pipeline developed through an approved CTP becomes a scheme pipeline⁵⁹ and subject to the same negotiation framework, dispute resolution mechanism and other safeguards applying to full regulation pipelines, but not the same information disclosure obligations. To date, two pipelines have been developed using these provisions.⁶⁰
- The **15-year no coverage determination**, which allows pipelines that are yet to be commissioned to obtain an exemption from coverage if the relevant Minister, having regard to the NCC's recommendation, is satisfied the coverage test is not met (see Box 2.4). In effect, this determination means the pipeline is exempt from full and light regulation and cannot be compelled to provide third party access. It can, however, be subject to Part 23 if it voluntarily provides third party access. To date, four pipelines have been granted such an exemption, one of which has subsequently become subject to Part 23.⁶¹
- The **voluntary AA** provisions, which allow service providers of non-scheme pipelines (proposed and existing) to submit a voluntary AA (setting out the terms and conditions on which it proposes to provide access) to the relevant regulator who must then assess the proposal applying the same rules that apply to full regulation pipelines. If approved by the regulator, the pipeline becomes a scheme pipeline and subject to the same information disclosure obligations, negotiation framework, dispute resolution mechanism, and other safeguards as full regulation pipelines.⁶² To date, no pipelines have used this mechanism.

Figure 2.2 shows how all of these elements of the regulatory framework currently operate.

⁵⁷ The regulatory framework also provides for a 15-year exemption from price regulation to be obtained by an international pipeline (i.e. a pipeline that is used to transport gas from an international source to the domestic market) prior to commissioning, if the relevant Minister, having regard to the NCC's recommendation finds the benefits to the public of granting the exemption outweigh the detriments. To date, no pipelines have obtained this form of exemption.

⁵⁸ A number of provisions have also been included in the regulatory framework applying to full regulation pipelines to reduce the regulatory related investment risks and to ensure that investments can still occur in a timely and efficient manner, which have been used to varying extents by service providers. See Appendix A (section A.4).

⁵⁹ The pipeline becomes a covered pipeline once the tender approval decision becomes irrevocable. This will occur unless the decision lapses or is revoked within three months of the compliance report being provided to the regulator.

⁶⁰ These pipelines include the Central Ranges Pipeline and the Central Ranges Gas Network. Another CTP process was also approved under the Gas Code for the Loddon Murray Region System but the tender did not attract any bids.

⁶¹ These pipelines include, the APLNG Pipeline, the GLNG Pipeline, the Comet Ridge to Wallumbilla Pipeline Loop and the Wallumbilla to Gladstone Pipeline.

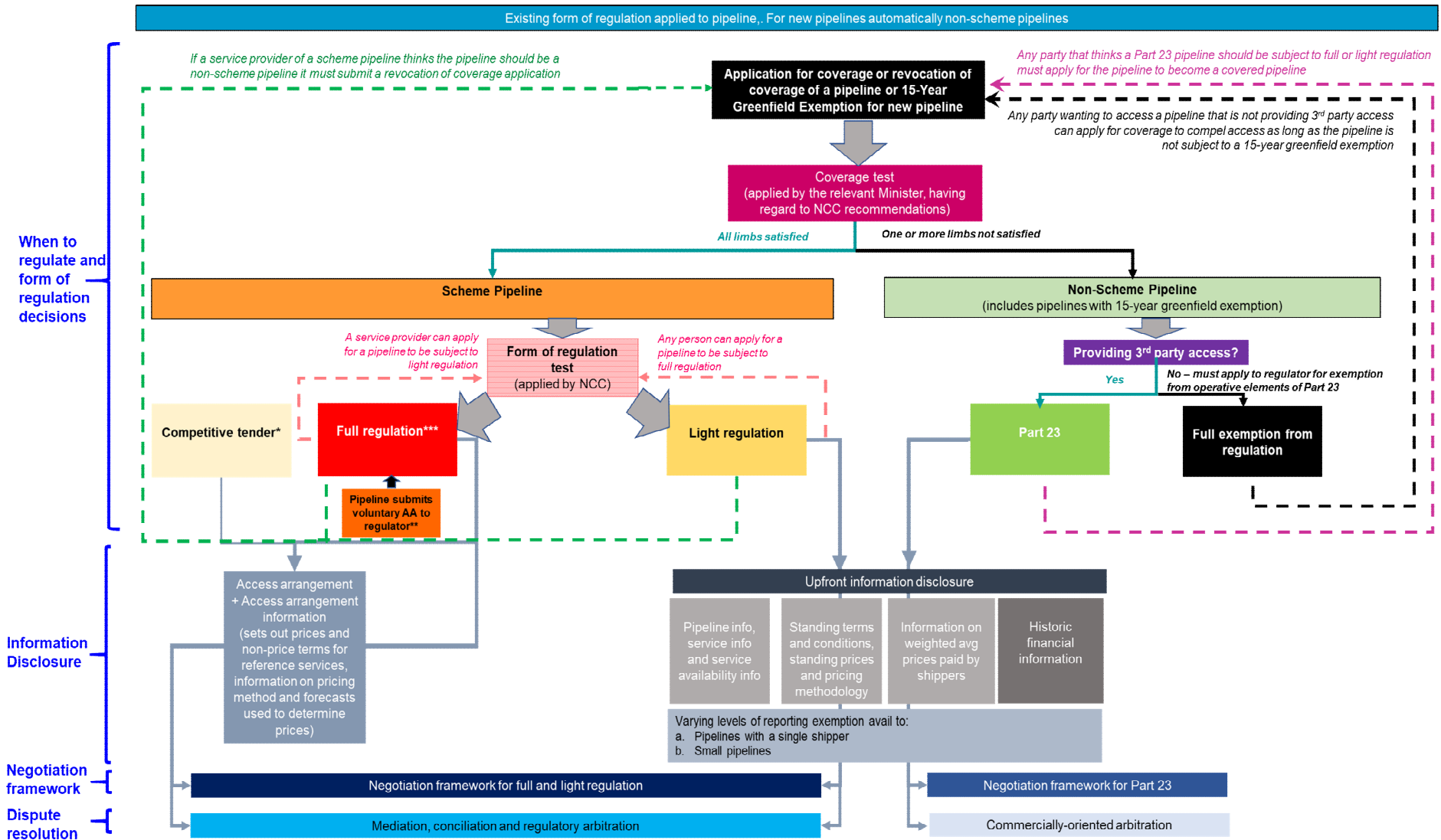
⁶² The Productivity Commission has described the rationale for this mechanism as follows:

"...if investors want to eliminate uncertainty about whether their proposed pipeline would be regulated, then they have to volunteer to subject it to the regime.... In doing so, investors can reach an upfront agreement with a regulator about the details of their access arrangement..."

However, investors are unlikely to volunteer to be subject to cost-based price regulation...."

Productivity Commission, Review of the Gas Access Regime, 2003-04, p. 111.

Figure 2.2: How a pipeline can become a scheme or non-scheme pipeline and subject to different forms of regulation



Notes:

* A pipeline can become a scheme pipeline if it is developed through a competitive tender process approved by the relevant regulator

** If a service provider of a non-scheme pipeline or light regulation pipeline wants the pipeline to be subject to full regulation it may submit a voluntary AA.

***If a pipeline is a designated pipeline, then it cannot apply to have the form of regulation changed.

As this figure shows, the coverage test (see Box 2.4) plays a critical role under the current regulatory framework, with the test used to determine whether:

- a pipeline that is not providing third party access should be required to do so,
- a pipeline can obtain a 15-year no coverage determination; and
- a non-scheme pipeline that is subject to Part 23 should become a scheme pipeline and subject to either full or light regulation and vice versa.

2.2.3 Regulatory status of pipelines in Australia

The map on the following page shows the regulatory status of the major pipelines in Australia, while Table 2.1 provides further detail on the number of pipelines that are subject to each form of regulation and those that are not subject to any form of regulation.

Table 2.1: Regulatory status of pipelines

	Scheme pipelines		Non-scheme pipelines ^b	
	Full regulation	Light regulation	Part 23	Not providing 3 rd party access
Eastern Australia and Northern Territory ^c	10	4.5	51.5	37
Western Australia ^c	3	1	67	19
Total	13	5.5	118.5^a	56
<i>Transmission</i>	5	3.5	98.5	52
<i>Distribution</i>	8	2	20	4

Source: Data provided by the AER and ERA. For WA data see also Government of Western Australia Energy Policy WA, Cost recovery for the non-scheme gas pipeline regime Consultation Paper, 13 October 2020.

- a. Of the 118.5 pipelines subject to Part 23, 42 have obtained an exemption from publishing information because they are only supplying a single user (36 of these are transmission pipelines and six are distribution pipelines) and 23 have obtained an exemption from publishing some information because they fall below the size threshold (10 of these are transmission pipelines and 13 are distribution pipelines).
- b. These counts also include the four pipelines that have obtained a 15-year no coverage determination. Of the four, one is providing third party access and is subject to Part 23, while the other three are not currently providing access.
- c. The eastern Australian and NT pipeline numbers are measured as at 30 June 2019, while the WA pipeline numbers are measured as at 2020.

As Table 2.1 shows, there are currently:

- 5 transmission pipelines and 8 distribution pipelines subject to full regulation;⁶³ and
- 3.5 transmission pipelines and 2 distribution pipelines subject to light regulation.⁶⁴

With the exception of the Northern Gas Pipeline,⁶⁵ all other transmission and distribution pipelines in Australia that are providing third party access are subject to Part 23. This includes a number of major transmission pipelines, such as the South West Queensland Pipeline, the Eastern Gas Pipeline, the Moomba to Sydney Pipeline (between Moomba and Marsden), the Port Campbell to Adelaide Pipeline, the Moomba to Adelaide Pipeline System, the Tasmanian Gas Pipeline and the Queensland Gas Pipeline.

Of the 56 pipelines that are **not** currently providing third party access and are not therefore subject to any form of regulation, 52 are dedicated transmission pipelines owned and operated by gas producers, gas fired generators, mining companies, LNG producers and storage facility operators. There are also four distribution pipelines, two of which are owned by regional councils in Queensland, one is owned by a generator in Esperance and one is used to supply the joint defence facility at Pine Gap.

⁶³ The pipelines include: APA's Roma to Brisbane Pipeline, Victorian Transmission System and Amadeus Gas Pipeline; Goldfield Gas Transmission Joint Venture's Goldfields Gas Pipeline; AGIG's Dampier to Bunbury Pipeline, Victorian gas distribution networks (including the distribution network previously owned by Multinet), Albury gas distribution network and South Australian distribution network; ATCO's Mid-West and South-West distribution network; AusNet's Victorian Distribution System; Evoenergy's ACT distribution network; and Jemena's NSW distribution network.

⁶⁴ The pipelines include: APA's Moomba to Sydney Pipeline between Marsden and Sydney, Carpentaria Gas Pipeline, Central West Pipeline, and Kalgoorlie to Kambalda Pipeline; AGIG's Queensland gas distribution network; and Allgas' Queensland gas distribution network. Note in 2008 a derogation was implemented in Queensland, which resulted in the Carpentaria Gas Pipeline being subject to light regulation until May 2023. National Gas (Queensland) Regulation 2008.

⁶⁵ The Northern Gas Pipeline is subject to a 15 year derogation from Part 23 under the NGR.

2.3 How are gas pipelines regulated in other jurisdictions?

Table 2.2 provides a summary of the way in which gas pipelines are currently regulated in Australia, New Zealand, the United States, Canada, the European Union and Great Britain, with particular emphasis placed on what is regulated and the way in which static and dynamic market power are dealt with in each of these jurisdictions.

As this table highlights, there are some differences between the regulatory frameworks that have been implemented in each of these jurisdictions. The degree of intervention by the regulator to address static market power is, for example, far greater in the European Union and Great Britain, with prices and other terms and conditions of access determined by the regulator and applied to all users, while in the US, Canada and New Zealand, there is regulatory oversight but contracting parties are able to negotiate different prices and other conditions. There are also differences in the emphasis placed on addressing dynamic market power in each jurisdiction, with regulators in the US and Canada placing greater emphasis on this, than regulators in the European Union, Great Britain and New Zealand.

The other interesting point to note from this table is how pipelines have become regulated in these jurisdictions, with most pipelines becoming regulated by default through sector specific legislation, rather than through the application of a test, which was the case in Australia prior to the implementation of Part 23. While exemptions from regulation are available in some jurisdictions where it can be shown that the pipeline lacks market power, there are, as noted above, few, if any, examples of major transmission pipelines becoming unregulated because they lack market power.

Other notable differences between the regulatory frameworks employed in these jurisdictions and the framework employed in Australia are that:

- There is no test for ‘third party access’ in other jurisdictions, because pipelines are generally already vertically separated and sector specific regulation applies. On interstate pipelines in the US⁶⁶ and Canada, third party access on non-discriminatory terms is also mandated (see Box 2.6).
- The prices for all primary capacity services are typically regulated (e.g. with the regulator directly setting prices or reference tariffs, or approving a revenue cap) and access is generally provided on non-discriminatory terms, which is achieved by either:
 - the regulator directly controlling prices and requiring all gas to be transported at the same price and on the same terms (Great Britain and the European Union); or
 - information disclosure and a ban on ‘undue’ discrimination, to enable shippers to determine if undue discrimination is occurring (US, Canada and, to a lesser extent, New Zealand).
- The negotiate-arbitrate model is not used outside Australia. That is, while the US and Canadian systems allow for negotiated settlements, shippers can have recourse to a reference tariff (similar to full regulation in Australia) if they are unable to negotiate.
- In contrast to other jurisdictions that have implemented explicit interconnection rights and, in some cases, pricing principles for the development of new capacity, little has been done in Australia to try and constrain exercises of dynamic market power.

⁶⁶ For intra-state pipelines in the US, if the pipeline is built based on a showing of public use and necessity, third parties can obtain access to the pipelines, as long as their use will not interrupt the transportation of product for existing customers. Note though that not all pipelines are built based on “public use and necessity” and so are not required to provide third party access.
See Joy, M., and Dimitroff, S., Oil and gas regulation in the United States: overview, June 2016.

Table 2.2: Key elements of the gas pipeline regulatory frameworks employed in other jurisdictions

	Australia	New Zealand	US	Canada	European Union	Great Britain
Regulatory coverage						
Regulator	AER (east coast and NT) and ERA (WA)	Commerce Commission	Federal Energy Regulatory Commission (FERC)	National Energy Board (NEB)	National regulators	Ofgem
Test for whether regulation applies	Coverage test if pipeline is not voluntarily providing third party access, or coverage test and form of regulation test if applicant thinks the pipeline should be subject to full regulation.	All gas pipelines (transmission and distribution) are regulated by default unless the pipeline: <ul style="list-style-type: none"> is small (< 75 TJ per annum) transports gas to a production facility; and does not have a substantial degree of market power. 	All interstate transmission pipelines regulated. FERC has the ability to grant pipelines "market-based rate authority" (i.e. deregulate) if they lack market power, but has never done so.	All transmission pipelines regulated. The degree of regulation differs depending on whether the pipeline is a: <ul style="list-style-type: none"> Group 1 company (a co. that operates large pipeline systems and has many shippers): full regulation Group 2 company (all other companies): light-handed, complaint-based regulation 	All transmission pipelines regulated unless specifically exempted new infrastructure. <ul style="list-style-type: none"> Interconnector Points (IPs) between entry-exit systems subject to EU directives. Transmission pipelines within entry-exit systems subject to national regulators which operate within EU directives. 	Regulation applies to all onshore gas transmission.
Regulatory exemptions for new pipelines?	15-year exemption from coverage (but not from Part 23 if third party access is provided) available to new pipelines if the coverage test is not satisfied.	No specific exemptions, all pipelines are regulated subject to exemptions above.	None	None.	Third Party Access exemptions. To qualify: <ul style="list-style-type: none"> "the investment must enhance competition in gas supply and enhance security of supply; the level of risk attached to the investment must be such that the investment would not take place unless an exemption was granted; the infrastructure must be owned by a natural or legal person which is separate at least in terms of its legal form from the system operators in whose systems that infrastructure will be built; charges must be levied on users of that infrastructure; the exemption must not be detrimental to competition or the effective functioning of the internal natural gas market, or the efficient functioning of the regulated system to which it is connected." 	
Regulatory approach to monopoly pricing and denial of access						
Ex ante price controls for primary capacity	<ul style="list-style-type: none"> Full regulation: building block model used to determine prices for reference services, but parties may agree to alternative prices. Light regulation and Part 23: no ex ante controls. 	Revenue cap + pricing principles	Cost of Service including regulated rate of return.	Cost of service including regulated rate of return.	Varies across countries. Commonly, based on an ex-ante revenue/price cap set by relevant regulator. EU legislation requires price controls to set tariffs in line with costs of "efficient operator".	<ul style="list-style-type: none"> National Grid (NGG) sets entry and exit charges based on the revenue cap formulae set out in its licence at periodic price controls by Ofgem (RIIO-T1). NTS transportation charges should be set to recover 50% of allowed revenues from entry charges and 50% from exit charges.
Constraints on negotiation/ flexibility around regulated primary capacity prices	<ul style="list-style-type: none"> Full regulation: Service providers and users of full regulation pipelines can agree to different price and non-price terms to those set out in the AA. Light regulation and Part 23: 	Regulatory regime does not limit pricing flexibility, other than through pricing principles and information disclosure requirements. New transmission code permits "non-standard" agreements, which are expected to cover ~22% of 2019/20 revenue.	<ul style="list-style-type: none"> Shippers free to negotiate different rates with pipelines, but negotiated rates must be disclosed. Cost-based reference price available. 	<ul style="list-style-type: none"> Shippers free to negotiate different rates with pipelines, but negotiated rates must be disclosed. Cost-based reference price available. 	<ul style="list-style-type: none"> Standardised products sold in primary capacity auctions. Common products across customers. 	<ul style="list-style-type: none"> Standardised products sold in primary capacity auctions. Common products across customers.

	Australia	New Zealand	US	Canada	European Union	Great Britain
Use of binding arbitration or negotiated settlements as alternative to regulatory decisions	<ul style="list-style-type: none"> Arbitration available under all forms of regulation. 	n.a.	<ul style="list-style-type: none"> Binding arbitration does not exist. FERC rate cases can be "settled". Negotiated settlements result in the regulator approved reference rate being made available to all users. 	<ul style="list-style-type: none"> Binding arbitration does not exist. NEB rate cases can however be "settled". Negotiated settlements result in the regulator approved reference rate being made available to all users. 	n.a.	n.a.
Role of information disclosure	<ul style="list-style-type: none"> Disclosure intended to reduce asymmetries and facilitate more effective and timely negotiations. Light regulation and Part 23: Must disclose price and non-price terms and conditions of access, the method used to calculate prices; a range of pipeline service information, financial and weighted average price information. 	<ul style="list-style-type: none"> Information disclosure is intended to allow interested persons to assess the effectiveness of the regime in achieving the statutory purpose. Principles such as cost allocation and asset valuation are relatively prescriptive. Metrics include operational and financial performance. 	<ul style="list-style-type: none"> To promote competition in pipeline development and allow regulators and shippers to review costs. All negotiated rates are disclosed to allow shippers to determine if they are being unduly discriminated against. 	<ul style="list-style-type: none"> Regulatory accounts similar to US but information disclosure looser because the NEB has not mandated that pipelines provide information to the market. 	<ul style="list-style-type: none"> Varies across countries and national regulators. Information disclosure intended to allow interested persons to assess the effectiveness of the regime in achieving the regulatory purpose. 	<ul style="list-style-type: none"> Information disclosure is intended to allow interested persons to assess the effectiveness of the regime in achieving the regulatory purpose. Annual reports on gas transmission are released by Ofgem as part of the RIIO regime. Details performance across 'key areas of delivery' and financial performance.
Price discrimination amongst shippers permitted?	<ul style="list-style-type: none"> Full regulation and Part 23: No constraints on price discrimination but associate contract provisions prohibit full regulation pipelines discriminating in favour of associates. Light regulation: Pipelines prohibited from engaging in price discrimination unless conducive to efficient service provision. 	<ul style="list-style-type: none"> Standard tariffs available to all shippers on an open access basis. Non-standard agreements also allowed, so price discrimination permitted. Commerce Commission's pricing principles non-binding but First Gas must disclose compliance with principles. 	<ul style="list-style-type: none"> Undue price discrimination barred by statute and monitored through information disclosure and reference tariffs are available. 	<ul style="list-style-type: none"> Undue price discrimination barred by statute and monitored through information disclosure and reference tariffs are available. 	<ul style="list-style-type: none"> No: EU rules require that transmission system operator (TSO) provide Third Party Access to their infrastructure, such that they are required to flow gas across their networks at published and access terms that do not discriminate between network users. 	<ul style="list-style-type: none"> No: NGG is required to flow gas across its network at terms that do not discriminate between network users.
Vertical integration between transmission and upstream/downstream allowed?	<ul style="list-style-type: none"> Yes, but under full and light regulation ring fencing and associate contract provisions must be complied with. These provisions do not apply under Part 23. 	<ul style="list-style-type: none"> Vertical integration is not specifically prohibited and has existed throughout the history of the industry. 	<ul style="list-style-type: none"> Prohibited with exceptions for special cases. 	<ul style="list-style-type: none"> Prohibited with exceptions for special cases. 	<ul style="list-style-type: none"> EU Third Energy Package specifies three models of unbundling, one of which must be followed by regulator (Ownership unbundling, independent system operator, independent TSO). 	<ul style="list-style-type: none"> No: Unbundling rules apply preventing companies from operating in the competitive (wholesale/retail) and network business (transmission/distribution) without strict ringfencing obligations.

	Australia	New Zealand	US	Canada	European Union	Great Britain
Regulatory approach to address dynamic market power						
Approaches to encourage new pipeline competition ?	No explicit systems to encourage competition.	<ul style="list-style-type: none"> No explicit systems to encourage competition. Move to a form of common carriage will likely preclude competition. 	<ul style="list-style-type: none"> Incremental pricing, FERC licensing of capacity, and open season processes create competitive process for signing of contracts. FERC will not license capacity if a non-discriminatory open season has not occurred. 	Similar to the US, the NEB licensing process fosters a competitive process for signing contracts.	<ul style="list-style-type: none"> The entry-exit system in EU largely rules out pipeline competition by de-linking transport from physical paths. Interconnectors between entry-exit market areas may be provided by the market in principle, although are frequently sponsored by TSOs in neighbouring member states. 	<ul style="list-style-type: none"> Within the NTS, competition is essentially crowded out by centrally planned investment decision-making and regulatory regime which provides returns on those investments. Interconnectors between GB and Europe have historically been provided by the market, with some regulatory exemptions being provided.
Approach to interconnection / denial of access by pipeline competitors	<ul style="list-style-type: none"> Full and light regulation: Service providers prohibited from preventing or hindering access, which includes interconnections. A competing pipeline seeking to interconnect therefore has a right to negotiate an interconnection and can take action if a service provider seeks to prevent or hinder access. Part 23: Service providers are not prohibited from preventing or hindering access. The arbitration provisions in Part 23 do, however, provide for an access determination to be made about interconnections 	Access codes generally allow for interconnection on an open access basis subject to meeting technical specifications	Pipelines cannot deny interconnection if shipper pays and the connection does not impair the pipeline's ability to serve FERC-licensed capacity contracts	If a pipeline refuses an application for interconnection, the applicant can apply to the regulator to force interconnection as long as such interconnection does not place an undue burden on the pipeline.	<ul style="list-style-type: none"> EU rules require that TSOs provide Third Party Access to their infrastructure, such that they are required to flow gas across their networks at published rates and access terms that do not discriminate between network users. EU authorities mandated entry-exit charging in the Third Package, which created a system of interconnected systems largely within national borders, within which all gas was fungible. 	<ul style="list-style-type: none"> Existing or new users of transmission network may request an entry or exit or storage connection to the NTS through NGG's Application to Offer process. The shipper must have obtained sufficient NTS entry or exit capacity and the contractual rights to use that capacity; The physical connection to the NTS must be completed and commissioned, with the required metering equipment; The shipper must have entered an operational agreement with NGG. NGG charges users upfront fees for the provision of exit connections.
Pricing principles for new capacity	<ul style="list-style-type: none"> Full regulation: There are some constraints on the use of the rolled-in approach. Light regulation and Part 23: No pricing principles or constraints on using the rolled-in approach. 	The Commerce Commission's pricing principles state that prices must be within incremental and stand-alone cost, though these principles are not binding.	Incremental pricing based on costs and return for extensions or expansions. New pipelines are priced using at the cost of service, including regulated rate of return.	<ul style="list-style-type: none"> Cost of service including regulated rate of return for new pipelines. Rolled-in or incremental pricing for extensions or expansions reviewed on a case-by-case basis. 	<ul style="list-style-type: none"> Primary gas transmission capacity is allocated through an auction system in line with the EU Network Code on Capacity Allocation Mechanisms in Gas Transmission Systems. Entry-exit prices are set. The proportional recovery of revenues from entry and exit prices varies across countries. 	<ul style="list-style-type: none"> The reference prices used to set reserve prices for entry capacity auctions and exit capacity charges currently reflect the estimated Long Run Marginal Cost of developing the system to meet a sustained increase in demand and supply. Gas transmission charging is under review and likely to shift away from LRMC model to a Capacity Weighted Distance approach.

Source: NERA Economic Consulting, International Review of Pipeline Regulation: Vol. 1 – Synthesis and Reform Options, 28 June 2019.

Box 2.6: Third party access in the United States and Canada

In the US, operators of new and existing interstate pipelines are required to operate on an open access basis (i.e. to provide third-party access) and to provide services on a non-discriminatory basis,⁶⁷ which is defined as the provision of services:⁶⁸

“...without undue discrimination, or preference, including undue discrimination or preference in the quality of service provided, the duration of service, the categories, prices, or volumes of natural gas to be transported, customer classification, or undue discrimination or preference of any kind.”

In a similar manner to the US, international and inter-provincial pipelines in Canada are required to operate on an open access basis and are prohibited from engaging in any “unjust discrimination in tolls, services or facilities against any person or locality”.⁶⁹ The National Energy Board, which is responsible for regulating these pipelines, has interpreted this requirement as follows:⁷⁰

“...all parties must have access to transportation on a non-discriminatory basis, as long as they meet the requirements of the tariff.

In addition, tolls for services provided under similar circumstances and conditions with respect to all traffic of the same description, carried over the same route, must be the same for all customers.”

Where a service provider’s prices is found to differ by person or locality, the burden of proving that the discrimination is not unjust lies with the service provider.

Further detail on the regulatory arrangements applying in these jurisdictions can be found in NERA Economic Consulting’s *International Review of Pipeline Regulation*, which can be found on the Energy Minister’s website.

⁶⁷ This requirement is set out in FERC Order 636, 8 April 1992.

⁶⁸ See US Code of Federal Regulations, regulation 284.7(b)

⁶⁹ See National Energy Board Act 1985 (Canada), section 97.

⁷⁰ National Energy Board, Canada’s Pipeline Transportation System, 2016, p. 21

3. Problems with the regulatory framework and the objectives of action to address the problems

Despite recent interventions to improve aspects of the regulatory framework, the reviews recently carried out by the ACCC, AEMC, GMRG, Brattle, NERA and stakeholder consultation undertaken as part of this RIS (including through the OGW shipper survey) indicate that there are still a number of problems with the regulatory framework.

The remainder of this chapter provides an overview of the problems that have been identified with the current regulatory framework and the objectives of Energy National Cabinet Reform Committee action in addressing these problems.

3.1 What are the problems with the current regulatory framework?

The regulatory framework has been subject to a number of reviews over the last five years, the findings of which are set out in detail in Appendix B. Through these reviews and the consultation undertaken as part of this RIS, a number of problems have been identified with the following elements of the regulatory framework:

- (a) the threshold used to determine when a pipeline should be subject to economic regulation (including in relation to greenfield developments and pipelines that are not voluntarily providing third party access);
- (b) the forms of regulation that can be applied to a pipeline if they are subject to regulation and how movements between the alternative forms of regulation occur;
- (c) the governance arrangements applying to when to regulate and how to regulate decisions;
- (d) the information disclosure obligations that service providers are subject to under the various forms of regulation; and
- (e) the negotiation frameworks and dispute resolution mechanisms applying under the various forms of regulation.

A brief overview of the problems that have been identified, which are complex and interrelated, is provided below. Further detail on these problems and the feedback that stakeholders provided can be found in chapters 4-7.

3.1.1 When a pipeline should be regulated

Under the current regulatory framework:

- (a) all pipelines that are providing third party access are subject to some form of regulation;
- (b) access to a pipeline that is not providing third party access can only be obtained if the Minister, having regard to the NCC's recommendation, finds that all the coverage criteria are satisfied (see Box 2.4); and
- (c) a 15-year exemption from coverage (greenfield exemption) can be obtained by pipelines that are yet to be commissioned if the Minister, having regard to the NCC's recommendation, finds that one or more of the coverage criteria are not satisfied.

The problem identified with this element of the regulatory framework, which has been confirmed through stakeholder consultation (see section 4.2) is that the use of the coverage test to determine whether a pipeline that is not voluntarily providing third party access should be required to do so can result in under-regulation⁷¹ and inefficient investment in and use of these pipelines.⁷²

3.1.2 How a pipeline should be regulated if a decision is made to regulate

The regulatory framework currently provides for three forms of regulation that a pipeline can be subject to if a decision is made that it should be regulated (full regulation, light regulation and Part 23), with the coverage test acting as the gateway for movements between Part 23 and full regulation and vice versa.

The problems identified with this element of the regulatory framework, which have been confirmed through stakeholder consultation (see section 5.2), are that:

- the inconsistencies and overlap between some forms of regulation (i.e. Part 23 and light regulation) is increasing the regulatory complexity and administrative burden for regulators, shippers and service providers; and giving rise to unnecessary costs and inefficiencies;
- the use of the coverage test as a gateway from Part 23 to full regulation can result in under-regulation and leave shippers more exposed to exercises of market power; and
- the current forms of regulation do not effectively deal with potential exercises of dynamic market power (i.e. the service provider blocking competition from other service providers), which can further entrench the incumbent service providers' market power and prevent the efficiencies associated with competition for the development of new pipelines and augmentations flowing through to the market.

3.1.3 Governance arrangements for when and how to regulate decisions

Under the current regulatory framework:

- The relevant Minister (on advice from the NCC) is responsible for applying the coverage test, which is used to determine whether:
 - a pipeline that is not voluntarily providing third party access should be required to do so; and
 - a pipeline that is subject to Part 23 should be a scheme pipeline and subject to full or light regulation or vice versa.

The coverage test is also used to determine whether a 15-year no coverage determination should be granted.

- The relevant regulator is responsible for approving competitive tender processes for the development of new pipelines, the outcomes of which can then be locked in for up to 15 years.

⁷¹ The term under-regulation is used to refer to a situation where the level of regulation applied does not limit a service provider's ability to exercise market power.

⁷² The Consultation RIS identified two other *potential* problems and sought feedback on whether they were actually problems. The majority of stakeholders were, however, of the view that these do not constitute problems:

- the threshold adopted for economic regulation (i.e. all pipelines providing third party access) may result in over-regulation and give rise to unnecessary costs and risks; and
- the application of regulation to pipelines with a greenfield exemption may distort the incentives service providers have to invest in new pipelines;

- The NCC is responsible for form of regulation decisions for scheme pipelines (i.e. the choice between light regulation and full regulation).

The problems identified with this element of the framework are that the governance arrangements can give rise to unnecessary costs and delays in decision making, particularly in relation to coverage and greenfield exemption related decisions due to the duplication of effort and resourcing requirements associated with these decisions. While mixed views have been expressed by stakeholders on the significance of this problem (see section 4.2), concerns have been raised by a number of those jurisdictions where the relevant Minister has had to make these decisions.

3.1.4 Information disclosure requirements

Pipelines subject to full regulation, light regulation or Part 23 are (subject to some exceptions), required to publish a range of information that shippers can use to make a more informed decision about whether to seek access to a pipeline and to assess the reasonableness of a service provider's offer.

The problems identified with this element of the regulatory framework, which have been confirmed through stakeholder consultation (see section 6.2), are that:

- there is limited information available to shippers negotiating access to non-reference services on full regulation pipelines; and
- there are a number of deficiencies in the information reported by Part 23 and light regulation pipelines (including as a result of the availability of exemptions) that are affecting the adequacy, quality and reliability, accessibility and usability of the reported information.

Both of these problems are hindering the ability of shippers to negotiate access, imposing additional search and transaction costs on shippers, making shippers more susceptible to exercises of market power and resulting in inefficient decision making.

3.1.5 Negotiation frameworks and dispute resolution mechanisms

Full regulation, light regulation and Part 23 are all variants of the negotiate-arbitrate form of regulation. The problems identified with this element of the regulatory framework, which have been confirmed through stakeholder consultation (see section 7.2), are that:

- differences between the negotiation frameworks applying under the various forms of regulation is giving rise to unnecessary costs and delays and hindering the ability of shippers to negotiate effectively with service providers;
- the threat of arbitration by smaller shippers that are negotiating access to pipelines may not be viewed as credible by all service providers, which can make this group of shippers more susceptible to exercises of market power by service providers; and
- aspects of the full regulation dispute resolution mechanism are not as effective or as efficient as they could be, which undermines the constraint it is intended to impose on service providers of these pipelines.

3.1.6 Conclusion

Further detail on these problems, which are taken as a focus for reform (through regulation or other means) is provided in chapters 4-7. As noted in these chapters, the

problems that have been identified are having a detrimental effect on economic efficiency (productive, allocative and dynamic efficiency) and consumers more generally, because they are, to varying extents:

- leaving shippers exposed to exercises of market power by service providers,⁷³ which can result in lower than efficient levels of consumption, production and investment across the gas market, upstream and downstream markets, and the broader economy (e.g. because prices are higher than they would be in a workably competitive market);
- allowing incumbent service providers to use their market power to restrict competition from other pipelines, which as noted in section 2.1.2 can prevent the productive, allocative and dynamic efficiency gains that would otherwise be associated with competition from flowing through to the gas market, upstream and downstream markets and broader economy;
- giving rise to information deficiencies and asymmetries, which can result in inefficient consumption, production and investment decisions across the gas market, upstream and downstream markets and the broader economy; and
- imposing unnecessary costs and risks on shippers, service providers and regulators and, in some cases, delaying access to pipelines.

The problems that have been identified with the current regulatory framework can therefore be viewed as a 'market failure' that warrants further action by the Energy National Cabinet Reform Committee to improve efficiency.

3.2 What are the objectives of Energy National Cabinet Reform Committee action?

Any action taken by the Energy National Cabinet Reform Committee to address the problems outlined above will be guided by:

- the National Gas Objective (NGO), which is to 'promote efficient investment in, and efficient operation and use of, natural gas services for the long terms interests of consumers of natural gas...'; and
- the Energy Minister's Vision for the Australian gas market,⁷⁴ which is to 'establish a liquid gas market that provides market signals for investments and supply, where responses to those signals are facilitated by a supportive investment and regulatory environment...'

See Box 3.1 for more detail.

⁷³ This may occur because of under-regulation, or because the threat of a stronger form of regulation being applied or the dispute mechanism being triggered is not credible.

⁷⁴ Energy Ministers, Australian Gas Market Vision, December 2014
See <http://www.coagenergycouncil.gov.au/sites/prod.energycouncil/files/publications/documents/COAG-Energy-Council-Australian-Gas-Market-Vision-Dec-2014-FINAL.pdf>

Box 3.1: National Gas Objective and the Vision for the Australian gas market

National Gas Objective

The NGO is set out in section 23 of the NGL and states the following:

The objective of this law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.

Energy Minister's Vision for the Australian Gas Market⁷⁵

The *Vision* is for:

..the establishment of a liquid wholesale gas market that provides market signals for investment and supply, where responses to those signals are facilitated by a supportive investment and regulatory environment, where trade is focused at a point that best serves the needs of participants, where an efficient reference price is established, and producers, consumers and trading markets are connected to infrastructure that enables participants the opportunity to readily trade between locations and arbitrage trading opportunities.

At the time it released the *Vision*, Energy Ministers also agreed that they would pursue the following outcomes in the next phase of gas market reform and development:

Stream 1: Encouraging competitive gas supply:

- (a) Improvements to the regulatory and investment environment so that gas supply is able to respond flexibly to changes in market conditions.
- (b) A "social licence" for onshore natural gas development achieved through inclusion, consultation, improving the availability and accessibility of factual information to resources projects, and rigorous science to ensure communities concerns are addressed.

Stream 2: Enhancing transparency and price discovery:

- (a) Provision of accurate and transparent market making information on pipeline and large storage facilities operations and capacity, upstream resources, and the actions of producers, export facilities, large consumers and traders.
- (b) Increased flexibility and opportunity for trade in pipeline capacity.
- (c) A competitive retail market that will provide customers with greater choice and large users with enhanced options for self-supply and shipment.

Stream 3: Improving risk management:

- (a) Liquid and competitive wholesale spot and forward markets for gas that provide tools for participants to price and hedge risk.
- (b) Access to regional demand markets through more harmonised pipeline capacity contracting arrangements which are flexible, comparable, transparent on price, and non-discriminatory in terms of shippers' rights, to accommodate evolving market structures.
- (c) Harmonised market interfaces that enable participants to readily trade between locations and find opportunities for arbitrage and trade.
- (d) Identified development pathways to improve interconnectivity between supply and demand centres, and existing facilitated gas markets, which enable the enhanced trading of gas.

Stream 4: Removing unnecessary regulatory barriers:

- (a) Regulation of gas supply and infrastructure is appropriate and enables participants to pursue investment opportunities, in response to market signals, in an efficient and timely manner.

The outcomes most relevant to the Pipeline RIS are Streams 1(a), 2(b), 3(b) and 4(a).

In keeping with the NGO and Vision, the objectives of Energy National Cabinet Reform Committee action are to implement a simpler, more efficient, effective and integrated regulatory framework that supports the efficient operation of the gas market and the long

⁷⁵ *ibid.*

term interests of gas users and is fit for purpose, targeted and proportionate to the issues it is intended to address.

Some of the more specific objectives of Energy National Cabinet Reform Committee action are set out in Box 3.2.

Box 3.2: Specific objectives of Energy National Cabinet Reform Committee action

The specific objectives of Energy National Cabinet Reform Committee action are to:

- (a) provide a framework for seeking access to pipelines;
- (b) pose a more effective constraint on service providers' market power;
- (c) support efficient investment and innovation in pipeline services and continue to provide for the safe, reliable and efficient operation and use of pipelines;
- (d) reduce the degree of information asymmetry and imbalance in bargaining power that shippers and interconnecting parties can face when negotiating with service providers;
- (e) have a regulatory framework that:
 - o is as simple and well-integrated as possible, with different forms of regulation based on common principles and approaches, where appropriate;
 - o promotes clarity and consistency by providing clear objectives, rules and guidance for regulators and other decision-makers and support effective compliance monitoring and enforcement activities; and
 - o minimises administrative burdens and compliance costs; and
- (f) support the current and future opportunities and challenges facing the gas and pipeline industries.

4. Reform focus 1: When a pipeline should be regulated and governance arrangements for when and how to regulate decisions

The focus of this chapter is on the more fundamental question of *when* a pipeline should be subject to economic regulation and the governance arrangements for decisions relating to when and how a pipeline should be regulated. The following chapter, on the other hand, considers *how* a pipeline should be regulated once a decision has been made that it should be regulated.

Prior to the introduction of Part 23, pipelines could become subject to economic regulation if they satisfied the coverage test, or were deemed to satisfy this test when the Gas Code came into effect.⁷⁶ In 2016, a number of concerns were raised about the coverage test, with both the ACCC and AEMC finding that it was unlikely to be met by most pipelines because it was not directed at the right market failure.^{77,78} Dr Vertigan formed a similar view in his 2016 Examination.⁷⁹ However, rather than changing the coverage test, Dr Vertigan recommended a new form of regulation be introduced and applied to all non-scheme pipelines providing third party access (including pipelines that had obtained a greenfield exemption). This recommendation was endorsed by the former COAG Energy Council in December 2016.⁸⁰ and Part 23 commenced in August 2017.

The application of Part 23 to non-scheme pipelines, in effect, by-passed the coverage test for pipelines providing third party access and, in so doing, lowered the threshold for economic regulation on these pipelines. The coverage test now plays a relatively limited role in determining when a pipeline should be subject to economic regulation, with the test only used to determine whether a pipeline that is not providing third party access should be required to do so, and if a greenfield exemption should be granted. The coverage test also has a role to play in form of regulation decisions as discussed in Chapter 5.

While the introduction of Part 23 addressed most of the problems identified in 2016, concerns have subsequently been raised about the potential for the current regulatory framework to result in over-regulation and/or under-regulation of pipelines and the governance arrangements associated with when and how to regulate decisions.

The remainder of this chapter provides further detail on what the regulatory framework currently provides for, the problems that have been identified with this aspect of the regulatory framework and the feedback stakeholders provided on the options identified in the Consultation RIS to address these problems. It also sets out how this feedback has been taken into account in the development of the reform options.

⁷⁶ A pipeline could also become subject to regulation if they decided to submit a voluntary full AA or if the pipeline was built through a CTP process approved under the Gas Code or the NGR and there was an approved CTP AA in place.

⁷⁷ ACCC, *Inquiry into the east coast gas market*, April 2016, pp. 10-11 and AEMC, *Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review*, 23 May 2016, p. 112.

⁷⁸ That is, monopoly pricing that results in economic inefficiencies but has little or no effect on competition in other markets.

⁷⁹ Vertigan, M., *Examination of the current test for the regulation of gas pipelines*, 14 December 2016, pp. 12-13.

⁸⁰ COAG Energy Council, *Meeting Communique*, 14 December 2016.

4.1 What is the current situation?

The regulatory framework currently provides for:

- all pipelines that are providing third party access to be subject to some form of economic regulation (i.e. full regulation, light regulation or Part 23); and
- pipelines that are not providing third party access to be required to do so (i.e. through the application of full or light regulation) if the relevant Minister, having regard to the NCC's recommendation, is satisfied the coverage test is met (see Box 2.4).

As noted in section 2.2.2, the regulatory framework also includes the following mechanisms, which were implemented to try and counter the adverse effects that stronger forms of regulation may have on new pipeline developments:

- The **Competitive Tender Process (CTP)**, which allows proponents of new pipelines to apply to have a proposed tender approved as a competitive tender. If approved by the regulator, the price and other conditions of access determined through the tender can form the basis of an AA that can apply for up to 15 years.
- The **15-year no coverage determination**, which allows pipelines that are yet to be commissioned to obtain an exemption from coverage if the coverage test is not met (see Box 2.1). In effect, this determination means the pipeline is exempt from full and light regulation and cannot be compelled to provide third party access. It can, however, be subject to Part 23 if it provides third party access.

The first of these mechanisms has been used on three occasions since it was introduced in 1997,⁸¹ while the latter mechanism has been used on four occasions since its introduction in 2006.⁸² Interestingly, the only parties that have sought a 15-year no coverage determination over the last 14 years have been the Gladstone LNG exporters. In each case, the Minister's decision was made 1-4 years after the decision was made to develop the LNG facilities, which suggests the exemption had little bearing on the decision to develop these pipelines. All the other pipelines that have been commissioned over this period, of which there are large number,⁸³ have been developed without recourse to either of these two mechanisms.

Further detail on how a pipeline can currently become subject to economic regulation can be found in section 2.2.

4.2 What problems have been identified with this aspect of the regulatory framework?

4.2.1 Potential problems identified in the Consultation RIS

In the Consultation RIS, the following *potential* problems were identified with this aspect of the regulatory framework, based on the reviews of the regulatory framework that have been undertaken by the AEMC and NERA (see Appendix B):

⁸¹ The CTP was used by the Central Ranges Pipelines and Central Ranges Gas Network. Another CTP process was also approved for Loddon Murray but no bids were obtained.

⁸² The 15-year no coverage determination provisions have been used by the Queensland LNG producers, to obtain

⁸³ Some of the pipelines that have been developed in this period include the QSN Link, the Northern Gas Pipeline, the Darling Downs Pipeline, the Berwyndale to Wallumbilla Pipeline, the Wallumbilla to Reedy Creek Pipeline, the SESA Pipeline, the Mortlake Pipeline, the Fortescue River Gas Pipeline, the Ashburton Onslow Gas Pipeline, the Eastern Goldfields Pipeline, and, more recently, the Tanami Gas Pipeline.

- (a) the current threshold for economic regulation *may* result in over-regulation because all pipelines providing third party access are now at a minimum subject to Part 23;⁸⁴
- (b) the application of Part 23 to pipelines with a greenfield exemption that are providing third party access *may* distort investment incentives for greenfield pipelines;⁸⁵
- (c) the use of the coverage test in third party access decisions *may* result in under-regulation and inefficient use of and investment in pipelines that are not providing third party access;⁸⁶ and
- (d) the governance arrangements associated with coverage and greenfield exemption decisions *may* give rise to unnecessary costs and delays.⁸⁷

The Consultation RIS did, however, note that it was unclear how significant the potential problems in (a) and (b) were given the relatively light handed nature of Part 23. Stakeholders were therefore asked for their views on whether these were in fact problems with the current framework and, if so, how significant a problem they were.

4.2.2 Stakeholder feedback on the potential problems

Table 4.1 provides an overview of the feedback that stakeholders provided on these potential problems.⁸⁸ As this table shows, the majority of stakeholders did not agree with the potential problems identified in (a) and (b), with most of these stakeholders noting that:

- the application of economic regulation to all pipelines providing third party access was either **not** giving rise to over-regulation, or that the risk of over-regulation was **not** significant enough to warrant a change to the regulatory framework;
- the application of Part 23 to pipelines with a greenfield exemption was either **not** affecting the incentive to invest in new pipelines, or was **not** having a significant enough effect to warrant a change to the regulatory framework.

In contrast to these two potential problems, the majority of stakeholders agreed that the use of the coverage test for third party access decisions was resulting in under-regulation and inefficient investment in and use of these pipelines.

Stakeholder views were more divided on whether the existing governance arrangements constituted a problem. User associations, Energy Matrix and a number of the jurisdictional agencies that have been involved in coverage and greenfield exemption decisions, for example, were of the view that the current arrangements give rise to unnecessary costs and delays. The NCC, service providers and a number of producers that own pipelines, on the other hand, did not agree this was a problem. Other stakeholders did not express a view on whether this constituted a problem, but a number did support the proposal to move to a single decision-maker, while others supported the retention of the existing process for third party access and greenfield exemption decisions (see Table 4.3).

⁸⁴ This potential problem was identified in the AEMC's 2017-18 Economic regulation review. See AEMC, Final Report: Review into scope of economic regulation applied to covered pipelines, 3 July 2018, pp. 43-45. A similar view was also expressed by the NCC in its submission to the AEMC's Economic regulation review. See, NCC, Submission to AEMC draft report – Review into the scope of economic regulation applied to covered pipelines, 10 April 2018, p. 5.

⁸⁵ This potential problem was also identified in the AEMC's 2017-18 Economic regulation review. See AEMC, Final Report: Review into scope of economic regulation applied to covered pipelines, 3 July 2018, p. 44.

⁸⁶ This potential problem was identified through NERA's international review of pipeline regulation. NERA Economic Consulting, International Review of Pipeline Regulation: Vol. 1 – Synthesis and Reform Options, 28 June 2019.

⁸⁷ This potential problem was touched on in the AEMC's 2017-18 Review into the scope of economic regulation. See AEMC, Final Report: Review into scope of economic regulation applied to covered pipelines, 3 July 2018, p. 49.

⁸⁸ Note that stakeholders were asked if there were any other problems with this aspect of the current framework, but no other problems were identified.

Table 4.1: Potential problems identified in the Consultation RIS and stakeholder feedback on the problems

Detail		Potential risk of over-regulation
Description of potential problem	<p>In its 2017-18 Economic regulation review, the AEMC made the following observation about the introduction of Part 23: ⁸⁹</p> <p><i>“...the practical effect of introducing Part 23 of the NGR has been to apply near-universal regulation regardless of whether a market failure has been identified on a case-by-case basis. Specifically, the market failure of service providers using market power is assumed. The coverage determination process has in effect been bypassed. The possible impact of this is unnecessary regulation of those pipelines where there is no or only limited or transient market power, with associated direct and indirect costs.”</i></p> <p>While identifying this as a potential problem, the AEMC went on to note that: ⁹⁰</p> <p><i>“In practice, the overarching effect of the introduction of Part 23 may be an appropriate increase in regulation to address previous concerns with the regime... without imposing unnecessary regulation given the widespread monopoly power found by the ACCC, nor having detrimental impacts on future investment. It may be practically more appropriate to apply some form of regulation to (nearly) all pipelines given the likelihood of market power, rather than risking the mis-application of the test for determining whether regulation should be applied (at all) and so under-regulating.”</i></p>	
Stakeholder feedback	Agree	<ul style="list-style-type: none"> The AER, ATCO and a confidential submitter agreed the application of regulation to all pipelines providing third party access may result in over-regulation and supported the inclusion of a full exemption from regulation where a pipeline can demonstrate it lacks substantial market power. APPEA and AGIG did not express a view on whether this constituted a problem, but supported the adoption of an exemption from regulation for pipelines that can demonstrate they do not have substantial market power.
	Disagree	<ul style="list-style-type: none"> The ACCC, EUAA, Chemistry Australia, NSW BC, MEU, APLNG and COPA either disagreed that this was problem, or did not think it was a material problem. The ACCC, for example, noted that “while, in principle, there is a risk that the extension of Part 23 to all pipelines providing third party access could result in ‘over regulation’, in practice we do not consider this to be a significant risk given the relatively light handed nature of Part 23 (even in its strengthened form).” It also noted that the current threshold for regulation in Australia is less interventionist than that used in other countries where all pipelines are regulated. AGL, EnergyAustralia, and APA did not express a view on whether this constituted a problem. AGL and EnergyAustralia did, however, support the continued application of regulation to all pipelines providing third party access, while APA noted that the existing exemption framework limits the risk of over-regulation.
	Other	<ul style="list-style-type: none"> Energy Matrix supported the extension of regulation to all licensed pipelines (with the exception of pipelines that connect a single facility, are short in length and/or are not subject to a request for third party access). Jemena and APGA noted the potential for over-regulation, but did not support the inclusion of any additional exemptions to address this problem. Rather, Jemena noted that it “does not consider that there are likely to be material benefits, at least in the near term, from further reforms that would unwind these arrangements”, while APGA noted that “Part 23 is a good news story overall that has led to a better functioning gas market. It is relatively light-handed and supports a flexible, commercially oriented negotiate-arbitrate framework, includes appropriate exemptions, and the costs and risks associated with arbitration are so far very low – with arbitration unlikely to be triggered if market power is not being exercised”. Other stakeholders, including a large number of service providers, did not express a view on whether this constituted a problem.
Potential impact on greenfield investment incentives		
Description of potential problem	<p>In its 2017-18 Economic regulation review, the AEMC noted that the application of Part 23 to pipelines with a 15-year no coverage determination may: (a) reduce the effectiveness of the greenfield pipeline incentive framework; and (b) adversely affect future investment by increasing regulatory risk. ⁹¹ While identifying this as a potential problem, the AEMC noted that:</p> <p><i>“three of the four pipelines that currently have an exemption from coverage under the greenfields pipeline incentive framework also have an exemption from Part 23 as pipelines which do not provide third party access, and so the current impact of this issue may be limited”.⁹²</i></p>	
Stakeholder feedback	Agree	<ul style="list-style-type: none"> APGA and Jemena noted that the application of Part 23 to pipelines with a greenfield exemption could potentially distort investment incentives, with APGA noting that “even a low level effect could be critical to the FID for a proposed pipeline” and Jemena noting that it could give rise to “underinvestment in new pipelines that are required to connect new sources to existing markets”. APA and a confidential submitter did not express a view on whether this constituted a problem, but supported a full exemption from regulation for greenfield pipelines.

⁸⁹ AEMC, Final Report: Review into scope of economic regulation applied to covered pipelines, 3 July 2018, p. 44.

⁹⁰ *ibid*, p. 45.

⁹¹ AEMC, Final Report: Review into scope of economic regulation applied to covered pipelines, 3 July 2018, p. 44.

⁹² *ibid*, p. 45.

Detail		
	Disagree	<ul style="list-style-type: none"> The ACCC, EUAA, NSW BC, Chemistry Australia, MEU, APLNG and COPA either disagreed that this was problem, or did not think it would have a material effect. APLNG (an owner of a pipeline with a 15-year no coverage determination), for example, stated that it: <ul style="list-style-type: none"> <i>“does not believe the application of Part 23 to third party pipelines which have obtained a greenfield exemption is deterring investment in greenfield pipelines”.</i> The ACCC expressed a similar view, noting that: <ul style="list-style-type: none"> <i>“We do not agree that the application of Part 23 (even in the strengthened form proposed in the Consultation RIS) to pipelines that have a greenfield exemption but are providing third party access will distort the incentives pipeline operators have to invest in new pipelines. As noted in our July 2019 report, we sought internal documents from pipeline operators as part of our review of the operation of Part 23 and found no evidence to suggest that Part 23 is deterring investment. Rather, we found evidence that pipeline operators were investigating a range of publicly announced and other pipeline investments that would be captured by Part 23.</i> <i>It is also noteworthy that no greenfield exemptions have been sought in the last five years, but new pipelines have continued to be built over this period, indicating that investment is occurring without having to rely on the greenfield incentive. It is difficult therefore to see how Part 23 can distort an incentive that is not being relied upon.”</i>
	Other	<ul style="list-style-type: none"> Energy Matrix thought that Part 23 may have resulted in modest distortion in investment incentives, but <i>“not more so than a monopoly market would produce”.</i> Other stakeholders, including a number of service providers, did not express a view on whether this potential problem constituted a problem.
Potential for under-regulation of pipelines not providing third party access		
Description of potential problem		In its international review of pipeline regulation, NERA found that the distinction currently drawn between pipelines providing third party access and those that are not is unique by international standards, with service providers in other jurisdictions either required to vertically separate, or operate on an open access basis. ⁹³ A pipeline in Australia that is not providing third party access, on the other hand, can currently only be required to do so if it is found to satisfy the coverage test. As noted in the introduction to this chapter, concerns have previously been raised about the coverage test and while it may appear more appropriate to use in this context (i.e. because it is a denial of access test), there is a concern that its application may not yield outcomes consistent with the NGO. There is therefore a risk that the continued use of the coverage test may result in under-regulation, inefficient use of and investment in pipelines that are not providing third party access.
Stakeholder feedback	Agree	<ul style="list-style-type: none"> AER, EUAA, NSW BC, Chemistry Australia and MEU agreed that the use of the coverage test for third party access decisions could result in under-regulation. The ACCC, APLNG, COPA, Qenos, AGL, APA, APGA and AGIG did not express a view on whether this constituted a problem, but did support the use of an alternative approach to accessing pipelines not voluntarily providing third party access (i.e. by applying a different test or mandating pipelines provide access).
	Disagree	<ul style="list-style-type: none"> Jemena disagreed with this potential problem and stated that in its view the “existing coverage test remains the appropriate basis upon which to decide if a pipeline should be compelled to provide access to third parties.”
	Other	<ul style="list-style-type: none"> Other stakeholders did not express a view on whether this constituted a problem.
Potential for the existing governance arrangements to give rise to unnecessary costs and delays		
Description of potential problem		In its 2017-18 Economic regulation review, the AEMC noted the need for the governance arrangements associated with the various tests to be reviewed to ensure they are fit for purpose, timely, accessible, low cost and conform with best practice regulation and best practice stakeholder consultation. ⁹⁴ One of the main problems that has been identified with this aspect of the regulatory framework, is that two separate assessments must effectively be conducted by the NCC and the relevant Minister using the same criteria, when making decisions about coverage and greenfield exemptions, which could give rise to unnecessary costs and delays for access seekers, service providers and decision-makers. Another potential limitation with these arrangements is that neither the NCC nor the relevant Minister have any information gathering powers, or other investigatory powers that they can have recourse to when making these decisions.
Stakeholder feedback	Agree	<ul style="list-style-type: none"> The EUAA, NSW BC, Chemistry Australia, MEU and Energy Matrix agreed this was a problem. Drawing on Kimberly-Clark’s experience with applying for coverage of the South East Pipeline System (SA), the MEU noted that the “excessive costs to get coverage” mean that end users are unlikely to seek coverage when it would be beneficial. While not expressing a view on the problem, the ACCC, AER, EnergyAustralia and ATCO thought a single organisation should be responsible for decision-making.
	Disagree	<ul style="list-style-type: none"> The NCC, AGIG, APA, and APGA disagreed that the current arrangements are giving rise to unnecessary costs or delays, with AGIG and APA stating that in their experience the process had not been unnecessarily delayed. The NCC’s submission also included data on the decision-making timeframes to show that the length of time taken for these decisions was not unduly long. While not expressing a view on the problem, Origin, APPEA, COPA, APLNG, Epic and Jemena supported the maintenance of the existing governance arrangements.
	Other	<ul style="list-style-type: none"> Other stakeholders did not express a view on whether this constituted a problem.

⁹³ NERA Economic Consulting, International Review of Pipeline Regulation: Vol. 1 – Synthesis and Reform Options, 28 June 2019.

⁹⁴ *ibid*, p. 49.

4.2.3 Conclusion on problems with this aspect of the regulatory framework

Having regard to the results of prior reviews and the feedback provided by stakeholders through this process, it would appear that the following are in fact problems with the current regulatory framework:

- The continued use of the coverage test in third party access decisions could result in under-regulation and inefficient use of and investment in these pipelines, because as the ACCC and Productivity Commission have previously observed, the competition limb of this test can be a poor proxy for the efficiency gains associated with access.⁹⁵ That is, while competition may promote efficiency, significant efficiency improvements that are in the long-term interests of gas consumers can also be achieved through access without any change in competition in a related market. There is a risk therefore that the continued use of the coverage test could result in third party access not being required, even where access would be efficient and promote the NGO.⁹⁶
- The duplication of effort associated with the current two-stage decision-making processes for coverage and greenfield exemption decisions could rise to unnecessary costs and delays for access seekers, service providers and decision-makers. The involvement of different Ministers across jurisdictions could also result in differences in the way these decisions are made across jurisdictions, which could add to the uncertainty associated with the decision-making process and discourage potential access seekers from applying for access.

While it has not been possible to quantify the effect of these two problems, they can be expected to have a detrimental effect on economic efficiency, consumers and the broader economy, because they can result in inefficient use of and investment in pipelines and give rise to unnecessary costs and delays in accessing pipelines. These problems can therefore be viewed as both a market failure and a regulatory issue that warrant further action by the Energy National Cabinet Reform Committee.

As to the other two potential problems identified in the Consultation RIS, it would appear from the feedback provided by stakeholders and prior reviews that the risk of over-regulation associated with the current threshold for regulation is very low given the relatively light handed nature of Part 23^{97, 98}. This finding is consistent with the view expressed by a range of stakeholders, including APGA who noted in its submission that while the threshold for economic “may result in slight over regulation”:

⁹⁵ A similar observation has been made by both the ACCC and Productivity Commission. See ACCC, *Inquiry into the east coast gas market*, April 2016, p. 130 and Productivity Commission, *Final Report—National Access Regime*, 25 October 2013, p. 173 and Productivity Commission, *Draft Report—National Access Regime*, May 2013, p. 178.

⁹⁶ This can be seen in the following example, which assumes that a producer in the Galilee Basin develops a pipeline to connect its gas fields to Wallumbilla. If, in this example, the producer decided not to provide third party access and smaller producers in the region wanted to obtain access then they would have to be able to demonstrate that all of the coverage criteria are met. They would, for example, have to demonstrate that their access to the pipeline would promote a *material increase* in competition in at least one other market, which is likely to be quite difficult to do given there are already a number of producers competing in this market. Third party access to the pipeline in this example is therefore unlikely to occur, even though the use of this pipeline by the smaller producers’ may be the most efficient outcome and be in the long-term interest of gas consumers, because it would result in more gas being brought to market and result in more efficient investment in and use of existing infrastructure.

⁹⁷ That is, while the information disclosure element of Part 23 may impose some costs on service providers, the costs and risks associated with the arbitration mechanism are likely to be very low if market power is not being exercised. Note too that for those pipelines that are already subject to Part 23 and have not received an exemption, the initial costs of setting up the systems to enable reporting to occur have already been incurred.

⁹⁸ See ACCC, *Inquiry into the east coast gas market*, April 2016 and Vertigan, M., *Examination of the current test for the regulation of gas pipelines*, 14 December 2016.

“...Part 23 is a good news story overall that has led to a better functioning gas market. It is relatively light-handed and supports a flexible, commercially oriented negotiate-arbitrate framework, includes appropriate exemptions, and the costs and risks associated with arbitration are so far very low – with arbitration unlikely to be triggered if market power is not being exercised.”

The ACCC similarly observed that:

“While, in principle, there is a risk that the extension of Part 23 to all pipelines providing third party access could result in ‘over regulation’, in practice we do not consider this to be a significant risk given the relatively light handed nature of Part 23 (even in its strengthened form).

... the current threshold for regulation in Australia is less interventionist than the threshold used in a number of other countries, including the United States and Canada, where all pipelines are required to provide third party access on non-discriminatory terms.”

This finding is also consistent with the following observation that was made by the AEMC in its 2017-18 Economic regulation review:⁹⁹

“In practice, the overarching effect of the introduction of Part 23 may be an appropriate increase in regulation to address previous concerns with the regime... without imposing unnecessary regulation given the widespread monopoly power found by the ACCC, nor having detrimental impacts on future investment. It may be practically more appropriate to apply some form of regulation to (nearly) all pipelines given the likelihood of market power, rather than risking the mis-application of the test for determining whether regulation should be applied (at all) and so under-regulating.”

Like the risk of over-regulation, the risk to greenfield incentives posed by the application of Part 23 to pipelines with a 15-year greenfield exemption also appears very low. This is because most new pipelines are underwritten through long-term GTAs and Part 23 is, as noted above, relatively light handed. This point was made by a number of stakeholders, including APLNG and COPA, both of whom have an interest in a pipeline with a 15-year no coverage determination:

“APLNG does not believe the application of Part 23 to third party pipelines which have obtained a greenfield exemption is deterring investment in greenfield pipelines.”

“COPA questions the need for greenfield exemptions as any proposed pipeline would get certainty from the application of the current regime and its initial contracts and not from an exemption from the regime.”

Further support for this view can be found in the analysis of service providers’ internal documents undertaken by the ACCC in mid-2019, which found that service providers are continuing to investigate a range of investments that would be captured by Part 23.¹⁰⁰ Elaborating on this further in its submission, the ACCC noted that:¹⁰¹

“...we sought internal documents from pipeline operators as part of our review of the operation of Part 23 and found no evidence to suggest that Part 23 is deterring investment. Rather, we found evidence that pipeline operators were investigating a range of publicly announced and other pipeline investments that would be captured by Part 23.

It is also noteworthy that no greenfield exemptions have been sought in the last five years, but new pipelines have continued to be built over this period, indicating that investment is occurring without having to rely on the greenfield incentive. It is difficult therefore to see how Part 23 can distort an incentive that is not being relied upon.”

⁹⁹ AEMC, Final Report: Review into scope of economic regulation applied to covered pipelines, 3 July 2018, p. 45.

¹⁰⁰ ACCC, Gas Inquiry 2017-2020 Interim report, July 2019, pp. 159-160.

¹⁰¹ *ibid.*

The large number of new pipeline proposals announced by APA, Jemena and AGIG over the last two to three years also suggests that the current application of Part 23 to new pipelines is not deterring investment in greenfield pipelines.¹⁰²

Having regard to the matters set out above, it would appear that the risk of over-regulation and the risk to greenfield incentives outlined in (a) and (b) are **not** problems with the current regulatory framework that require action by the Energy National Cabinet Reform Committee. No changes to the current regulatory framework to address these issues have therefore been contemplated as part of this Decision RIS.

4.3 What options were identified in the Consultation RIS to address the problems and what feedback was provided?

4.3.1 Options identified in the Consultation RIS

Table 4.2 provides a summary of the options to address the potential problems that were identified in the Consultation RIS.

Table 4.2: Options identified in the Consultation RIS

Potential Problems	Potential solutions
Risk of over-regulation of pipelines providing 3 rd party access	<p>A Maintain the existing threshold for economic regulation (i.e. all pipelines providing third party access are subject to some form of regulation) (status quo).</p> <p>B Address the concerns raised about the risk of over-regulation by allowing a service provider to obtain an exemption from regulation (but not the information disclosure obligations) if it can demonstrate the pipeline does not satisfy the market power-NGO test proposed by the ACCC (see Box 4.1).</p>
Risk to greenfield investments	<p>A Maintain the existing approach to greenfield pipeline exemptions (i.e. if a greenfield pipeline is providing third party access it is subject to Part 23) (status quo).</p> <p>B Address the concerns raised about greenfield incentives by expanding the scope of the exemption to include an exemption from either all elements of Part 23 or the arbitration element only.</p>
Access to pipelines that are not providing 3 rd party access	<p>A Maintain the existing approach to the treatment of pipelines that are not providing third party access (i.e. only require those pipelines that are not providing third party access to do so if they satisfy the coverage test) (status quo).</p> <p>B Address the concerns raised about the potential under-regulation of pipelines that are not providing third party access by either:</p> <p>(a) continuing to consider on a case-by-case basis whether third party access should be required, but replacing the coverage test with another test; or</p> <p>(b) mandating that all pipelines provide third party access.</p>
Test for 3 rd party access and greenfield exemptions	<p>A Retain the existing coverage test (status quo).</p> <p>B Address the concerns raised with the coverage test by replacing it with:</p> <p>(a) the third party access test in Part IIIA of the CCA;</p> <p>(b) an NGO style test; or</p> <p>(c) a combined market power-NGO test.</p>
Governance for when to regulate and how to regulate decisions	<p>A Retain existing governance arrangements (status quo).</p> <p>B Address the concerns that have been raised about the unnecessary costs and delays associated with the current governance arrangements, by requiring a single organisation to make all of these decisions, with the decision-making options including:</p> <p>(a) the NCC;</p> <p>(b) the ACCC; or</p> <p>(c) the relevant regulator (i.e. AER or ERA).</p>

¹⁰² APA has, for example, announced proposals to develop pipelines connecting the Galilee and northern Bowen Basins with the remainder of the east coast and to connect the proposed AIE and AGL LNG import facilities to market. Jemena has similarly announced proposals to connect the Galilee Basin and the Beetaloo sub-basin to the east coast market and to develop a new pipeline connecting the AIE import facility to the Eastern Gas Pipeline. AGIG has also announced a proposal to develop a new pipeline to connect the Amadeus Basin to Moomba.

Box 4.1: ACCC proposed market power-NGO test

The test proposed by the ACCC in its 2015-16 Inquiry would require the relevant decision making body to be satisfied that:

- the pipeline has substantial market and is likely to do so over the medium term; and
- regulation will or is likely to contribute to the achievement of the NGO.

The ACCC noted that, in broad terms, the application of this test would require consideration to be given to:

- The degree of market power held by the pipeline (as a result of barriers to entry and, where relevant, any interests the service provider has in the market and other markets that give rise to additional market power) and the extent to which it is likely to be effectively constrained by:
 - competition from an alternative pipeline;
 - competition from alternative energy sources;
 - any countervailing power held by shippers; and
 - any other relevant factors (for example, if contracts limit the service provider's ability to exercise market power in the short- to medium-term or the risk of asset stranding).
- The prospect that the pipeline's market power will dissipate in the medium-term, which will involve an assessment of the likely future investment in pipeline infrastructure and likely future demand for gas transportation services.
- Whether constraining the pipeline's market power will, or is likely to, promote efficient investment in, operation and/or the use of, natural gas services for the long-term interests of consumers with respect to price, quality, safety, reliability and security of supply. The ACCC noted that this aspect of the test was not intended to involve a detailed technical assessment of the efficiency benefits associated with regulation. Rather, it is intended to involve a *qualitative* assessment, which is how these types of assessments are usually undertaken in other regulatory contexts.

Source: ACCC, Inquiry into the east coast gas market, April 2016, p. 138.

4.3.2 Stakeholder feedback on the options

Table 4.3 provides a summary of the feedback stakeholders provided on the options listed above.

Table 4.3: Stakeholder feedback on the options identified in the Consultation RIS

Issues		Feedback
Risk of over-regulation of pipelines providing 3 rd party access	Option A: Status quo	<ul style="list-style-type: none"> The ACCC, EUAA, NSW BC, Chemistry Australia, MEU, Qenos, AGL, EnergyAustralia, Energy Matrix, APA, APGA and Epic supported the maintenance of the status quo, with all pipelines providing third party access subject to some form of regulation. Elaborating further on its view, the ACCC noted that: <ul style="list-style-type: none"> “...even if a pipeline was found not to have substantial market power, shippers using this pipeline are still likely to face information asymmetries and imbalances in bargaining power when negotiating with the pipeline operator” and the best way to address this was through the application of Part 23 because it is “relatively light handed in nature and not unduly onerous on pipeline operators”.
	Option B: Exemption from regulation if pipeline doesn’t satisfy market power-NGO test	<ul style="list-style-type: none"> The AER, APPEA, APLNG, COPA, a confidential submitter, AGIG and ATCO (for distribution) supported the inclusion of an exemption from regulation if a service provider can demonstrate that the pipeline lacks substantial market power.
	Other proposals	<ul style="list-style-type: none"> TGP suggested the relevant regulator have the discretion to exempt small pipelines from compliance in whole or part with Part 23 where warranted, having regard to the costs and the benefits of the application of Part 23. A confidential submitter suggested that an automatic exemption from regulation be made available to “single-use non-market facing assets”.
Scope of the greenfield exemption	Option A: Status quo	<ul style="list-style-type: none"> The ACCC, EUAA, Chemistry Australia, NSW BC, MEU, APLNG and COPA supported the continued application of the lighter form of regulation to pipelines with a greenfield exemption, with a number noting that users of these pipelines are likely to face the same imbalance in bargaining power and information asymmetries as shippers on other pipelines, so the safeguards provided by Part 23 should be available to these users.
	Option B: Expand greenfield incentive to include full exemption from Part 23	<ul style="list-style-type: none"> APPEA, a confidential submitter, AGIG, APA, APGA and Jemena were of the view that the greenfield incentive should be strengthened to provide the holder a full exemption from all forms of regulation.
	Form of the greenfield exemption	<ul style="list-style-type: none"> CTP: The ACCC, EUAA, NSW BC and Chemistry Australia supported the retention of the CTP because it allows the benefits of competition for the development of a new pipeline to flow through to other users. The ACCC also noted the potential to combine this mechanism with the 15-year no coverage determination. AGIG, APA, APGA and Jemena, on the other hand, did not think the CTP should be retained because in their view it adds costs to the process and has the potential to reduce a developer’s competitiveness if confidential information is disclosed. 15-year no coverage determination: The ACCC, APLNG, APPEA, AGIG, APGA, APA and Jemena supported the retention of this type of mechanism, with AGIG, APGA, APA and Jemena suggesting a number of measures to strengthen and improve the accessibility of this incentive. The EUAA, Chemistry Australia, NSW BC, COPA and EnergyAustralia, on the other hand, questioned the need for this mechanism in the framework. In doing so, EnergyAustralia noted that a case for its retention had not been made, while COPA stated that “any proposed pipeline would get certainty from the application of the current regime and its initial contracts and not from an exemption from the regime”.
Access to pipelines that are not providing 3 rd party access	Option A: Status quo	<ul style="list-style-type: none"> APPEA, a confidential submitter and Jemena were of the view that the coverage test should continue to be used to determine whether a pipeline that is not voluntarily providing third party access should be required to do so
	Option B: Replace existing process with either:	<p>(a) an alternative test applied on a case by case basis</p> <ul style="list-style-type: none"> The ACCC, EUAA, NSW BC, Chemistry Australia, MEU, AGL, Origin, EnergyAustralia, and APLNG supported the continued use of a case-by-case assessment to determine whether a pipeline that is not providing third party access should be required to do so, but were of the view that the coverage test should be replaced with the proposed market power-NGO test (see below). In advocating this option, the ACCC noted that most of the pipelines that are not providing third party access are currently used to transport gas to dedicated end-user facilities, so a more measured approach should be taken in relation to existing pipelines. AGL and the confidential submitter expressed a similar view, noting that consideration must be given to the direct and indirect costs associated with requiring the service provider to provide third party access and any limitations on access that may need to be maintained (e.g. to comply with a certain specifications).

Issues		Feedback	
	(b) a requirement for all pipelines to provide 3 rd party access if access is sought	<ul style="list-style-type: none"> ▪ Genos, Energy Matrix, APA and AGIG were of the view that all pipelines should be required to provide third party access, if such access is sought. AGIG, for example, noted that it is: <ul style="list-style-type: none"> “supportive of third-party access as the default, with exemptions available from components of regulation, and full exemptions available where the pipeline is found to not have substantial market power”. ▪ APA, on the other hand, was of the view that all pipelines should be subject to some form of regulation, unless they have a greenfield exemption. ▪ APGA also supported this option, but noted that if this option was not adopted it would support Option B(a). ▪ In contrast to these stakeholders, the ACCC, AGL and a confidential submitter expressed concerns about the direct and indirect costs that may be associated with this option. COPA also noted that requiring the provision of third party access without implementing the other safeguards used in the US and Canada (e.g. non-discriminatory access, vertical integration restrictions and transparency of shippers’ positions) would limit its effectiveness. 	
	Other proposals	<ul style="list-style-type: none"> ▪ The ACCC noted that any new pipelines that are developed to bring new sources of supply to market should be developed through a competitive process and required to provide third party access, so that all producers in the region have the opportunity to use the asset. ▪ AGL expressed a similar view, noting that pipelines developed to bring new gas to market “should be incentivised to service multiple users in the area instead of each company building their own pipeline”. 	
Test for third party access and greenfield incentives	Option A: Status quo	<ul style="list-style-type: none"> ▪ Jemena and a confidential submitter supported the continued use of the coverage test. 	
	Option B: Replace coverage test with one of the following:	(a) test in Part IIIA of CCA	<ul style="list-style-type: none"> ▪ The NCC and COPA were of the view that the coverage test should be replaced with the third party access test in Part IIIA of the CCA.
		(b) an NGO test	<ul style="list-style-type: none"> ▪ Nil
	(c) a market power-NGO test	<ul style="list-style-type: none"> ▪ The ACCC, AER, EUAA, NSW BC, Chemistry Australia, AGL, EnergyAustralia, Origin, APLNG, AGIG, APGA and ATCO were of the view that the coverage test should be replaced with the market power-NGO test because it was more appropriately targeted, while the MEU stated that it could ‘possibly’ support this test. The ACCC also suggested that the decision-maker be accorded compulsory information gathering powers and be able to draw an adverse inference (i.e. that the test is satisfied) if a service provider fails to provide it with the information it requires to apply this test. 	
Other	<ul style="list-style-type: none"> ▪ EnergyMatrix stated there would be no need for a test if all licenced pipelines were regulated as it proposed. ▪ APA noted there would be no need for a test if all pipelines are required to provide third party access 		
Governance arrangements for when to regulate and how to regulate decisions	Option A: Status quo	<ul style="list-style-type: none"> ▪ The NCC, Origin, APPEA, COPA, AGIG, Allgas, APA, APGA, Epic and Jemena supported the retention of the current governance arrangements, while APLNG and a confidential submitter supported the continued involvement of the Minister for third party access and greenfield decisions but suggested that the Productivity Commission be responsible for advising the Minister, rather than the NCC. ▪ In doing so, most of these stakeholders expressed concerns about according the relevant regulator responsibility for determining the scope and form of regulation and the application of economic regulation, stating that it would constitute a “significant conflict of interest” and give rise to “confirmation bias”. A number of these stakeholders also noted that according the role to the regulator would be inconsistent with good regulatory practice and prior recommendations by the Hilmer Committee and Productivity Commission. APGA, APA and APLNG also expressed concerns about the ACCC taking on this role, with APGA stating it would also constitute a conflict given its current Gas Inquiry. 	
	Option B: Accord a single organisation responsibility for all decisions	<ul style="list-style-type: none"> ▪ The ACCC, AER, EUAA, NSW BC, Chemistry Australia, MEU, EnergyAustralia and ATCO supported the proposal to accord a single organisation responsibility for making decisions about when a pipeline should be regulated and how it should be regulated. ▪ The user associations suggested the ACCC take on this role, while ATCO, the AER and EnergyAustralia suggested the regulator take on the role. ▪ As to the perceived conflict of interest in the regulator taking on this role, the AER pointed to a number of examples of where the regulator is responsible for when to regulate decisions in other jurisdictions (e.g. NZ and the US) and in other sectors in Australia (e.g. the telecommunications sector). EnergyAustralia, on the other hand, noted that to avoid any perception of bias, decisions should be made in consultation with, or be reviewable by, another regulatory body, such as the ACCC. 	

4.3.3 Assessment of the feedback and how it has been accounted for in the reform options

Consistent with the views expressed on the potential problems with this aspect of the regulatory framework, the majority of stakeholders supported the continued application of regulation to pipelines providing third party access, although a small number did support an exemption where it can be demonstrated a pipeline lacks substantial market power.

The majority of stakeholders also supported the continued application of the lighter form of regulation to pipelines with a greenfield exemption, although there were some alternative views expressed on this issue. For example:

- APGA and its members were of the view that the scope of the exemption should be expanded to allow the holder to be exempt from all forms of regulation and the capacity trading reforms. They also proposed extending the exemption period and making the exemption automatic in certain circumstances.¹⁰³
- User associations, COPA and EnergyAustralia, on the other hand, queried whether the 15-year no coverage determination should be retained in the framework, with some questioning whether it did in fact incentivise the development of new pipelines.

In between these two positions, some stakeholders suggested the existing incentives (i.e. the 15-year no coverage determination and CTP) be retained but amalgamated.

On the issue of access to pipelines that do not voluntarily provide third party access, the majority of stakeholders supported a movement away from the status quo because they agreed that the use of the coverage test for third party access decisions could result in under-regulation and inefficient use of and investment in pipelines. Most of these stakeholders thought that pipelines should only be required to provide third party access if a third party access application is made and they are found to satisfy the proposed market power-NGO test (see Box 4.1). There were, however, a number of stakeholders that advocated a movement to an open access model, where all pipelines would be required to provide third party access if requested to do so by a shipper.

As to the governance arrangements for third party access, greenfield exemption and form of regulation decisions, stakeholders were divided. The ACCC, AER, user associations, EnergyAustralia and ATCO, for example, supported the movement to a single decision-

¹⁰³ In August 2020, APGA submitted a report that was prepared by Synergies Economic Consulting, in consultation with APGA and its members, which set out how a strengthened greenfield exemption could work. Under the proposal, the holder of a greenfield exemption would be exempt from:

- full regulation and all aspects of Part 23, except some disclosure requirements; and
- the capacity trading reforms (e.g. the day-ahead auction and other measures) if the pipeline is not fully contracted.

The proposal provides for this exemption to be available:

- Automatically for new pipelines if it provides third party access, the service provider will not be vertically integrated with gas production, wholesale or retail, but may own processing facilities, gathering pipelines and other mid-stream assets, and the service provider commits to “offer posted pricing for subsequent non-foundation shippers...with individual shipper contract pricing that is ‘commercially referable’ to foundation contract pricing”.
- On application for extensions and expansions, and other cases where the eligibility criteria are not met, but where it can be demonstrated the pipeline is “unlikely to possess market power”.

This process is assumed to be conducted on a ‘confidential’ and ‘expeditious’ basis and potentially with the assistance of an arbitrator and would not involve any assessment of the competitiveness of the procurement process.

At the end of the exemption period, the pipeline would become subject to Part 23, but the arbitrator would be prevented from using the recovered capital value in a dispute. The arbitrator would instead only be able to apply a “forward-looking valuation methodology having regard to foundation contract terms and prevailing market circumstances”. See Synergies, *Proposed modified greenfield exemption provisions in National Gas Law*, July 2020.

maker model, with either the relevant regulator or ACCC responsible for making these decisions. The NCC, Origin, service providers and a number of producers that own pipelines, on the other hand, supported the retention of the existing governance arrangements, with a number expressing concerns about the potential conflict a regulator may face if it is responsible for deciding when and how a pipeline should be regulated, as well as regulation.

Given the diversity of views expressed on some of these issues, further consideration has been given to the issues raised by stakeholders and the extent to which they should be reflected in two alternative reform options that have been developed to reflect the outcomes of stakeholder feedback: Option 3A and Option 3B. In doing so, consideration has been given to:

- the problems that have been identified with this aspect of the regulatory framework (see section 4.2.3); and
- the objectives of Energy National Cabinet Reform Committee action (see section 3.2).

The results of this consideration are set out in Table 4.4, which also sets out how the feedback has been taken into account in options 3A and 3B. Before examining this table, it is worth noting that as part of the regulatory impact assessment five options have been considered, with options 1, 2 and 4 largely unchanged from the Consultation RIS. Some of the feedback provided by stakeholders has therefore been considered through these options. Further detail on the options that have been considered as part of the regulatory impact assessment can be found in section 4.4 and in Chapter 8.

Table 4.4: Assessment of the feedback and how the feedback has been accounted for in options 3A and 3B

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
<p>Pipelines providing 3rd party access</p>	<p>As outlined above, the majority of stakeholders supported the continued application of economic regulation to all pipelines providing third party access. While there were a small number of stakeholders that thought a full exemption from regulation should be included in the regulatory framework to address a perceived risk of over-regulation, for the reasons set out in section 4.2.3 the risk of over-regulation is not considered a problem with the current framework that warrants further action. No provision has therefore been made for a full exemption from regulation in either Option 3A or Option 3B.</p> <p>While an exemption from regulation has not been included in either of these options, it is worth noting that such an exemption is assumed to be available under Option 2. The merits of such an exemption have therefore still been considered as part of the regulatory impact assessment in Chapter 9.</p>	<ul style="list-style-type: none"> ▪ <i>Under Option 3A:</i> <ul style="list-style-type: none"> – <i>All pipelines providing third party access (including those pipelines that have obtained a greenfield exemption) would be subject to some form of economic regulation.</i> – <i>A shipper seeking access to a pipeline that is not voluntarily providing third party access would be able to apply to the decision-maker for a third party access decision, which would be made having regard to the market power-NGO test.</i>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Threshold for economic regulation</p> <p>Pipelines not providing 3rd party access</p>	<p>The majority of stakeholders that commented on access to pipelines that do not voluntarily provide third party access agreed that the use of the coverage test for third party access decisions is resulting in under-regulation and inefficient investment in and use of these pipelines. Mixed views were, however, expressed on how this problem should be addressed and, in particular, whether:</p> <p>(a) it should be mandatory for all pipelines to provide third party access if access is sought by a shipper and for all pipelines to be subject to economic regulation (i.e. the open access model); or</p> <p>(b) a third party access test should continue to be used to determine whether a pipeline should be required to provide third party access if an application by a prospective shipper is made, but with the coverage test replaced by the proposed market power-NGO test (see Box 4.1).</p> <p>Further consideration has therefore been given to these two options.</p> <ul style="list-style-type: none"> ▪ Option (a) mandatory access: The principal benefit of this option is that it would reduce the cost, time and uncertainties that prospective shippers may otherwise face trying to obtain access to pipelines that do not voluntarily offer to provide third party access and would also reduce administrative costs (i.e. because there would be no third party access decision-making process). The requirement for all pipelines to provide third party access and to be subject to regulation would, however, impose additional compliance costs on pipelines that are not providing third party access, although these costs could be mitigated by, for example, deferring the application of information disclosure obligations until there are third party shippers using the pipeline. <p>From a risk perspective, the key risk with this option is that third party access occurs in circumstances where access is not actually an efficient outcome. This could, for example, occur where it would be more efficient to develop a new pipeline than to use the existing pipeline, or where the benefits of third party access do not exceed the direct and indirect costs.¹⁰⁵ associated with providing access. Given the small number of these pipelines that shippers are actually likely to seek access to, this is not considered a significant risk (see section 9.1 for more detail).</p>	<ul style="list-style-type: none"> ▪ <i>Under Option 3B:</i> <ul style="list-style-type: none"> – <i>All pipelines would be subject to some form of regulation and required to provide third party access if requested to do so by a shipper.</i> – <i>To minimise the regulatory burden for pipelines that do not have any third party shippers, the information disclosure obligations would not apply until third parties start to use the pipeline (see Chapter 6).</i> <p><i>Under both of these options, the existing 15-year no coverage determinations would be grandfathered. Those pipelines with such a determination that are not providing third party access¹⁰⁴ could not therefore be subject to the test under Option 3A and would be exempt from the obligation to provide third party access under Option 3B for the remaining term of their exemption period.</i></p>

¹⁰⁴ That is until 2030 for the APLNG pipeline and the GLNG GTP and Comet Ridge to Wallumbilla Pipeline.

¹⁰⁵ These costs could include the potential loss of operational flexibility for the service provider, which could result in lost production or other inefficiencies.

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
	<ul style="list-style-type: none"> ▪ Option (b) third party access test: In contrast to option (a), the application of a third party access test under option (b) recognises that there may be circumstances where third party access is not efficient and so would not promote the NGO. The risk of inefficient access is therefore lower under this option. The compliance cost issue identified under option (a) is also not an issue under option (b), because pipelines would only become subject to economic regulation once third party access occurs. <p>While these costs and risks are lower, there are other costs and risks associated with this option. The requirement for a decision-maker to assess an application for third party access would, for example, give rise to additional regulatory costs relative to option (a). There is also a risk that:</p> <ul style="list-style-type: none"> – the process for seeking third party access may discourage potential access seekers from applying for access even where it would be efficient for access to be provided (i.e. because of the time, cost and uncertainties associated with the process); and – the decision-maker concludes that third party access should not be required when it would be efficient for access to occur (i.e. the risk of regulatory error). <p>As the preceding discussion highlights, there are a range of costs, benefits and risks associated with both of these options. When coupled with the fact that both options received some support from stakeholders, provision has been made for the two options to be considered separately as part of the regulatory impact assessment, with:</p> <ul style="list-style-type: none"> ▪ Option 3A providing for the use of a third party access test (the market power-NGO test) to determine whether a pipelines that is not voluntarily providing third party access should be required to do so if an application for third party access is made. ▪ Option 3B providing for all pipelines to be subject to economic regulation and required to provide third party access if they are requested to do so. 	
Greenfield exemptions	<p>The majority of stakeholders that commented on greenfield exemptions were of the view that if a greenfield exemption is to be retained in the regulatory framework, the lighter form of regulation should continue to apply to these pipelines. Questions were, however, raised by a number of stakeholders about whether the greenfield exemption should be retained in the framework and, if so, the circumstances in which it should be available and what it should exempt the holder from.</p> <p>Further consideration has therefore been given to these issues.</p> <p>Should a greenfield exemption be provided for in the regulatory framework?</p> <p>As noted above, a number of stakeholders have questioned whether the greenfield exemption should be retained in the regulatory framework. This is because, with one or two exceptions, service providers do not build, expand or extend their pipelines on a speculative basis. Rather, they generally only build new pipelines if they are underwritten by shippers. This is reinforced by the fact that so few pipelines have sought a 15-year no coverage determination.¹⁰⁶ since it was implemented in 2006 and</p>	<p><i>Under options 3A and 3B a greenfield incentive would be available to pipelines that are yet to be commissioned where it can be demonstrated that the pipeline is unlikely to have substantial market power over the exemption period.</i></p> <p><i>This incentive would entitle the holder to an exemption from the stronger form of regulation (but not the lighter form of regulation) for up to 15 years and like the CTP would give effect to the outcomes of any competitive process used to determine initial terms and conditions of access.</i></p>

¹⁰⁶ Note that only five pipelines have sought a 15-year no coverage determination since it was implemented in 2006, all of which were under development when they were granted the determination. A large number of other pipelines have been developed in the intervening period that have not sought any form of greenfield exemption.

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
	<p>those that did (i.e. the pipelines servicing the Gladstone LNG facilities) were always going to be developed, irrespective of whether or not they obtained the determination.</p> <p>While the need for a greenfield exemption under the current framework is questionable, it is possible that some of the changes that are being contemplated as part of the reform options (e.g. the removal of the coverage test from form of regulation assessments) will increase the perceived risk of a stronger form of regulation being applied to a greenfield pipeline, which could adversely affect investment. There appears therefore to be a case for retaining the greenfield exemption in the regulatory framework.</p> <p>Circumstances in which a greenfield exemption should be available</p> <p>If a greenfield exemption is to be retained in the regulatory framework then, as a number of stakeholders suggested, there is likely to be value in amalgamating both the CTP and 15-year no coverage determinations into a single greenfield exemption regime. The way in which this could work is to allow a greenfield exemption to be obtained where it can be demonstrated that the pipeline will not have substantial market power over the exemption period because, for example:</p> <ul style="list-style-type: none"> (a) there has been competition for the development of the pipeline and the price and other terms and conditions established through that competitive process will be made available to all prospective users of the pipeline over the exemption period; or (b) the pipeline's market power will be effectively constrained over the exemption period as a result of competition from another pipeline, competition from alternative energy sources, the countervailing power of shippers and/or any other factor that may constrain market power. <p>Given the nature of the issues that would need to be considered, it would not be possible to make this exemption available on an automatic basis, as APGA and its members have suggested.¹⁰⁷ Rather, an application would have to be made to the relevant decision-maker and an assessment undertaken of the extent to which the pipeline's market power is likely to be constrained in the exemption period.¹⁰⁸</p> <p>Scope of the greenfield exemption</p> <p>The majority of stakeholders were of the view that if a greenfield exemption is to be retained in the regulatory framework, then it should provide the holders with an exemption from the stronger form of regulation but not from the lighter form of regulation. APGA and its members, on the other hand, suggested that the scope of the greenfield exemption be expanded, by providing holders an exemption from all forms of regulation and from the capacity trading reforms. They also suggested that exemptions potentially be available for longer than 15 years.</p>	

¹⁰⁷ In this regard, it is worth noting that when the Productivity Commission originally proposed the introduction of a greenfield exemption, it did consider whether the exemption should be automatically available to all new pipelines. It concluded, however, that individual assessments should be undertaken given the potential for the pipeline to have market power, as reflected in the following statement:

"...introducing such an approach non-discriminately has the potential to impose costs in cases where the service provider has market power and is able to limit upstream and downstream competition for the duration of the regulation free period."

See Productivity Commission, Review of the Gas Access Regime, 2004, p. 432.

¹⁰⁸ Such an assessment is likely to be easier in those cases where there has been competition for the development of the pipeline and the outcomes are to be made available to prospective users, so it may be possible to fast track those decisions. However, where a pipeline seeks to rely on the matters set out in (b), the assessment is likely to take longer.

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
	<p>While an expansion of the scope of the exemption may be warranted if there was evidence that the current framework was adversely affecting greenfield investments, there is, as noted in section 4.2.3, no such evidence. To the contrary, the feedback provided by stakeholders, including by the owner of a pipeline with a 15-year no coverage determination and the ACCC who has undertaken a detailed review of pipeline operators' internal documents, indicates that the application of a lighter handed form of regulation to these pipelines is not affecting investments in new pipelines. Further support for this view can be found in the fact that a number of new pipelines have been developed since Part 23 came into operation and a number of other new pipelines are being proposed by APA, AGIG and Jemena, all of which would be subject to Part 23 and the capacity trading reforms.</p> <p>As to the suggestion that the exemption should be available for longer than 15 years, it is worth noting that this issue was considered at length by the Productivity Commission when it recommended the introduction of the 15-year no coverage decision. In short, the Productivity Commission concluded that 15-years was the appropriate length of the exemption period. In doing so, it noted the following:¹⁰⁹</p> <p><i>“The Commission is not convinced that the investment distorting effects of coverage risk would be markedly reduced by extending the length from 15 to 20 or more years. Investors are unlikely to undertake a risky investment if they expect its viability to depend largely on earnings that occur more than 15 years into the future. The considerable uncertainty associated with forecasts would cause prudent investors to attach a relatively small weight to returns that are expected to occur well into the future.</i></p> <p><i>In addition, a dollar earned (with certainty) more than 15 years into the future has a much smaller ‘present value’ than a dollar earned (with certainty) before 15 years, due to the effects of discounting.”</i></p> <p>The Productivity Commission also noted that a decision-maker may be more reluctant to grant an exemption for longer periods, because the risk of regulatory error would be greater.</p> <p>These observations, which are still relevant today, suggest that 15 years is an appropriate length of time for the exemption.</p> <p>Conclusion</p> <p>As the preceding discussion highlights, there does appear to be value in including a greenfield exemption in options 3A and 3B that would be available to new pipelines where it could be demonstrated that the pipeline would not have substantial market power over the exemption period. This exemption would entitle the holder to an exemption from the stronger, but not the lighter form of regulation, for up to 15 years.</p>	
<p>Governance arrangements for when and how to regulate decisions</p>	<p>As noted above, stakeholders were divided on whether the:</p> <p>(a) existing governance arrangements should be retained, with the relevant Minister (having regard to the NCC's recommendation) responsible for third party access and greenfield exemption decisions, and the NCC responsible for form of regulation decisions; or</p> <p>(b) if a single decision-maker should be responsible for all when and how to regulate decisions.</p> <p>Further consideration has therefore been given to these two options.</p>	<ul style="list-style-type: none"> ▪ Under Option 3A the relevant regulator would be responsible for assessing applications for: <ul style="list-style-type: none"> – third party access to pipelines not voluntarily providing such access; – a greenfield exemption; and – a change to the form of regulation applying to a pipeline.

¹⁰⁹ Productivity Commission, Review of the Gas Access Regime, 2003-04, pp. 402-403.

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
	<p>As outlined in section 4.2, one of the main problems that has been identified with the current governance arrangements is that the process for making third party access and greenfield exemption decisions involves a duplication of effort by the NCC and the relevant Minister. This is because the Minister is not just required to accept or reject the NCC's recommendation. Rather, the Minister is required by s. 100 of the NGL to give effect to the same criteria and have regard to the same matters that the NCC is required to when making its recommendation and may also consult affected parties.¹¹⁰ It is this duplication of effort that can give rise to unnecessary costs and delays for access seekers, service providers and decision-makers, which is a problem with the current framework that would not be addressed by the retention of these arrangements.</p> <p>In contrast to the current arrangements, the movement to a single decision-making body model would address the problems that have been identified with this aspect of the framework by removing the duplication of effort associated with these decisions. It would therefore halve the time required to make third party access and greenfield exemption decisions, and in so doing, provide for more cost effective and timely decisions. This option therefore offers a number of benefits over the current arrangements, which is why it has been included in options 3A and 3B.</p> <p>As to which organisation should take on the decision-making role, there is no single organisation that all stakeholders agreed should be responsible for these decisions. Further consideration has therefore been given to the options, which include the NCC, the ACCC and the relevant regulator (i.e. the AER in the east coast and NT and the ERA in WA). Of these three options, requiring the relevant regulator to make these decisions would be more in keeping with the broader energy market governance arrangements. It would also be consistent with other aspects of options 3A and 3B, which are intended to strengthen the role of the relevant regulator and, in so doing, pose a more credible constraint on service providers.</p> <p>While some stakeholders suggested that this may constitute a conflict for the relevant regulator, there are numerous examples of this type of governance arrangement being employed in other jurisdictions (see Table 2.2) and in other industries in Australia.¹¹¹ The type of arrangement was also proposed by the Harper Review when it considered a similar issue in 2015. At the time, the Harper Review noted that according a single organisation responsibility for determining when an asset should be regulated and for applying regulation to that asset would not constitute a conflict and could give rise to some benefits.¹¹²</p> <p>Provision has therefore been made for the relevant regulator to be responsible for when and how to regulate decisions under options 3A and 3B, which in the case of:</p> <ul style="list-style-type: none"> ▪ Option 3A would involve considering applications for third party access, greenfield exemptions and changes to the form of regulation; and ▪ Option 3B would involve considering applications for greenfield exemptions and changes to the form of regulation. 	<ul style="list-style-type: none"> ▪ <i>Under Option 3B the relevant regulator would be responsible for assessing applications for:</i> <ul style="list-style-type: none"> – <i>a greenfield exemption; and</i> – <i>a change to the form of regulation applying to a pipeline.</i>

¹¹⁰ Note that the relevant Minister is currently required to be involved in these two decisions because there is a public interest criterion in the coverage test. If, however, the coverage test is replaced by the market power-NGO test as proposed under options 3A and 3B, then there would be no need for the Minister to be involved in these decisions because the proposed test does not contain a public interest limb.

¹¹¹ For example, in the telecommunications sector the ACCC is responsible for both declaring services and making access determinations under Part XIC of the CCA.

¹¹² Harper et al, Final report: Competition Policy Review, March 2015, pp. 80-81.

4.4 Summary of policy options for when a pipeline should be regulated

Table 4.5 sets out the key elements of the policy options that have been considered as part of the Decision RIS.

Table 4.5: Policy options identified for the Decision RIS

Element	Option 1 (Status quo)	Option 2	Option 3A	Option 3B	Option 4
Access to pipelines providing 3rd party access	Maintain current approach, with all pipelines providing 3 rd party access subject to some form of regulation.	Allow 3 rd party access pipelines to obtain an exemption from regulation if they can demonstrate they do not have substantial market power.	Maintain current approach, with all pipelines providing 3 rd party access subject to some form of regulation	Require <u>all</u> pipelines to provide 3 rd party access and to be subject to some form of regulation.	
Access to pipelines not voluntarily providing 3rd party access	Maintain current approach to enabling access to be sought to pipelines not voluntarily providing 3 rd party access if the coverage test is satisfied.	Allow access to be sought to pipelines not voluntarily providing 3 rd party access if an application is made and the pipeline satisfies the market power-NGO test.			
Greenfield exemption	Maintain current approach, with new pipelines able to obtain a 15-year no coverage determination if the coverage test is not satisfied and the terms and conditions of access for pipelines developed through a competitive tender process able to be locked in for up to 15 years.	Single greenfield exemption to enable new pipelines with a full exemption from regulation if the pipeline can demonstrate it will not have substantial market power over the exemption period.	Single greenfield exemption to enable new pipelines to obtain an exemption from the stronger form of regulation, and where relevant, lock in the outcomes of competition, for up to 15 years where it can be demonstrated that the pipeline is unlikely to have substantial market power over the exemption period.		No greenfield exemption

Further detail on how these options form part of a broader regulatory package is provided in Chapter 8, while Chapter 9 sets out the results of regulatory impact assessment of these reform options and Chapter 10 sets out the preferred option.

5. Reform focus 2: Forms of regulation and movements between the alternative forms of regulation

The preceding chapter considered the question of *when* a pipeline should be subject to economic regulation. This chapter considers the related question of *how* a pipeline should be regulated, if a decision has been made that it should be subject to regulation.

There are a number of different forms that economic regulation can take, ranging from price monitoring through to full price control and variations in between, such as information disclosure and negotiate-arbitrate (see Table 5.1). The choice between these alternative forms of regulation will generally depend on the degree of market power held by the service provider and the costs and benefits associated with the form of regulation, as noted by the Expert Panel on Access Pricing in its 2006 report to the former Ministerial Council on Energy:¹¹³

“The general principle to be applied is that more intrusive and potentially costly forms of regulation (principally direct price or revenue controls) will only be warranted where substantial market power is involved. Where the market conditions involve the reality of, or potential for, a measure of contestability or the prospect of meaningful commercial negotiation, less intrusive and costly forms of regulation are likely to be warranted.”

Table 5.1: Alternative forms of regulation

Intrusiveness	Regulatory response	Description
Less intrusive ↑	No regulation	Government intervention is limited to establishing institutional arrangements for competitive markets and setting competition law, the latter of which works on an ex post basis to, with competitive markets, facilitate socially optimal outcomes.
	Price monitoring	Regulatory requirements for the disclosure of information around prices and potentially quality over time. More focused on assessing trends and relative performance (where multiple firms are subject to price monitoring).
	Information disclosure	Regulatory requirements for the public disclosure of key information. This provides incentives for firms to improve performance, and allows the regulator and/or customers to hold firms to account.
More intrusive ↓	Negotiate-arbitrate	Individual customers negotiate with service providers to determine the price and non-price terms and conditions of access (often supported by information disclosure). If negotiations fail an independent arbitrator (commercial arbitrator or regulator) can be called on to resolve the dispute.
	Negotiated settlements	Customers jointly negotiate with service providers to determine the prices and non-price terms and conditions of access, which may be facilitated by the involvement of the regulator. Once an agreement (negotiated settlement) is reached, it is approved by the regulator.
	Negotiate-arbitrate with reference tariffs determined by regulator	The regulator determines reference tariffs for key services on an ex ante basis, which can then be used as the basis for negotiations by individual shippers. If negotiations fail the regulator can be called on to resolve the dispute.
	Price control	The regulator directly sets the prices and non-price terms and conditions of access on an ex ante basis (and potentially other metrics, such as quality thresholds).

¹¹³ Expert Panel on Energy Access Pricing, Report to the Ministerial Council on Energy, April 2006.

There are currently three forms of regulation that a pipeline can be subject to: full regulation, light regulation and Part 23. Following the introduction of Part 23 in August 2017, some concerns have been expressed about the number and forms of regulation currently available under the regulatory framework, and how movements between these forms of regulation occur. Questions have also been raised about whether the regulatory framework should continue to focus exclusively on trying to constrain exercises of static market power, or if it should also focus on constraining dynamic market power.

These potential problems with the regulatory framework are discussed in the remainder of this chapter, which commences with an overview of the forms of regulation currently provided for under the regulatory framework. It then sets out the problems that have been identified with this aspect of the regulatory framework, the feedback that stakeholders provided on these problems and the options to address these problems and how this feedback has been taken into account in the reform options.

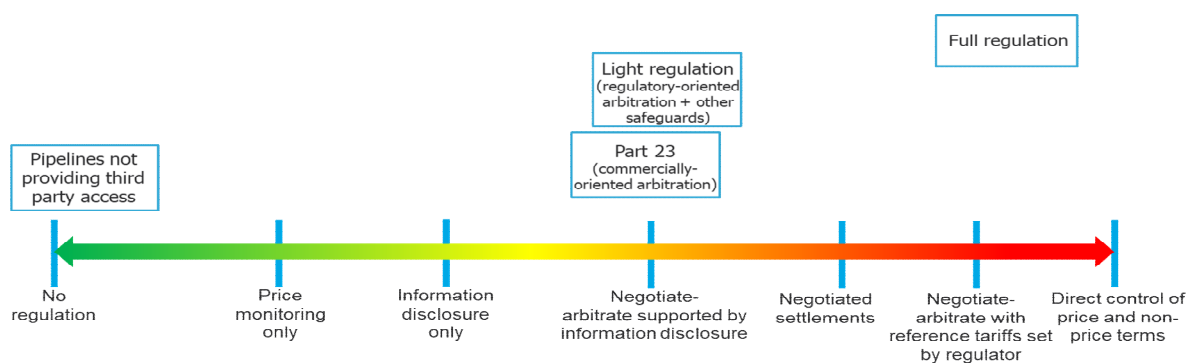
5.1 What is the current situation?

5.1.1 Current forms of regulation

Section 2.2 and Appendix A.2 provide an overview of the different forms of regulation that are available under the current regulatory framework and the tests used to determine which form of regulation should apply.

As described in those sections, the three forms of regulation that currently apply to pipelines providing third party access are ‘full regulation’, ‘light regulation’ and ‘Part 23’. Light regulation and Part 23 are based on the negotiate-arbitrate form of regulation, while full regulation is based on the negotiate-arbitrate with regulator approved reference tariff form of regulation. A simplified mapping of these three forms of regulation against the different types of regulation and their degree of intrusiveness is shown in Figure 5.1.

Figure 5.1: Mapping of the different forms of regulation



Source: Based on AEMC diagram.

As this figure shows, Part 23 and light regulation are very similar in nature (particularly following the recent changes to the NGR to align many of the information disclosure obligations across the two forms of regulation), with the key differences between the two being that:

- Part 23 has a commercially-oriented arbitration mechanism, while light regulation utilises a regulatory-oriented mechanism.
- Light regulation includes a number of additional safeguards that do not apply under Part 23, many of which are designed to address the denial of access and

discriminatory behaviour that may arise if a service provider is vertically integrated. These safeguards include, amongst others:¹¹⁴

- the prohibition on service providers bundling services, preventing or hindering access and engaging in inefficient price discrimination;¹¹⁵ and
- the ring fencing and associate contract provisions,¹¹⁶ which are designed to ensure the separation of pipeline operations from associated businesses in other markets.

5.1.2 Current focus of the forms of regulation

As described in section 2.1, there are two broad market power problems that regulation can target:

- **static market power**, which arises when a service provider exerts its market power over the existing capacity of the pipeline by, for example, engaging in monopoly pricing, restricting or denying access, or favouring an affiliate in an upstream or downstream market; and
- **dynamic market power**, which arises when a service provider uses its market power to block competition from other pipelines by, for example, restricting or denying interconnections,¹¹⁷ or pricing new capacity below the incremental cost.¹¹⁸

The existing forms of regulation are primarily directed toward static market power and while dynamic market power is dealt with to some extent, there are inconsistencies in approaches to interconnections and the pricing of new capacity across the forms of regulation (see Box 5.1).

¹¹⁴ Other safeguards include the queuing requirements (s. 135 of the NGL and rule 103 of the NGR); capacity trading requirements (rule 105 of the NGR), the terms on which changes to receipt and delivery points can occur (rule 106 of the NGR).

¹¹⁵ See rule 109 of the NGR and sections 133 and 136 of the NGL.

¹¹⁶ See sections 137-148 of the NGL.

¹¹⁷ Where a new pipeline would require interconnection with an existing pipeline, if the existing pipeline refuses interconnection, or offers unreasonable terms to do so, this may hinder an alternative provider from competing to provide the new pipeline.

¹¹⁸ If existing pipelines can cross subsidise new pipeline capacity by increasing prices to existing users, then alternative providers who are not similarly positioned may be unable to compete with the incumbent.

Box 5.1: Current approach to interconnections and the pricing of new capacity

Interconnections

While interconnections are dealt with to some extent in the regulatory framework, there are inconsistencies in the approaches across the forms of regulation. For example:

- Under full and light regulation, service providers are prohibited by the NGL from preventing or hindering access to pipeline services,¹¹⁹ which includes interconnection services. A competing pipeline that is seeking to interconnect with a full or light regulation pipeline therefore has a right to negotiate access to such a service and can take action if a service provider seeks to prevent or hinder access to these services.¹²⁰ If the competing pipeline is unable to reach an agreement with the service provider, then it may also trigger the dispute resolution mechanism that is available under full and light regulation.¹²¹
- Under Part 23, service providers are not prohibited from preventing or hindering access. The arbitration provisions in Part 23 do, however, provide for an access determination to be made about interconnections.¹²² A competing pipeline seeking to interconnect with a non-scheme pipeline that is unable to reach an agreement with the service provider could therefore trigger the arbitration mechanism.

Pricing of new capacity

There are broadly three ways in which the price of new capacity can be determined:¹²³

- A **'rolled-in'** approach – under this approach all volumes are charged the average cost of capacity, and thus the price charged for use of the existing capacity changes when capacity is expanded will either rise or fall depending on whether the expansion is more or less expensive than existing capacity.
- An **'incremental pricing'** approach - under this approach all new capacity is charged at its incremental cost, whether the extension or expansion is more or less expensive than existing capacity. This approach relies on the ability to set different tariffs for different capacity tranches, or to impose surcharges for that capacity.
- A **'hybrid rolled in-incremental pricing'** approach - under this approach, incremental pricing is used for extensions or expansions that result in a higher average cost than the existing capacity,¹²⁴ while the rolled-in approach is used for expansions that result in a lower average cost.

Under the current regulatory framework, rule 79,¹²⁵ which applies to full regulation pipelines only, places some constraints on the use of the rolled-in approach,¹²⁶ with service providers only able to use this approach to cross-subsidise new capacity if it can be demonstrated that:

- the overall economic value of the expenditure is positive; or
- the expenditure is necessary to maintain and improve the safety of services, maintain the integrity of services or to comply with a regulatory obligation or requirement.

The same constraint does not, however, apply under light regulation or Part 23.

5.1.3 The current process for moving between the forms of regulation

As outlined in Figure 2.2, there is currently a two-tiered test for determining what form of regulation to apply to a pipeline:

¹¹⁹ See s. 133 of the NGL.

¹²⁰ Note that this provision is both a civil penalty and conduct provision.

¹²¹ Following the recent reforms to broaden the scope of reference services on full regulation pipelines, it is possible that an interconnection service could become a reference service, in which case there would be a cost base reference price for this service on full regulation pipelines that would be approved by the relevant regulator.

¹²² See rule 570 of the NGR.

¹²³ The difference between these three can be seen in the following examples, which assume that a pipeline transports 100 PJ p.a. of gas and has total annual costs of \$100 million (including annualised capital costs). The average cost per GJ is \$1, and so is the transportation charge.

- The coverage test is used to determine whether a pipeline is a scheme pipeline and therefore subject to either full or light regulation (if all the coverage criteria are satisfied), or a non-scheme pipeline (if one or more of the criteria are not satisfied).
- If the coverage test is:
 - satisfied, the form of regulation test in s. 122 of the NGL is used to determine whether full or light regulation should be applied; or
 - not satisfied, the pipeline will be subject to Part 23 if it provides third party access.

In effect, the coverage test, which was originally intended to be a threshold test for whether a pipeline should be subject to economic regulation, has become a gateway between Part 23 and full/light regulation and vice versa following the introduction of Part 23.

For scheme pipelines, the decision as to whether full or light regulation applies is currently made by the NCC (see Box 2.5). When making this decision, the NCC is required to apply the form of regulation test in s. 122 of the NGL, which requires consideration to be given to:

- the likely effectiveness of these two forms of regulation in promoting access to the services provided by the pipeline, and
- the effect of these two forms of regulation on the likely costs that may be incurred by an efficient service provider, efficient users and prospective users, and end-users.

In applying this test, the NCC must have regard to the form of regulation factors, the NGO and any other matters it considers relevant. The form of regulation factors, which are set out in Box 2.5, require an assessment of:

- the degree of market power held by the pipeline and the extent to which there are any constraints on that power (e.g. from competition from other pipelines or energy sources, or the countervailing power of shippers); and

Expansion is more expensive than existing capacity

If an expansion is proposed that would add 20 PJ of capacity at an annual average cost of \$50 million (cost \$2.50/GJ), then the charges would be as follows under the three alternatives:

Incremental pricing: The new capacity would be charged at its incremental cost of \$2.50/GJ. This would be more than the cost of, and charge for, existing capacity of \$1.

Rolled-in pricing: With the expansion, the total annual costs of the pipeline are \$150 million and the pipeline transports 120 PJ of gas per year. The average cost per unit of gas is therefore \$1.25/GJ. Under rolled-in pricing, the charge to all users would \$1.25/GJ.

Hybrid pricing: Users of the new capacity would pay the existing tariff of \$1 and a surcharge of \$1.50. Users of existing capacity will continue to pay \$1.

Expansion is less expensive than existing capacity

If an expansion is proposed that would add 20 PJ of capacity at an annual average cost of \$18 million (cost \$0.90/GJ), the charges would be as follows under the three alternatives:

Incremental pricing: The new capacity would be charged at its incremental cost of \$0.90/GJ, which would be *less* than the cost of, and charge for, existing capacity of \$1.

Rolled-in pricing: With the expansion, the total annual costs of the pipeline are \$118 million and the pipeline transports 120 PJ p.a. of gas. The average cost per unit of gas is therefore \$0.98/GJ, which would be the new price for all.

Hybrid pricing: All capacity would face the rolled-in tariff of \$0.98/GJ.

¹²⁴ On the Northern Gas Pipeline, this takes the form of a surcharge.

¹²⁵ There are also some constraints on the use of the rolled-in approach embodied in rules 93 and 95 of the NGR.

¹²⁶ Specifically, capex is “conforming” when any of the limbs of rule 79 (2) are satisfied. Rule 79 (2)(b) is that the incremental revenues associated with an expansion exceed the incremental costs. This essentially requires incremental pricing unless one of the limbs of rule 79 (2) are satisfied.

- the extent and adequacy of the information available to shippers to enable them to negotiate on an informed basis with service providers.

5.2 What problems have been identified with this aspect of the regulatory framework?

5.2.1 Potential problems identified in the Consultation RIS

In the Consultation RIS the following *potential* problems were identified with this aspect of the regulatory framework:

- (a) the inconsistencies and overlap between Part 23 and light regulation *may* increase the complexity and administrative burden for regulators, shippers and service providers;¹²⁷
- (b) the use of the coverage test as a gateway from Part 23 to full regulation *may* result in under-regulation and, in so doing, render shippers more susceptible to exercises of market power and adversely affect economic efficiency and consumers;¹²⁸ and
- (c) the current forms of regulation *may* not effectively deal with potential exercises of dynamic market power, which could further entrench the incumbent service providers' market power and prevent the efficiencies associated with competition from flowing through to the market and broader economy.

The identification of these potential problems was based on the reviews of the regulatory framework that have been undertaken by the AEMC, GMRG, ACCC, Brattle and OGW (see Appendix B) and the international review undertaken by NERA (see section 2.3).

5.2.2 Stakeholder feedback on the potential problems

Table 5.2 sets out the feedback that stakeholders provided on the potential problems.¹²⁹ As the feedback in this table and Table 5.5 shows, there was near universal agreement amongst stakeholders that the overlap between Part 23 and light regulation was a problem and that the regulatory framework should be simplified by having just two forms of regulation, with the lighter form based on Part 23.

This view is consistent with the feedback that stakeholders provided in response to specific questions in the Consultation RIS about how effective Part 23 had been since its introduction in August 2017 (see Table 5.3). In short, most stakeholders agreed that Part 23 has been effective. As discussed in further detail in chapters 6 and 7, while stakeholders supported the retention of Part 23, a large number agreed that refinements to the information disclosure obligations, the negotiation framework and dispute resolution mechanism are required to address the issues identified in the OGW shipper survey and reviews of Part 23 undertaken by the ACCC and Brattle (see Appendix B).

As to the other two potential problems, stakeholder expressed mixed views about whether:

- the use of the coverage test as a gateway between Part 23 and full regulation is resulting under-regulation, although with the exception of Origin who had not formed a

¹²⁷ This potential problem was identified by the GMRG. See GMRG, Advice to the former COAG Energy Council on the retention of light regulation, February 2018.

¹²⁸ This potential problem was identified in the AEMC's 2017-18 Economic regulation review, with the AEMC noting the potential for the current order and construction of tests used to determine the form of regulation to apply to a pipeline to result in under-regulation. See AEMC, Final Report: Review into the scope of economic regulation applied to covered pipelines, 3 July 2018, p. iv.

¹²⁹ Note that stakeholders were also asked if there were any other problems with this aspect of the current framework, but no additional problems were identified.

view on the issue and the NCC, all the stakeholders that commented on this issue agreed that the coverage test should be removed; and

- exercises of dynamic market power by service providers was a problem that needed to be addressed by the regulatory framework, with the ACCC, user associations, COPA and EnergyAustralia agreeing it is a problem, while a number of service providers stated there was no evidence this was a problem.

On the latter of these matters it is worth noting that while some service providers have suggested there is no evidence of a problem, it is understood that some prospective service providers have experienced issues trying to interconnect with other pipelines in the past and that this has acted as a barrier to their entry. As to the potential cross-subsidisation of new capacity, it is difficult to know how significant an issue this is because there is no transparency surrounding the prices that pipelines charge new and existing shippers for new capacity. That said, what is important in this context is whether service providers could engage in this behaviour, or if they are prevented from doing so because there are already effective constraints in place.

As the information in Box 5.1 reveals, while interconnections and the pricing of new capacity are dealt with to some extent under the current regulatory framework, there are a number of inconsistencies and gaps in the approaches employed across the forms of regulation. The current framework does not therefore appear to be providing an effective constraint on the exercise of dynamic market power by service providers.

Table 5.2: Potential problems identified in the Consultation RIS and stakeholder feedback on the problems

Detail		
Potentially inconsistent and complex set of regulatory options		
Description of potential problem	<p>This potential problem was identified by the GMRG, who noted that the presence of both Part 23 and light regulation in the regulatory framework could increase the complexity and administrative burden for regulators, shippers and service providers, for no material benefit.¹³⁰ It also has the potential to:</p> <ul style="list-style-type: none"> cause confusion amongst shippers, which could be exploited by service providers to the detriment of shippers; and increase the risk of forum shopping by the service provider, particularly if one regime is perceived to be less onerous than another. <p>This is because while there are some differences between the arbitration mechanism and the safeguards available under the two forms of regulation (see section 5.1.1), there is also a significant degree of overlap between the two and they appear to be targeting the same problem.¹³¹ The overlap between the two forms of regulation also means there is no clear linear progression in the strength of regulation when moving from a non-scheme to a scheme pipeline.</p>	
Stakeholder feedback	Agree	<ul style="list-style-type: none"> The ACCC, AER, APLNG, COPA, Chemistry Australia, EUAA, NSW Business Chamber, MEU, Energy Matrix, APGA, ATCO and EPIC agreed the current set of regulatory options were inconsistent and complex due to the overlaps between light regulation and Part 23. While not commenting explicitly on whether this was a problem, AGL, EnergyAustralia, Origin, AGIG, Allgas, APA and Jemena agreed that the framework could be simplified if there were two forms of regulation.
	Disagree	Nil
Potential risk of under-regulation caused by the coverage test acting as a gateway between Part 23 and full regulation		
Description of potential problem	<p>This potential problem was originally identified in the AEMC's 2017-18 Economic regulation review, with the AEMC noting that the use of the coverage test as a gateway from Part 23 to full regulation could result in under-regulation.¹³² This is because:</p> <ul style="list-style-type: none"> the coverage test is not designed to address the market failure that is most prevalent amongst service providers that provide third party access, which is monopoly pricing that gives rise to economic inefficiencies with little or no impact on competition in dependent markets; the asymmetric nature of the coverage test means that it is easier to move from a stronger form of regulation to a lighter form of regulation than it is to move in the other direction (i.e. because to pass the coverage test and potentially be subject to the stronger form of regulation <u>all</u> the coverage criteria must be satisfied, but if one or more criteria are not satisfied the lighter form of regulation will apply); and the counterfactual used for the assessment of the coverage test is no longer no regulation, it is the information disclosure and arbitration framework applying under Part 23, which has made the coverage test more difficult to satisfy. 	
Stakeholder feedback	Agree	<ul style="list-style-type: none"> The ACCC, AER, Chemistry Australia, EUAA, NSW Business Chamber, MEU and COPA agreed there was a risk of under-regulation under the current framework due to the use of the coverage test as a gateway between Part 23 and full regulation.
	Disagree	<ul style="list-style-type: none"> AGIG, APGA and Jemena did not agree that there was an issue with under-regulation in the current regulatory framework, but they all supported the removal of the coverage test from form of regulation assessments.

¹³⁰ GMRG, Advice to the former COAG Energy Council on the retention of light regulation, February 2018.

¹³¹ The only substantive differences between the two forms of regulation are the nature of the arbitration mechanisms (i.e. commercially-oriented under Part 23 and regulatory-oriented under light regulation) and the presence of a number of safeguards under light regulation, neither of which is dependent on the degree of market power held by the pipeline.

¹³² AEMC, Final Report: Review into the scope of economic regulation applied to covered pipelines, 3 July 2018, p. iv.

Detail		
	Other	<ul style="list-style-type: none"> ▪ Origin noted that it had not formed a view on the coverage test and the extent to which it may be leading to over- or under-regulation. ▪ APLNG stated that it wasn't clear if under-regulation was an issue, but agreed the coverage test was not working as intended and should be removed. ▪ Epic, APA, Allgas and COPA did not comment on whether this constituted a problem, but agreed the coverage test should be removed. ▪ The NCC did not comment on whether this constituted a problem but was of the view that the coverage test should continue to act as a gateway and should be based on the amended Part IIIA test in the CCA.
Potential for dynamic market power to be exercised		
Description of potential problem		<p>This potential problem was identified as a result of NERA's International Review of Pipeline Regulation, which highlighted the potential for the current forms of regulation to enable incumbent service providers to try and block competition from new pipelines where competition is viable (see Box 2.3) by:</p> <ul style="list-style-type: none"> ▪ preventing other service providers from interconnecting to the service provider's pipeline, or by charging excessive prices for doing so;¹³³ and/or ▪ pricing new capacity on the existing pipeline below the incremental cost of providing the capacity and recouping the difference from existing users of its pipeline (i.e. cross-subsidising new capacity). <p>As noted in the Consultation RIS, the exercise of dynamic market power could further entrench incumbent service providers' static market power and prevent the efficiency gains associated with competition from flowing through to the gas market, upstream and downstream markets and the broader economy.</p>
Stakeholder feedback	Agree	<ul style="list-style-type: none"> ▪ The ACCC, Chemistry Australia, EUAA, NSW Business Chamber, MEU, COPA and EnergyAustralia agreed the existing forms of regulation may not be adequately addressing concerns around dynamic market power.
	Disagree	<ul style="list-style-type: none"> ▪ AGIG, APA, APGA, ATCO and Jemena disagreed that dynamic market power was an issue, with Jemena stating that the case had not been made that dynamic market power was a problem that required a solution. ▪ Energy Matrix also disagreed that this constituted a problem, but agreed that an explicit right to interconnection and pricing principles for interconnections should be included in the regulatory framework.
	Other	<ul style="list-style-type: none"> ▪ APLNG did not express a view on whether this constituted a problem but agreed that measures should be included in the regulatory framework to constrain the exercise of dynamic market power.

¹³³ NERA, International Review of Pipeline Regulation: Vol. 1 – Synthesis and Reform Options, 28 June 2019, p. iii.

¹³⁴ This problem was exhibited on the Wilton to Horsley Park section of the EGP, which may not have been necessary if EGP had been able to gain the type of transportation access rights it sought from the NSW Gas Distribution Network, which at the time was owned by AGL.

Table 5.3: Stakeholder feedback on the effectiveness of Part 23

Stakeholder	Feedback
ACCC and AER	The ACCC and AER agreed that Part 23 has been an effective form of regulation, with the ACCC noting that it has provided a more effective constraint on the behaviour of service providers and facilitated more effective negotiations than light regulation. The ACCC noted, however, that some improvements would be required to address the issues it had identified with Part 23 and the issues raised in the OGW survey and Brattle work.
Users groups	The EUAA stated that: “Despite the disappointing experience highlighted in the recent ACCC audit, the EUAA continues to be a strong supporter of the Part 23 reforms and the negotiate arbitrate model in general. At this time, we do not support other models e.g. direct price control.” The EUAA added that some improvements should be made to address the issues raised in recent reviews undertaken as part of the OGW survey and by the ACCC and Brattle.
	Chemistry Australia also agreed that Part 23 has been effective, but noted there were opportunities for further improvement to address the issues raised in the OGW survey and by the ACCC and Brattle.
	The MEU stated that Part 23 has: <ul style="list-style-type: none"> assisted large shippers get better outcomes and that improved information and the availability of arbitration has helped to reduce some of the imbalance in bargaining power and information asymmetry, but “not to the extent needed to fully inform end users with sufficient data to debate issues on an equal footing” and not to the extent that would be achieved under full regulation; and not benefited small shippers, because “they first have to know Part 23 exists but even if they do know, it has not provided much benefit at all, mainly due to cost barriers”. The MEU also stated that it did not think the outcomes were cost effective for end users, because they “still face considerable costs just to get an equitable outcome”.
	The ECA noted that “the framework created under Part 23 of the NGR for non-scheme pipelines would appear to be the most appropriate framework”.
Producers	APPEA stated that Part 23 has “brought substantially more disclosure and led to great market transparency”, but noted there is opportunity for further improvement.
	APLNG stated that Part 23 “has been generally effective since it was introduced” but it supported making improvements to “further enhance the regime”.
	Shell stated it has not used Part 23 to date, so was unable to comment on its effectiveness.
Retailers	Origin stated that it was “generally satisfied with the application of Part 23, which has improved the level of information transparency related to non-scheme pipelines and established a credible threat of regulation for the benefit of shippers”.
Service providers	AGIG stated that it was too early to test if Part 23 is addressing market power, but noted that the early stage of implementation suggests reforms should look to improve its operation rather than re-write its overarching intent.
	APA stated that “Part 23 is working well and as intended”.
	APGA stated that Part 23 “has been a good news story, resulting in excellent progress improving the market experience for pipeline customers. The commercially-oriented negotiate-arbitrate framework under Part 23 is working well, with plenty of progress still to come.” APGA noted, however, that improvements to information disclosures were required.
	ATCO noted that while it was generally supportive of the application of Part 23 to transmission pipelines, it has concerns that the “legislation is unintentionally too wide in its scope and...that the inclusion of distribution pipelines is unnecessary and does not support efficient outcomes for consumers and market participants”.
	Epic stated that Part 23 has been an effective measure, noting that “service providers and shippers agree that Part 23 has been positive”. Epic also noted that some improvements could be made to address the issues identified in recent reviews.
	Jemena noted that the introduction of Part 23 has “gone a long way to addressing the concerns raised” but noted it was still being ‘bedded down’.
	TGP did not express a view on the effectiveness of Part 23, but expressed some concerns about the potential for the framework to favour shippers, noting that “shippers are encouraged to negotiate the pipeline down and then “roll the dice” at arbitration in the expectation that they can continue to negotiate post arbitration if the arbitrator’s outcome does not meet the shipper’s expectations.”

5.2.3 Conclusion on problems with this aspect of the regulatory framework

Having regard to the results of prior reviews and the feedback provided by stakeholders, it would appear that the three potential problems identified in the Consultation RIS are in fact problems with the current regulatory framework.

While it has not been possible to quantify the effect of these problems, they can be expected to have a detrimental effect on economic efficiency, consumers and the broader economy because they are:

- leaving shippers exposed to exercises of market power by service providers, which can result in lower than efficient levels of consumption, production and investment across the gas market, upstream and downstream markets, and the broader economy;
- imposing unnecessary costs on shippers, service providers and regulators; and
- inhibiting competition from new pipelines and, in so doing, preventing the efficiency gains associated with competition from flowing through to the gas market, upstream and downstream markets and the broader economy

They can therefore be viewed as both a market failure and a regulatory issue that warrant further action by the Energy National Cabinet Reform Committee.

5.3 What options were identified in the Consultation RIS to address the problems and what feedback was provided?

5.3.1 Options identified in the Consultation RIS

Table 5.4 provides a summary of the options that were identified in the Consultation RIS to address the problems outlined above.

Table 5.4: Options identified in the Consultation RIS

Potential problem	Policy options
<p>Inconsistencies and overlap between Part 23 and light regulation increase regulatory complexity and administrative burden and impose unnecessary costs on parties</p>	<p>A Maintain the existing forms of regulation (status quo); or</p> <p>B Simplify the regulatory framework by adopting two forms of regulation, with:</p> <ul style="list-style-type: none"> (a) the stronger form of regulation based on either: <ul style="list-style-type: none"> (i) full regulation (i.e. negotiate-arbitrate with reference tariffs); or (ii) direct price (revenue) control; (b) the lighter form of regulation based on either: <ul style="list-style-type: none"> (i) the application of the same approach for transmission and distribution pipelines, with the options including: <ul style="list-style-type: none"> a. light regulation; b. Part 23; or c. a strengthened Part 23 – that is the existing Part 23 plus the following safeguards available under light regulation: <ul style="list-style-type: none"> i. the prohibition on preventing or hindering access; ii. the prohibition on bundling services unless reasonably necessary; iii. the prohibition on inefficient price discrimination; iv. the ring fencing and associate contract provisions; and v. other measures in the NGL and NGR, including those relating to queuing, extensions and expansions, capacity trading, and changes to receipt and delivery points; or (ii) the application of a different form of light regulation to distribution pipelines, with the options including: <ul style="list-style-type: none"> a the default price path used in NZ; or b the negotiated settlements approach used in the US and Canada.
<p>Under-regulation as a result of the coverage test being used as a gateway between Part 23 and full regulation</p>	<p>A Maintain the existing approach, with the coverage test acting as a gateway to stronger forms of regulation (status quo); or</p> <p>B Address the risk of under-regulation by:</p> <ul style="list-style-type: none"> (a) removing the coverage test from form of regulation assessments and use a single test for form of regulation decisions based on the form of regulation test in s. 122 of the NGL; and/or (b) according the relevant regulator an explicit monitoring role and ability to refer pipelines to the relevant decision-maker for a form of regulation assessment.
<p>Exercises of dynamic market power are not effectively dealt with under the current forms of regulation</p>	<p>A Maintain the existing approach to interconnections and pricing of new capacity (status quo); or</p> <p>B Address the concerns about dynamic market power by amending the regulatory framework to:</p> <ul style="list-style-type: none"> (a) include a proactive right to interconnect and pricing principles for interconnections; and/or (b) prohibit existing pipelines from cross-subsidising new capacity by requiring incremental pricing to be used where the cost of an expansion or extension would otherwise result in the price of existing capacity increasing.

5.3.2 Stakeholder feedback on the options

Table 5.5 provides a summary of the feedback that stakeholders provided on the options listed above.

Table 5.5: Feedback on the options identified in the Consultation RIS

Issues	Stakeholder feedback
Inconsistencies and overlap between Part 23 and light regulation	<p>Option A: Status quo</p> <ul style="list-style-type: none"> No stakeholders supported the maintenance of the status quo.
	<p>Option B: Adopt two forms of regulation</p> <p>Number of forms of regulation</p> <ul style="list-style-type: none"> The ACCC, AER, NCC, AGL, Origin, EnergyAustralia, EUAA, Chemistry Australia, NSW BC, ECA, APPEA, APLNG, AGIG, Allgas, APA, APGA, Epic and Jemena supported the proposal to simplify the regulatory framework by having two forms of regulation. The MEU, on the other hand, was of the view that there should only be one form of regulation, with all pipelines providing a monopoly service to be subject to the stronger form of regulation. COPA also thought there should just be one form of regulation, based on the strengthened Part 23 but noted that if two forms were to be retained they should be 'aligned as much as possible'. ATCO advocated the application of a different approach to regulating distribution pipelines (i.e. the lighter form based on information disclosure or price monitoring and the stronger form based on negotiated settlements or negotiate-arbitrate) because in its view distribution pipelines are subject to greater competitive pressures than transmission pipelines. No other service providers supported this proposal.
	<p>Forms of regulation:</p> <ul style="list-style-type: none"> Stronger form of regulation: All the stakeholders that responded to this question agreed that the stronger form of regulation should be based on full regulation, albeit with some potential refinements (ACCC, AGL, EnergyAustralia, EUAA, Chemistry Australia, NSW BC, MEU, APLNG, AGIG, Allgas, APA, APGA, ATCO, Epic and Jemena). In doing so, a number of stakeholders expressed concerns about a potential movement to direct price control. AGL and EnergyAustralia, for example, noted that this form of regulation could lead to greater standardisation in services and less flexibility for shippers, while the EUAA stated that it did not support such a movement at this time. The ACCC and AGIG also noted recent changes to reference service requirements meant that full regulation was closer to direct price control. Lighter form of regulation: The majority of stakeholders agreed the lighter form of regulation should be based on a strengthened Part 23. COPA, on the other hand, suggested consideration be given to the negotiated settlements approach used in the US.
	<p>Safeguards to be applied under the new lighter form of regulation</p> <ul style="list-style-type: none"> The ACCC, Origin, EnergyAustralia, EUAA, Chemistry Australia, NSW BC, APPEA, APLNG, COPA, AGIG, Allgas and ATCO (for transmission pipelines only) supported the application of all the safeguards that currently apply under light regulation to Part 23. APA, Epic and Jemena, on the other hand, did not support the application of the prohibition on inefficient price discrimination, because they claimed this could restrict the ability to provide the service flexibility required by shippers. Epic, for example, claimed the application of this prohibition could reduce "the scope for bespoke arrangements", while Jemena claimed it would "have a chilling impact on the willingness of service providers to offer discounts and undermine commercial negotiations". <p>Transitional arrangements for the 5.5 light regulation pipelines</p> <ul style="list-style-type: none"> The majority of stakeholders (ACCC, EUAA, NSW BC, Chemistry Australia, COPA, APLNG, Allgas, APA and Epic) suggested deeming the 5.5 pipelines to the strengthened Part 23. APGA also supported this option, but suggested pipeline operators have the option to be subject to the stronger form of regulation if they choose. In contrast to these stakeholders: <ul style="list-style-type: none"> Energy Matrix and the MEU thought the pipelines should be deemed to be subject to full regulation; and AGIG's first preference was for light regulation to be grandfathered until an application was made for a form of regulation review, while its second preference was for the pipelines to be deemed subject to the strengthened Part 23.

Issues		Stakeholder feedback
Under-regulation as a result of the coverage test acting as a gateway between Part 23 and full regulation	Option A: Status quo	<ul style="list-style-type: none"> The NCC supported the retention of an amended form of the coverage test (based on the revised Part IIIA test in the CCA) as a gateway between Part 23 and full regulation.
	Option B (a) Remove coverage test and use form of regulation test in s. 122 of the NGL for form of regulation decisions	<ul style="list-style-type: none"> The ACCC, AER, EnergyAustralia, EUAA, Chemistry Australia, NSW BC, MEU, APPEA, APLNG, COPA, AGIG, Allgas, APA, APGA, Epic and Jemena supported the removal of the coverage test from form of regulation assessments. With the exception of COPA (who proposed the use of a specific, definitive and objective test to remove the discretion from the determination), Epic (who proposed the use of the market power-NGO test), most stakeholders supported the use of the existing form of regulation test in s.122 of the NGL. The following stakeholders did, however, suggest that the hurdle into the stronger form of regulation be raised: <ul style="list-style-type: none"> APLNG though the hurdle should be “high enough to ensure investment in the pipeline sector is not deterred and the gas transportation sector can achieve commercial, market-led outcomes”. Origin expressed a similar view, stating that the lighter form of regulation should apply as a first step unless circumstances warrant the application of full regulation. Jemena suggested that the form of regulation test require the decision-maker to be satisfied that the pipeline faces little or no competition and is able to exercise sustained and substantial market power, and that the quantified benefits of the stronger form materially exceed the costs. AGIG and APGA similarly suggested the test be amended to require the decision-maker to be satisfied that moving to the stronger form of regulation would result in a net benefit. To overcome the information asymmetries that the decision-maker may face when applying the form of regulation test, the ACCC suggested that the decision-maker: be accorded compulsory information gathering powers so that it can obtain the information it requires to make a form of regulation decision; and be allowed to find that full regulation should apply if the service provider doesn't provide the information it requires.
	(b) Accord the relevant regulator a monitoring and referral role	<ul style="list-style-type: none"> The ACCC, EUAA, Chemistry Australia, NSW BC, MEU, APLNG, Origin and Epic supported the proposal for the relevant regulator to take on a more active monitoring role and to be able to refer pipelines for a form of regulation assessment if they have concerns that market power is being exercised. Jemena also supported this, but stated that taking on this role would be incompatible with the regulator making being the decision-maker for form of regulation decisions. APLNG expressed a similar view. COPA suggested the regulator be able, at the request of a shipper, to undertake a review if there is a suspected use of market power or wrongful conduct. In contrast to these stakeholders, APPEA, AGIG and ATCO did not think any additional monitoring was required.
Exercises of dynamic market power may not be effectively dealt with under the current framework	Option A: Status quo	<ul style="list-style-type: none"> AGIG, APA, APGA, ATCO and Jemena supported the retention of the status quo. In doing so, Jemena and AGIG stated there was no evidence of a problem, particularly in relation to the cross-subsidisation of new capacity. APGA and AGIG also thought the existing rules were sufficient to deal with dynamic market power.
	Option B: Address dynamic market power by:	
	(a) Including interconnection principles in the NGR	<ul style="list-style-type: none"> The ACCC, EnergyAustralia, EUAA, Chemistry Australia, NSW BC, MEU, APLNG and COPA supported the proposed inclusion of a right to interconnect in the regulatory framework and, in the case of the ACCC, MEU, APLNG and COPA, also supported the inclusion of pricing principles.
(b) Prohibiting cross-subsidisation of new capacity if cost would result in price of existing capacity rising.	<ul style="list-style-type: none"> EnergyAustralia, EUAA, Chemistry Australia, NSW Business Chamber, ECA, APLNG and COPA supported the proposal to prohibit existing pipelines from cross-subsidising new capacity. The MEU also supported this proposal and noted that new capacity should only be added to the regulatory asset base where it can be shown the new capacity increases the utilisation of the existing pipelines (thereby reducing costs for existing consumers) so that existing customers are no worse off. 	

5.3.3 Assessment of the feedback and how it has been accounted for in the reform options

As Table 5.5 shows there was broad support for the proposal to simplify the regulatory framework by reducing the number of forms of regulation, with the majority of stakeholders¹³⁵ supporting the proposed movement to two forms of regulation, with:

- the stronger form of regulation based on full regulation; and
- the lighter form of regulation based on Part 23, with most stakeholders supporting the proposal to strengthen Part 23 by extending the application of the safeguards that currently apply under light regulation to Part 23, while a number of service providers suggested this should not extend to the prohibition on inefficient price discrimination.

There was also broad support for addressing the risk of under-regulation by:

- removing the coverage test as the gateway between the forms of regulation and using the form of regulation test in s. 122 of the NGL for this purpose; and
- requiring the relevant regulator to play a more active monitoring role and to be able to refer a pipeline for a form of regulation assessment if it suspects market power is being exercised.

A small number of stakeholders did, however, suggest that the hurdle into full regulation be raised, while the ACCC noted that additional measures may be required to address the information asymmetries the decision-maker is likely to face when deciding on what form of regulation should apply to a pipeline.

In contrast to these measures, mixed views were expressed about the proposed inclusion of constraints on dynamic market power in the regulatory framework, with most service providers opposed to their inclusion, while other stakeholders supported their inclusion. Mixed views were also expressed about the transitional arrangements that should be adopted for the 5.5 pipelines currently subject to light regulation.

Given the diversity of views expressed on some of these issues, further consideration has been given to the issues raised by stakeholders and the extent to which they should be reflected in two alternative reform options that have been developed to reflect the outcomes of stakeholder feedback: Option 3A and Option 3B. In doing so, consideration has been given to:

- the problems that have been identified with this aspect of the regulatory framework (see section 5.2.3); and
- the objectives of Energy National Cabinet Reform Committee action (see section 3.2).

The results of this consideration are set out in Table 5.6, which also sets out how the feedback has been taken into account in options 3A and 3B.

¹³⁵ The exceptions to this were the MEU and COPA, who suggested that a single form of regulation be adopted. The problem with this suggestion is that it could, depending on the form that regulation takes, result in either over-regulation (i.e. if a stronger form of regulation is applied to all pipelines, including those that face some constraints on their market power) or under-regulation (i.e. if a lighter form of regulation is applied to all pipelines, including to those that don't face any real constraints on their market power).

ATCO also suggested that separate forms of regulation be applied to distribution and transmission pipelines, with distribution pipelines subject to a lighter handed form of regulation. The problem with this proposal is that it would add considerable complexity to the regulatory framework, which does not currently distinguish between transmission and distribution pipelines. It could also result in under-regulation of distribution pipelines if, contrary to ATCO's claim, distribution pipelines are not subject to effective constraints.

Table 5.6: Assessment of the feedback and how it has been accounted for in options 3A and 3B

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
<p>Forms of regulation and safeguards to apply under the lighter form of regulation</p>	<p>As outlined above the majority of stakeholders agreed that the regulatory framework should be simplified by moving to two forms of regulation, with the stronger form of regulation based on full regulation and the lighter form of regulation based on Part 23. Most stakeholders also supported the proposal to strengthen Part 23 by extending all of the safeguards that currently apply under light regulation to the new lighter form of regulation. Concerns were, however, raised by some service providers about the potential for a prohibition on inefficient price discrimination to limit their ability to offer flexible and bespoke services. Further consideration has therefore been given to this issue.</p> <p>To inform this consideration, additional advice was obtained from Brattle on price discrimination and the circumstances in which it may be considered inefficient. In short, Brattle advised that price discrimination will in most cases be efficiency enhancing (i.e. because it will generally result in more gas being transported than would be the case if all shippers paid the same price), but noted that it could have an adverse effect if it is used by a vertically integrated service provider to favour an associate that competes with other shippers in upstream or downstream markets. Brattle therefore recommended focusing on this form of price discrimination and suggested this be done by requiring any price and non-price terms offered by a service provider to an associate to be offered to other shippers.</p> <p>Brattle’s suggestion is similar in many ways to the associate contract provisions in s. 148 of the NGL that currently apply to full and light regulation pipelines and which have been proposed to be extended to the new lighter form of regulation. In simple terms, these provisions prohibit service providers from entering into, or giving effect to contracts that:</p> <p>(a) have an anti-competitive effect (unless approved by the relevant regulator); or</p> <p>(b) are inconsistent with the “competitive parity rule”, which requires the service provider to treat the associate as if it were an ‘unrelated party’ (unless approved by the relevant regulator).</p> <p>Given the advice provided by Brattle and the proposal to extend the application of the associate contract provisions to the new lighter form of regulation, there does not appear to be any reason to provide for a separate prohibition on inefficient price discrimination in the regulatory framework. No provision has therefore been made for the general prohibition on inefficient price discrimination in options 3A or 3B.</p>	<p>Under options 3A and 3B there would be two forms of regulation that a transmission or distribution pipeline could be subject to, with the:</p> <ul style="list-style-type: none"> ▪ <i>stronger form based on full regulation; and</i> ▪ <i>lighter form based on Part 23, which would be strengthened by applying the following safeguards currently available under light regulation but not the prohibition on inefficient price discrimination:</i> <ul style="list-style-type: none"> a. <i>the prohibition on preventing or hindering access;</i> b. <i>the prohibition on bundling services unless reasonably necessary;</i> c. <i>the ring fencing and associate contract provisions; and</i> d. <i>other measures in the NGL and NGR, including those relating to queuing, extensions and expansions, capacity trading, and changes to receipt and delivery points.</i>
<p>Constraints on dynamic market power</p>	<p>The majority of stakeholders that commented on the proposal to introduce more explicit constraints on dynamic market power agreed they should be included in the regulatory framework. A number of service providers did, however, question the need for these measures. Further consideration has therefore been given to the proposed measures.</p> <p>Preventing or hindering interconnections</p> <p>As noted in section 2.1, service providers may try and block competition from other service providers by preventing or hindering interconnections to their pipelines. While this is dealt with to some extent in the current regulatory framework, there are, as noted in Box 5.1, inconsistencies in the approaches employed under the different forms of regulation and they are reactive in nature. There is also a lack of clarity surrounding the rights that parties have to interconnect and the pricing principles to be employed for interconnections. Given these problems with the existing provisions and the potential for them to</p>	<p><i>Under options 3A and 3B pipelines subject to both the stronger and lighter forms of regulation would be:</i></p> <ul style="list-style-type: none"> ▪ <i>required to comply with interconnection principles that would be specified in the NGR; and</i> ▪ <i>prohibited from cross-subsidising new capacity by raising the prices payable by existing shippers (subject to some limited exceptions in the NGR).</i> <p><i>To enable compliance with the latter of these measures to be monitored, service providers would be required to disclose more information on the costs of extensions and expansions as part of the historical financial reporting.</i></p>

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
	<p>either be exploited by service providers, or to otherwise discourage interconnections, consideration has been given to how this issue could be addressed in the regulatory framework.</p> <p>In other jurisdictions, the risk that service providers may try and prevent or hinder interconnections has been dealt with by employing a more proactive approach to interconnections. For example:</p> <ul style="list-style-type: none"> ▪ In the US, a party wanting to interconnect with an interstate pipeline can do so if it satisfies the conditions specified by the regulator, FERC (i.e. the interconnecting party must bear the costs associated with constructing the interconnection facility and the interconnection must not affect the pipeline's operations or compliance with relevant laws or existing contracts, or diminish the service available to existing customers). ▪ In New Zealand, service providers are required to develop an interconnection policy that complies with the principles set out in Gas Industry Co's Interconnection Guidelines. Amongst other things, the policy must set out the process for parties seeking to interconnect (including the rights of the interconnecting party to construct the interconnection facility), the duties of both parties in negotiations and how interconnection fees will be determined and recovered. <p>Having considered the feedback provided by stakeholders, the approaches employed in other jurisdictions and the objectives of Energy National Cabinet Reform Committee action, it is clear that the regulatory framework and the market more generally, would benefit from employing a more proactive approach to interconnections and providing greater clarity on the interconnection principles that service providers would be required to comply with and the rights that interconnecting parties would have. Provision has therefore been made for this measure in options 3A and 3B.</p> <p>Cross-subsidising the development of new capacity</p> <p>In addition to trying to prevent or hinder interconnections, service providers may, as noted in section 2.1, try and block competition for the development of new capacity by using existing shippers to cross-subsidise the development of extensions and/or expansions.</p> <p>While the opportunities for service providers to engage in this type of behaviour may be limited (i.e. because competition for the development of new capacity will usually only be viable for extensions and expansions that involve looping),¹³⁶ there is still a risk that service providers could engage in this type of behaviour. Given the adverse effect this behaviour could have on competition, the market and the economy more generally, further consideration has been given to how it could be constrained.</p> <p>In the US and Canada this issue has been addressed by prohibiting the cross-subsidisation of new capacity by existing users through the use of incremental pricing, with deviations from this only allowed if the new capacity increases the reliability of existing services, or lowers prices for existing users.</p> <p>The difficulty with mirroring this approach in Australia is that Part 23 does not require the use of cost-based pricing. A similar outcome could, however, be achieved by amending the regulatory framework to include a general prohibition on service providers cross-subsidising new capacity by raising the prices payable by existing shippers (subject to some limited exceptions that would be specified in the NGR).¹³⁷ To enable compliance with this prohibition to be monitored, service providers would need to disclose more information on the costs of extensions and expansions.</p>	

¹³⁶ For other expansions it will usually be cheaper to expand the existing pipeline than to build another pipeline.

¹³⁷ This caveat is required because there may be circumstances where existing users will benefit from the augmentation (e.g. where it is required to improve the security of services) and should therefore make a contribute to the expenditure.

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
	<p>As with interconnections, it is clear that the regulatory framework and the market more generally, would benefit from employing a more proactive approach in relation to constraining exercises of market power in relation to new capacity. Provision has therefore been made for this measure in options 3A and 3B.</p>	
<p>Form of regulation test</p>	<p>The majority of stakeholders that commented on the form of regulation test agreed that a single test based on s. 122 of the NGL should be employed. There were, however, a small number that suggested the hurdle into the stronger form of regulation should be raised. The ACCC also noted the need to reduce the information asymmetries that the decision-maker is likely to face. Further consideration has therefore been given to these proposals and the need to align the test with other elements of options 3A and 3B.</p> <p>Hurdle into the stronger form of regulation</p> <p>A number of service providers and other stakeholders suggested that the hurdle into the stronger form of regulation should be raised by requiring the decision-maker to be positively satisfied the benefits of this form of regulation exceed the costs. The problems identified with this proposal are two-fold:</p> <ul style="list-style-type: none"> ▪ First, it would introduce a bias against the stronger form of regulation in the regulatory framework, which could result in under-regulation and leave shippers more exposed to exercises of market power by service providers, with attendant consequences for economic efficiency and consumers. ▪ Second, if the onus to prove that the benefits of the stronger form of regulation outweigh the costs sits with the decision-maker, it would exacerbate the degree of information asymmetry faced by the decision-maker because service providers would be even less willing to provide the information the decision-maker requires to make an informed decision. <p>The proposal is also inconsistent with the objectives of Energy National Cabinet Reform Committee action. No provision has therefore been made for this change in options 3A and 3B.</p> <p>Addressing information asymmetries</p> <p>As the ACCC noted in its submission, the body responsible for deciding what form of regulation a pipeline should be subject to is likely to face significant information asymmetries when making its decision. Changes to the form of regulation test and/or the decision-maker's information gathering powers would therefore be required to overcome these information asymmetries and to ensure that the decision-maker has the information it requires to make an informed decision. Provision has therefore been made for this to occur under options 3A and 3B.</p> <p>Note that if a decision is made to implement either of these options, then the proposed changes to the test would be consulted on as part of the development of the legal package.</p> <p>Alignment with other elements of options 3A and 3B</p> <p>In addition to the matters set out above, the form of regulation test would need to be amended to align it with other aspects of options 3A and 3B. The test would, for example, need to be amended to:</p> <ul style="list-style-type: none"> ▪ allow the decision-maker to have regard to the results of the regulator's monitoring of service provider's behaviour when making its decision (see below); and ▪ remove the requirement to consider whether adequate information is available to enable shippers to negotiate on an informed basis, because under the proposed changes to the information disclosure obligations service providers subject to both the stronger and lighter form of regulation would be required to publish the same Basic Information. 	<p><i>Under options 3A and 3B, form of regulation decisions would be based on the application of the form of regulation test in s. 122 of the NGL, which would be amended to reduce the information asymmetries faced by the decision-maker and to align the test with other elements of these options.</i></p>

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
Monitoring and referral function	<p>As noted above, there was broad support for the proposal to require the relevant regulator to play a more active monitoring role and to be able to refer a pipeline for a form of regulation assessment if it suspects market power is being exercised.</p> <p>Together with the proposed changes to the form of regulation test, this new function is expected to reduce the risk of under-regulation and pose more of a constraint on the behaviour of service providers (i.e. because the threat of a stronger form of regulation being applied would be more credible). Provision has therefore been made for this function in options 3A and 3B.</p>	<p><i>Under options 3A and 3B, the relevant regulator would be accorded a monitoring and referral function that would allow it to:</i></p> <ul style="list-style-type: none"> ▪ <i>undertake more active monitoring of the behaviour of service providers (e.g. by monitoring service providers' prices, the financial information reported by service providers, the outcome of access negotiations and, where relevant, dealings with associates and ring fencing arrangements); and</i> ▪ <i>refer pipelines for a form of regulation assessment if it suspects market power is being exercised. by monitoring service providers' prices, service quality, financial information, the outcome of access negotiations and, where relevant, dealings with associates and ring fencing arrangements</i>
Transitional arrangements for light regulation pipelines	<p>The majority of stakeholders that commented on the transitional arrangements for light regulation pipelines supported the proposal to deem the 5.5 pipelines currently subject to light regulation to the new lighter form of regulation. There were, however, some alternative suggestions that have also been considered, including.</p> <ul style="list-style-type: none"> ▪ Energy Matrix's and the MEU's suggestion that these pipelines be subject to full regulation. The risk with this suggestion is that it could result in over-regulation and impose unnecessary costs on service providers and the relevant regulator, because the pipelines in question have already been subject to the form of regulation test in s. 122 of the NGL and found to satisfy the criteria for the application of a lighter form of regulation. While it is possible that conditions may have changed since the form of regulation test was applied, the more efficient way to deal with this possibility is to deem the pipelines subject to the lighter form of regulation and then allow interested parties to apply for a form of regulation assessment if they think stronger regulation should apply. ▪ AGIG's proposal that light regulation be grandfathered until such time as an application is made for a form of regulation assessment. There are two problems with this proposal. First, it would not address the inconsistencies and overlap between light regulation and Part 23, which as noted in section 5.2.3 are giving rise to unnecessary costs and complexities in the framework. Second, it would require a range of provisions in the NGL, NGR and instruments to be maintained, which would add to the complexity and administrative burden associated with the regulatory framework for little, if any, benefit given the similarities between light regulation and Part 23. <p>While there are problems with both of these suggestions, APGA's suggestion that service providers have the option to be subject to the stronger form of regulation is not expected to have any adverse consequences and could be accommodated relatively easily in the transitional arrangements. The inclusion of this choice would also be consistent with other aspects of the regulatory framework.¹³⁸ Provision has therefore been made for this choice in options 3A and 3B.</p>	<p><i>Under options 3A and 3B the 5.5 pipelines that are currently subject to light regulation would be deemed subject to the new lighter form of regulation, unless the service provider elects to be subject to the stronger form of regulation.</i></p>

¹³⁸ For example, service providers can submit a voluntary AA and then be subject to the stronger form of regulation.

5.4 Summary of policy options for forms of regulation

Table 5.7 sets out the policy options for this aspect of the regulatory framework that have been considered as part of the Decision RIS.

Table 5.7: Policy options identified for the Decision RIS

Element	Option 1 (Status quo)	Option 2	Option 3A	Option 3B	Option 4
Forms of regulation	Retain the existing forms of regulation (i.e. full, light and Part 23).	Adopt the following forms of regulation: <ul style="list-style-type: none"> Stronger form – based on the existing full regulation (i.e. negotiate-arbitrate with reference tariffs set by the regulator and a regulatory-oriented dispute resolution mechanism). Lighter form – based on the existing Part 23 which would be strengthened through the inclusion of the safeguards that currently apply under light regulation, but not the prohibition on inefficient price discrimination. 			Adopt the following forms of regulation: <ul style="list-style-type: none"> Stronger form based on direct price or revenue control Lighter form based on strengthened Part 23.
Dynamic market power measures	Maintain the existing approach, which does not explicitly deal with service providers trying to block new entry.		Service providers would be: <ul style="list-style-type: none"> required to comply with pipeline interconnection principles set out in the NGR prohibited from increasing the charges payable by existing shippers to cross-subsidise the development of new capacity (subject to limited exceptions specified in the NGR) and would also be required to disclose more information on the costs of extensions and expansions. 		Service providers would be required to: <ul style="list-style-type: none"> comply with interconnection principles in the NGR use incremental pricing if the cost of new capacity would result in the price of existing capacity rising.
Regulator’s monitoring and referral functions	Maintain existing approach, which provides for limited monitoring and no referral function.		Relevant regulator to more actively monitor the behaviour of service providers and to refer pipelines for a form of regulation assessment if it suspects market power is being exercised.		
Form of regulation test	Retain existing tests with coverage test continuing to act as a gateway.	Remove coverage test and use the form of regulation test in s. 122 of the NGL to determine whether the stronger or lighter form of regulation should apply. The test in s. 122 of the NGL and/or the decision-maker’s information gathering powers would be amended to address the concerns raised about the information asymmetries faced by the decision-maker and the test would also be modified to align it with other elements of the reform options. ¹³⁹			

Further detail on how these options form part of a broader regulatory package is provided in Chapter 8, while Chapter 9 sets out the results of regulatory impact assessment of these reform options and Chapter 10 sets out the preferred option.

¹³⁹ For example, under options 3A and 3B it would be amended to allow the decision-maker to have regard to the results of the regulator’s monitoring of the service provider’s behaviour; and to remove the requirement to consider whether adequate information is available to shippers to enable them to negotiate be removed.

6. Reform focus 3: Information disclosure requirements

The purpose of the information disclosure requirements in the current regulatory framework is to:

- enable shippers to make a more informed decision about whether to seek access and to assess the reasonableness of a service provider's offer; and
- reduce the degree of information asymmetry and imbalance in bargaining power that shippers can face in negotiations with service providers and, in so doing, facilitate more timely and effective negotiations.

While improvements have been made to the information disclosure requirements over the last three years, it would appear from recent reviews (see Appendix B) that there are still some information gaps and asymmetries that could be:

- (a) imposing unnecessary search and transaction costs on shippers and/or compliance costs on service providers;
- (b) hindering the ability of shippers to negotiate effectively with service providers; and/or
- (c) making shippers more susceptible to exercises of market power.

These potential problems are discussed in further detail in the remainder of this chapter, which commences with a brief overview of the current information disclosure requirements. It then sets out the problems that have been identified with this aspect of the regulatory framework, the feedback that stakeholders provided on these problems and the options to address these problems and how this feedback has been taken into account in the development of the reform options.

6.1 What is the current situation?

Table 6.1 sets out the information that service providers are currently required to publish and where the information can be found, which is currently dispersed across service providers' websites, the Natural Gas Services Bulletin Board for pipelines located in the east coast and the Northern Territory (BB)¹⁴⁰ or the Gas Bulletin Board (GGB) for pipelines located in Western Australia,¹⁴¹ and, in the case of full regulation pipelines, AAs. This table also shows the exemptions from the obligation to publish information that are currently available to:

- non-scheme pipelines that supply a single shipper, who can obtain a full exemption from the obligation to publish information;
- non-scheme pipelines that have average daily injections less than 10 TJ/day over the preceding 24 months ('small pipelines'), who can obtain an exemption from the obligation to publish all the information except the requirement to publish pipeline and pipeline service information; and
- scheme distribution pipelines that have a maximum daily capacity of 10 TJ/day or less, or a maximum pressure capability of 4MPa or less, who can obtain an exemption from the requirement to publish service availability information.

It is important to note that the exemptions outlined above are only from the obligation to publish information and that shippers can still seek equivalent information from service providers during negotiations.

¹⁴⁰ The Bulletin Board that applies in the east coast and the Northern Territory is formally referred to as the Natural Gas Services Bulletin Board and is given effect through the NGL, the Regulations and Part 18 of the NGR.

¹⁴¹ The Gas Bulletin Board that applies in Western Australia is given effect through the *Gas Services Information Act 2012* (WA), the *Gas Services Information Regulations 2012* (WA) and the *Gas Services Information Rules*.

Table 6.1: Information disclosure requirements under the alternative forms of regulation

Information			Full regulation		Light regulation		Part 23	
			Transmission	Distribution	Transmission	Distribution	Non-exempt transmission	Non-exempt distribution
Pipeline information	Nameplate rating (or for distribution pipelines the volume of gas that can be transported through gate stations), list of receipt and delivery points and schematic		BB and GBB	SP Website	BB and GBB	SP Website	SP Website (or BB or GBB)	Website
	Matters that may affect access, use or prices for services	Technical/physical characteristics	AA on SP Website	SP Website	BB and GBB**	SP Website	SP Website	SP Website
SP policies		*						
Pipeline service information	Description of all services offered, locational limitations on availability and priority ranking of services		AA on SP Website (reference services only)	AA on SP Website (reference services only)	SP Website	SP Website	SP Website	SP Website
Standing terms	Standing price and terms and conditions for each service		AA on SP Website (reference services only)		SP Website	SP Website	SP Website	SP Website
	Method used to calculate standing price for each service and sufficient information to enable users to understand how price reflects application of method		AA on SP Website (reference services only)		SP Website	SP Website	SP Website	SP Website
Service availability information	Outlook of uncontracted primary capacity for each month in the following 36-mths		BB	SP Website (large distribution pipelines only)	BB	SP Website (large distribution pipelines only)	SP Website (or BB or GBB)	SP Website
	Information about matters (including planned expansions) expected to affect capacity in the following 12-mths		BB and GBB (planned expansions info only available on BB)	SP Website (large distribution pipelines only)	BB and GBB (planned expansions info only available on BB)	SP Website (large distribution pipelines only)	SP Website (or BB or GBB)	SP Website
Information used to assess reasonableness of offers	Weighted average prices paid for services	Annual reporting of weighted average prices paid by shippers (exemptions available if less than 3 shippers)	*		SP Website (reporting to commence 2020)		SP Website	
	Historical demand (service usage) information	Total demand (total quantity of gas injected into and withdrawn from the pipeline)	BB and GBB	SP Website*	BB and GBB	SP Website*	SP Website (or BB or GBB)	SP Website
		Demand for each service (total quantities injected and withdrawn by service type)	*	*	*	*	SP Website	SP Website
	Historical financial information	Annual statement of revenue and expenses, statement of pipeline assets, financial performance metrics and asset value(s).	Some information provided in AA process and may also be required through regulatory information notices (RINs)		SP Website (reporting to commence 2020)		SP Website	
Forecast costs and demand	Forecast expenditure, rate of return, depreciation and demand	AA on SP Website (reference services only)		*		*		

Sources: Parts 7, 11, 18 and 23 of the NGR.

Notes: * Additional information must be reported by large distribution pipelines.

** Note that there is not a specific requirement in the BB or GBB for pipelines to publish information on the technical or physical characteristics that may affect access, use or prices of services to be published. Rather, it is assumed to be available in the detailed facility information, capacity and capacity outlook information service providers are required by the BB or GBB to report.

With the exception of the information reported on the BB in the east coast and NT, the GBB in WA., and in AAs, service providers are required to prepare, publish and maintain the information in Table 6.1 in accordance with the access information standard set out in Parts 7, 11 and 23 of the NGR. Amongst other things, this standard states that information must not be “false or misleading in a material particular”. Service providers must also update information as soon as practicable after they become aware it does not comply with this standard.

As the grey shaded cells in Table 6.1 show, there are number of important differences between the reporting requirements applying to pipelines operating under the alternative forms of regulation. For example:

- (a) a description of each of the services offered by the pipeline (pipeline service information) and the standing terms for each service must be published for non-scheme pipelines and light regulation pipelines, but full regulation pipelines are only required to disclose this information for reference services;
- (b) information on the weighted average prices paid by shippers for each service¹⁴² must be published for non-scheme pipelines and light regulation pipelines, but not for full regulation pipelines;
- (c) information on the historical demand for each service (e.g. transportation versus storage services, firm versus as available services) must be published for non-scheme pipelines, but not for full and light regulation pipelines;
- (d) historical financial information must be published for non-scheme and light regulation pipelines, but this information is only required of full regulation pipelines if a regulatory information notice is issued, which has occurred on a limited basis to date;¹⁴³ and
- (e) information on the forecast costs and forecast demand must be published for full regulation pipelines, but not for non-scheme pipelines.

The size threshold used for exemptions also differs across the forms of regulation and there are some differences in the treatment of distribution pipelines.

There are also some differences between the information that service providers subject to the same form of regulation are required to report. For example, transmission pipelines in eastern and northern Australia that are subject to full or light regulation are required to publish information on planned expansions and a 36-month outlook for uncontracted capacity, while their counterparts in Western Australia are not. This is because the obligation to report the information in eastern and northern Australia is set out in the Bulletin Board provisions in the NGR, which do not apply to pipelines in Western Australia. In Western Australia, the GBB is given effect through the *Gas Services Information Act 2012 (WA)*, the *Gas Services Information Regulations 2012 (WA)* and the *Gas Services Information Rules*.

¹⁴² Note that an exemption may be obtained if there are less than two shippers using the service.

¹⁴³ One potential problem with relying on the regulator’s regulatory information notice power to obtain information that shippers may require to negotiate more effectively with service providers is that this power can only be exercised if the regulator considers it reasonably necessary for the performance or exercise of its functions or powers under the NGL or NGR. It may therefore be difficult for the relevant regulator to issue a notice on this basis.

6.2 What problems have been identified with this aspect of the regulatory framework and what feedback was provided?

6.2.1 Potential problems identified in the Consultation RIS

In the Consultation RIS, the following *potential* problems were identified with the information disclosure obligations applying under:

- **Full regulation:** There is limited information available to shippers negotiating access to non-reference services on full regulation pipelines.
- **Light regulation and Part 23:** There are a number of deficiencies in the information reported by Part 23 and light regulation pipelines (including as a result of the availability of exemptions) that are affecting the adequacy, quality and reliability, accessibility and usability of the reported information.

The identification of these potential problems was based on the various reviews of the regulatory framework and the operation of Part 23 that have been undertaken by the AEMC, ACCC, Brattle and OGW (see Appendix B).

6.2.2 Stakeholder feedback on the potential problems

Table 6.2 sets out the feedback that stakeholders provided in response to these potential problems.¹⁴⁴ As this table reveals, the majority of stakeholders (including a large number of service providers) agreed that the deficiencies in the information disclosed by pipelines subject to light regulation and Part 23 are a problem with the current framework.

Mixed views were, however, expressed about whether there is a problem with the information disclosure requirements applying to full regulation pipelines. That is, while the majority of stakeholders agreed that the limited information on non-reference services was a problem, this view was questioned by a number of service providers, who stated that full regulation pipelines already report a substantial amount of information.

While pipelines subject to full regulation are required to publish a range of information, they are not, as noted in Table 6.1, required to publish any information on non-reference services. There are also some other inconsistencies between the information they are required to report and the information that Part 23 and light regulation pipelines are required to report. As a number of stakeholders noted, the lack of information on non-reference services can hinder the ability of shippers to negotiate effectively, impose additional search and transaction costs on shippers and make them more susceptible to exercises of market power, particularly on transmission pipelines where non-reference services are more commonplace. Differences in other disclosure requirements can also be gamed by service providers. It is these problems that were identified in the Consultation RIS and that the majority of stakeholders agreed should be addressed.

¹⁴⁴ Note that through the Consultation RIS stakeholders were asked if there were any other problems with this aspect of the current framework, but no additional problems were identified.

Table 6.2: Potential problems identified in the Consultation RIS and stakeholder feedback on the problems

Detail		
Limited information available on non-reference services		
Description of potential problem	<p>As Table 6.1 shows, there are some differences between the information disclosure requirements prevailing under the alternative forms of regulation. While some differences are to be expected given the nature of the alternative forms of regulation, the rationale for requiring pipelines subject to light regulation and Part 23 to report the following information for all the services offered, but not full regulation pipelines is less clear given shippers using these pipelines have to negotiate access to both reference and non-reference services:</p> <ul style="list-style-type: none"> (a) a description of each of the services offered by the pipeline (pipeline service information); (b) the standing terms for each service (i.e. the standing prices, standard terms and conditions and methods used to calculate standing prices); (c) information on prices paid by other shippers for services provided by the pipeline; (d) information on the historical demand for each service provided by the pipeline; and (e) historical financial information published on an annual basis in accordance with the relevant regulator’s financial reporting guideline. <p>The concern in this case is that the limited information available under full regulation, particularly in relation to non-reference services, could hinder the ability of shippers to negotiate effectively with service providers; impose additional search and transaction costs on shippers seeking access to these pipelines and make them more susceptible to exercises of market power; and be gamed by service providers operating under the different forms of regulation.¹⁴⁵</p>	
Stakeholder feedback	Agree	<ul style="list-style-type: none"> ▪ The ACCC, EUAA, NSW BC, Chemistry Australia, MEU, Qenos, EnergyAustralia, APLNG and COPA agreed that the limited information available to shippers negotiating access to non-reference services could give rise to the issues identified in the preceding row.
	Disagree	<ul style="list-style-type: none"> ▪ APGA, AGIG and ATCO did not agree that this constituted a problem. AGIG, for example, noted that significant information is already reported by full regulation pipelines and pointed to the regulator’s existing information gathering powers, which enable it to collect all the information contemplated, including for non-reference services. ATCO added that information on non-reference services for distribution networks would be “of trivial or no value to a retailer seeking access to a non-reference service”.
	Other	<ul style="list-style-type: none"> ▪ Other stakeholders did not express a view on whether this constituted a problem.
Deficiencies in information reported by pipelines subject to light regulation and Part 23		
Description of potential problem	<p>Through recent reviews of the operation of Part 23 by the ACCC, Brattle and OGW a number of deficiencies have been identified with the information reported by pipelines subject to Part 23 and light regulation, with specific concerns raised about:</p> <ul style="list-style-type: none"> ▪ the adequacy of the information available to shippers to assess the reasonableness of prices offered by service providers and, in particular, the description of the methodologies used to calculate standing prices, the financial information and the weighted average prices reported by service providers; ▪ the quality and reliability of some of the information that must be disclosed by service providers and the access information standard, which may be setting too low a standard for the reported information; ▪ the accessibility of the information reported by service providers (with a number of participants in the OGW survey noting that it can be difficult to locate the information) and the ease with which it can be used by shippers; and ▪ the exemptions that are available from the obligation to publish basic information, such as standing prices and standard terms and conditions. 	
Stakeholder feedback	Agree	<ul style="list-style-type: none"> ▪ The ACCC, EUAA, NSW BC, Chemistry Australia, MEU, Qenos, EnergyAustralia, APPEA, APLNG and COPA, agreed that deficiencies in the information reported by light regulation and Part 23 pipelines could give rise to higher search and transaction costs, hinder the ability of shippers to negotiate access to services and make shippers more susceptible to exercises of market power.
	Disagree	<ul style="list-style-type: none"> ▪ Nil
	Other	<ul style="list-style-type: none"> ▪ APGA, AGIG, APA and Epic agreed with some of the identified deficiencies but were silent on others, while Jemena agreed with some of the deficiencies, but did not consider them material. ▪ Other stakeholders did not express a view on whether this constituted a problem.

¹⁴⁵ This is particularly the case for financial information, where costs and revenues could, for example, be shifted between pipelines to artificially lower the reported rates of return.

While not shown in Table 6.2, AGL, Alinta and APPEA noted the importance of getting the balance right between information disclosure and administrative burden, because the costs incurred by service providers are likely to be passed directly on to shippers and, in turn, end-users of gas. The ECA, on the other hand, noted that the disclosure requirements should be a relatively costless change for industry because most service providers would already retain similar kinds of information, regardless of the form of regulation they are subject to. The ECA also noted that making a consistent level of information available across pipelines should lead to more timely access to services.

The need for more consistent information was also raised by EnergyAustralia who noted that the current information requirements are overly complex and confusing for both service providers and shippers, with differences in exemptions adding another layer of complexity, which in its view “further warrants a case for change”.

The MEU also referred to the difficulties that shippers can face when trying to obtain information from service providers during negotiations and pointed to the difficulties that the ACCC and AER have had in “extracting meaningful information from service providers” as further demonstration of the difficulties faced by shippers.

6.2.3 Conclusion on problems with this aspect of the regulatory framework

Having regard to the results of prior reviews and the feedback provided by stakeholders through this process, it would appear that the deficiencies identified in the information disclosure obligations currently applying under full regulation and under light regulation/Part 23 are in fact problems with the current regulatory framework.

While it has not been possible to quantify the effect of these problems with the existing regulatory framework, they can be expected to have a detrimental effect on economic efficiency, consumers and the broader economy, because they are:

- hindering the ability of shippers to negotiate effectively with service providers and imposing additional search and transaction costs on shippers, with consequential effects for economic efficiency across the market and the broader economy; and
- making shippers more susceptible to exercises of market power by service providers, which could also have a detrimental effect on economic efficiency and on consumers more generally.

There is also a risk that differences in reporting obligations across the forms of regulation may impose unnecessary costs on service providers and shippers.

These problems can therefore be viewed as both a market failure and a regulatory issue that warrant further action by the Energy National Cabinet Reform Committee.

6.3 What options were identified in the Consultation RIS to address the problems and what feedback was provided?

6.3.1 Options identified in the Consultation RIS

Table 6.3 provides a summary of the options to address the potential problems that were identified in the Consultation RIS.

Table 6.3: Options identified in the Consultation RIS

Potential Problem	Potential solutions
Full regulation pipelines reporting requirements	
Limited information available to shippers negotiating on full regulation pipelines	<p>A Maintain existing reporting requirements for full regulation pipelines (status quo).</p> <p>B Address the problems that have been identified by requiring full regulation pipelines to publish equivalent information to light regulation and Part 23 pipelines, which includes:</p> <p>(a) a set of Basic Information comprising pipeline information, pipeline service information, the standing terms for each service offered by the pipeline (i.e. the standard terms and conditions, standing prices and the method used to calculate standing prices), service availability information, service usage information and information on the prices actually paid by other shippers; and</p> <p>(b) historical financial and demand information.</p>
Form of price reporting	
Form of price reporting	<p>A Maintain the existing approach to reporting on the prices paid by shippers for services (i.e. reporting the weighted average prices) (status quo).</p> <p>B Amend the NGR to require service providers to:</p> <p>(a) report the individual prices (plus key terms and conditions) paid by each shipper rather than weighted average prices; or</p> <p>(b) publish the weighted average prices for each service as well as the minimum and maximum prices paid for each service.</p>
Deficiencies in information reported by Part 23 and light regulation pipelines	
Deficiencies in pricing methodologies and financial reporting	<p>A Maintain the existing approach to reporting on the pricing methods used to calculate standing prices and reporting historical financial information (status quo).</p> <p>B Address the identified deficiencies by amending the NGR and/or the relevant regulator's financial reporting guideline by requiring:</p> <p>(a) service providers to publish the inputs used to calculate the standing prices;</p> <p>(b) the relevant regulator to publish a guide that sets out what information, at a minimum, a service provider's pricing methodology description should include;</p> <p>(c) service providers to report on historical demand information; and/or</p> <p>(d) service providers to report on the extent to which future costs are likely to be in line with historic costs.</p>
Quality and reliability of information reported by service providers	<p>A Maintain the existing approach (status quo).</p> <p>B Improve the quality and reliability of information reported by:</p> <p>(a) amending the NGR to provide for greater regulatory oversight of the financial information reported by service providers and information on the prices paid by shippers;</p> <p>(b) amending the access information standard in the NGR to require service providers to update information they are required to report as soon as practicable if the information is no longer be accurate;</p> <p>(c) increasing the penalties for breaches of the information disclosure obligations and standards set in the access information standard and the relevant regulator's financial reporting guideline; and/or</p> <p>(d) implementing the changes to the financial reporting guideline identified by the ACCC and Brattle (see Appendix B).</p>
Accessibility of information	<p>A Maintain the existing approach (status quo).</p> <p>B Improve the accessibility of information by amending the NGR to require:</p> <p>(a) the relevant regulator to prepare a guide that sets out where and how the information is to be disclosed and to require service providers to advise the regulator when changes are made; and/or</p> <p>(b) links to the information reported by service providers to be published on relevant regulator's website, the BB/GBB or AEMC's scheme register; or</p> <p>(c) all the information reported by service providers to be held in a single repository that could be accessed via the relevant regulator's website, the BB/GBB or the AEMC's scheme register.</p>

Potential Problem	Potential solutions
Usability of information	<p>A Maintain the existing approach (status quo).</p> <p>B Improve the usability of information by:</p> <p>(a) including a summary tab in relevant regulator's financial reporting template to provide a high level summary of the pipeline's key financial information, as well as information on prices paid by other shippers and standing prices for each service; and/or</p> <p>(b) requiring the relevant regulator to develop a template that could be used by shippers to calculate one or more the pricing benchmarks identified by Brattle using the information published by service providers.</p>
Exemptions from disclosure obligations	
Exemptions from the obligation to publish information	<p>A Maintain the existing exemptions (status quo).</p> <p>B Address the concerns raised about the exemptions by amending the NGR to:</p> <p>(a) remove the exemptions in their entirety; or</p> <p>(b) narrow the scope of the exemptions by requiring service providers subject to the stronger and lighter forms of regulation to publish the Basic Information.</p>
Size threshold for exemptions	<p>A Maintain the existing differences in size thresholds under the alternative forms of regulation (status quo).</p> <p>B Adopt a common size threshold by amending the NGR to either:</p> <p>(a) align the size threshold adopted under Part 23 with the size threshold adopted under full and light regulation, the BB/GBB and the capacity trading reforms (i.e. nameplate capacity: 10 TJ/day); or</p> <p>(b) align the size threshold adopted for distribution pipelines under full and light regulation with the threshold adopted under Part 23 (i.e. average daily injections are less than 10 TJ/day over the preceding 24 months).</p>

6.3.2 Stakeholder feedback on the options

Table 6.4 provides a summary of the feedback that stakeholders provided on the options listed above.

Table 6.4: Stakeholder feedback on the options identified in the Consultation RIS

Issues		Stakeholder feedback
Full regulation pipelines reporting requirements		
Option A: Status quo		<ul style="list-style-type: none"> AGIG and ATCO supported the retention of the status quo.
Option B: Require full regulation pipelines to disclose the same information as Part 23 and light regulation pipelines		<ul style="list-style-type: none"> The ACCC, EUAA, NSW BC, Chemistry Australia, MEU, Qenos, APLNG and COPA, agreed that full regulation pipelines should be required to publish equivalent information to that reported by light regulation and Part 23 pipelines for all services (including non-reference services) offered by the pipeline. Origin stated that while it had not identified any material deficiencies, it generally agreed there should be a gradation of reporting requirements as the strength of regulation increases and addressing any material information gaps under full regulation is appropriate.
Other proposals		<ul style="list-style-type: none"> The AER noted that it intends to issue regulatory information notices (RINs) to collect yearly information for full regulation pipelines, with the information to be made available on its website. The AER noted that this will provide a standard base of information for all full regulation pipelines. APA also noted some of the gaps were being addressed through annual RINs recently issued by the AER.
Deficiencies in information reported by Part 23 and light regulation pipelines		
Form of price reporting	Option A: Status quo	<ul style="list-style-type: none"> Origin, APGA, APA, ATCO, Jemena and TGP supported the retention of the status quo (i.e. publication of weighted average prices).
	Option B: Address deficiencies in price reporting by requiring	
	(a) report individual prices and key terms	<ul style="list-style-type: none"> The EUAA, COPA and Energy Matrix supported the publication of individual prices, with the EUAA noting that it could see no confidentiality issues with the disclosure and supported the disclosure of individual prices. The MEU, Chemistry Australia, Origin, AGL, APGA, APA, ATCO, Epic, Jemena and TGP, on the other hand, were <u>opposed</u> to the publication of individual prices, because they were concerned about 'confidentiality'. Some stakeholders also noted the potential for the publication of this information to affect the incentive service providers may have to offer discounts.
(b) report weighted average prices plus min and max prices	<ul style="list-style-type: none"> Chemistry Australia, MEU, EnergyAustralia and Epic supported the publication of anonymised minimum and maximum prices along with the weighted average prices. Origin, on the other hand, was <u>opposed</u> to this proposal because it was concerned that it may be possible to determine who the shipper is. It also noted that the minimum and maximum prices are more likely to reflect non-standard agreements, which could give rise to misleading price expectations. 	
Deficiencies in pricing methodologies and financial information	Option A: Status quo	<ul style="list-style-type: none"> No stakeholders supported the maintenance of the status quo.
	Option B: Address deficiencies by requiring:	
(a) publication of inputs used to calculate standing prices	<ul style="list-style-type: none"> The ACCC, EUAA, NSW BC, Chemistry Australia, MEU, Qenos, EnergyAustralia, APLNG and COPA agreed with the deficiencies in the pricing methodologies and financial information identified by the ACCC and Brattle. Of the listed measures: <ul style="list-style-type: none"> measure (a) was supported by the ACCC, EUAA, Chemistry Australia, MEU, Qenos, EnergyAustralia, APLNG and COPA, measure (b) was supported by the ACCC, EUAA, Chemistry Australia, MEU, Qenos, EnergyAustralia, APLNG, COPA and ATCO. While Epic noted that a guide may have benefits, it also noted that service providers have used different methods to determine prices and the methodologies may have different inputs. measure (c) was supported by ACCC, EUAA, Chemistry Australia, MEU, Qenos, EnergyAustralia, APLNG and COPA. 	
(b) the regulator to publish a guide on information to be included in methodology	<ul style="list-style-type: none"> Measures (d) was <u>opposed</u> by APGA, AGIG, APA, Epic, Jemena and TGP, with APA noting that any assurance requirements for this information would be problematic and increase the cost of information provision. 	
(c) service providers to report on historical demand information.	<ul style="list-style-type: none"> In addition to the listed measures, the ACCC, EUAA, Chemistry Australia, APLNG and COPA noted that additional measures were required to provide more clarity on cost allocation by service providers for the purposes of financial reporting. 	
(d) service providers to report on future vs historic costs		

Issues		Stakeholder feedback	
Quality and reliability of information	Option A: Status quo	<ul style="list-style-type: none"> No stakeholders supported the maintenance of the status quo. 	
	Option B: Improve quality and reliability by:	(a) requiring greater regulatory oversight	<ul style="list-style-type: none"> This measure was supported by the ACCC, Energy Matrix, EUAA, NSW BC, Chemistry Australia, MEU, Qenos, Energy Matrix. COPA and APLNG thought measures (b) and (d) should be implemented first and if necessary, (a) could be implemented. APGA, Epic and Jemena were <u>opposed</u> to this measure.
		(b) amending information standard	<ul style="list-style-type: none"> This measure was supported by the ACCC, EUAA, NSW BC, Chemistry Australia, MEU, Qenos, APLNG, COPA, Energy Matrix, Epic, APGA and AGIG. The latter two of these stakeholders were, however, of the view that there should still be a materiality element to the standard, which AGIG suggested be linked to accounting standards.
		(c) increasing penalties	<ul style="list-style-type: none"> This measure was supported by the ACCC, EUAA, NSW BC, Chemistry Australia, MEU, Qenos and Energy Matrix. Epic also supported this measure where a service provider demonstrates a consistent pattern of disregard for the rules. APGA and Jemena were <u>opposed</u> to this measure, while COPA thought this measure should be implemented as a last resort if the current issues are not addressed.
		(d) implement changes to the financial reporting guideline.	<ul style="list-style-type: none"> This measure was supported by the ACCC, EUAA, NSW BC, Chemistry Australia, MEU, Qenos, APLNG, COPA and Energy Matrix. Epic stated it was 'open to changes to the financial reporting guideline' while APGA agreed many changes should be made. COPA noted the current template used for financial reporting does not provide information in an acceptable format and therefore supported Brattle's recommendations and suggested Brattle continue updating its review until consistency is reached.
Accessibility of information	Option A: Status quo	<ul style="list-style-type: none"> APLNG and COPA did not see accessibility as a critical issue and so did not think any of the measures were required. 	
	Option B: Improve access by: (a) requiring a regulatory guide to set out how information is to be disclosed; (b) publishing links to service provider websites in a single location; and/or (c) making all information available in a repository.	<ul style="list-style-type: none"> The ACCC noted that it can be 'very difficult' for shippers to locate information and for the relevant regulator to monitor compliance with the disclosure obligations and suggested improvements be made. The EUAA and Chemistry Australia¹⁴⁶ also supported improvements in this area, but did not express a view on any of the options. Of the stakeholders that expressed a view on how the accessibility of information should be improved: <ul style="list-style-type: none"> measure (a) was supported by the ACCC, Qenos and Epic; measure (b) was supported by Qenos and ATCO; and measure (c) was supported by the MEU. APGA also acknowledged that information accessibility is of great significance to some shippers, but suggested this be considered through the 'Better Together' initiative.¹⁴⁷ This suggestion was echoed by APA and Jemena (see final row). 	
Usability of information	Option A: Status quo	<ul style="list-style-type: none"> No stakeholders supported the maintenance of the status quo. 	
	Option B: Improve usability by: (a) including a summary tab in the financial reporting template; and/or (b) developing a price benchmark template	<ul style="list-style-type: none"> Most stakeholders agreed the usability of information reported by pipelines should be improved. Shell, for example, noted that making information "more easily digestible and less resource intensive for shippers to interpret would make Part 23 more effective" and noted the potential for the regulator to play a role in making it more usable. Of the stakeholders that expressed a view on how the usability of information should be improved: <ul style="list-style-type: none"> the ACCC, EUAA, NSW BC, Chemistry Australia, MEU, APLNG, COPA, AGIG and Epic supported a summary tab the ACCC, EUAA, NSW BC, Chemistry Australia, MEU, Qenos, APLNG and COPA supported the development of a price benchmark template. Epic and Jemena, on the other hand, were <u>opposed</u> to the latter proposal, with Epic noting that the benchmarks may have 'little relativity to a service offered and is likely to further confuse shippers'. Jemena also noted "there is a risk that such an approach will become the default and so reduce Jemena's ability to provide efficient discounting". 	

¹⁴⁶ Note that while the EUAA and Chemistry Australia agreed that consolidation should occur, they did not express a view on any of the options presented in the Consultation RIS.

¹⁴⁷ Since making this submission APGA has published links to the information on its website see <https://www.apga.org.au/pipeline-information-users>

Issues		Stakeholder feedback	
Other proposals		In their submissions, APGA , APA and Jemena suggested that the deficiencies identified in the information disclosures outlined above be addressed through the Energy Charter's 'Better Together' initiative. The EUAA and Chemistry Australia noted their support for this initiative, but noted it could be conducted in parallel with the measures set out above.	
Exemptions from disclosure obligations			
When exemptions should be available	Option A: Status quo	<ul style="list-style-type: none"> APPEA, APLNG, COPA, a confidential submitter, Alinta, APGA, Allgas, APA, ATCO, Epic, Jemena and TGP supported the retention of the existing information disclosure obligations. 	
	Option B: Address the concerns raised about the existing exemptions by:	(a) removing all exemptions from the obligation to publish information	<ul style="list-style-type: none"> While most stakeholders agreed that pipelines not providing third party access should be able to obtain an exemption from regulation, the EUAA, Chemistry Australia, MEU, Qenos and EnergyAustralia supported the removal of the exemptions available to small pipelines and single-user pipelines. In doing so, EnergyAustralia noted that “<i>Small pipeline service providers can still exercise market power. Without information that provides a gauge on an offered price relative to other prices in the market, it is difficult to assess the competitiveness of that price and negotiate for a better price</i>”. The MEU made a similar observation, noting that “<i>its experience with the smaller capacity pipelines is that the operators use the exemptions to the disadvantage of the end users</i>”. The ACCC and Origin, on the other hand, thought that exemptions from the publication of historical financial information should be available to small and single user pipelines, but that these pipelines should be required to publish Basic Information.
		(b) requiring all service providers providing 3 rd party access to publish Basic Information	<ul style="list-style-type: none"> The ACCC, NCC, Origin, AGIG and NSW BC supported this proposal, with the NSW BC stating it was a “sensible incremental step”. While EnergyAustralia did not support any exemptions, it did note that if exemptions are to be allowed, then all service providers should at a minimum be required to publish the basic set of information. APGA and Epic, on the other hand, expressed some concerns about this proposal, with Epic stating that in its experience few shippers have shown any interest in the information they have been required to publish.
	Other proposals	<ul style="list-style-type: none"> Some stakeholders thought that exemptions from the disclosure obligations should be available to pipelines with a greenfield exemption (NCC, confidential submitter, APA, and Jemena), single-use non-market facing assets (confidential submitter) and/or pipelines that do not receive ‘bona-fide access requests’ (Alinta). 	
Size threshold for exemptions	Option A: Status quo	<ul style="list-style-type: none"> APGA, AGIG, ATCO and Jemena supported the retention of the threshold currently used under Part 23, which is based on flows rather than nameplate capacity. 	
	Option B: Adopt a common size threshold	<ul style="list-style-type: none"> The ACCC and APLNG supported the adoption of a common size threshold, based on the 10 TJ/day nameplate rating used for the BB/GBB and capacity trading reforms to reduce the complexity of the regulatory arrangements. APA thought the existing throughput based threshold under Part 23 was appropriate, but also supported consistency with the BB/GBB threshold, which is based on nameplate capacity, “to avoid confusion”. 	

6.3.3 Assessment of the feedback and how it has been accounted for in the reform options

As Table 6.4 shows, the majority of stakeholders that commented on the information disclosure requirements agreed that:

- pipelines subject to full regulation should be required to publish equivalent information to pipelines subject to light regulation and Part 23; and
- the adequacy, quality and reliability, accessibility and usability of information currently reported by pipelines subject to light regulation and Part 23 should be improved.

Differing views were, however, expressed by stakeholders about:

- The specific measures that should be implemented to improve the adequacy, quality and reliability, accessibility and usability of information reported by pipelines subject to light regulation and Part 23.
- The form that price reporting should take and, in particular, whether weighted average prices should continue to be published, or if this measure should be supplemented by minimum and maximum prices, or replaced by individual price reporting.
- Whether exemptions from some or all of the information disclosure obligations should continue to be available to pipelines providing third party access. While a large number of stakeholders supported their retention (and in some cases suggested expanding the pool of potential recipients of these exemptions), others thought there should either be no exemptions, or that, at a minimum, pipelines providing third party access should be required to publish the set of Basic Information.

There were also some differences in views on how these measures should be implemented. That is, while the Consultation RIS assumed that the changes would be implemented through changes to the NGR and/or guidelines:

- the AER suggested the gaps in information reported by pipelines subject to full regulation be addressed through regulatory information notices (RINs); and
- AGPA, Jemena and APA suggested the information deficiencies be addressed by service providers working in consultation with shippers through the Energy Charter's Better Together initiative.¹⁴⁸ While the EUAA and Chemistry Australia supported this initiative, they did not think it should replace the regulatory measures.

Given the diversity of views expressed on some of these issues, further consideration has been given to the issues raised by stakeholders and the extent to which they should be reflected in two alternative reform options that have been developed to reflect the outcomes of stakeholder feedback: Option 3A and Option 3B. In doing so, consideration has been given to:

- the problems that have been identified with this aspect of the regulatory framework (see section 6.2.3); and
- the objectives of Energy National Cabinet Reform Committee action (see section 3.2).

The results of this consideration are set out in Table 6.5, which also sets out how the feedback has been taken into account in options 3A and 3B.

¹⁴⁸ APA described the initiative in its submission as follows:

In the context of the "Better Together" initiative, leading members of the pipeline industry propose that a series of workshops be undertaken with shippers, pipeliners, and other stakeholders, to:

- *understand the information needs of access seekers;*
- *understand the information currently available and how to access it;*
- *identify any gaps between information needs and information currently available; and*
- *develop a collaborative way forward to address any gaps identified.*

This approach will benefit from the Energy Charter's advantages of collaboration, co-design, flexibility, buy-in and peer pressure. Pipeline service providers would voluntarily disclose additional information in response to the feedback received."

Table 6.5: Assessment of the feedback and how it has been accounted for in options 3A and 3B

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
Information to be published by full regulation pipelines	<p>As noted above, the majority of stakeholders supported the proposal for full regulation pipelines to publish equivalent information to Part 23 pipelines, in addition to the AA related information. While a small number of service providers questioned this proposal, it is clear from the feedback provided by other stakeholders that the limited information available to shippers negotiating access to non-reference services is a problem that needs to be addressed.</p> <p>The most effective and efficient way to address this problem, is to require full regulation pipelines to publish equivalent information to that published by Part 23 pipelines. Apart from facilitating more effective negotiations, the publication of this information should reduce shippers' search and transaction costs and reduce the opportunities for market power to be exercised. It would also limit the opportunity for service providers to game any differences in reporting obligations, particularly in relation to financial reporting. Provision has therefore been made under options 3A and 3B for equivalent information to be published by pipelines subject to the stronger and lighter forms of regulation.</p>	<p>Under options 3A and 3B service providers subject to either the stronger or lighter forms of regulation would be required to publish the following information unless they have obtained an exemption (see below):</p> <ul style="list-style-type: none"> ▪ <i>A set of Basic Information that shippers can use to determine whether to seek access and to assess the reasonableness of a service provider's offer, which would include:</i> <ul style="list-style-type: none"> – <i>the pipeline information, pipeline service information, standing terms for each service offered, service availability information and service usage information in Table 6.1; and</i> – <i>information on the prices actually paid by other shippers for services (see below).</i> ▪ <i>Historical financial and demand information.</i>
Form of price reporting	<p>As Table 6.4 highlights, mixed views were expressed on the form that price reporting should take, with a number of stakeholders supporting the proposal to publish individual prices and key terms and conditions, while others were opposed to this proposal. Those opposed to the publication of individual prices claimed it would 'breach shipper confidentiality' and could potentially affect:</p> <ul style="list-style-type: none"> ▪ the incentive pipeline operators have to offer bespoke services and discounts; and ▪ competition in upstream and downstream markets, although no detail was provided on how this would occur. <p>To help inform the choice between the options and address some of the issues raised by stakeholders, Brattle was asked to provide advice on how prices are reported in the US and the potential impacts of individual price reporting on competition and service provider offers.</p> <p>In short, Brattle advised that in the US all interstate pipelines are required to publish information on key terms and conditions in all GTAs and the prices agreed to in non-standard contracts (note that prices in standard contracts are based on FERC approved rates so disclosure is not required) and that even with these disclosures, US pipelines continue to offer bespoke services and discounts.¹⁴⁹ Brattle also noted that</p>	<p><i>Under options 3A and 3B service providers would be required to publish information on the individual prices (including key terms and conditions that can affect prices)¹⁵⁰ paid by shippers for services.</i></p>

¹⁴⁹ Specifically, all interstate pipelines in the US are required to publish:

- An index of customers that lists all of their transportation contracts, including details of the shipper, the reserved quantities, the term, the receipt and delivery points and other key terms specified in those contracts.
- Details of non-standard contracts, including information on the shipper, the tariff payable by the shipper, contracted quantities, receipt and delivery points, contract duration and information on any affiliation between the shipper and pipeline, for 90 days after the shipper first uses the contract. Brattle also noted that various data vendors compile this information so shippers can still access it after the reporting period has lapsed.

¹⁵⁰ For example, the contract term, the service provided (including the priority of the service), the price escalation mechanism and, where relevant, the receipt and delivery points (or zones) between which services are provided, the contract quantity (e.g. the maximum daily quantity for firm forward haul service or the park and/or loan allowance for storage services), the maximum hourly quantity, imbalance and variance allowances, the rates payable for imbalances, overruns, variances and renominations and liability caps.

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
	<p>when deciding to require individual prices to be reported, FERC explicitly considered and rejected the argument that it would have an adverse effect on competition in other markets.</p> <p>Having regard to stakeholder feedback and the advice provided by Brattle, the publication of individual prices (plus key terms and conditions) appears to offer a number of benefits over other alternatives. It would, for example, provide shippers with the most accurate information about the prices paid by other shippers for equivalent services. It would therefore overcome the problems the ACCC identified with weighted average price reporting (see Appendix B) and eliminate this as a source of information asymmetry for shippers in their negotiations with service providers. This is likely to be benefit smaller and less sophisticated shippers who may be able to use the information to leverage the bargaining power of larger shippers in their negotiations.</p> <p>The publication of individual prices could also benefit end-users in negotiations with retailers and provide for better monitoring of whether service providers are favouring affiliates. It would also limit the opportunity for service providers to try and game the price reporting requirements, by, for example, classifying services in a particular way to avoid having to report on prices (e.g. because if there are less than two users of a service the price does not currently have to be reported).</p> <p>While it has been suggested that the publication of individual prices could affect competition in upstream or downstream markets, or reduce the willingness of service providers to offer bespoke services or discounts, there is, as Brattle noted, no evidence of this occurring in the US where this information is disclosed. Stakeholders were also unable to provide any clear explanation for why this would occur in their feedback on the Consultation RIS. Provision has therefore been made in options 3A and 3B for service providers to report individual prices and the key terms and conditions that have a bearing on price.</p>	
<p>Adequacy of pricing methodologies and financial information</p>	<p>The majority of stakeholders that commented on the inadequacies identified with the pricing methodologies and financial information supported the proposal to require:</p> <ul style="list-style-type: none"> (a) the publication of inputs used to calculate standing prices; (b) the regulator to publish a guide on information to be included in methodology; and (c) the service providers to report on historical demand information. <p>While there was also some support for the proposal to require service providers to report on the extent to which their future costs are likely to differ from historic costs, a number of concerns were raised by service providers about this measure. Further consideration has therefore been given to this measure and the proposal by a number of stakeholders that greater guidance and transparency be provided on the cost allocation methods employed by service providers.</p> <p>Historic costs versus future costs</p> <p>As a number of service providers have noted, one of the problems with the proposal to report on the extent to which future costs are likely to differ from historic costs is that it would be difficult to get an auditor to sign off on this type of reporting requirement because it is a forecast.</p> <p>In the absence of this type of assurance, it is possible that this disclosure requirement could be used to mislead shippers about future costs and the need for prices to increase. This is because, in contrast to pipelines subject to the stronger form of regulation, there would be no regulatory oversight of the service providers' claim regarding future costs. Given the potential for shippers to be misled, no provision has been made for this disclosure obligation in either option 3A or option 3B.</p> <p>Cost allocation</p> <p>A number of stakeholders expressed concerns about the lack of transparency surrounding the cost allocation methods used by service providers for pricing and financial reporting purposes. As some</p>	<p><i>Under options 3A and 3B the deficiencies in pricing methodologies and financial information would be addressed by requiring:</i></p> <ul style="list-style-type: none"> <i>(a) service providers to publish the inputs used to calculate the standing prices;</i> <i>(b) the relevant regulator to publish a guide on information to include in a pricing methodology;</i> <i>(c) service providers to publish historical demand information alongside the historical financial information; and</i> <i>(d) service providers to publish their cost allocation methodology, which would need to comply with cost allocation principles in the NGR and/or a guideline prepared by the relevant regulator.</i>

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
	<p>stakeholders noted, this issue is not unique to Part 23 and light regulation pipelines. Rather it also affects full regulation pipelines, because the NGR does not currently provide any guidance on how shared costs are to be allocated. This is in direct contrast to the National Electricity Rules, where cost allocation methods must be approved by the AER.</p> <p>Given the large number of service providers that own multiple pipelines and other assets (including unregulated assets), there does appear to be value in requiring service providers to comply with cost allocation principles specified in the NGR and/or a guideline prepared by the relevant regulator.</p>	
Quality and reliability of information	<p>The majority of stakeholders that commented on the options to improve the quality and reliability of information supported the proposals to:</p> <ul style="list-style-type: none"> (a) require greater regulatory oversight of the financial and price information reported by service providers; (b) amend the access information standard; (c) increase the penalties associated with the information disclosure obligations; and (d) implement the changes to the financial reporting guideline identified by the ACCC and Brattle. <p>While some questions were raised about the need for (a) and (c), it is clear from the issues identified by both the ACCC and Brattle (see Appendix B) that greater regulatory oversight and higher penalties are required to impose greater discipline on service providers when reporting information and to restore confidence in the information that is reported. Provision has therefore been made for all of these measures in options 3A and 3B.</p>	<p><i>Under options 3A and 3B the quality and reliability of information published by service providers would be improved by:</i></p> <ul style="list-style-type: none"> (a) requiring greater regulatory oversight of the historical financial information and information on the prices paid by shippers as part of the relevant regulator's new monitoring function; (b) amending the access information standard in the NGR to require service providers to update information as soon as practicable if it is found to no longer be accurate; (c) increasing the penalties associated with the information disclosure obligations; and (d) <i>requiring the relevant regulator to review the financial reporting guideline and consult on how it should be amended to address the issues identified by the ACCC and Brattle (see Appendix B).</i>

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
Accessibility of information	<p>While stakeholders agreed that the information published by some service providers can be difficult to find, very few commented on the options to improve the accessibility of this information. Having regard to the feedback that was provided, there would appear to be value in:</p> <p>(a) requiring a regulatory guide to set out how information is to be disclosed; and</p> <p>(b) publishing links to service provider websites on the AEMC's pipeline register so that the information can be found more readily by shippers.¹⁵¹</p> <p>While consideration has also been given to the proposed development of a single repository, the costs associated with developing and maintaining such a repository are expected to be quite high and it is unclear what additional benefits it would offer over the measures in (a) and (b).</p> <p>Provision has therefore only been made for the measures set out in (a) and (b) in options 3A and 3B.</p>	<p><i>Under options 3A and 3B the accessibility of information published by service providers would be improved by requiring:</i></p> <p>(a) <i>the relevant regulator to prepare a guide that sets out where and how information is to be reported on a service provider's website; and</i></p> <p>(b) <i>service providers to advise the AEMC of the location of the information on their respective websites, which could then be published as a link in the AEMC's pipeline register.</i></p>
Usability of information	<p>The majority of stakeholders that commented on the options to improve the usability of information published by service providers agreed that it could be improved by:</p> <ul style="list-style-type: none"> ▪ including a summary tab in the financial reporting template; and ▪ requiring the relevant regulator to develop a price benchmark template. <p>While some service providers expressed concerns about the latter option, user associations and a range of other stakeholders agreed that it would help smaller shippers using pipelines subject to the lighter form of regulation transform the complex financial and demand information into one or more cost-based pricing benchmarks that they could then be used to assess the cost reflective nature of prices offered by service providers. Importantly, there would be nothing in the regulatory framework that would require service providers of pipelines subject to the lighter form of regulation to charge these prices. Rather, it would be a tool that shippers could use and it would be open to service providers to explain why the cost benchmarks are not relevant for a particular service.</p> <p>Provision has therefore been made for both of these measures in options 3A and 3B.</p>	<p><i>Under options 3A and 3B provide for the usability of information published by service providers to be improved by:</i></p> <p>(a) <i>including a summary tab in the relevant regulator's financial reporting template that provides a high level summary of key financial and price information; and</i></p> <p>(b) <i>requiring the relevant regulator to publish a price benchmark template for pipelines subject to the lighter form of regulation.</i></p>
Exemptions from disclosure obligations	<p>As outlined above, a range of views were expressed about the potential exemptions from the disclosure obligations and size threshold that should be assumed for small pipelines. Further consideration has therefore been given to these two issues.</p> <p>In what circumstances should exemptions be available?</p> <p>Stakeholder submissions on exemptions were quite varied, with some suggesting that exemptions should be wound back (i.e. with either no exemptions available or all pipelines providing third party access having to, at a minimum, publish the set of Basic Information), while others suggested either the retention of the current exemptions, or an expansion (e.g. to include greenfield pipelines).</p> <p>Given the diversity of views expressed on this issue, further consideration has been given to what exemptions from the disclosure obligations should be available. In doing so, consideration has been given to the concerns that have been raised by stakeholders about:</p> <ul style="list-style-type: none"> ▪ the lack of even basic information available to shippers negotiating access to single user or small pipelines and the effect this is having on the ability of shippers to negotiate access to these pipelines; and ▪ the costs and administrative burden that can be associated with the historical financial and demand 	<p><i>Under options 3A and 3B the following exemptions from the disclosure obligations would be available:</i></p> <ul style="list-style-type: none"> ▪ <i>Pipelines not providing third party access would be able to obtain an exemption from the requirement to publish the Basic Information and the historical financial and demand information outlined above.</i> ▪ <i>Pipelines providing third party access that are either a single user pipeline or have a nameplate capacity less than 10 TJ/day.¹⁵² would be able to obtain an exemption from the obligation to publish historical financial and demand information, but not from the obligation publish the Basic Information.</i>

¹⁵¹ There may also be value in publishing links to the AEMC's pipeline register on the BB/GBB and the AER's website.

¹⁵² If required, this could be supplemented with a pressure based threshold for distribution as has been adopted for light regulation.

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
	<p>reporting, particularly on single user and small pipelines where the costs of reporting this information (i.e. the costs of preparing the information and having it signed off with the appropriate level of assurance) may outweigh the benefits.</p> <p>As a number of stakeholders suggested, these two concerns could be addressed by amending the current exemption framework to require all pipelines that are providing third party access to:</p> <ul style="list-style-type: none"> ▪ publish a set of Basic Information that shippers can use to determine whether to seek access to a pipeline and assess the reasonableness of an offer (i.e. the pipeline information, pipeline service information, standing terms, service availability information and service usage information in Table 6.1 and information on the prices actually paid by shippers for services); and ▪ publish historical financial and demand information unless they have obtained an exemption from the obligation to publish this information, with exemptions only available to single user pipelines and small pipelines. <p>For those pipelines that are not providing third party access, exemptions from all of the disclosure obligations would be available.</p> <p>The main difference between this approach and the current exemption framework is that all pipelines providing third party access (including small pipeline and single user pipelines) would be required to publish the Basic Information set out above and exemptions for pipelines providing third party access would only be available from the obligation to publish the historical financial and demand information. Put simply, this approach would better address the information asymmetries faced by shippers (particularly on small and single user pipelines), whilst also minimising the administrative burden and compliance cost. Provision has therefore been made for this alternative exemption framework in options 3A and 3B.</p> <p>As to the suggestion by some stakeholders that exemptions also be available to greenfield pipelines, it is important to recognise that users of these pipelines are likely to face the same information asymmetries when negotiating access as users on other pipelines. There is no basis therefore to treat these pipelines any differently from other pipelines. No provision has therefore been made for this in options 3A or 3B.</p> <p>What size threshold should be adopted</p> <p>A range of views were expressed by stakeholders on the proposal to adopt a common size threshold for exemptions, with some supporting the proposal to move to a 10 TJ/day nameplate capacity threshold, while others supported the retention of the existing flow based threshold.</p> <p>The benefit that the 10 TJ/day nameplate capacity threshold (and if necessary a pressure threshold for distribution pipelines) offers over the existing threshold is that it would provide for a consistent threshold to be employed across the NGR (i.e. the BB/GBB and the capacity trading provisions). It would therefore reduce regulatory complexity and, as APA noted, avoid any confusion amongst small pipelines about their obligations under the NGR. Provision has therefore been made for this change in options 3A and 3B.</p>	<p><i>If a pipeline no longer satisfies these exemption criteria, the exemption would be revoked.</i></p>

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
<p>How the improvements should be implemented</p>	<p>As noted above, the majority of stakeholders agreed that measures to address the identified deficiencies should be implemented through changes to the NGR and/or guidelines. There were, however, some alternative proposals by the AER and a number of service providers. Further consideration has therefore been given to these proposals.</p> <p>Use of RINs</p> <p>In its submission, the AER suggested that the gaps that have been identified in the information reported by pipelines subject to full regulation could be addressed through the use of the relevant regulator's RIN power.</p> <p>The problem with this proposal is that regulator's power to obtain information can only be exercised if the regulator considers it reasonably necessary for the performance or exercise of <i>the regulator's functions or powers</i> under the NGL or the NGR. It may be difficult therefore for the relevant regulator to issue a RIN on the basis that shippers require the information to negotiate more effectively with service providers access, because this is not one of the regulator's stated functions or powers.</p> <p>The other problem with RINs is that information may not be collected in a standardised and uniform manner across pipelines.¹⁵³ and it may not be made available in a timely manner to shippers. The same problems do not arise in relation to the NGR and/or regulator issued guidelines.</p> <p>Better Together Initiative</p> <p>In their respective submissions, APGA, APA and Jemena suggested that the identified information deficiencies be addressed through the Energy Charter's 'Better Together' initiative.</p> <p>While recognising the work that APGA and signatories to the Energy Charter have undertaken to better understand the information requirements of shippers over the last 12 months, there are two material problems with this proposal.</p> <ul style="list-style-type: none"> ▪ First, not all service providers are signatories to the Energy Charter. Any voluntary approach endorsed through the Energy Charter could not therefore be relied upon to capture all pipelines. ▪ Second, the monitoring and enforcement mechanism in the Energy Charter is not as effective as that provided for in the NGL and NGR, which is problematic given the problems that the ACCC and Brattle have found with the reporting to date (see Appendix B). <p>That is not to say that signatories to the Energy Charter should not continue to work with shippers to find ways to improve their disclosures. It is just that this voluntary mechanism cannot be relied upon to ensure that a uniform approach is taken to addressing existing issues in the information disclosures.</p>	<p><i>Under options 3A and 3B the measures to address the identified information deficiencies would be implemented through changes to the NGR and/or guidelines.</i></p>

¹⁵³ This is because, in contrast to a financial reporting guideline where all service providers can be required to provide information on a uniform basis, RINs tend to reflect the systems and processes that individual service providers have in place, which can differ markedly across service providers.

6.4 Summary of policy options for information disclosure

Table 6.6 sets out the policy options for this aspect of the regulatory framework that have been considered as part of the Decision RIS.

Table 6.6: Policy options identified for the Decision RIS

	Option 1 (Status quo)	Option 2	Option 3A	Option 3B	Option 4
Information to be disclosed	Retain the existing information disclosure requirements across the forms of regulation.	All service providers to publish the following unless they obtain an exemption: <ul style="list-style-type: none"> Basic Information (i.e. pipeline information, pipeline service information, service availability information, service usage information, standing terms for each offered service and information on the prices actually paid by shippers). Historical financial and demand information. 			
		Information on prices paid by other shippers based on weighted average price plus minimum and maximum prices for each service.	Information on the prices paid by other shippers to be based on the individual prices (including key terms and conditions) paid by shippers.		
		n.a.	Disclosure requirements amended to address the identified information deficiencies and improve the quality and reliability, accessibility and usability.		
Exemptions from disclosure requirements	Retain existing exemptions from disclosure under Part 23 and light regulation.	<ul style="list-style-type: none"> No exemptions for regulated pipelines. Pipelines with exemption from regulation that provide 3rd party access can obtain exemption from historical financial and demand information, but not Basic Information. 	Exemptions from: <ul style="list-style-type: none"> Basic Information and historical financial and demand reporting available to pipelines that are not providing 3rd party access; and Historical financial and demand information available to: <ul style="list-style-type: none"> single shipper pipelines; and pipelines with a nameplate capacity less than 10 TJ/day.¹⁵⁴ 		

Further detail on how these options form part of a broader regulatory package is provided in Chapter 8, while Chapter 9 sets out the results of regulatory impact assessment of these reform options and Chapter 10 sets out the preferred option.

¹⁵⁴ If required, this could be supplemented with a pressure based threshold for distribution as has been adopted for light regulation.

7. Reform focus 4: Negotiation frameworks and dispute resolution mechanisms

Under the current regulatory framework, which is based on the negotiate-arbitrate form of regulation, the purpose of the negotiation framework is to facilitate timely and effective commercial negotiations between shippers and service providers. The purpose of the dispute resolution mechanism, on the other hand, is to:

- constrain the exercise of market power by service providers during negotiations by providing for a credible threat of intervention by a dispute resolution body if negotiations fail; and
- enable those disputes that cannot be resolved through negotiations to be resolved in a cost-effective and efficient manner.

Like the information disclosure requirements, some steps have been taken over the last three years to strengthen the negotiation frameworks and dispute resolution mechanisms applying to scheme and non-scheme pipelines. It would appear, however, from the recent reviews of the regulatory framework (see Appendix B), that some aspects of the negotiation frameworks and dispute resolution mechanisms may not be working as intended and, as a consequence may be:

- (a) hindering the ability of shippers to negotiate effectively with service providers;
- (b) limiting the credibility of the threat of dispute resolution mechanism and making shippers more susceptible to exercises of market power; and/or
- (c) imposing unnecessary costs and risks on shippers and/or service providers.

These potential problems are discussed in further detail in the remainder of this chapter, which commences with a brief overview of the existing negotiation frameworks and dispute resolution mechanisms. It then sets out the potential problems that have been identified with this aspect of the regulatory framework, the feedback that stakeholders provided on the options identified in the Consultation RIS to address these potential problems and how this feedback has been taken into account in the development of the reform options.

7.1 What is the current situation?

The regulatory framework currently provides for both:

- a regulatory-oriented negotiate-arbitrate model under full and light regulation; and
- a commercially-oriented negotiate-arbitrate model under Part 23.

Table 7.1 provides an overview of the negotiation frameworks and dispute resolution mechanisms applying under these two negotiate-arbitrate models, while Box 7.1 sets out the pricing principles the relevant dispute resolution body must have regard to under the two negotiate-arbitrate models.

Table 7.1: Key differences between negotiation and dispute resolution mechanisms

Element		Full and light regulation (scheme pipelines)	Part 23 (non-scheme pipelines)
Negotiation frameworks			
Negotiation process	User access guide	n.a.	Service providers must publish a user access guide to assist shippers seeking access to the pipeline (rule 558 of NGR).
	Access request	Shippers may make access requests, which must be in writing and contain the information set out in rule 112 of NGR.	Shippers may make preliminary enquiries before an access request. Access requests must be in writing and include the information “reasonably required” for the service provider to respond (rule 559 of NGR).
	Access offer	Service providers must respond in accordance with the timeframes set out in rule 112 of NGR (i.e. access proposal required in 25 business days if no further investigation required or 40 business days if investigations are required - these times can be extended by agreement).	Service providers must respond to access requests in accordance with the timeframes set out in rule 560 of NGR (i.e. response required in 20 business days if no further investigation required or 60 business days if investigation required – these times can be extended by agreement).
	Negotiation	The number of days each party has to respond following the access request and response process are set out in rule 112 of NGR. This rule also states that if the service provider’s proposal is not agreed to within the specified time, the service provider is taken to have rejected the request. This can act as the trigger for a dispute.	A shipper that has made an access request under rule 559 of NGR may by notice to the service provider request negotiations. If a notice is issued, the parties must agree on a timetable for negotiations and comply with the exchange of information provisions (rule 561 of NGR). They must also negotiate in good faith (s.216G of NGL) .
	Ability of shipper to seek additional information	There is no formal process for a shipper to seek information from a service provider during negotiations, but rule 107 of NGR allows the relevant regulator, at the shipper’s request, to issue a notice to a service provider requiring them to provide the shipper with information if it is reasonably required to decide whether to seek access to a service.	Shippers are able to request information from service providers during negotiations and service providers must comply with the request (unless to do so would breach a confidentiality obligation or a third party has not given consent to the disclosure) within 15 business days (or longer if agreed). Service providers must comply with the access information standard when providing information (rule 562 of NGR).
Dispute resolution mechanisms			
Forms of dispute resolution		Mediation, conciliation, alternative dispute and arbitration (s. 185 of NGL)	Arbitration (Ch. 6A, Part 3 of NGL)
Dispute resolution body		AER and Energy Disputes Arbitrator for WA disputes	Commercial arbitrator selected from pool established by relevant regulator
Availability of arbitration		Dispute resolution is available when a shipper is seeking access, when an existing shipper is seeking to add a new service to an existing contract or when an existing shipper seeks a new contract to take effect on expiry of an existing GTA. It is not, however, available for disputes about existing services or extensions.	
Process	Dispute trigger	A dispute notice may be given by either party if agreement cannot be reached (s. 181 of NGL) within the timeframes specified in the NGR (rule 112)..	A dispute notice may be given by either party if agreement cannot be reached if an access request has been made under Part 23 (rule 564 of NGR)
	Joint disputes	Joint dispute hearings may be held.	n.a.
	Termination of disputes	Disputes may be terminated if the dispute resolution body (arbitrator) considers: (i) the dispute notices is vexatious; (ii) the subject matter is trivial, misconceived or lacking in substance; and (iii) the party who notified the dispute did not negotiate in good faith (ss. 186 and 216O of the NGL).	

Element		Full and light regulation (scheme pipelines)	Part 23 (non-scheme pipelines)
		The dispute resolution body may refuse to make an access determination if it considers the pipeline service could be provided on a genuinely competitive basis by another service provider (s. 187 of NGL).	The arbitrator may also terminate the dispute if there is some other good reason why it should not proceed or the shipper is not engaging in the arbitration in good faith (s. 216O of NGL).
Principles to be applied by dispute resolution body		<p>The dispute resolution body must:</p> <ul style="list-style-type: none"> ▪ where relevant, give effect to an AA (s. 189 of NGL) ▪ exercise its functions and powers in manner that will, or is likely to, contribute to the NGO and must also take into account the revenue and pricing principles in s. 24 of the NGR (see Box 7.1 for more detail) (s. 28 of the NGL) 	<p>The arbitrator must take into account:</p> <ul style="list-style-type: none"> ▪ the principle that access must be on reasonable terms (i.e. terms that, so far as practicable, reflect the outcomes of a workably competitive market) ▪ the pricing principles in rule 569 of the NGR (see Box 7.1 for more detail) ▪ the operational and technical requirements necessary for the safe and reliable operation of the pipeline. <p>The arbitrator <i>may</i> also take into account other factors in rule 569 of the NGR, such as the legitimate business interests of service providers and users.</p>
Other	Time frames	The dispute resolution body “must act as speedily as a proper consideration of the access dispute allows” (s. 198 of NGL)	The arbitrator must make a final access determination within 50 business days (or up to 90 business days in certain circumstances) (rule 572 of NGR)
	Binding nature of decision	Binding on service providers and shippers (s. 195 of NGL)	The determination is binding on service providers but not the shipper (s. 216Q of NGL). If the shipper decides <u>not</u> to take up the service, it is prohibited from seeking an arbitration for the same or a substantially similar service for up to 1 year (rule 573 of NGR)
	Information to be published	Not specified	Summary information published on the pipeline and services subject to dispute, the parties to the dispute (if agreed by shipper), the arbitrator’s name, the duration of the arbitration proceedings, the asset value and valuation method used (where applicable), and whether the shipper entered into a contract that reflected the final determination (rule 581 of NGR)
Costs of arbitration		<p>Parties bear their own costs, but the dispute resolution body can order a party to pay all or a part of the costs of another party in the dispute (s. 206 of NGL) if it is satisfied that it is fair to do so, having regard to whether a party has conducted the dispute hearing in a way that unnecessarily disadvantaged another party (e.g. by failing to comply with an order, the NGL, NGR or Regulations; causing an adjournment; attempting to deceive the other party or dispute resolution body; or behaving vexatiously) (s. 206 of NGL).</p> <p>The dispute resolution body can also recover its costs and apportion the costs between the parties (cl. 9 of the Regulations)</p>	<p>Parties bear their own costs (s. 216V of the NGL).</p> <p>The costs of the arbitration (e.g. arbitrator fees, experts, room hire) to be shared equally unless arbitrator decides otherwise (rule 580 of NGR), which could occur for similar reasons to those applying to cost orders under full and light regulation and could also occur if a shipper, elects not to enter into an access contract.</p>

Box 7.1: Pricing principles applying to disputes

Revenue and pricing principles applying to full and light regulation pipelines

When making a pricing related access determination for full and light regulation pipelines, the dispute resolution body must take into account the following revenue and pricing principles set out in section 24 of the NGL:

- A service provider should be provided with a reasonable opportunity to recover at least the efficient costs the service provider incurs in:
 - (a) providing reference services; and
 - (b) complying with a regulatory obligation or requirement or making a regulatory payment.
- A service provider should be provided with effective incentives to promote economic efficiency with respect to the reference services the service provider provides. The economic efficiency that should be promoted includes:
 - (a) efficient investment in, or in connection with, a pipeline with which the service provider provides reference services; and
 - (b) the efficient provision of pipeline services; and
 - (c) the efficient use of the pipeline.
- Regard should be had to the capital base adopted in any previous full AA decision (or decision by the relevant regulator under the Gas Code) or in the NGR.
- A reference tariff should allow for a return commensurate with the regulatory and commercial risks involved in providing the reference service to which that tariff relates.
- Regard should be had to the economic costs and risks of the potential for under and over investment by a service provider in the pipeline.
- Regard should be had to the economic costs and risks of the potential for under and over utilisation of a pipeline with which a service provider provides pipeline services.

The dispute resolution body is also required to apply the relevant regulator's binding rate of return instrument.

Pricing principles under Part 23

When making a pricing related determination under Part 23, the arbitrator must have regard to the following pricing principles set out in rule 569 of the NGR:

- (1) The price for access to a pipeline service on a non-scheme pipeline should reflect the cost of providing that service, including a commercial rate of return that is commensurate with the prevailing conditions in the market for funds and reflects the risks the service provider faces in providing the pipeline service. For the purposes of this rule:
 - (a) the value of any assets used in the provision of the pipeline service must be determined using asset valuation techniques consistent with the objective of Part 23 (i.e. to facilitate access to pipeline services on reasonable terms, which is taken to mean at prices and on other terms and conditions that, so far as practical reflect the outcomes of a workably competitive market); and
 - (b) unless inconsistent with paragraph (a), the value of any assets used in the provision of the pipeline service is to be calculated using the recovered capital method (i.e. the construction cost plus capital expenditure since commissioning less the return of capital recovered and the value of pipeline assets disposed of since commissioning).
- (2) When applying the principle in paragraph (1) to a pipeline service that when used affects the capacity of the non-scheme pipeline available for other pipeline services and is priced at a premium or a discount to the price for a firm haulage service on the relevant non-scheme pipeline – the premium or discount must:
 - (i) take into account any opportunity cost or benefit to the service provider of providing the pipeline service, having regard to any effect on the cost of providing firm haulage services or the capacity of the non-scheme pipeline; and
 - (ii) be consistent with the price for the pipeline service providing a reasonable contribution to joint and common costs.

Why different pricing principles were adopted under Part 23

The rationale for adopting different pricing principles under Part 23 is reflected in the following statement made by the GMRG in its final recommendations on the design of this framework:¹⁵⁵

“...the objective of the new framework is to pose a constraint on the exercise of market power by pipeline operators by facilitating access to the services provided by these pipelines on reasonable terms. The term ‘reasonable’ is taken in this context to mean at prices and on terms and conditions that, so far as practical, reflect the outcomes of a workably competitive market.

In a workably competitive market, rivalry between competing firms can be expected in the longer-run to drive prices down to a cost reflective level, where firms are covering their costs plus a rate of return that reflects the risk faced by the firm. In keeping with this concept, the final design provides for the adoption of cost reflective pricing principles... In the GMRG’s view, the cost reflective pricing principles (which provide for the recovery of a commercial rate of return that reflects the risks faced by the pipeline operator) are consistent with what would occur in a workably competitive market. They should also preserve incentives for investment and innovation in pipelines, which shippers have made clear is of considerable importance to the market. While some pipeline operators have characterised the adoption of cost reflective pricing principles as a “quasi regulatory” approach, it is consistent with what would occur in a workably competitive market.

...

The GMRG has also considered the suggestion by some stakeholders that greater guidance be provided to the arbitrator on how the cost-reflective pricing principles are to be applied. While the GMRG can see merit in providing the arbitrator with some additional guidance on asset valuation, the intention is not...to mirror the regulatory arrangements applying to full regulation pipelines. The GMRG is not therefore recommending the adoption of prescriptive pricing principles and will allow the arbitrator to have some discretion on how it applies the principles.”

As Table 7.1 and Box 7.1 reveal, there are a number of differences between the negotiation frameworks and dispute resolution mechanisms applying under the two negotiate-arbitrate models. In most cases, these differences are by design; reflecting both the nature of the negotiate-arbitrate models (i.e. regulatory- or commercially-oriented) and the intent in implementing the two models.

The commercially-oriented model adopted under Part 23, for example, was implemented in response to the feedback shippers provided to Dr Vertigan’s Examination, which was that they were not looking for a traditional regulatory solution. Rather, they wanted a mechanism to be put in place that would facilitate more timely and effective commercial negotiations between shippers and service providers and to reduce the imbalance in bargaining power shippers can face in these negotiations.¹⁵⁶ A decision was therefore made to implement a more commercial dispute resolution mechanism, which provided for a credible threat of intervention if negotiations broke down and the timely resolution of disputes that proceeded to arbitration.¹⁵⁷ Interestingly, the model adopted under Part 23 is

¹⁵⁵ GMRG, Final Design Recommendation: Gas Pipeline Information Disclosure and Arbitration Framework, June 2017, pp. 9-10.

¹⁵⁶ Vertigan, M., Examination of the current test for the regulation of gas pipelines, 14 December 2016, p. 78

¹⁵⁷ COAG Energy Council, Meeting Communique, 14 December 2016.

similar to what the Productivity Commission originally proposed, when it recommended the introduction of a lighter form of regulation in 2004.¹⁵⁸

Consistent with the decision to adopt a commercially-oriented mechanism, the dispute resolution mechanism in Part 23 provides for:

- the dispute to be heard by a commercial arbitrator rather than a regulator;
- the arbitrator to have regard to workably competitive market-based pricing principles rather than economic efficiency-based pricing principles;
- arbitrations to be completed within a specified number of days (i.e. 50-90 business days), rather than by reference to a principle that the dispute resolution body act “as speedily as possible as the resolution of the dispute allows”; and
- limited information about the outcome of an arbitration to be made public.¹⁵⁹

Setting aside these more fundamental differences, there are a number of other important differences between the negotiation frameworks and dispute resolution mechanisms that are unrelated to the nature of the negotiate-arbitrate models. The negotiation frameworks, for example, differ in terms of:

- the requirement for service providers to publish a user access guide;
- the access request, offer and negotiation processes (including response times);
- how shippers can seek additional information during negotiations;
- the trigger for initiating access disputes; and
- the requirement to report on the status of negotiations to the relevant regulator.

The dispute resolution mechanisms, on the other hand, differ in terms of the extent to which an access determination is binding on a shipper, the ability of the dispute resolution body to award costs against a party, the ability to have joint disputes and to allow intervenors to participate.

¹⁵⁸ In 2004, the Productivity Commission recommended the introduction of a lighter form of regulation and that service providers subject to this new form of regulation would be required to disclose a range of information and be subject to a binding commercial arbitration mechanism. In doing so, the Productivity Commission noted that:¹⁵⁸

“Commercial arbitration is likely to avoid the costs and delays associated with a costly building block approach because:

- *the rules governing arbitration are those used in commercial circumstances (perhaps according to a commercial arbitration act and/or through an arbitration and mediation organisation)*
- *the incentives facing parties are different to those when the regulator is arbitrating according to a complex set of pricing principles.”*

While the Productivity Commission advocated the use of a commercially-oriented mechanism, the MCE decided in 2006 to utilise the existing dispute resolution mechanism in the Gas Code for the lighter option. This resulted in the application of a regulatory-oriented dispute resolution mechanism.

See Productivity Commission, Review of the Gas Access Regime, 11 June 2004, p. 336 and MCE, Review of the National Gas Pipelines Access Regime, May 2006, p. 13.

¹⁵⁹ Note that in commercial arbitrations the arbitrator’s decisions are not typically made public.

7.2 What problems have been identified with this aspect of the regulatory framework and what feedback was provided?

7.2.1 Potential problems identified in the Consultation RIS

In the Consultation RIS the following *potential* problems with this aspect of the regulatory framework were identified, based on a number of reviews of the regulatory framework (see Appendix B):

- (a) differences between the existing negotiation frameworks *may* cause confusion amongst shippers, giving rise to unnecessary costs and delays and/or impeding the ability of shippers to negotiate effectively with service providers;
- (b) the credibility of the threat of arbitration *may* not be as strong for smaller shippers as it is for other shippers, which may make them more susceptible to exercises of market power by service providers; and
- (c) the dispute resolution mechanism applying to scheme pipelines (i.e. under full and light regulation) *may* not be as credible as it could and may not therefore be posing an effective constraint on the behaviour of service providers in negotiations.

7.2.2 Stakeholder feedback on the potential problems

Table 7.2 sets out the feedback that stakeholders provided on these potential problems.

As this table shows, the majority of stakeholders that commented on the potential problems agreed that differences in the negotiation frameworks, the credibility of the threat of arbitration by smaller shippers, and elements of the scheme pipeline dispute resolution mechanism constitute a problem with the current regulatory framework. There was, however, some division amongst stakeholders, with the ACCC, user associations and some producers agreeing they constitute problems, while a number of service providers either did not agree that they were problems, or did not think they were significant problems. Some of these service providers did, however, support a number of the proposed solutions to these problems (see Table 7.4).

In addition to the three potential problems listed above, a number of stakeholders expressed concerns about the non-scheme pipeline dispute resolution mechanism and, in particular, the Part 23 pricing principles, and suggested more prescription was required to reduce the degree of information and the imbalance of bargaining power faced by shippers. Other stakeholders, on the other hand, either thought non-scheme pipeline dispute resolution mechanism was working as intended, or did not raise this as an issue.

Table 7.2: Potential problems identified in the CRIS and stakeholder feedback on the problems

Detail		
Differences in negotiation frameworks		
Description of potential problem	<p>As noted above, while improvements have been made to the negotiation frameworks applying to scheme and non-scheme pipelines, there is a concern that differences that currently exist between the two negotiation frameworks could cause confusion, impose unnecessary costs on the negotiating parties and/or hinder the ability of shippers to engage in effective negotiations. The more notable differences are: the obligation to publish a user access guide; the access request and offer process and, in particular, the number of business days that service providers have to respond to access requests; the way in which the negotiation timetable is established, the manner in which negotiations are to be conducted and concluded; and the ability of shippers to seek additional information during negotiations.</p> <p>Another potential problem the ACCC has identified with the Part 23 negotiation framework is that shippers' requests are often treated as 'preliminary enquiries', rather than access requests,¹⁶⁰ and, as a consequence, service providers are not subject to the rules in Part 23 that set out how they are to respond to access requests (including response times). The treatment of requests as preliminary enquiries can also delay a shipper's access to arbitration if negotiations fail, because to trigger a dispute under Part 23, a formal access request must be made and the parties must have gone through the negotiation process in Part 23.</p>	
Stakeholder feedback	Agree	<ul style="list-style-type: none"> The ACCC, EUAA, NSW BC, Chemistry Australia, ECA, MEU, AGL, APLNG, COPA, and Energy Matrix agreed that differences in the negotiation frameworks was a problem, with Energy Matrix noting this is a fundamental issue and APLNG noting it is contributing to confusion and inefficiencies.
	Disagree	<ul style="list-style-type: none"> AGIG, APGA, Epic and Jemena either did not agree that the differences in negotiation frameworks were a problem, or did not think they were a significant problem. APA stated that the differences had not imposed unnecessary costs or hindered access, but agreed there could be confusion when different frameworks apply. While APA and APGA did not agree that this constituted a problem, or did not think this was a significant problem, they both supported the adoption of a single negotiation framework (see Table 7.4). AGIG, Epic and Jemena, on the other hand, supported the retention of the existing negotiation frameworks.
	Other	<ul style="list-style-type: none"> Other stakeholders did not express a view on whether this constituted a problem.
Credibility of the threat of arbitration by smaller shippers		
Description of potential problem	<p>In its review of the operation of Part 23, the ACCC noted the potential for the threat of arbitration to be viewed as less credible when it comes from smaller shippers that are negotiating directly with service providers. This is because the cost to these shippers of triggering an arbitration may outweigh the benefits.¹⁶¹ Similar concerns were also raised by user associations during the development of Part 23. As the ACCC and user associations have observed, if the threat of arbitration is not considered credible, then smaller shippers may be more susceptible to exercises of market power by service providers. They may therefore be required to pay more for transportation services (or subject to more onerous terms and conditions) than larger counterparts, as the ACCC observed in its review of the operation of Part 23.¹⁶²</p>	
Stakeholder feedback	Agree	<ul style="list-style-type: none"> The ACCC, EUAA, NSW Business Chamber Chemistry Australia, MEU, Qenos, COPA, Energy Matrix and AGIG agreed the threat of arbitration by smaller shippers may not be as credible, with a number stating this is a significant issue. Elaborating further on this issue, the EUAA and Chemistry Australia noted that smaller shippers have "neither the resources nor the expertise to mount an effective argument in arbitration against a pipeline owner". The EUAA also noted the importance of addressing this issue, given the increasing number of smaller shippers moving away from retailers to contract gas and transportation services in their own right. The MEU concurred with the EUAA and Chemistry Australia and noted the costs of arbitration can deter shippers from using the mechanism. AGIG noted the key issue was the lack of countervailing power held by smaller shippers and how this can transpire in negotiations and arbitrations.
	Disagree	<ul style="list-style-type: none"> APA did not agree that the threat of arbitration by smaller shippers was less credible. Jemena noted that while smaller shippers may face some cost related difficulties, it did not consider this to be a significant issue. Note that while APA and Jemena did not agree that this constituted a problem, or did not think this was a significant problem, they both supported changes to the cost provisions in the dispute resolution mechanism to reduce this barrier for smaller shippers (see Table 7.4).

¹⁶⁰ ACCC, Gas inquiry 2017-2020 Interim report, July 2019, p. 156.

¹⁶¹ *ibid.*, p. 157.

¹⁶² *ibid.*

Detail	
	<p>Other</p> <ul style="list-style-type: none"> APGA and Epic did not comment directly on whether the threat of arbitration by smaller shippers is less credible, but did note the importance of 'level-playing field' and the threat of arbitration being credible for all shippers and supported changing the cost provisions in the dispute resolution mechanism to reduce this barrier for smaller shippers (see Table 7.4). Other stakeholders did not express a view on whether this constituted a problem with the regulatory framework.
Deficiencies in the dispute resolution mechanism applying to scheme pipelines	
Description of potential problem	<p>In the AEMC's 2017-18 Economic regulation review, concerns were raised about a number of aspects of the dispute resolution mechanism applying under full and light regulation and the potential for these to reduce the credibility of the threat of arbitration, give rise to unnecessary costs and uncertainties, and reduce the efficiency of the dispute resolution mechanism and the ability to reach a timely resolution.¹⁶³ Concerns were, for example, expressed about the limited guidance provided in the NGL and/or the NGR about:</p> <ul style="list-style-type: none"> the matters to be considered by the dispute resolution body in an arbitration; the process for advising market participants of the existence of a dispute and joining other parties to a dispute; the role of the dispute resolution expert in providing advice, the process for appointing such an expert and using the expert's evidence; the timeframes for the dispute resolution process; and the information to be published on the outcome of an arbitration. <p>Another potential issue that has been identified with the dispute resolution mechanism applying under full and light regulation is that the dispute resolution body's access determination is binding on both parties.¹⁶⁴ This is in direct contrast to the approach adopted under Part 23, where the access determination is binding on the service provider but is only binding on the shipper if the shipper decides to enter into a contract that gives effect to the access determination. If the shipper decides not to enter into such a contract, then it is prohibited by the rules from seeking arbitration in relation to the same or a substantially similar service for a period of one year.</p> <p>A different approach was adopted in Part 23 because concerns were raised during the development of Part 23 about the potential for an arbitrator's access determination to cause a shipper financial distress.¹⁶⁵ While a similar risk exists under full and light regulation, the determination is binding on shippers.¹⁶⁶ It is possible therefore that this feature of the dispute resolution mechanism could discourage shippers from triggering an access dispute on a scheme pipeline.</p>
Stakeholder feedback	<p>Agree</p> <ul style="list-style-type: none"> The ACCC, EUAA, NSW Business Chamber Chemistry Australia, COPA and Energy Matrix agreed that the dispute resolution mechanism applying to scheme pipelines may not be as effective or efficient as it could be.
	<p>Disagree</p> <ul style="list-style-type: none"> APLNG, APGA and APA did not think the identified deficiencies were a problem, or did not think they constituted a significant problem. They did, however, support a number of the proposed changes to the dispute resolution mechanism (see Table 7.4).
	<p>Other</p> <ul style="list-style-type: none"> Other stakeholders did not express a view on whether this constituted a problem with the regulatory framework.
Other issues	
Non-scheme pipeline dispute resolution mechanism	<ul style="list-style-type: none"> While not identified as a problem with the current regulatory framework, the EUAA, Chemistry Australia, APLNG, COPA, EnergyAustralia and TGP expressed a number of concerns about the Part 23 pricing principles and some other aspects of the non-scheme pipeline dispute resolution mechanism. <ul style="list-style-type: none"> The EUAA and Chemistry Australia noted that more prescription in the Part 23 pricing principles was required to reduce the degree of information and negotiation asymmetry faced by shippers, particularly smaller shippers. They also suggested regulator be the arbitrator under this dispute mechanism. EnergyAustralia made a similar observation, noting that the current level of detail creates considerable uncertainty for parties considering arbitration, which may discourage its use. EnergyAustralia also suggested the regulator be the arbitrator. Those that advocated for more prescription in the Part 23 pricing principles, suggested that greater prescription be provided on the asset valuation provisions, the rate of return provisions, the expenditure provisions, cost allocation, demand and revenue risk. TGP also suggested a number of other changes to the framework to prevent capacity being 'sterilised' for the duration of the arbitration, while EnergyAustralia suggested more detail be published on final access determinations. ATCO suggested an informal, low cost, non-binding one day mediation process be included in the framework. Other stakeholders either thought the Part 23 dispute resolution mechanism was working as intended (e.g. APGA, Jemena), or did not raise it as an issue.

¹⁶³ AEMC, Final Report: Review into the scope of economic regulation applied to covered pipelines, 3 July 2018, pp. 205-220.

¹⁶⁴ See s. 195 of the NGL.

¹⁶⁵ GMRG, Gas Pipeline Information Disclosure and Arbitration Framework: Implementation Options Paper, March 2017, p. 69.

¹⁶⁶ See s. 195 of the NGL.

7.2.3 Conclusion on problems with this aspect of the regulatory framework

Having regard to the prior reviews of the regulatory framework and the feedback provided by stakeholders, it would appear that the three potential problems identified in the Consultation RIS are in fact problems with the current regulatory framework.

While it has not been possible to quantify the effect of these problems, they can be expected to have a detrimental effect on economic efficiency, consumers and the broader economy because they are:

- hindering the ability of shippers to negotiate effectively and to credibly threaten recourse to the dispute resolution mechanism;
- imposing unnecessary costs and delays on negotiations between shippers and service providers; and
- leaving shippers more exposed to exercises of market power by service providers, which can result in lower than efficient levels of consumption, production and investment.

They can therefore be viewed as both a market failure and a regulatory issue that warrant further action by the Energy National Cabinet Reform Committee.

As to the concerns that have been raised about the non-scheme pipeline dispute resolution mechanism, it is worth noting that the pricing principles applying under this mechanism were designed to provide for some uncertainty in the outcome to incentivise the parties to negotiate and reach a commercial agreement, rather than relying on arbitration as a matter of course. It is also worth noting that these principles have only been employed in one arbitration to date.¹⁶⁷ It is not clear therefore that there is actually a problem with this aspect of the regulatory framework that warrants further action, so no changes to this aspect of the regulatory framework have been considered as part of this Decision RIS.

While no changes have been considered, it is worth noting that Energy Senior Officials intend to continue monitoring the effectiveness of these principles and the non-scheme pipeline dispute resolution mechanism. The ACCC is also expected to do the same as part of its Gas Inquiry. If, as a result of this monitoring, it becomes clear that there are problems that need to be addressed then those changes would be considered. It is also worth noting that, as with any rules in the NGR, it would be open to interested parties to submit a rule change to the AEMC if they think the pricing principles, or other aspects of this dispute resolution mechanism, are not working as intended.

7.3 What options were identified in the Consultation RIS to address the problems and what feedback was provided?

7.3.1 Options identified in the Consultation RIS

Table 7.3 set out the options to address the potential problems that were identified in the Consultation RIS.

¹⁶⁷ The principles were used in Tasmanian Gas Pipeline and Hydro Tasmania arbitration.

Table 7.3: Options identified in the Consultation RIS

Potential problems	Potential solutions
Differences in negotiation frameworks	<p>A Maintain the existing differences in negotiation frameworks (status quo).</p> <p>B Address the problems that have been identified with the negotiation frameworks, by adopting a single negotiation framework, which is based on:</p> <ul style="list-style-type: none"> (a) the approach that currently applies under full and light regulation; (b) the approach that currently applies under Part 23; or (c) a hybrid approach that: (a) requires all service providers to publish a user access guide; (b) uses the same access request, offer and negotiation timelines used for full and light regulation pipelines; (c) allows shippers to obtain information from service providers in negotiations in the manner set out in Part 23; and (d) adopt the same trigger for access disputes that applies to full and light regulation pipelines.
Credibility of the threat of arbitration by smaller shippers	<p>A Maintain the existing approach (status quo).</p> <p>B Address the problems that have been identified with the credibility of the threat of arbitration posed by smaller shippers by:</p> <ul style="list-style-type: none"> (a) amending the dispute resolution mechanisms to prevent service providers' costs being awarded against smaller shippers (this is only applicable under full and light regulation) and prevent smaller shippers paying more than half the dispute resolution body's costs; (b) allowing user groups to intervene in arbitral proceedings involving smaller shippers; and/or (c) enabling smaller shippers seeking access to non-scheme pipelines to elect to have the dispute heard by the regulatory dispute resolution body rather than a commercial arbitrator.
Efficiency, effectiveness and credibility of the threat of arbitration for scheme pipelines	<p>A Maintain the existing dispute resolution mechanism (status quo).</p> <p>B Address the problems that have been identified with the dispute resolution mechanism applying to scheme pipelines by:</p> <ul style="list-style-type: none"> (a) amending the NGL to require the dispute resolution body to have regard to the NGO, the revenue and pricing principles, an applicable AA (where relevant), previous AAs or access determinations, pre-existing contractual rights and the price and revenue regulation provisions in Part 9 of the NGR. (b) amending the joint dispute provisions in the NGL to require the existence of a dispute to be made public and to set out the process for joining parties. (c) amending the timeframes for access determinations by: <ul style="list-style-type: none"> i. introducing a 50-day fast-track option for disputes involving full regulation pipelines; and/or ii. specifying the maximum period of time to be taken by the dispute resolution body to resolve a dispute (e.g. 8 or 12 mths). (d) amending the NGL and/or NGR so that: <ul style="list-style-type: none"> i. an access determination is not binding on the shipper unless the shipper decides to enter into a contract that reflects the access determination; and ii. a shipper that decides not to enter into such a contract is prevented from seeking arbitration for the same or a substantially similar service for 12 mths. (e) amending the NGL to require the dispute resolution body to publish the access determination, statement of reasons, relevant financial calculations and information provided in the course of the dispute (subject to the confidentiality provisions in the NGL).

7.3.2 Stakeholder feedback on the options

The feedback that stakeholders provided on these options is set out in Table 7.4.

Table 7.4: Stakeholder feedback on the options identified in the Consultation RIS

Issues		Feedback	
Differences in negotiation frameworks	Option A: Status quo	<ul style="list-style-type: none"> AGIG and Jemena supported the retention of separate negotiation frameworks for scheme and non-scheme pipelines. 	
	Option B: Adopt a single negotiation framework	<ul style="list-style-type: none"> The ACCC, EUAA, NSW BC, Chemistry Australia, AGL, EnergyAustralia, Origin, APLNG, COPA, APA, ATCO and APGA supported the adoption of a single negotiation framework that would apply under all forms of regulation. As to the form the single negotiation framework should take: <ul style="list-style-type: none"> The ACCC, EUAA, NSW BC, Chemistry Australia, EnergyAustralia, APLNG and COPA thought the framework should be based on the hybrid model set out in the Consultation RIS. Origin, APA and APGA thought it should be based on the Part 23 negotiation framework. AGL suggested parties should be able to mutually agree to a different process, which the Part 23 negotiation framework currently provides for. A number of these stakeholders also supported the removal of the preliminary enquiry process, while others supported its retention. <ul style="list-style-type: none"> the ACCC, EUAA, NSW BC, Chemistry Australia, MEU and Qenos supported its removal (or subjecting it to a stricter timetable); AGL, Origin, APLNG, COPA, AGIG, APA, APGA, Epic, Jemena and TGP supported the retention of the preliminary enquiry process, with some noting they found it useful to be able to negotiate outside the framework but to have access to the formal process if negotiations fail. ATCO also supported its retention, but suggested the concerns identified by the ACCC be addressed by allowing shippers to progress directly to the negotiation phase of the negotiation framework, rather than having to go back to the start of the formal access request stage. The ACCC also suggested that the access information standard be applied more broadly in the negotiation framework to discourage service providers from providing false or misleading information when making an offer and in negotiations. 	
Credibility of the threat of arbitration by smaller shippers	Option A: Status quo	<ul style="list-style-type: none"> APLNG supported the retention of the status quo, because it was concerned that any measures to strengthen the credibility of the threat of smaller shippers may result in medium and larger shippers having to subsidise smaller shippers. 	
	Option B: Improve the credibility of the threat of arbitration by smaller shippers by:	(a) amending the cost provisions	<ul style="list-style-type: none"> The ACCC, EUAA, NSW BC, Chemistry Australia and Qenos supported the proposal to amend the cost provisions so that smaller shippers are only required to pay their own costs and no more than half the arbitrator's costs. AGIG, APA, APGA, Epic and Jemena also supported this proposal, subject to protections preventing the vexatious use of arbitration.
		(b) allowing user associations to be involved in arbitration	<ul style="list-style-type: none"> The ACCC, EUAA, NSW BC, Chemistry Australia, Qenos and COPA supported the proposal to allow user associations to intervene on behalf of a smaller shipper in an arbitration. AGIG also supported this proposal, but noted that user groups should only be allowed to participate if the shipper requests that this occur and if they do participate, the confidentiality of the proceedings must be maintained. This proposal was, however, opposed by APA, APGA, Epic, Jemena and TGP. APGA, for example, stated it would increase the scope, complexity, costs and arbitration timeframes.
		(c) allowing smaller shippers to elect to have the regulator as arbitrator	<ul style="list-style-type: none"> The EUAA, NSW BC, Chemistry Australia and Qenos supported the proposal to allow smaller shippers to elect to have the regulator as arbitrator in disputes under the lighter form of regulation. This proposal was, however, opposed by the APGA, AGIG, APA, Epic, Jemena and TGP, who noted that it would constitute a significant departure from the commercially oriented nature of Part 23. The ACCC and AER also expressed concerns with this proposal, with the AER noting regulators do not have the same level of flexibility to resolve disputes as commercial arbitrators and that it could result in the regulator's decision becoming the default position for any future commercial arbitration. The ACCC noted that if there was perceived to be a need for there to be a threat of the regulator's involvement, consideration could be given to allowing smaller shippers to go to mediation before arbitration and for the regulator to be the mediator.

Issues		Feedback
	Size threshold for small shipper	<ul style="list-style-type: none"> ▪ Differing views were expressed on the threshold to be used to define a smaller shipper, with some suggesting it be based on reserved capacity (e.g. less than 10 TJ/day), the net present cost of the transportation contract (e.g. an annual contract cost less than \$20 million), the size of the shipper's business measured in terms of (e.g. annual sales revenue less than \$50 million) or employees, or a combination of these measures.
	Other measures	<ul style="list-style-type: none"> ▪ In addition to the measures listed above, the EUAA, Chemistry Australia and Qenos noted that improved information disclosure and oversight by the regulator (with regular audits and public reporting of the audit results) and more prescription in the Part 23 pricing principles would increase the chance of agreement being reached without arbitration. ▪ The MEU suggested this 'very significant issue' be addressed by requiring all pipelines offering monopoly services to be subject to full regulation.
Scheme pipeline dispute resolution mechanism	Option A: Status quo	<ul style="list-style-type: none"> ▪ No stakeholders supported the maintenance of the status quo.
	Option B: Amend the scheme pipeline dispute resolution mechanism	<ul style="list-style-type: none"> ▪ The EUAA, NSW BC, Chemistry Australia, COPA and AGIG agreed with all of the proposed changes to this dispute resolution mechanism. APGA also agreed more guidance could be provided on timeframes and the role and appointment process for the dispute resolution expert. ▪ The ACCC agreed with all the proposed changes except the fast-track process, noting that in its experience it is not possible for a regulator to resolve disputes in such a short period of time. The ACCC suggested a better solution was to specify a maximum decision time for all disputes. ▪ APA agreed with the proposals to require the dispute resolution body to have regard to the pricing principles in Part 9 of the NGR and to adopt a fast-track option, but did not agree with the proposal to publish information on the outcome of the arbitration because it was concerned about confidentiality.¹⁶⁸ ▪ Origin and APLNG supported the proposal that an arbitrator's decision should only be binding if the shipper decides to enter into the contract that reflects the access determination. In doing so, they noted the current approach could undermine the credibility of the threat of arbitration because shippers may avoid arbitration if there is a possibility they will be forced to take access on terms that cause financial distress. TGP, on the other hand, noted this could "encourage ambit claims" because it gives shippers a "free option if there is spare capacity".

¹⁶⁸ The proposal to publish this information was based on the recommendations contained in the AEMC's 2017-18 Economic regulatory review, which noted that "enhanced transparency in dispute resolution increases accountability of all parties involved, and enhances the precedent value of dispute resolution proceedings and outcomes". While advocating greater transparency, the AEMC also recognised that some information may be commercially sensitive. It therefore suggested that before publishing the outcomes of the arbitration, the dispute resolution body consider claims for confidentiality having regard to the matters set out in s. 329 of the NGL. The requirement for the dispute resolution body to consider confidentiality claims prior to publication is expected to address the concerns that APA has raised. No further consideration has therefore been given to this issue.

7.3.3 Assessment of the feedback and how it has been accounted for in the reform options

As Table 7.4 reveals, the majority of stakeholders, including some of those service providers that did not think having multiple negotiation frameworks was a problem (or not a significant problem) supported the adoption of a single negotiation framework that would apply under all forms of regulation. Most of these stakeholders thought the framework should be based on a hybrid of the two existing negotiation frameworks. A large number also supported the retention of the preliminary enquiry process, although some stakeholders acknowledged that changes were required to address the concerns the ACCC has previously raised about the potential for this process to be used to delay access to arbitration and to avoid the rules regarding service provider response times.

The majority of stakeholders also supported the adoption of measures to improve the credibility of the threat of arbitration by smaller shippers, with most of these stakeholders agreeing the cost provisions should be amended and a large number also supporting the proposal to allow user associations to intervene. Stakeholders were, however, more divided on whether the relevant regulator should act as arbitrator in disputes involving smaller shippers under the lighter form of regulation.

As to the scheme pipeline dispute resolution mechanism, there was universal support to improve the credibility of the threat of arbitration and the efficiency of this mechanism, but mixed views were expressed on some of the proposed amendments (e.g. the fast track provisions and the binding nature of the arbitrator's determination).

Given the diversity of views expressed on some of these issues, further consideration has been given to the issues raised by stakeholders and the extent to which they should be reflected in two alternative reform options that have been developed to reflect the outcomes of stakeholder feedback: Option 3A and Option 3B. In doing so, consideration has been given to:

- the problems that have been identified with this aspect of the regulatory framework (see section 7.2.3); and
- the objectives of Energy National Cabinet Reform Committee action (see section 3.2).

The results of this consideration are set out in Table 7.5, which also sets out how the feedback has been taken into account in options 3A and 3B.

Table 7.5: Assessment of the feedback and how it has been accounted for in options 3A and 3B

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
Negotiation framework	<p>As noted above, the majority of stakeholders supported the adoption of a single negotiation framework and most of the proposed elements of the single framework outlined in Option B(c) (see Table 7.3). Differing views were, however, expressed about:</p> <ul style="list-style-type: none"> ▪ whether the preliminary enquiry process should be retained in the framework; and ▪ the response and negotiation timeframes. <p>The ACCC also suggested the application of the access information standard be extended to other parts of the negotiation framework. Further consideration has therefore been given to these matters.</p> <p>Preliminary enquiry process</p> <p>As noted in Table 7.2, one of the problems that the ACCC has identified with the Part 23 negotiation framework is that the preliminary enquiry process may be used by service providers to try and delay a shipper’s access to arbitration and/or to avoid some of the rules relating to access responses. These potential problems were echoed by other stakeholders, some of whom suggested that rather than removing the preliminary enquiry process, the concerns raised by the ACCC be addressed in an alternative manner. The proposal by these stakeholders to try and retain the preliminary enquiry process is consistent with the feedback provided by a large number of other shippers and service providers that they value the flexibility provided by the preliminary enquiry process.</p> <p>Given this feedback, further consideration has been given to how the ACCC’s concerns with the current process could be addressed whilst also retaining the preliminary enquiry process. As a number of stakeholders noted, this could be achieved by amending the NGR to:</p> <ul style="list-style-type: none"> ▪ require service providers to provide an initial response to preliminary enquiries within a specified period of time (i.e.. within 10 business days, stating whether the service can be provided or not, or if further investigations are required and, if so, when an offer will be provided); and ▪ allow a shipper that has made a preliminary enquiry and received an offer from a service provider to proceed directly to the negotiation stage, rather than having to go back and submit a formal access request and proceed through the access request and access offer stages. <p>Amending the NGR in this way is preferable to the removal of the preliminary enquiry process because it will ensure that the flexibility that shippers and service providers value is retained in the negotiation framework. It will also ensure that there are adequate protections in place for shippers that use this process and that it is not used by service providers to delay access to arbitration. Provision has therefore been made for the preliminary enquiry process to be retained in options 3A and 3B, but amended in the manner described above.</p> <p>Timeframes for responses and negotiations</p> <p>The timeframes for initial responses, access offers and negotiations that were assumed in the Consultation RIS hybrid model were based on the timeframes that had been adopted for scheme pipelines. The trigger for an access dispute was also based on these timeframes.</p> <p>Having considered the feedback provided by stakeholders, it would appear that a better approach for the single negotiation framework would be to adopt the following timeframes in the NGR:</p>	<p><i>Under options 3A and 3B there would be a single negotiation framework that would apply under both the stronger and lighter forms of regulation and would operate as follows:</i></p> <ol style="list-style-type: none"> <i>(a) all service providers would be required to publish a user access guide;</i> <i>(b) the preliminary enquiry process would be retained but modified in the manner described;</i> <i>(c) the timeframes for initial responses, access offers and negotiations would be as described and specified in the rules;</i> <i>(d) shippers would be able to obtain information from service providers during negotiations in the same way that they can under Part 23 and the access information standard would apply to any information provided by a service provider in response to a preliminary enquiry or formal access request and during negotiations; and</i> <i>(e) the access dispute trigger would be as described and specified in the NGL or NGR (see Box 8.2).</i>

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
	<ul style="list-style-type: none"> ▪ a hybrid of the initial response timeframes that currently apply under Part 23 and to scheme pipelines (i.e. with service providers to inform shippers if they require further information within 5 business days of receiving a request and within 10 business days informing the shipper whether they can provide the service,¹⁶⁹ or if further investigations are required); ▪ the access offer timeframes that currently apply under Part 23 (i.e. the service provider would be required to provide an access offer within the time agreed by the parties, but if no time is agreed, within 20 business days of receiving the request if no further investigations are required, or within 60 business days of receiving the request if further investigations are required); and ▪ the flexible approach to setting the negotiation timetable that currently applies under Part 23, which allows the parties to agree to their own timetable and to agree to extend the timeframes if required. <p>If these changes are made, then the access dispute trigger would also need to be amended to provide for a dispute to be triggered by either party if:</p> <p>(a) an agreement is not reached within the timeframe agreed to in the negotiation timetable; or</p> <p>(b) the shipper disagrees with any of the responses provided by the service provider in response to its request (including a refusal to provide the service).</p> <p>These elements of the single negotiation framework would provide shippers and service providers with greater clarity about their rights and obligations and facilitate more timely and effective negotiations. Provision has therefore been made for them in options 3A and 3B.</p> <p>Access information standard</p> <p>The access information standard currently applies to access offers and information exchanged during negotiations, but not to the information exchanged during the preliminary enquiry process. As the ACCC noted, this is a gap in the current framework that could be exploited by service providers that want to prevent new shippers obtaining access to their pipeline (or service) by misrepresenting their ability to provide access and the terms of access more generally.¹⁷⁰</p> <p>To remove this gap, the application of the access information standard could be extended to apply to any information provided by a service provider in response to a preliminary enquiry, a formal access request and in negotiations. Making this change would reduce the degree of information asymmetry faced by shippers. Provision has therefore been made for this under options 3A and 3B.</p>	
Credibility of the threat of arbitration	<p>As Table 7.4 shows, most stakeholders agreed that the credibility of the threat of arbitration by smaller shippers should be improved by amending the cost provisions and allowing user associations to intervene in arbitral proceedings if requested by a smaller shipper. Mixed views were, however, expressed about the potential for the regulator to act as an arbitrator in disputes involving smaller shippers on pipelines subject to the lighter form of regulation. Further consideration has therefore been given to this proposal.</p>	<p><i>Under options 3A and 3B the negotiation position of smaller shippers¹⁷⁴ would be improved by:</i></p> <p><i>(a) changing the cost provisions to prevent:</i></p> <p><i>(i) service providers' costs being awarded against smaller shippers in disputes; and</i></p>

¹⁶⁹ Consistent with the rules currently applying under Part 23, the only circumstance in which a service provider would not be required to make an offer under the single negotiation framework is if it is not technically feasible or consistent with the safe and reliable operation to provide the service.

¹⁷⁰ ACCC, Gas inquiry 2017-2025 interim report, January 2020, p. 117.

¹⁷⁴ Note that the definition of what constitutes a smaller shipper would be consulted on as part of the legal package.

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
by smaller shippers	<p>As the AER, ACCC and some other stakeholders observed, allowing the relevant regulator to act as an arbitrator in these disputes would constitute a departure from the commercial nature of the arbitration mechanism that would apply under the new lighter form of regulation. It could also give rise to some conflicts for the regulator. Consideration has therefore been given to the ACCC's suggestion that smaller shippers using pipelines subject to the new lighter form of regulation have the option to go to mediation. However, rather than the regulator acting as mediator (as proposed by the ACCC), it has been assumed that:</p> <ul style="list-style-type: none"> ▪ the regulator would appoint an independent party to act as mediator in a <i>compulsory but non-binding</i>¹⁷¹ mediation to avoid any perceived conflicts;^{172, 173} and ▪ the mediator would be required to report back to the regulator on the outcomes of the mediation, which could then be used to inform the regulator's monitoring and referral functions. <p>Including this type of mechanism in the regulatory framework is expected to strengthen the position of smaller shippers in their negotiations on pipelines subject to the lighter form of regulation, because:</p> <ul style="list-style-type: none"> ▪ the threat of intervention by a third party will be more credible (i.e. because the costs associated with mediation are usually lower than the costs associated with arbitrations); and ▪ the threat of the relevant regulator being informed of the dispute is expected to pose more of a constraint on the behaviour of service providers in their negotiations with smaller shippers, because the relevant regulator is expected to monitor the behaviour of service providers and to refer pipelines for a form of regulation assessment if it suspects market power is being exercised. <p>Importantly, the smaller shipper may not actually have to proceed to mediation to see a change in the behaviour of service providers. This is because the <i>threat</i> of the regulator being informed of the dispute should in most cases be sufficient to pose more of a constraint on the behaviour of service providers in negotiations. Provision has therefore been made for this measure to be included in options 3A and 3B.</p>	<p>(ii) smaller shippers paying more than half the dispute resolution body's costs;</p> <p>(b) allowing user associations to intervene in arbitral proceedings if requested by a smaller shipper; and</p> <p>(c) allowing smaller shippers using pipelines subject to the lighter handed form of regulation to elect to have a dispute mediated by a regulator-appointed mediator (with the mediator required to report back to the relevant regulator on the outcomes of the mediation).</p>
Dispute resolution mechanism	<p>As outlined above, most stakeholders agreed that a commercially-oriented dispute resolution mechanism should continue to apply under the lighter form of regulation and a regulatory-oriented dispute resolution mechanism should apply under the stronger form of regulation. Most stakeholders also agreed with the proposed changes to regulatory-oriented dispute resolution mechanism set out in Table 7.3, although there were some differences in views expressed about the fast track option and whether the arbitrator's decision should be binding on shippers. Further consideration has therefore been given to these two elements.</p> <p>Fast track option</p> <p>The fast track arbitration option was recommended by the AEMC in its 2017-18 Economic regulation review in response to concerns that the current process is too slow. The ACCC questioned how realistic a fast-track process would be for a regulatory-oriented arbitration and suggested that a better way to address these concerns would be to specify the maximum decision time for all disputes.</p> <p>While the opportunity for the AER or the WA Energy Disputes Arbitrator to fast-track a dispute is likely to be quite limited, there may be some cases where this can occur (e.g. for disputes about access to a reference</p>	<p><i>Under options 3A and 3B:</i></p> <ul style="list-style-type: none"> ▪ the commercially oriented dispute resolution mechanism that currently applies under Part 23 would apply under for the lighter form of regulation; and ▪ the regulatory oriented dispute resolution mechanism that currently applies to scheme pipelines would apply under the stronger form of regulation. <p><i>The two options also provide for the scheme pipeline dispute resolution mechanism to be amended to:</i></p> <p>(a) Require the dispute resolution body to have regard to the NGO, the revenue and pricing</p>

¹⁷¹ The mediation would be 'compulsory' in the sense that service providers would be required to participate in the mediation if a smaller shipper requests the mediation and the regulator agrees to refer the matter to mediation. It would also be non-binding, which means that the outcome could not be forced on either party.

¹⁷² Note that this is only required under the lighter handed form of regulation, because the dispute resolution body already has an option under full regulation to refer a dispute to mediation.

¹⁷³ This alternative is similar in many ways to the mediation mechanism that applies to wholesale market disputes under Part 15C of the NGR and is intended to avoid any perceived conflicts with the regulator being involved in the commercially-oriented dispute resolution mechanism, either as an arbitrator or a mediator.

Issue	Assessment of the feedback	How feedback accounted for in options 3A and 3B
	<p>service, or about non-price terms and conditions). Provision has therefore been made for this fast-track option in options 3A and 3B.</p> <p>Provision has also been made in these two options for a maximum period of time to be specified for the dispute resolution body's decision, as suggested by the ACCC and as supported by a number of other stakeholders. To ensure some degree of consistency across the regulatory framework, the timeframe should be the same as that allowed for access arrangement decisions, which is eight months (plus a potential extension of two months).</p> <p>Making these changes to the dispute resolution mechanism is expected to provide the more timely resolution of those disputes that proceed to arbitration under the stronger form of regulation.</p> <p>Binding nature of the decision</p> <p>The outcomes of an arbitration on scheme pipelines are currently binding on service providers and shippers. This is in direct contrast to the approach taken in Part 23, where an access determination is binding on the service provider but is only binding on the shipper if it decides to enter into a contract that gives effect to the access determination. If the shipper decides not to enter into such a contract, then it is prohibited by the rules from seeking arbitration in relation to the same or a substantially similar service for a period of one year.</p> <p>A different approach was adopted in Part 23 because concerns were raised about the potential for an arbitrator's access determination to cause a shipper financial distress. While a similar risk exists for scheme pipelines, the access determination applying to these pipelines is currently binding on shippers. As Origin and APLNG noted, the binding nature of this determination could discourage shippers from having recourse to the dispute resolution mechanism and, in so doing, undermine the credibility of the threat that arbitration is intended to pose on service providers.</p> <p>If the same approach that has been used under Part 23 was applied to scheme pipelines, then it should strengthen the credibility of the threat of arbitration, which should, in turn, pose more of a constraint on the behaviour of service providers subject to the stronger form of regulation when negotiating with shippers. Provision has therefore been made in options 3A and 3B for the same approach to be employed under the stronger form of regulation.¹⁷⁵</p>	<p><i>principles, an applicable AA (where relevant), previous AAs or access determinations, pre-existing contractual rights and the price and revenue regulation provisions in Part 9 of the NGR.</i></p> <p>(b) <i>Provide additional guidance on the role of the dispute resolution expert and the process for appointing and using the evidence of such an expert</i></p> <p>(c) <i>Better facilitate joint dispute hearing by requiring the existence of a dispute to be made public and setting out the process for joining parties.</i></p> <p>(d) <i>Introduce a 50-day fast-track option and specify the maximum period of time to be taken by the dispute resolution body to resolve a dispute (i.e. eight months).</i></p> <p>(e) <i>State that an access determination is not binding on the shipper unless it decides to enter into a contract that reflects the access determination; and that if it decides not to enter into such a contract is prevented from seeking arbitration for the same or a substantially similar service for 12 months.</i></p> <p>(f) <i>Require the dispute resolution body to publish the access determination, statement of reasons, relevant financial calculations and information provided in the course of the dispute (subject to the confidentiality provisions in the NGL).</i></p>

¹⁷⁵ While TGP has suggested this could encourage ambit claims by shippers, there are already provisions in Chapter 6 of the NGL that are intended to protect against this type of behaviour. Section 186, for example, allows the dispute resolution body to terminate a dispute if they consider it vexatious, trivial, misconceived or lacking in substance.

7.4 Summary of policy options for negotiation framework and dispute resolution mechanism

Table 7.6 sets out the policy options for this aspect of the regulatory framework that have been considered as part of the Decision RIS.

Table 7.6: Policy options identified for the Decision RIS

Element	Option 1 (Status quo)	Option 2	Option 3A	Option 3B	Option 4
Negotiation framework	Retain existing negotiation frameworks.	Single negotiation framework to apply under all forms of regulation.			
Threat of dispute by smaller shippers	Retain the existing arrangements (i.e. no specific measures to strengthen the threat for smaller shippers).	Strengthen credibility of the threat of arbitration for small shippers by changing the dispute related cost provisions.	<p>The credibility of the threat of smaller shippers triggering a dispute would be strengthened by:</p> <ul style="list-style-type: none"> ▪ changing the dispute related cost provisions ▪ allowing user bodies to be joined to proceedings involving smaller shippers ▪ allowing smaller shippers to elect to have a dispute involving a pipeline subject to the lighter form of regulation mediated by a regulator appointed party (who would be required to report back to the regulator on the outcomes). 		<p>Strengthen the credibility of the threat of arbitration for smaller shippers on pipelines subject to the negotiate-arbitrate model by:</p> <ul style="list-style-type: none"> ▪ changing the dispute related cost provisions ▪ allowing user bodies to be joined to arbitral proceedings involving smaller shippers ▪ allowing the smaller shipper to elect to have the dispute heard by the relevant regulator rather than a commercial arbitrator.
Dispute resolution mechanisms	Retain the existing dispute resolution mechanisms.	Maintain commercially oriented arbitration for lighter regulation and regulatory arbitration for stronger form of regulation. Full regulation dispute resolution mechanism to be strengthened in the manner set out in Box 8.3.			Maintain Part 23 dispute resolution mechanism for lighter regulation.

Further detail on how these potential options could form part of a broader regulatory package is provided in Chapter 8, while Chapter 9 sets out the results of regulatory impact assessment and Chapter 10 sets out the preferred option.

8. Policy options considered as part of the RIS

Five policy options have been identified in response to the problems outlined in chapters 4-7 (reform focus 1-4). One option is to maintain the status quo. The other options differ in a number of respects, but for ease of reference are named on the basis of the pipelines that would be subject to regulation and the forms of regulation under each option. The five policy options are:

- Option 1: Maintain the status quo.
- **Option 2:** Regulation of **pipelines with substantial market power**, with regulated pipelines subject to either:
 - a stronger form of regulation based on full regulation; or
 - a lighter form of regulation based on a strengthened Part 23.
- **Option 3A:** Regulation of all **pipelines providing third party access** plus those not voluntarily providing third party access if they satisfy a third party access test, with regulated pipelines subject to either:
 - a stronger form of regulation based on full regulation; or
 - a lighter form of regulation based on a strengthened Part 23.
- **Option 3B:** Regulation of **all pipelines**, with pipelines subject to either:
 - a stronger form of regulation based on full regulation; or
 - a lighter form of regulation based on a strengthened Part 23.

To reduce the regulatory burden for pipelines with no third party shippers, the service provider would be exempt from information disclosure obligations until such time as there are third parties using the pipeline.

- **Option 4:** Regulation of **all pipelines**, with pipelines subject to either:
 - a stronger form based on **direct price control**; or
 - a lighter form of regulation based on a strengthened Part 23.

To reduce the regulatory burden for pipelines with no third party shippers, the service provider would be exempt from information disclosure obligations until such time as there are third parties using the pipeline.

It is worth noting that options 1, 2 and 4 are largely unchanged from the Consultation RIS. Options 3A and 3B, on the other hand, are variants of Option 3 from the Consultation RIS, and reflect the feedback that stakeholders provided through the consultation process and additional advice that has been obtained in response to the stakeholder feedback. Further detail on the policy options is provided in the remainder of this chapter.

8.1 Policy options

Table 8.1 and boxes 8.1-8.3 provide an overview of the key elements of Options 1-4.

Table 8.1: Policy options identified for the Decision RIS

Element	Option 1 (Status quo)	Option 2	Option 3A	Option 3B	Option 4	
When should pipelines be regulated	Access to pipelines providing 3rd party access	Maintain current approach, with all pipelines providing 3 rd party access subject to some form of regulation.	Allow 3 rd party access pipelines to obtain an exemption from regulation if they can demonstrate they do not have substantial market power.	Maintain the current approach, with all pipelines providing 3 rd party access subject to some form of regulation	Require <u>all</u> pipelines to provide 3 rd party access and to be subject to some form of regulation. For transitional purposes, those pipelines that have already obtained a 15-year no coverage determination and are not providing third party access would be exempt from the obligation to provide third party access for the remaining term of the exemption period	
	Access to pipelines not voluntarily providing 3rd party access	Maintain current approach to enabling access to be sought to pipelines not voluntarily providing 3 rd party access if the coverage test is satisfied.	Allow access to be sought to pipelines not voluntarily providing 3 rd party access if market power-NGO test satisfied.			
	Greenfield exemption	Maintain current approach, with new pipelines able to obtain a 15-year no coverage determination if the coverage test is not satisfied and the terms and conditions of access for pipelines developed through a competitive tender process able to be locked in for up to 15 years.	Single greenfield exemption to enable new pipelines with a full exemption from regulation if the pipeline can demonstrate it will not have substantial market power over the exemption period.	Single greenfield exemption to enable new pipelines to obtain an exemption from the stronger form of regulation, and where relevant, lock in the outcomes of competition, for up to 15 years where it can be demonstrated that the pipeline is unlikely to have substantial market power over the exemption period.	No greenfield exemption	
Forms of regulation and the movement between the alternative forms	Forms of regulation	Maintain the existing forms of regulation (i.e. full, light and Part 23).	Adopt the following forms of regulation: <ul style="list-style-type: none"> Stronger regulation – based on full regulation (i.e. negotiate-arbitrate with reference tariffs approved by the regulator and a regulatory-oriented dispute resolution mechanism). Lighter regulation – based on the existing Part 23 (i.e. a negotiate-arbitrate model with information disclosure and a commercially-oriented dispute resolution mechanism), which would be strengthened through the inclusion of the safeguards that currently apply to light regulation, but not the prohibition on inefficient price discrimination. For transitional purposes, the 5.5 pipelines currently subject to light regulation would be transitioned to the new lighter form of regulation unless the service provider elects to be subject to the stronger form of regulation.		Adopt the following forms of regulation: <ul style="list-style-type: none"> Stronger based on direct price or revenue control Lighter based on strengthened Part 23. 	
	Dynamic market power measures	Maintain the existing approach, which does not explicitly deal with service providers trying to block new entry.		Service providers would be: <ul style="list-style-type: none"> required to comply with pipeline interconnection principles set out in the NGR prohibited from increasing the charges payable by existing shippers to cross-subsidise the development of new capacity (subject to limited exceptions specified in the NGR) and would be required to disclose more information on the costs of extensions and expansions. 	Service providers would be required to: <ul style="list-style-type: none"> comply with interconnection principles in the NGR use incremental pricing if the cost of new capacity would result in the price of existing capacity rising. 	
	Monitoring and referral	Maintain existing approach, which provides for limited monitoring by the relevant regulator and no referral function.		Relevant regulator to more actively monitor the behaviour of service providers and to refer pipelines for a form of regulation assessment if it suspects market power is being exercised.		
	Form of regulation test	Retain existing tests with coverage test continuing to act as a gateway.	Remove coverage test and use existing form of regulation test to determine whether the stronger or lighter form of regulation should apply (note the form of regulation test and/or decision-maker's information gathering powers would be modified to address concerns raised about the information asymmetries faced by the decision-maker and to align it with other elements of the reform options).			

Element		Option 1 (Status quo)	Option 2	Option 3A	Option 3B	Option 4
Governance for when and how to regulate decisions	Decisions to be made	Retain the exiting governance arrangements (NCC/Minister for when to regulate decisions and NCC for form of regulation decisions).	Decisions on: <ul style="list-style-type: none"> regulatory exemptions third party access greenfield exemptions form of regulation. 	Decisions on: <ul style="list-style-type: none"> third party access greenfield exemptions form of regulation. 	Decisions on: <ul style="list-style-type: none"> greenfield exemptions form of regulation. 	Decisions on form of regulation.
	Decision-maker		Relevant regulator (AER/ERA)			
Information disclosure requirements	Information to be disclosed	Retain the existing information disclosure requirements across the forms of regulation.	All service providers to publish the following unless they obtain an exemption: <ul style="list-style-type: none"> Basic Information (see Box 8.1), which includes pipeline information, service information, service availability information, service usage information, standing terms for each service offered by the pipeline and information on the prices actually paid by shippers. Historical financial and demand information. 			
			Information on prices paid by other shippers based on weighted average price plus minimum and maximum prices for each service.	Information on the prices paid by other shippers to be based on the individual prices (including key terms and conditions) paid by shippers.		
			n.a.	Disclosure requirements amended to address the identified information deficiencies and improve the quality, reliability, accessibility and usability of the information (see Box 8.1).		
	Exemptions from disclosure requirements	Retain the existing exemptions from disclosure under Part 23 and light regulation.	<ul style="list-style-type: none"> No exemptions from disclosure requirements for regulated pipelines. Pipelines with an exemption from regulation (see above) that provide 3rd party access can obtain an exemption from historical financial and demand information, but must disclose Basic Information. 	The following exemptions from the information disclosure obligations would be available: <ul style="list-style-type: none"> Pipelines that are not providing third party access would be able to obtain an exemption from publishing the Basic Information and the historical financial and demand information. Pipelines that are providing third party access, but have a single user or have a nameplate capacity less than 10 TJ/day would be able to obtain an exemption from the obligation to publish historical financial and service usage information. If a pipeline no longer satisfies the exemption criteria, the exemption would be revoked.		
Negotiation frameworks and dispute resolution mechanism*	Negotiation framework	Retain existing negotiation frameworks for full/light regulation and Part 23.	Single negotiation framework to apply under all forms of regulation (see Box 8.2).			
	Threat of dispute by smaller shippers	Retain the existing arrangements (i.e. no specific measures to strengthen the threat for smaller shippers).	Strengthen credibility of the threat of arbitration for small shippers by changing the dispute related cost provisions.	The credibility of the threat of smaller shippers triggering a dispute would be strengthened by: <ul style="list-style-type: none"> changing the dispute related cost provisions allowing user bodies to be joined to proceedings involving smaller shippers allowing smaller shippers to elect to have a dispute involving a pipeline subject to the lighter form of regulation mediated by a regulator appointed party (who would be required to report back to the regulator on the outcomes of the mediation). 		Strengthen the credibility of the threat of arbitration for smaller shippers on lighter regulation pipelines by: <ul style="list-style-type: none"> changing the dispute related cost provisions allowing user bodies to be joined to arbitral proceedings allowing smaller shipper to elect to have dispute heard by the relevant regulator
	Dispute resolution mechanisms	Retain the existing dispute resolution mechanisms.	Maintain the Part 23 commercially-oriented mechanism for lighter regulation and the scheme pipeline regulatory-oriented mechanism for stronger regulation. The scheme pipeline dispute resolution mechanism would be strengthened in the manner set out in Box 8.3.			Maintain Part 23 dispute resolution mechanism for lighter regulation.

Box 8.1: Information disclosure requirements

Basic information to be published by exempt pipelines providing 3rd party access

Service providers of pipelines that are providing third party access would be required to publish the following Basic Information:

- the pipeline information; pipeline service information; standing terms for each service offered by the pipeline, service availability information and service usage information outlined in Table 6.1; and
- information on the prices actually paid by other shippers for pipeline services, the form of which differs under each of the options.

Measures to address deficiencies in information to assess reasonableness of prices

To address the deficiencies identified with the pricing methodologies and financial information:

- (a) service providers would be required to publish the inputs used to calculate the pipeline's standing prices;
- (b) the relevant regulator would be required to publish a guide on what information the pricing methodology should include;
- (c) service providers would be required to publish historical demand information (i.e. information on contracted capacity and use of capacity) alongside historical financial information; and
- (d) service providers would be required to publish their cost allocation methodology, which would need to comply with cost allocation principles in the NGR and/or a guideline developed by the relevant regulator.

Measures to improve the quality and reliability of information

The quality and reliability of information reported by service providers would be improved by:

- (a) requiring greater regulatory oversight of the historical financial information reported by service providers and information on the prices paid by shippers as part of the relevant regulator's new monitoring function;
- (b) amending the access information standard in the NGR to require service providers to update information as soon as practicable if it is found to no longer be accurate;
- (c) increasing the penalties for breaches of the information disclosure obligations, the access information standard and the regulator's financial reporting guideline; and
- (d) requiring the relevant regulator to review the financial reporting guideline and consult on amendments to address the issues identified by the ACCC and Brattle (see Appendix B).

Measures to improve the accessibility of information

To make the information reported by service providers more accessible:

- (a) the relevant regulator would be required to prepare a guide that sets out where and how the information is to be reported on a service provider's website; and
- (b) service providers would be required to advise the AEMC of the location of the information on their respective websites (and any changes to the location), which would then be published as a link in the pipeline register.

Measures to improve the usability of information

To improve the usability of the financial and pricing information:

- (a) a summary tab would be included in the relevant regulator's financial reporting template to provide a high level summary of key financial and price information; and
- (b) the relevant regulator would be required to publish a pricing template that shippers could use to transform the historical financial and demand information into one or more cost-based pricing benchmarks.

Box 8.2: Single negotiation framework

A single negotiation framework would in the case of options 2, 3A and 3B apply under both forms of regulation, and for option 4 would apply under the lighter form of regulation. The single negotiation framework, which represents a hybrid of the two frameworks that currently apply under Part 23 and full regulation, is intended to operate as follows:

- **Access guide:** All service providers would be required to publish a user access guide (i.e. so that shippers have a better understanding of the process for seeking access);
- **Preliminary enquiries:** A preliminary enquiry process would be available, but it would:
 - require the service provider to provide an initial response within 10 business days stating whether it can provide the service or not, or if further investigations are required and, if so, when it will provide an offer; and
 - allow shippers to proceed directly to the negotiation stage if an offer is provided by the service provider in response to the preliminary enquiry.
- **Timeframes for responses and negotiations:** The following timeframes would apply if an access request is made:
 - **Initial response:** The service provider would be required to acknowledge receipt within 5 business days and inform the shipper if the request is incomplete and, if so, what additional information is required. It must also inform the shipper within 10 business days whether the service can be provided, or if further investigations are required.
 - **Access offer:** The service provider would be required to provide an access offer within the time agreed by the parties, but if no time is agreed, within 20 business days of receiving the request if no further investigations are required, or within 60 business days of receiving the request if further investigations are required;
 - **Negotiations:** The parties would be required to agree on a negotiation timetable.
- **Circumstances in which an offer would not be required to be made:** Consistent with the rules currently applying under Part 23, the only circumstance in which a service provider will not be required to make an offer is if it is not technically feasible or consistent with the safe and reliable operation to provide the service.¹⁷⁶ If a service provider misrepresents its ability to provide a service, enforcement action could be taken.
- **Information disclosure:** Shippers would be able to obtain additional information during negotiations in the same manner as that currently provided for under Part 23.
- **Standards to apply to information disclosures:** The access information standard would apply to any information exchanged during the preliminary enquiry, access offer and negotiation stages.
- **Access dispute trigger:** A dispute could be triggered by either party if:
 - the shipper disagrees with any of the responses provided by the service provider in response to its request (including a refusal to provide the service because it is not technically feasible, or consistent with the safe and reliable operation of the pipeline); or
 - an agreement is not reached within the timeframe agreed to in the negotiation timetable (note the parties can agree to extend the day count).

¹⁷⁶ Note that this already applies under Part 23.

Box 8.3: Improvements to the full regulation dispute resolution mechanism

To address the deficiencies that have been identified with the dispute resolution mechanism applying under full regulation, this mechanism would be amended to:

- require the dispute resolution body to have regard to the NGO, the revenue and pricing principles, the applicable AA, previous AAs/determinations, pre-existing contractual rights, the operational and technical requirements necessary for the safe and reliable operation of the pipeline and applicable provisions in Part 9 of the NGR when making a determination;
- provide additional guidance on the role of the dispute resolution expert and the process for appointing and using the evidence of such an expert;
- better facilitate joint dispute hearings by requiring the existence of a dispute to be made public and setting out the process for joining parties;
- introduce a 50-day fast track option for the regulatory-oriented negotiate-arbitrate model and specify the maximum period of time the dispute resolution body has to make a decision under this model, which would be aligned with the time the relevant regulator has to review an AA (i.e. eight months);
- amend the dispute resolution mechanism so that:
 - an access determination is only binding on the parties if the shipper decides to enter into a contract that reflects the access determination; and
 - if a shipper decides not to enter into such a contract, it is prohibited from seeking arbitration for the same or a substantially similar service for 12 months.
- require the dispute resolution body to publish the access determination, statement of reasons, relevant financial calculations and, where appropriate, information provided in the course of the dispute (subject to the confidentiality provisions in the NGL).

8.2 Key differences between the reform options

As the names of the options indicate, Option 2 provides for a *winding back* of regulation from the position reached in 2017 when all pipelines providing third party access became subject to some form of regulation. Options 3B and 4, on the other hand, provide for an expansion of the scope of regulation to include all pipelines, with the key difference between the two being the form that the stronger form of regulation would take under the two options (i.e. full regulation under Option 3B versus direct price control under Option 4). Further detail on the key differences between these reform options and the current regulatory framework, as reflected in Option 1, is provided below.

8.2.1 Option 2: Regulation of pipelines with substantial market power

The key point of difference between Option 2 and the current regulatory framework is that Option 2 provides for a full exemption from regulation to be obtained by pipelines where it can be demonstrated that the pipeline does **not** have substantial market power, or, in the case of new pipelines, if a greenfield exemption is granted. The threshold for regulation under this option is therefore higher than it is under Option 1 and would result in regulation being wound back from the status quo.

The other key differences between the when and how to regulate elements of Option 2 and the current framework are that:

- the coverage test would be removed from the regulatory framework and the market power-NGO test would be used to determine whether any exemptions from regulation should be granted, or if third party access should be provided;

- the CTP and 15-year no coverage determination provisions would be replaced with a single greenfield exemption that would enable new pipelines to obtain an exemption from the stronger form of regulation for up to 15 years, where it can be demonstrated the pipeline is unlikely to have substantial market power over the exemption period;
- there would be just two forms of regulation, with the stronger form based on full regulation and the lighter form based on a strengthened Part 23;
- decisions about the form of regulation to apply to a pipeline would be made on the basis of the existing form of regulation test,¹⁷⁷ so it would be easier to move between the forms of regulation and the application of the stronger form would pose a more credible threat to service providers;
- a single decision making body would be responsible for deciding whether a pipeline should be exempt from regulation and for making third party access, greenfield exemption and form of regulation decisions.

Option 2 also provides for:

- some improvements to the information disclosure obligations applying under the stronger form of regulation but not to the lighter form of regulation;
- the adoption of a single negotiation framework that would apply under both forms of regulation;
- a number of changes to the dispute resolution mechanism that would apply under the stronger form of regulation; and
- changes to the cost provisions in the stronger and lighter dispute resolution mechanisms to strengthen the bargaining position of smaller shippers.

Option 2 does **not**, however, include any specific measures to deal with dynamic market power, or to address the deficiencies that have been identified in the information reported by pipelines subject to light regulation and Part 23. It also does not go as far as options 3A, 3B and 4 in terms of strengthening the bargaining position of smaller shippers.

8.2.2 Option 3A: Regulation of all 3rd party access pipelines plus pipelines not providing 3rd party access if they pass third party access test

In contrast to Option 2, the threshold for regulation under Option 3A is the same as the current regulatory framework. That is all pipelines providing third party access would be subject to some form of regulation and there would be a mechanism that shippers could use to seek access to pipelines that are not voluntarily providing third party access.

While the starting point is the same, there are a number of important differences between the when and how to regulate elements of Option 3A and the current regulatory framework. For example:

- the coverage test would be replaced with the market power-NGO test for third party access decisions;
- the CTP and 15-year no coverage determination provisions would be replaced with a single greenfield exemption that would enable new pipelines to obtain an exemption

¹⁷⁷ Note that this test and/or decision-maker's information gathering powers would be modified to address the concerns raised about the information asymmetries faced by the decision-maker.

from the stronger form of regulation for up to 15 years, where it can be demonstrated the pipeline is unlikely to have substantial market power over the exemption period;

- there would be just two forms of regulation, with the stronger form based on full regulation and the lighter form based on a strengthened Part 23;
- exercises of dynamic market power would be constrained through the inclusion of new rules in the NGR to facilitate interconnections, and to prohibit cross-subsidisation of new capacity;
- decisions about the form of regulation to apply to a pipeline would be made on the basis of the existing form of regulation test,¹⁷⁸ so it would be easier to move between the forms of regulation and the application of the stronger form would pose a more credible threat to service providers; and
- a single decision making body would be responsible for making third party access, greenfield exemption and form of regulation decisions.

Option 3A also provides for:

- a range of improvements to the information disclosure requirements to apply under both the stronger and lighter forms of regulation, including to improve the quality and reliability, accessibility and usability of information;
- the adoption of a single negotiation framework that would apply under both forms of regulation;
- a number of changes to the dispute resolution mechanism that would apply under the stronger form of regulation; and
- a number of measures to strengthen the bargaining position of smaller shippers, including:
 - changes to the cost provisions in the stronger and lighter dispute resolution mechanisms;
 - allowing user bodies to be joined to proceedings involving smaller shippers
 - allowing smaller shippers to elect to have a dispute involving a pipeline subject to the lighter form of regulation mediated by a regulator appointed party (who would be required to report back to the regulator on the outcomes of the mediation).

8.2.3 Option 3B: Regulation of all pipelines with stronger form of regulation based on full regulation

The key difference between Option 3B and the current regulatory framework is that it would be mandatory for all pipelines to provide third party access.¹⁷⁹ All pipelines would therefore be subject to some form of regulation under this option, although some of the regulatory obligations would not commence until the pipeline has third party shippers to minimise the regulatory burden on these pipelines.

¹⁷⁸ Note that this test and/or decision-maker's information gathering powers would be modified to address the concerns raised about the information asymmetries faced by the decision-maker.

¹⁷⁹ For transitional purposes, those pipelines that have already obtained a 15-year no coverage determination and are not providing third party access would be exempt from the obligation to provide third party access for the remaining term of the exemption period.

In addition to this difference, there are a number of other important differences between the when and how to regulate elements of Option 3B and the current regulatory framework. For example:

- the CTP and 15-year no coverage determination provisions would be replaced with a single greenfield exemption that would enable new pipelines to obtain an exemption from the stronger form of regulation for up to 15 years, where it can be demonstrated the pipeline is unlikely to have substantial market power over the exemption period;
- there would be just two forms of regulation, with the stronger form based on full regulation and the lighter form based on a strengthened Part 23;
- exercises of dynamic market power would be constrained through the inclusion of new rules in the NGR to facilitate interconnections, and to prohibit cross-subsidisation of new capacity;
- decisions about the form of regulation to apply to a pipeline would be made on the basis of the existing form of regulation test,¹⁸⁰ so it would be easier to move between the forms of regulation and the application of the stronger form would pose a more credible threat to service providers; and
- a single decision making body would be responsible for making greenfield exemption and form of regulation decisions.

Like Option 3A, Option 3B also provides for:

- a range of improvements to the information disclosure requirements to apply under both the stronger and lighter forms of regulation, including to improve the quality and reliability, accessibility and usability of information;
- the adoption of a single negotiation framework that would apply under both forms of regulation;
- a number of changes to the dispute resolution mechanism that would apply under the stronger form of regulation; and
- a number of measures to strengthen the bargaining position of smaller shippers, including:
 - changes to the cost provisions in the stronger and lighter dispute resolution mechanisms;
 - allowing user bodies to be joined to proceedings involving smaller shippers
 - allowing smaller shippers to elect to have a dispute involving a pipeline subject to the lighter form of regulation mediated by a regulator appointed party (who would be required to report back to the regulator on the outcomes of the mediation).

¹⁸⁰ Note that this test and/or decision-maker's information gathering powers would be modified to address the concerns raised about the information asymmetries faced by the decision-maker.

8.2.4 Option 4: Regulation of all pipelines with stronger form of regulation based on direct price control

Like Option 3B, the key difference between Option 4 and the current regulatory framework is that it would be mandatory for all pipelines to provide third party access and to be subject to some form of regulation.¹⁸¹

In addition to this difference, there are a number of other important differences between the when and how to regulate elements of Option 4 and the current regulatory framework. For example, under Option 4:

- there would be no greenfield exemption available;
- there would be just two forms of regulation, with the stronger form based on direct price control and the lighter form based on a strengthened Part 23;
- exercises of dynamic market power would be constrained through the inclusion of new rules in the NGR to facilitate interconnections, and to prohibit cross-subsidisation of new capacity; and
- a single decision making body would be responsible for making form of regulation decisions.

Like options 3A and 3B, Option 4 also provides for:

- a range of improvements to the information disclosure requirements to apply under both the stronger and lighter forms of regulation, including to improve the quality and reliability, accessibility and usability of information;
- the adoption of a single negotiation framework that would apply under both forms of regulation; and
- a number of changes to the dispute resolution mechanism that would apply under the stronger form of regulation.
- a number of measures to strengthen the bargaining position of smaller shippers, including:
 - changes to the cost provisions in the stronger and lighter dispute resolution mechanisms; and
 - allowing user bodies to be joined to proceedings involving smaller shippers.

Under Option 4, smaller shippers using pipelines subject to the lighter form of regulation would also have the option to have the dispute heard by the relevant regulator rather than a commercial arbitrator.

8.3 Extent to which problems addressed by the policy options

Table 8.2 sets out the extent to which the identified problems are addressed under each of the options. As this table shows, options 3A, 3B and 4 are expected to address all of the problems that have been identified with the current regulatory framework. Option 2, on the other hand, is only expected to partially address the problems that have been

¹⁸¹ For transitional purposes, those pipelines that have already obtained a 15-year no coverage determination and are not providing third party access would be exempt from the obligation to provide third party access for the remaining term of the exemption period.

identified with the credibility of the threat of arbitration by smaller shippers and is **not** expected to address the problems that have been identified with:

- exercises of dynamic market power; and
- the information reported by Part 23 and light regulation pipelines.

Table 8.2: Extent to which the identified problems are addressed

Focus area	Potential problems with Status Quo	Option 2	Option 3A	Option 3B	Option 4
When a pipeline should be regulated	The use of the coverage test to determine whether a pipeline that is not voluntarily providing 3 rd party access should be required to do so, can result in under- regulation and inefficient investment in and use of these pipelines	Addressed	Addressed	Addressed	Addressed
Form of regulation and movements between the alternative forms of regulation	The inconsistencies and overlap between Part 23 and light regulation increases regulatory complexity and administrative burden, resulting in unnecessary costs and inefficiencies.	Addressed	Addressed	Addressed	Addressed
	The use of the coverage test as a gateway from Part 23 to full regulation can result in under-regulation, leaving shippers more exposed to exercises of market power by service providers.	Addressed	Addressed	Addressed	Addressed
	The current forms of regulation do not effectively deal with exercises of dynamic market power, which further entrenches the service providers' market power and prevents the benefits of competition flowing through.	Not addressed	Addressed	Addressed	Addressed
Governance for when and how to regulate decisions	The current governance arrangements give rise to unnecessary costs and delays in decision making, particularly in relation to coverage and greenfield exemption related determinations.	Addressed	Addressed	Addressed	Addressed
Information disclosure requirements	The limited information on non-reference services on full regulation pipelines is giving rise to additional search and transaction costs, hindering the ability of shippers to negotiate, resulting in inefficient decisions and making shippers more susceptible to market power.	Addressed	Addressed	Addressed	Addressed
	There are a number of deficiencies in the information reported by Part 23 and light regulation pipelines that can hinder the ability of shippers to negotiate access, give rise to additional search and transaction costs, result in inefficient decisions and make shippers susceptible to market power.	Not addressed	Addressed	Addressed	Addressed
Negotiation frameworks and dispute resolution mechanisms	Differences in the negotiation frameworks applying under the various forms of regulation impose unnecessary costs and delays on negotiating parties and hinder the ability of shippers to negotiate effectively.	Addressed	Addressed	Addressed	Addressed
	The threat of arbitration by smaller shippers may not be viewed as credible by all service providers, which may make this group of shippers more susceptible to exercises of market power.	Partially addressed	Addressed	Addressed	Addressed
	Aspects of the full regulation dispute resolution mechanism are not as effective or efficient as they could be, which undermines the constraint it is intended to impose on service providers.	Addressed	Addressed	Addressed	Addressed

9. Regulatory impact assessment

The purpose of a RIS is to identify whether there is a need for government action, and if so, what form this should take, with the preferred option being that option that yields the greatest net benefit for the community.

In keeping with the COAG's Best Practice Regulation Guide, the following analyses have been conducted to help identify the option that will yield the greatest net benefit:

- A risk analysis, which involved an assessment of the risks associated with the status quo and the extent to which risk is reduced under each policy option.
- A cost-benefit analysis (CBA), which involved a quantitative and qualitative assessment of the incremental costs and benefits associated with each policy option relative to the status quo (i.e. if there was no intervention). The quantitative element of the CBA was undertaken by PwC.
- A regulatory burden analysis, which involved an assessment of the incremental compliance costs associated with each option using the Commonwealth Regulatory Burden Measure (CRBM) compliance costing tool. This quantitative analysis was undertaken by PwC.
- A competition effects analysis (CEA), which involved a qualitative assessment of the impact of each policy option on competition, with particular emphasis placed on:
 - the effect the options are expected to have on barriers to entry, information asymmetries and search and transaction costs, and bargaining power; and
 - whether any of the options are expected to limit the number or types of participants, limit the ability or incentive of participants to compete, or limit the choices available or the information required to negotiate effectively.

It is worth noting in this context that while the focus of the four forms of analysis differs, there is some overlap between them (e.g. the costs used in the regulatory burden analysis are also taken into account in the CBA). There are also some elements of the reform options that perform well under one analysis, but not under another (e.g. an element of the reform option may give rise to a benefit in the CBA, but may also constitute a risk in the risk analysis). It is important therefore to consider the overall regulatory impact of the reform options and any duplication or trade-offs that may exist between the various analyses, rather than focusing on the results of individual analyses.

To this end, a comparative assessment of the reform options has been included in the final section of this chapter, which draws together all the elements of the regulatory impact assessment. This assessment has been conducted using a ranking system, with a ranking of 1 implying the most favourable impact and 5 the most negative impact.

The remainder of this chapter sets out the results of the regulatory impact assessment. Further detail on the risk analysis and CBA can be found in Appendices C-D.

9.1 Risk analysis

9.1.1 What is the purpose of the risk analysis?

The purpose of the risk analysis is to, amongst other things:¹⁸²

- understand the risks associated with the status quo (Option 1), both in terms of the sources of the risks and the magnitude of those risks;
- determine the extent to which the risks would be reduced as a result of the reform options; and
- assess whether the reform options are the most effective way to deal with the risks.

The risk analysis covers both the risks of the status quo and associated treatments, and the risks of implementing each policy option.

9.1.2 How has the risk analysis been conducted?

The impact of the deficiencies in the current regulatory framework have been analysed and five risk categories identified as relevant to implementing the reform options considered in this RIS, all of which can be traced back to the problems set out in Chapter 3 (as summarised in Table E.1). The risk categories include the risks associated with:

1. the application of an inappropriate threshold for economic regulation;
2. the application of ineffective forms of regulation;
3. inefficient governance arrangements for when and how to regulate decisions;
4. inadequate information disclosures by service providers; and
5. ineffective negotiation frameworks and dispute resolution mechanisms.

As part of the risk analysis, consideration has also been given to the additional risks that may be associated with one or more of the four reform options (i.e. options 2, 3A, 3B and 5), such as the risks of:

- regulatory error under option 2 if an exemption mechanism is included;
- regulatory error under options 2 and 3A if a third party access test is included;
- over-regulation of pipelines that do not provide third party access under options 3B and 4 because all pipelines would be subject to regulation under these options; and
- reduced service flexibility for shippers and reduced investment under the direct price control form of regulation under Option 4.

The Consultation RIS set out some preliminary results for the risk analysis and stakeholders were asked for their views on this analysis. This feedback, which is outlined in Appendix C.1, has been taken into account when developing the final risk analysis.

¹⁸² COAG, Best Practice Regulation – A Guide for Ministerial Councils and National Standard Setting Bodies, October 2007, pp. 18-19.

9.1.3 Results of the risk analysis

Table 9.1 provides a summary of the results of the risk analysis that has been undertaken having regard to the risks. Further detail on the risk ratings and the assumptions underlying these ratings can be found in Appendix C.

Table 9.1: Summary of risk ratings for the policy options

Option	Residual Risk Likelihood	Residual Risk Consequence	Residual Risk Rating
Option 1	Possible to Highly Likely	Minor to Major	Medium to Severe
Option 2	Rare to Likely	Minor to Major	Low to High
Option 3A	Rare to Possible	Minor to Major	Low to Medium
Option 3B	Rare to Possible	Minor to Major	Low to Medium
Option 4	Rare to Highly Likely	Minor to Major	Low to Severe

As this table highlights, maintaining the status quo has the highest residual risk rating, with the residual risk rating ranging from medium to severe across the five risk categories outlined above.

While implementing Option 2 is expected to reduce some of the risks associated with the status quo, it will not reduce the risks associated with exercises of dynamic market power, information deficiencies, or the vulnerability of smaller shippers to exercises of market power. In addition, this option introduces a new risk. That is, the risk that when applying the market power test, the decision making body grants a full exemption from regulation to a pipeline that has substantial market power (i.e. the risk of regulatory error). If this occurred and the pipeline was to exert its market power, a shipper would need to apply to have the exemption revoked, which could take some time and leave the shipper exposed to the exercise of market power in the intervening period.¹⁸³ This risk of this occurring has been rated as high. There is also a risk under this option that the retention of a test for third party access may result in regulatory error, with access not being required when it would be efficient for that to occur. This risk has been rated as medium. As a result of these factors, the overall residual risk rating for Option 2 ranges from low to high.

Unlike Option 2, options 3A, 3B and 4 are expected to address the risks associated with the exercise of dynamic market power, information deficiencies, and the vulnerability of smaller shippers to exercises of market power. They are also expected to address some of the other risks associated with the status quo. Options 3A, 3B and 4 do, however, also introduce the following new risks:

- (a) Under Option 3A there is a risk that the retention of a test for third party access may result in third party access not being required when it would be efficient for that to occur. This risk has been rated as medium.
- (b) Under options 3B and 4, there is a risk of over-regulation because under both of these options pipelines that are not voluntarily providing third party access would be required to do so, even though it may not be efficient for this to occur in some cases. This risk has been rated as medium.
- (c) Under Option 4, the movement to direct price control is expected to give rise to the following additional risks:

¹⁸³ There is also a risk that the decision making body may decide not to exempt a pipeline that does not have substantial market power. The costs associated with this risk are, however, expected to be lower than the risk of exempting a pipeline that has substantial market power, because as noted in Chapter 5, Part 23 (even in a strengthened form) is relatively light handed in nature.

- a loss of flexibility for those shippers that require more bespoke services than may be available under this form of regulation; and
- less than efficient levels of investment because shippers would no longer be able to agree to pay a different amount for new capacity even in cases where it would be prudent and efficient to do so.

These two risks, which do not apply under the status quo, have been rated as severe.

Note that the risks in (a) and (b) have been rated as medium rather than high or severe because there are only a small number of pipelines that are not voluntarily providing third party access that shippers are likely to seek access to (see Table 9.3).¹⁸⁴

Overall, the risk ratings under options 3A and 3B range from low to medium, while the risk rating under Option 4 ranges from low to severe.

For the purposes of the comparative assessment set out section 9.5, options 3A and 3B have been ranked 1, Option 2 is ranked 3, Option 4 is ranked 4 and Option 1 is ranked 5.

9.2 Cost benefit analysis

9.2.1 What is the purpose of the CBA?

The purpose of the CBA is to assess the direct and indirect impacts of a potential intervention from the point of view of society, as noted in the Office of Best Practice Regulation's (OBPR) CBA Guidance Note:¹⁸⁵

"...a CBA involves a systematic evaluation of the impacts of a regulatory proposal, accounting for all the effects on the community and economy, not just the immediate or direct effects, financial effects or effects on one group."

The CBA is incremental in that it looks at additional costs and benefits over and above a status quo scenario (the absence of an intervention – see Box 9.1).

Box 9.1: Status quo scenario

A critical part of a CBA that is often overlooked is the specification of the status quo, which forms the basis against which an incremental analysis of the reform options is assessed.

For the CBA to identify incremental costs and benefits it is important to be clear on any relevant planned regulatory change which are independent of the reform options within the RIS, for example any planned changes at a State or Territory level. Equally any forthcoming private sector changes (such as an industry action plan) should be reflected in the status quo scenario. In addition, any actions that are being taken by market participants outside the regulatory framework should also be recognised.

9.2.2 How has the CBA been conducted?

Prior to conducting the CBA, it is necessary to identify:

¹⁸⁴ Most pipelines that are not providing third party access are located in remote areas and are used to transport gas to or from dedicated upstream or downstream facilities. The likelihood of a shipper seeking access to most of these pipelines is therefore expected to be quite low.

¹⁸⁵ OBPR, Guidance Note: Cost-benefit analysis, March 2020, p. 1.

- the appropriate appraisal period and discount rate to be used;
- the stakeholders and number of pipelines likely to be affected by the reform options;
- the costs and benefits that are likely to be associated with each reform option and whether they can be measured quantitatively or qualitatively; and
- the scenarios and sensitivities to be tested as part of the CBA.

These issues are discussed in the context of this particular assessment below.

Appraisal period and discount rates

In keeping with OBPR's CBA Guidance Note, unless the policy options have long-term benefits or costs (such as educational or environmental regulations), 20 years should be the maximum timeframe for the CBA.¹⁸⁶ In this case, a 20-year appraisal period is likely to be appropriate given the long-term nature of investments made by service providers, shippers, retailers, gas users and producers, and the uncertainties associated with forecasting beyond this. A 20-year appraisal period has therefore been used in the central case and a sensitivity analysis has been conducted using both a 10-year and 15-year appraisal period.

Because costs and benefits are being measured over 20-year period, a discount rate must be used. The discount rate reflects the time value of money and allows present and future cash flows to be considered on an equivalent basis, where future cash flows are 'discounted' back to present dollar terms. In keeping with the OBPR's CBA Guidance Note, an annual real discount rate of 7% has been used in the central case and a sensitivity analysis has been conducted using lower- and upper-bound values of 3% and 10%, respectively.¹⁸⁷

Affected stakeholders

A key step in the CBA is to identify the stakeholders that are likely to be affected by the reform options and to then consider the effect that each measure in the reform options is likely to have on these stakeholders. Those stakeholders that have been identified as being directly impacted by the options identified for this process include:

- existing and prospective gas transmission and distribution pipeline service providers;
- existing and prospective shippers, which include gas powered generators, commercial and industrial customers, LNG producers, gas retailers and gas producers; and
- economic regulators (the AER and ERA), the dispute resolution bodies under the alternative forms of regulation.¹⁸⁸ and the decision-maker responsible for determining when and how a pipelines should be regulated.¹⁸⁹

For ease of reference, the latter of these stakeholders is referred to as 'regulators' in the remainder of this section.

¹⁸⁶ *ibid*, p. 4.

¹⁸⁷ *ibid*, p. 7.

¹⁸⁸ For the stronger form of regulation under options 2, 3A and 3B the AER in the east coast and NT and the Energy Disputes Arbitrator in WA and for the lighter handed form of regulation under all options, commercial arbitrators.

¹⁸⁹ The decision-maker would be responsible for determining where relevant, to grant exemptions, greenfield exemption and/or whether a pipeline not providing third party access should be required to do so. It would also be responsible for determining the form of regulation to be applied to pipelines.

In addition to these stakeholders, the reform options under consideration are expected to have an indirect impact on:

- those producers, retailers and gas users (e.g. residential, small to medium enterprises, commercial and industrial customers) that do not transport gas in their own right (e.g. because they are supplied by a retailer); and
- the broader economy.

Affected pipelines

As a number of the costs and benefits associated with the reform options depend on the form of regulation a pipeline is subject to, it has been necessary to estimate:

- (a) how many pipelines that are not voluntarily providing third party access may be required to do so under options 2, 3A, 3B and 4;
- (b) how many new pipelines may be able to obtain a greenfield exemption under options 2, 3A and 3B; and
- (c) how many pipelines may be able to obtain an exemption from regulation under Option 2 because the service provider can demonstrate it lacks substantial market power.

It has also been necessary to estimate how many pipelines that are subject to regulation, are likely to be subject to the lighter or stronger forms of regulation under the four reform options.

Estimates have been required because decisions about what pipelines are regulated and how they are regulated will, given the nature of the tests that have been proposed, depend on the specific circumstances of each pipeline. Given the uncertainty surrounding this issue, two scenarios have been developed:

- **Scenario 1 - High impact:** This scenario assumes a larger proportion of pipelines move to the stronger form of regulation and that a greater proportion of currently exempt pipelines become subject to the new lighter form of regulation.
- **Scenario 2 - Low impact:** This scenario assumes a smaller proportion of pipelines move to the stronger form of regulation and a smaller proportion of currently exempt pipelines become subject to the new lighter form of regulation.

Table 9.2 sets out the assumptions that have been made about the movements between the various forms of regulation under these two scenarios,¹⁹⁰ while Table 9.3 sets out the estimates of the number of pipelines that would be subject to each form of regulation under the two scenarios. It is important to note that the assumptions and estimates set out in these tables are not intended to imply that any particular pipeline would fall into a particular regulatory category. Nor are they intended to pre-empt a decision that would ultimately need to be made by the relevant decision-maker having regard to the tests that are put in place. Rather, they are simple assumptions that have been used to model potential outcomes for the CBA.

¹⁹⁰ The assumptions have been based on a high-level market scan, considering parameters such as financial reporting, numbers of shippers using each pipeline, as well as various research sources. These included the ACCC's 2016 and 2017-2025 gas inquiry reports, the 2016 Vertigan report and the AEMC's 2016 East Coast wholesale gas market and pipeline frameworks review, the Brattle report on Part 23 of the NGR and the OGW Shipper Survey.

Table 9.2: Assumptions used to estimate movements between forms of regulation

Option	Movement to stronger form of regulation from light reg and Part 23	Movement to lighter form of regulation by previously exempt	Movement to exempt pipelines
Scenario 1 – High impact			
Option 2	10%	10%	10% ^b
Option 3A	10%	10%	0%
Option 3B	10%	15% ^a	0%
Option 4	10%	15% ^a	0%
Scenario 2 – Low impact			
Option 2	5%	5%	5% ^b
Option 3A	5%	5%	0%
Option 3B	5%	8% ^a	0%
Option 4	5%	8% ^a	0%

Notes: These assumptions are indicative only and are intended to provide an indication of the magnitude of the shift of pipelines. They are not intended to pre-empt a decision that would ultimately be made by the relevant decision-maker.

a. These percentages are higher because, in contrast to options 2 and 3A, there would be no test for third party access required under these two options.

b. These percentages are higher because under Option 2 pipelines that can demonstrate that they lack substantial market power and greenfield pipelines would be able to obtain a full exemption from regulation (although they would still be subject to basic information disclosure obligations).

Table 9.3: Estimate of the number of pipelines subject to each form of regulation

Option	Stronger form of regulation		Lighter form of regulation		Exempt from regulation
	Full regulation	Light regulation	Part 23	Not providing third party access	
Current forms of regulation	13	5.5	81.5	55	
Option 1 (status quo)	13	5.5	81.5	55	
Scenario 1 – High impact					
Option 2	22 (+9)	75 (-12)	58 (+3)		
Option 3A	22 (+9)	84 (-3)	49 (-6)		
Option 3B	22 (+9)	87 (0)	46 (-9)		
Option 4	22 (+9)	87 (0)	46 (-9)		
Scenario 2 – Low impact					
Option 2	18 (+5)	80 (-7)	57 (+2)		
Option 3A	18 (+5)	85 (-2)	52 (-3)		
Option 3B	18 (+5)	86 (-1)	51 (-4)		
Option 4	18 (+5)	86 (-1)	51 (-4)		

Notes: The analysis utilises the number of pipelines that shift across forms of regulation as per the indicative categorisation above to estimate the impact of the options.

As Table 9.3 shows, a greater number of pipelines are expected to become subject to the stronger form of regulation under options 2, 3A, 3B and 4 as a result of the removal of the coverage test as a gateway between the forms of regulation. The effect is assumed to be the same across each of the reform options, because the form of regulation test under each of these options is assumed to be the same.

The other point to note from this table is that there are some differences between the number of pipelines that are assumed to be subject to the lighter form of regulation or exempt from regulation under the four reform options. This reflects the following differences across the options:

- Under options 2 and 3A, a pipeline that is not voluntarily providing third party access would only be required to do so if it is found by the relevant decision-maker to satisfy the third party access test, whereas under options 3B and 4 all pipelines would be required to provide third party access if requested to do so by a shipper. The absence of a test for third party access under options 3B and 4 is expected to result in a small

increase in the number of pipelines being required to provide third party access under options 3B and 4 (i.e. three additional pipelines under Scenario 1 – High Impact and one additional pipeline under Scenario 2 – Low Impact).¹⁹¹

- Under Option 2, a service provider would be able to obtain a full exemption from regulation if the relevant decision-maker is satisfied that the pipeline lacks substantial market power or that a 15-year greenfield exemption should be granted, but this option would not be available under the other reform options. Note that while a greenfield exemption would also be available under options 3A and 3B, it would only provide the holder with an exemption from the stronger form of regulation. Accordingly, if it is providing third party access it would be subject to the new lighter form of regulation.

These differences across the options mean that the total number of pipelines subject to regulation are expected to be the lowest under Option 2, followed by Option 3A, and options 3B and 4.

Costs and benefits associated with the reform options

Table 9.4 provides an overview of the types of costs and benefits that are expected to be associated with each of the reform options and how they have been measured (i.e. quantitatively or qualitatively). As this table shows, a number of the benefits associated with the reform options are diffuse and spread across the economy, whereas the costs are borne more directly by industry participants.

A typical CBA would quantify the impacts for those directly affected and should be able to gather the required information from affected stakeholders. While this was the case for most of the cost categories, information on the economy-wide benefits associated with lower transportation charges could not be obtained from stakeholders. The method used to estimate the costs and benefits was therefore as follows:

- **Costs:**
 - Quantitative analysis (undertaken by PwC) was used to estimate the implementation, access, dispute resolution and information disclosure/monitoring related costs (items (a)-(d) in Table 9.4). The costs used in this analysis are based on information gathered by PwC either from those directly affected by the change, or from public sources.
 - Qualitative analysis was used for those costs that were unable to be quantified, or were subject to debate and uncertainty (items (e)-(f) in Table 9.4).
- **Benefits:**
 - Quantitative analysis (undertaken by PwC) was used to estimate the productivity related benefits associated with lower transportation costs that flow from more pipelines becoming subject to the stronger form of regulation (item (g) in Table 9.4). This has been measured by adjusting the expected rate of return for the gas transportation sector in an economy-wide model and observing the net change in economic activity across all industries (see Appendix D.2 for more detail).¹⁹²

¹⁹¹ Note that this is only expected to result in a small increase because most pipelines that are not providing third party access are located in remote areas and are used to transport gas to or from dedicated upstream or downstream facilities. The likelihood of a shipper seeking access to most of these pipelines is therefore expected to be low.

¹⁹² The economy-wide modelling technique applied is a computable general equilibrium model. This has been used in this regulatory analysis context before, for example when the Australian Energy Market Commission estimated the benefits of its reforms in the East Coast Wholesale Gas Market and Pipeline Frameworks Review.

- Qualitative analysis was used to estimate all of the other benefits set out in items (h)-(l) in Table 9.4, which were unable to be quantified by stakeholders.
- **Transfers:** The main transfer under the reform options relates to price changes, which result in transfers between service providers and shippers. These transfers were assessed as a net neutral for the economy. While large redistributive effects can generate longer-term costs and benefits, these have not been taken into account in the analysis.

The quantitative analysis has been summarised in a net economy-wide benefit measure, which represents the net impact on Australia's economic welfare (measured in increased consumption) as a result of:

- the productivity benefit associated with lower transportation costs, which arises because more pipelines become subject to the stronger form of regulation (item (g) in Table 9.4); **less**
- the direct costs that service providers, shippers and regulators are estimated to incur under the reform options (items (a)-(d) in Table 9.4).

As noted in the introduction to this chapter, the quantitative element of the CBA has been undertaken by PwC.

Table 9.4: Types of costs and benefits accounted for in the CBA

Item	Type of cost	Description	Affects?	Measured?
Costs				
(a)	Implementation costs	This category of costs includes the one-off upfront costs associated with service providers, shippers and regulators adapting to the new regulatory framework. The costs for each of these parties include: <ul style="list-style-type: none"> Service providers: The IT and administrative costs associated with moving to a new form of regulation and setting up any additional systems that may be required (including costs of compliance, legal and financial advice). Shippers: The administrative costs associated with understanding the reform changes and participating in stakeholder engagement processes. Regulators: The costs associated with evaluating any applications for a change in the form of regulation applied to a pipeline, an exemption from regulation under Option 2, a greenfield exemption under options 2, 3A and 3B, or a third party access application under options 2 and 3A. 	Service providers, shippers and regulators	Quantitatively
(b)	Access costs	This category of costs includes the costs associated with providing third party access under the new regulatory framework, which include: <ul style="list-style-type: none"> the costs a service provider would incur preparing an AA for pipelines that move to stronger form of regulation and the costs a regulator would incur assessing the AA; and the costs a service provider would incur preparing access offers and complying with other access related provisions for pipelines moving to the new lighter form of regulation. 	Service providers and regulators	Quantitatively
(c)	Dispute resolution costs	This category of costs includes the additional costs that may be associated with reducing some of the barriers to using the dispute resolution mechanism, which may result in a greater number of arbitrations occurring. The costs include the internal and external costs associated with partaking in an arbitration process for service providers, shippers and dispute resolution bodies in those cases where a dispute proceeds to arbitration.	Service providers, shippers and regulator	Quantitatively
(d)	Information disclosure and monitoring costs	This category of costs includes the ongoing administrative, IT and staff costs associated with: <ul style="list-style-type: none"> the additional information disclosure requirements under the new regulatory framework that service providers would have to comply with under all reform options and the improvements to the quality, reliability, usability and accessibility that would need to be made under options 3A, 3B and 4; and the monitoring and referral functions that the regulator would have under options 3A, 3B and 4, which would require additional resources and effort by the regulator. 	Service providers and regulators	Quantitatively
(e)	Impact on pipeline investment from lower rates of return	This cost category is intended to account for any adverse effects that the reform options could have on future efficient pipeline investment as a result of lower rates of return. It was not possible to quantify these effects, so they have been considered qualitatively.	Service providers and shippers	Qualitatively
(f)	Administrative costs resulting from regulatory change	This category of costs includes the incremental costs associated with: <ol style="list-style-type: none"> service providers applying for an exemption from regulation, or from the stronger form of regulation (e.g. to remove regulation under Option 2, or to obtain a greenfield exemption under options 2, 3A, and 3B); shippers applying to access pipelines that are not voluntarily providing 3rd party access (options 2 and 3A); service providers or shippers applying for a change in the form of regulation applying to a pipeline; and service providers and shippers remaining in the same regulatory category (i.e. because under each reform option there would be some changes to each form of regulation). <p>While the regulator's costs for items (a)-(c) have been taken into account, it was not possible to quantify the costs that shippers or service providers would incur. Nor was it possible to quantify the costs associated with (d). These costs have therefore been considered qualitatively.</p>	Service providers and shippers	Qualitatively
Benefits				
(g)	Productivity and efficiency benefits from lower transport costs arising from more pipelines moving to stronger regulation	Under all of the reform options, a number of pipelines would shift into the stronger form of regulation. This shift would mean that a greater number of services become 'reference services' with prices subject to regulatory approval (either by the AER or the ERA in WA). As commercial rates of return are generally higher than the average regulatory rate of return, this would cause a reduction in the revenues earned by service providers that move into the stronger form of regulation from the provision of reference services and lower transportation costs on these pipelines. Lower transportation costs would, in turn, give rise to economy-wide productivity benefits and result in more efficient use of and investment in these pipelines.	Service providers, shippers and the broader economy	Quantitatively

Item	Type of cost	Description	Affects?	Measured?
(h)	Productivity and efficiency benefits from other changes to the regulatory framework that result in lower transportation costs on pipelines subject to lighter regulation	<p>Several measures proposed as part of reform options 3A, 3B and 4 (e.g. increased monitoring by the regulator of the behaviour of service providers, improved information disclosure, strengthened credibility of the threat of arbitration by smaller shippers and dynamic market power measures) are intended to pose more of a constraint on exercises of static and dynamic market power by service providers. They can therefore be expected to place downward pressure on the prices charged by service providers subject to the lighter form of regulation. Lower transportation costs would, in turn, give rise to economy-wide productivity benefits and result in more efficient use of and investment in these pipelines.</p> <p>In contrast to item (g) where it was possible to develop an estimate of the effect that the movement to the stronger form of regulation would have on prices, it has not been possible to quantify the effect that the measures in options 3A, 3B and 4 would have on prices on pipelines subject to the lighter form of regulation. These benefits have therefore been assessed qualitatively.</p>	Service providers, shippers and the broader economy	Qualitatively
(i)	Productivity and efficiency benefits from improved access to pipelines that would otherwise be exempt from regulation	<p>The replacement of the coverage test with the market power-NGO test under options 2 and 3A and the movement to an open access model under options 3B and 4, is expected to improve the ability of shippers to access pipelines that are not currently providing third party access, which could to varying extents result in more efficient use of and investment in these pipelines. The application of the lighter form of regulation to these pipelines may also result in lower transportation costs and economy-wide productivity benefits.</p> <p>Like item (h) it has not been possible to quantify the benefits associated with pipelines that are not currently providing third party access being required to do so, so they have been assessed qualitatively.</p>	Service providers, shippers and the broader economy	Qualitatively
(j)	Facilitating more efficient investment in upstream and downstream facilities as a result of lower transportation costs and better access to pipelines that would otherwise provide third party access	<p>The ACCC's 2016 Gas Inquiry noted that excessive transportation charges could result in lower than efficient levels of investment in exploration and reserves development, as well as investment in downstream facilities that use gas. A reduction in transportation charges on those pipelines that are subject to the stronger or lighter forms of regulation and improved access to pipelines that would not otherwise voluntarily provide third party access could therefore result in more efficient investment in upstream and downstream facilities and, in turn, more efficient levels of gas production and consumption.</p> <p>A similar point was made by a number of stakeholders, who noted that lower transportation costs could result in greater levels of upstream investment and production because it would result in some gas fields becoming economically feasible to develop.</p> <p>It has not been possible to quantify these benefits, so they have been assessed qualitatively.</p>	Shippers and the broader economy	Qualitatively
(k)	Reduced information asymmetries and search and transaction costs from improved information provision	<p>The requirement for service providers to:</p> <ul style="list-style-type: none"> ▪ disclose additional information under all of the reform options is expected to assist shippers when considering whether to seek access to a pipeline and when negotiating with service providers, by reducing the information asymmetries and search and transaction costs they would otherwise face; and ▪ improve the quality, reliability, usability and accessibility of information under options 3A, 3B and 4 is also expected to reduce the information asymmetries faced by shippers and their search and transaction costs. <p>The reduction in information asymmetries and search and transaction costs, is expected to facilitate more effective and timely negotiations between service providers and shippers, aid the price discovery process and result in pipeline services being allocated in a more efficient manner (i.e. reduce deadweight loss).</p> <p>It has not been possible to quantify these benefits, so they have been assessed qualitatively.</p>	Shippers and the broader economy	Qualitatively
(l)	Simplification of the regulatory framework	<p>The simplification of the regulatory framework under the reform options (e.g. as a result of the removal of the coverage test, moving to two forms of regulation, according a single organisation responsibility for making decisions on how and when to regulate, and adopting a single negotiation framework) is expected to give rise to some cost savings for service providers, shippers and regulators, the benefits of which should flow through to the broader economy. It has not been possible to quantify these benefits, so they have been assessed qualitatively.</p>	Service providers, shippers, regulators and the broader economy	Qualitatively

Scenarios and sensitivities tested

As noted above, it has been necessary to make assumptions about how many pipelines would be subject to the alternative forms of regulation, or exempt from regulation under the four reform options. It has also been necessary to make assumptions about the impact that:

- the movement of a number of pipelines to the stronger form of regulation would have on transportation costs on those pipelines; and
- the reduction in some of the barriers to accessing the dispute resolution mechanisms (e.g. through additional measures to assist smaller shippers and the reform of the full regulation dispute resolution mechanism) would have on the number of disputes.

Given the uncertainty surrounding these matters, the following scenarios have been tested through the CBA:

- **Scenario 1 (High impact):** This scenario assumes:
 - a greater proportion of pipelines move to the stronger form of regulation (10%) and currently exempt pipelines become subject to the new lighter form of regulation (10-15%) (see Table 9.2 and Table 9.3);
 - transportation costs on those pipelines moving to the stronger form of regulation fall on average by 12%.¹⁹³ (see Appendix D.2 for more detail on how this has been estimated); and
 - an additional dispute would occur every two years, which equates to an additional 10 disputes over the 20-year appraisal period (note that since the regulatory framework was introduced in 1997 there has only been one arbitration, so from a cost perspective this can be viewed as a highly conservative assumption).
- **Scenario 2 (Low impact):** This scenario assumes:
 - a smaller proportion of pipelines move to the stronger form of regulation (5%) and currently exempt pipelines become subject to the new lighter form of regulation (5-8%) (see Table 9.2 and Table 9.3); and
 - transportation costs on those pipelines moving to the lighter form of regulation fall on average by 5% (this is based on the lower bound of a range of values suggested by stakeholders during consultation).

To test the sensitivity of the quantitative aspects of the CBA to the assumptions made about the appraisal period and discount rates, four sensitivities have been tested:

- Sensitivity 1: 10-year appraisal period (instead of 20 years);
- Sensitivity 2: 15-year appraisal period (instead of 20 years);
- Sensitivity 3: 3% discount rate (instead of 7%); and
- Sensitivity 4: 10% discount rate (instead of 7%).

9.2.3 Results of the CBA

The results of both the quantitative and qualitative aspects of the CBA are set out in summary form in Table 9.5. For those costs and benefits that it was not possible to

¹⁹³ This has been estimated based on analysis by the Brattle, which found that pipelines currently subject to Part 23 are earning substantially higher rates of return than the average rate of return applied under full regulation.

quantify, rankings have been used to distinguish between the options, with a ranking of 1 implying the most favourable impact and 5 the most negative impact. When more than one option is found to have the same impact, they have been given the same ranking.

Because of the data constraints, the rankings in Table 9.5 are unweighted (i.e. each impact category is treated as equal). In practice, this is unlikely to be the case. For example, the productivity and efficiency benefits flowing from lower transportation costs on pipelines subject to lighter regulation (item (h)) and the benefits associated with more efficient investment in upstream and downstream facilities are expected to be significant. The additional administrative costs associated with regulatory change (item (f)) and the cost savings from the simplification of the regulatory framework (item (l)), on the other hand, are expected to be relatively small. Some care must therefore be taken when interpreting the results.

Setting this aside, as Table 9.5 shows, on a quantitative basis Option 2 is estimated to yield a marginally higher net economy-wide benefit than the other reform options. On a qualitative basis, however, options 3A, 3B and 4 are expected to give rise to greater benefits than Option 2 because they include a number of measures that are intended to:

- pose more of a constraint on exercises of both static and dynamic market power by service providers subject to the lighter and stronger forms of regulation;
- make it easier for shippers to access pipelines that would otherwise be exempt from regulation;
- improve the quality, reliability, usability and accessibility of information published by service providers, which should, in turn, result in lower search and transaction costs and more efficient decisions being made; and
- further simplify the regulatory framework.

Further detail on the quantitative and qualitative aspects of the CBA is provided below.

Table 9.5: Summary of CBA results over 20-year appraisal period (Central case)

Table 9.4 reference	Impact type		Option 1	Option 2	Option 3A	Option 3B	Option 4
Quantified net economic benefits							
Item (g) - [items (a):(d)]	Net economy-wide benefits (NPV, 2020 dollars) ^{a,b}	Scenario 1: High Impact	\$0	\$1,216.1 m	\$1,185.3 m	\$1,179.8 m	\$1,177.1 m
		Scenario 2: Low Impact	\$0	\$263.3 m	\$238.4 m	\$234.7 m	\$232.2 m
Qualitative costs and benefits							
Costs							
Item (e)	Impact on pipeline investment arising as a result of lower rates of return	Small to negligible cost	1	1	1	1	5
Item (f)	Additional administrative costs associated with regulatory change	Small cost	1	5	3	2	4
Benefits							
Item (h)	Productivity and efficiency benefits (including more efficient use of and investment in pipelines) from other measures that lead to lower transport costs on pipelines subject to the new lighter regulation	Significant benefit	5	4	1	1	1
Item (i)	Productivity and efficiency benefits (including more efficient use of and investment in pipelines) from improved access to pipelines that would otherwise not provide third party access	Moderate benefit	5	3	3	1	1
Item (j)	More efficient investment in upstream & downstream facilities as a result of lower transport costs and access to pipelines that would not otherwise provide access	Significant benefit	5	4	1	1	1
Item (k)	Reduced search and transaction costs from improved information	Moderate benefit	5	4	1	1	1
Item (l)	Cost savings from simplifying the regulatory framework	Small benefit	5	4	2	1	3

Source: PwC for quantified net economic benefits.

Notes: (a) NPV calculated for a 20-year period with a 7% discount rate.

(b) The net economy-wide benefits represents the net increase in economic welfare arising as a result of the broader productivity benefit associated with lower transportation costs on those additional pipelines that become subject to the stronger form of regulation, offset by the increased direct costs for service providers, shippers and regulators.

(c) This includes the benefits associated with increased monitoring by the regulator of the behaviour of service providers, strengthening the credibility of the threat of arbitration by smaller shippers, improved information disclosure and the implementation of measures to facilitate more competition for the development of new capacity through the use of measures to address dynamic market power under options 3A, 3B and 4.

9.2.3.1 Quantitative results

Table 9.6 provides a summary of the results of the quantitative analysis undertaken by PwC under the central case. A more detailed explanation of these results can be found in Appendix D.

Table 9.6: Quantified costs and net economy-wide benefits over 20 years, by reform option (\$m, NPV, 2020 dollars)^a

Options	Direct costs				Net economy-wide benefits ^e
	Service provider costs ^b	Shipper costs ^c	Regulator costs ^d	Total	
	(1)	(2)	(3)	(4)=sum{(1):(3)}	
Scenario 1 - High Impact					
Option 2	\$82.2	\$8.6	\$37.6	\$128.5	\$1,216.1
Option 3A	\$97.1	\$8.6	\$57.7	\$163.3	\$1,185.3
Option 3B	\$102.7	\$8.6	\$56.9	\$168.2	\$1,179.8
Option 4	\$105.3 ^f	\$8.6	\$57.3 ^f	\$171.2	\$1,177.1
Scenario 2 - Low Impact					
Option 2	\$39.9	\$2.1	\$20.0	\$61.9	\$263.3
Option 3A	\$48.1	\$2.1	\$40.6	\$90.8	\$238.4
Option 3B	\$51.9	\$2.1	\$40.0	\$94.0	\$234.7
Option 4	\$54.4 ^f	\$2.1	\$40.3 ^f	\$96.8	\$232.2

Source: PwC analysis

Notes:

(a) NPV calculated for a 20-year period with a 7% discount rate.

(b) These costs include: the implementation costs associated with service providers moving to the stronger form of regulation (\$0.57 m per service provider) and to the lighter form of regulation (\$0.24 m per service provider); the access costs associated with moving to the stronger form of regulation (\$2.7 m per AA every five years) and for those moving to the lighter form of regulation (\$0.04 m per access request); the reporting costs associated with moving to the stronger form of regulation (\$0.16 m per service provider) and the lighter form of regulation (\$0.1 m per service provider); and dispute resolution costs under Scenario 1 (\$1.65 m per dispute).

(c) These costs include: the implementation costs for those shippers on pipelines that move to the stronger form of regulation (\$0.08 m per shipper) and dispute resolution costs under Scenario 1 (\$0.86 m per dispute)

(d) These costs include: the implementation costs associated with participants applying for exemptions from regulation, third party access and changes to the form of regulation (\$0.46 m per application); the costs of assessing those AAs prepared by pipelines that move to the stronger form of regulation (\$1.47 m per review); the monitoring and referral functions (\$0.016-\$0.033m per pipeline); and dispute resolution costs under Scenario 1 (\$0.42 m per dispute).

(e) As noted above, the net economy-wide benefits represents the net increase in economic welfare arising as a result of the broader productivity benefit associated with lower transportation costs on those additional pipelines that become subject to the stronger form of regulation, offset by the increased direct costs for service providers, shippers and regulators.

(f) This is higher than the costs under Option 3B, because the movement to direct price control under Option 4 is expected to give rise to higher costs for the service provider and regulator.

As the final column of Table 9.6 shows, the net economy-wide benefits associated with each of the reform options is quite high under both scenarios, with the benefit ranging between \$1.177 billion and \$1.216 billion under Scenario 1 – High Impact and between \$232 million and \$263 million under Scenario 2 – Low Impact.

The main driver of this result is the productivity benefit associated with the reduction in transportation charges that is expected to flow from more pipelines becoming subject to a stronger form of regulation. Because the number of pipelines moving to the stronger form of regulation is assumed to be the same under all the reform options (see Table 9.3), the gross economy-wide benefits are also the same across the options. The differences in the net economy-wide benefits therefore reflect the differences in the direct costs associated with each reform option.

The differences between these costs can be seen in columns (a)-(d) in Table 9.6. As these columns show, the direct costs associated with the reform options are expected to

be lower under Option 2 than they are under the other three reform options. The reasons for this are that:

- fewer pipelines are expected to be subject to regulation under Option 2 (i.e. because this option provides for a full exemption from regulation - see Table 9.3), which results in lower overall costs for service providers and regulators;
- the improvements to information disclosure are not as significant under Option 2 as they are under the other three reform options, which results in lower reporting costs for service providers (and higher search and transaction costs for shippers – see section 9.2.3.2); and
- the relevant regulator is not expected to undertake the same monitoring and referral functions under Option 2 as it is under the three reform options, which results in lower monitoring costs for the regulator.

Of the remaining three reform options:

- Option 3A is expected to give rise to lower costs than Option 3B because fewer pipelines are expected to be subject to regulation under this option (see Table 9.3); and
- Option 3B is expected to give rise to lower costs than Option 4, because while the same number of pipelines are expected to be subject to regulation under the two options (see Table 9.3), the movement to direct price control under Option 4 is expected to give rise to higher costs for the both the service provider and regulator.¹⁹⁴

Some other more general observations that can be made about the costs set out in Table 9.6 as they relate to Scenario 1 – High Impact,¹⁹⁵ are as follows:

- **Service provider costs** account for the majority of the direct costs (~ 62%), with access costs¹⁹⁶ accounting for most of the costs, followed by reporting costs, dispute resolution related costs and implementation costs. As outlined above, the difference in service provider costs across the reform options stems from differences in:
 - the number of pipelines that are assumed to be subject to regulation under each of the reform options (see Table 9.3); and
 - the information disclosure obligations applying to service providers, with options 3A, 3B and 4 providing for more improvements in the current disclosure obligations than Option 2, which gives rise to higher reporting costs.
- **Regulator costs** are the next largest source of direct costs (~ 33%), with the costs associated with assessing AAs accounting for the majority of these costs, followed by monitoring costs, dispute resolution costs and the costs associated with assessing applications for exemptions, third party access and changes to the form of regulation applying to a pipeline. The differences in regulator costs across the reform options stem from differences in:

¹⁹⁴ While the movement to direct price control would reduce the costs incurred by shippers in negotiating contracts, this benefit is not expected to offset the costs to the service provider and regulator in this case because the number of shippers using the pipelines are relatively small. The movement to direct price control would also mean that shippers would be unable to negotiate more bespoke arrangements, which many stakeholders noted that they valued through the consultation process.

¹⁹⁵ The main difference in the costs under Scenario 2 – Low impact is that no additional arbitrations assumed to occur, so no additional dispute resolution costs are expected to arise under the reform options under this scenario.

¹⁹⁶ This includes the costs associated with preparing access arrangements under the stronger form of regulation and preparing access offers and complying with other access provisions under the lighter handed form of regulation.

- the number of pipelines that are assumed to be subject to regulation under each of the reform options (see Table 9.3);
 - the availability of exemptions and how access to pipelines that are not voluntarily providing third party access is obtained; and
 - the regulator's monitoring and referral function, with options 3A, 3B and 4 contemplating a more active role for the regulator, while Option 2 does not.
- **Shipper costs** account for the smallest proportion of direct costs (~5%), with just under half of these costs associated with shippers understanding the changes arising from the reforms. The remainder is accounted for by dispute resolution related costs. Since the number of pipelines shifting to stronger form of regulation and the number of arbitrations assumed are the same under each scenario, these costs are the same under each of the reform options.

In keeping with the OBPR's CBA guidance note, sensitivity analyses have been undertaken on the quantified costs and benefits, the results of which are presented in Appendix D.4. These analyses looked at the impact on the quantified estimates of varying the discount rate and appraisal period. The sensitivity analyses are all linear transformations and do not therefore affect the comparison between options (i.e. Option 2 yields the highest net-economy-wide benefit in all the sensitivity analyses).

A break-even analysis has also been undertaken to understand how sensitive the quantitative results are to the assumed reduction in transportation costs on pipelines moving to the stronger form of regulation. The results of this analysis are set out in Appendix D.3. In short, this analysis suggests that transportation costs on those pipelines that move to the stronger form of regulation would only need to fall by 1.9-3% under scenarios 1 and 2, for the quantified benefits to equal the quantified costs.

9.2.3.2 Qualitative results

The quantitative analysis outlined above only focuses on the direct costs associated with the reform options and the benefits associated with some pipelines moving to the stronger form of regulation in the CBA. There are, however, a range of other costs and benefits associated with the reform options that must also be taken into account, some of which are quite significant. Further detail on these additional costs and benefits, which have been assessed qualitatively, are set out below.

Impacts on pipeline investment arising as a result of lower rates of return

Through the consultation process, conflicting views were expressed by stakeholders about the effect that the reform options could have on pipeline investment. A number of service providers, for example, noted that increasing the ease with which a stronger form of regulation could be applied to a pipeline could result in lower rates of return being earned by service providers and, in turn, lower levels of pipeline investment.¹⁹⁷ Some also noted that the movement to direct price control under Option 4 could result in a loss of flexibility, which could affect gas demand and incentives to invest in new infrastructure.

Other stakeholders stated that it was unlikely that new pipelines would be subject to the stronger form of regulation (i.e. because they were unlikely to have the required degree of

¹⁹⁷ This view was also expressed by Synergies Economic Consulting in a report prepared for APGA entitled, Estimating the economic contribution of investment in gas transmission pipeline investment.

market power,¹⁹⁸ or would under some options be able to obtain a greenfield exemption). Some also stated that there was no evidence of investment being affected in the US and Canada, where the open access model applies to interstate pipelines.

A similar observation could be made about the effect that regulation currently has on pipeline investment, with no evidence to suggest that the rate of return currently provided under full regulation (or other elements of those regulatory decisions) has resulted in less than efficient levels of pipeline investment. This is perhaps not surprising given that:

- the rate of return allowed by the regulator must be consistent with the NGL and the revenue and pricing principles in the NGL, and should therefore be set at a level that promotes efficient investment in pipelines;¹⁹⁹ and
- the regulatory framework allows service providers and shippers to agree to alternative terms to those approved by the regulator, which means a shipper could agree to fund an investment at a higher rate of return if it considered it appropriate to do so.²⁰⁰

Like full regulation, there is no evidence to suggest the rates of return (although not subject to regulatory oversight) earned by Part 23 or light regulation pipelines have affected investment (or perhaps more importantly, affected efficient investment).²⁰¹

Importantly, the changes being contemplated as part of this RIS would not alter the way in which the rate of return is to be calculated under the stronger or lighter forms of regulation. Options 2, 3A and 3B would also still allow service providers and shippers to agree to alternative terms under the stronger form of regulation.²⁰² There is no basis therefore to conclude that options 2, 3A or 3B would result in lower than efficient levels of pipeline investment. These options are therefore ranked the same as Option 1.

In contrast to these options, it is possible that under Option 4 there may be a small negative effect on investment. This is because the movement to direct price control as the stronger form of regulation would mean that service providers and shippers would not be able to agree to a higher rate of return than approved by the regulator in cases where it may be efficient to do so.

These impacts are reflected in Table 9.5, with options 1, 2, 3A and 3B accorded a ranking of 1 and Option 4 a ranking of 5.

Administrative costs resulting from regulatory change

In addition to the costs that have been quantified, costs are expected to be incurred by:

- service providers that apply for an exemption from regulation under Option 2, or for a greenfield exemption under options 2, 3A, and 3B;
- shippers that apply for pipelines that are not voluntarily providing third party access to provide such access und options 2 and 3A; and
- service providers or shippers that apply for a change in the form of regulation applying to a particular pipeline under all reform options.

¹⁹⁸ Multiple stakeholders, for example, noted as major connections between existing sources of supply and demand centres have already been built, newly built pipelines are unlikely to have a substantial degree of market power that is significant to the wider network.

¹⁹⁹ Under the NGL, the rate of return instrument developed by the AER must be developed having regard to the revenue and pricing principles. The AER can also only make an instrument if it is satisfied the instrument will, or is most likely to, contribute to the achievement off the NGO to the greatest degree. See section 30D of the NGL.

²⁰⁰ See section 322 of the NGL.

²⁰¹ See ACCC, Gas inquiry report 2017-2020 Interim report, July 2019, pp. 159-160.

²⁰² This option would not, however, be available under the direct price control form of regulation under Option 4.

Those service providers that remain in the same regulatory category may also incur some incremental implementation costs, because:

- under all the reform options light regulation would be removed and there would be some changes made to strengthen Part 23 as the new lighter form of regulation; and
- under Option 4, the stronger form of regulation would transition from the current full regulation approach with reference tariffs to direct price control.

Compared to the costs that have been quantified, these costs are expected to be relatively small. There are nevertheless likely to be some differences in the scale of costs across the reform options, with Option 3B expected to give rise to the lowest costs (i.e. because there would be no test for third party access), followed in ascending order by Option 3A, Option 4 and Option 2. Option 2 is expected to give rise to the highest administrative costs because a greater number of exemptions from regulation are expected to be applied for under this option. These impacts are reflected in Table 9.5, with Option 1 having a ranking of 1, Option 3B a ranking of 2, Option 3A a ranking of 3, Option 4 a ranking of 4 and Option 2 a ranking of 5.

Productivity and efficiency benefits from other changes that result in lower gas transportation costs on pipelines subject to the new lighter regulation

Several measures proposed as part of the reform options are expected to place downward pressure on transportation costs on pipelines subject to the new lighter form of regulation. This is, in turn, expected to give rise to economy-wide productivity benefits and result in more efficient use of and investment in these pipelines.

The removal of the coverage test from form of regulation decisions, for example, should strengthen the threat of a stronger form of regulation being applied to a pipeline that is subject to the lighter form of regulation. This, in turn, should place downward pressure on the prices charged by these service providers under all the reform options. The following features of options 3A, 3B and 4 can be expected to place further downward pressure on these prices, by posing more of a constraint on exercises of market power by service providers subject to the lighter form of regulation:

- greater regulatory oversight of the behaviour of service providers;
- improved information disclosure by service providers;
- strengthened threat of arbitration by smaller shippers; and
- measures that are intended to pose more of a constraint on exercises of dynamic market power by service providers and therefore facilitate more competition for the development of new capacity.

While it has not been possible to quantify the effect that these measures would have on transportation costs, the productivity and efficiency related benefits are expected to be significant given the large number of pipelines that are expected to be subject to the lighter form of regulation (see Table 9.3). For example, even if these measures only result in a 1% reduction in the prices charged by these pipelines, the benefits would still be quite high given the large number of pipelines that are expected to be in this category.

Across the reform options, the productivity and efficiency benefits associated with lower transportation costs on pipelines subject to the lighter form of regulation are expected to be to be highest under options 3A, 3B and 4. This is reflected in Table 9.5, with options

3A, 3B and 4 having an equal ranking of 1, Option 2 a ranking of 4 and Option 1 a ranking of 5.

Productivity and efficiency benefits from improved access to pipelines that would not otherwise provide third party access

The replacement of the coverage test with a new third party access test under options 2 and 3A is expected to improve the ability of shippers to access pipelines that are not voluntarily providing third party access and to result in lower transportation costs, more efficient use of and investment in these pipelines and economy-wide productivity benefits. Similar benefits are also expected to be experienced under options 3B and 4, although with a greater number of pipelines potentially required to provide third party access under the open access model provided for by these two options, the benefits are expected to be higher than they are under options 2 and 3A.

Although the benefits are expected to be higher under these two options, it is worth noting that the overall benefit associated with improved access to pipelines that are not voluntarily providing third party access is expected to be relatively modest given the small number of such pipelines that shippers are likely to seek access to (see Table 9.3).²⁰³ The difference between the benefits under options 2 and 3A and options 3B and 4 is also expected to be relatively small with only 1-3 additional pipelines expected to be accessed under options 3B and 4 vis-à-vis options 2 and 3A (see Table 9.3).

These impacts are reflected in Table 9.5, with options 3B and 4 accorded an equal ranking of 1, options 2 and 3A an equal ranking of 3 and Option 1 a ranking of 5.

Facilitating more efficient upstream and downstream investment

As noted in Table 9.4, a reduction in transportation charges on those pipelines that are subject to the stronger or lighter forms of regulation and improved access to pipelines that would not otherwise provide third party access, could facilitate more efficient investment in upstream activities and production, and downstream gas using facilities. While the quantitative analysis does not include these investment related benefits, the net economy-wide analysis suggests a potentially significant flow through of benefits across the broader economy from more efficient investment in upstream and downstream facilities. The benefits are therefore expected to be significant.

Although it is difficult to quantify these investment related benefits, they are expected to be highest under options 3A, 3B and 4, followed by Option 2. Option 3A is expected to give rise to similar benefits to options 3B and 4, because while the requirement for all pipelines to provide third party access under options 3B and 4 may lead to more upstream/downstream investment by prospective shippers, it may also, as some stakeholders noted, have an adverse effect on investment by those producers or users that own their own pipelines.²⁰⁴

This benefit is reflected in Table 9.5, with options 3A, 3B and 4 having an equal ranking of 1, Option 2 a ranking of 4 and Option 1 a ranking of 5.

²⁰³ Most pipelines that are not providing third party access are located in remote areas and are used to transport gas to or from dedicated upstream or downstream facilities. The likelihood of a shipper seeking access to most of these pipelines is therefore expected to be quite low.

²⁰⁴ This could occur if it results in a loss of operational flexibility for these pipeline owners, or imposes other direct or indirect costs on them.

Reduced search and transaction costs and information asymmetries

The quantitative analysis was not able to capture the benefits from more information being made available by service providers to shippers that are seeking access to services and, in the case of options 3A, 3B and 4, the improvements to the quality, reliability, usability and accessibility of information.

While some stakeholders queried whether any cost savings would be realised as a result of these improvements, they are expected to reduce the information asymmetries and search and transaction costs that shippers would otherwise face when negotiating with service providers. They are therefore expected to facilitate more effective and timely negotiations between service providers and shippers, aid the price discovery process and result in pipeline services being allocated in a more efficient manner. Improved information may also enhance the ability of new shippers to negotiate access, which may lead to improved competition in upstream and downstream markets (see section 9.4) and more efficient operation of the pipelines.

Across the four reform options, the benefits associated with improved information provision by service providers are expected to be highest under options 3A, 3B and 4. This is reflected in Table 9.5, with options 3A, 3B and 4 having an equal ranking of 1, Option 2 a ranking of 4 and Option 1 a ranking of 5.

Cost savings from simplifying the regulatory framework

All the reform options provide for the regulatory framework to be simplified, which should result in some, albeit relatively small, cost savings for service providers, shippers and regulators.²⁰⁵ The regulatory framework is expected to be further simplified under options 3B and 4 by the movement to an open access model, although this is expected to be offset somewhat under Option 4 by the movement to direct price control, which could introduce some additional complexities in the regulatory framework.²⁰⁶ The inclusion of more exemptions under Option 2 is also expected to introduce additional complexities in the framework.

Across the reform options, the cost savings associated with the simplification of the regulatory framework are expected to be highest under Option 3B, followed by Option 3A, Option 4 and Option 2, although the differences between options are not expected to be significant. This benefit is reflected in Table 9.5, with Option 3B having a ranking of 1, Option 3A a ranking of 2, Option 4 a ranking of 3, Option 2 a ranking of 4 and Option 1 a ranking of 5.

9.2.3.3 Summary of the CBA results

Having regard to the results of both the quantitative and qualitative elements of the CBA, Option 3B is expected to generate the highest net benefit. That is, while from a quantitative perspective Option 2 has been found to yield a higher net benefit, the difference is relatively small (ranging from 3% to 11% under the two scenarios). The differences in the qualitative benefits between the two options are, however, more

²⁰⁵ For example, by removing the coverage test, moving to two forms of regulation, according a single decision-maker responsibility for making decisions about when and how to regulate, and adopting a single negotiation framework.

²⁰⁶ The movement to this form of regulation would, for example, require transitional arrangements to be added into the regulatory framework to deal with existing contracts and how they will transition to the prices determined by the regulator under a direct price control form of regulation.

significant, with the measures proposed under Option 3B expected to result in greater productivity and efficiency benefits because it would:

- pose a much greater constraint on the exercise of market power by pipelines subject to the lighter form of regulation;
- facilitate better access to pipelines that do not voluntarily provide third party access;
- lead to more efficient investment in upstream and downstream facilities;
- result in greater reductions in search and transaction costs and information asymmetries; and
- give rise to greater cost savings from simplifying the regulatory framework and lower administrative costs.

For the purposes of the comparative assessment set out section 9.5, Option 3B is ranked 1, Option 3A is ranked 2, Option 4 is ranked 3, Option 2 is ranked 4 and Option 1 is ranked 5.

9.3 Regulatory burden analysis

9.3.1 What is the purpose of the regulatory burden analysis?

In keeping with the OBPR's Regulatory Burden Measurement Framework Guidance Note,²⁰⁷ a RIS must be accompanied by a regulatory costing. The purpose of this costing is to measure the administrative,²⁰⁸ compliance²⁰⁹ and, where relevant, delay costs²¹⁰ (jointly referred to as 'regulatory costs') that the reform options are estimated to impose on businesses, community organisations and individuals.

To assist with this costing, the OBPR has developed the CRBM. The CRBM is a web-based compliance costing tool that can be used to estimate the incremental regulatory costs associated with a change in regulation using an activity-based costing methodology.²¹¹ Like the CBA, the CRBM focuses on the incremental impact, rather than the total impact, which is important because there are costs associated with the current regulatory framework. This analysis therefore quantifies additional regulatory costs over and above any status quo costs.

9.3.2 How has the regulatory burden analysis been undertaken?

In keeping with the OBPR's Regulatory Burden Measurement Framework guidance note,²¹² the regulatory costs associated with each policy option have been estimated using the OBPR's CRBM tool and are presented as an average cost to industry over the first 20-years of implementation.²¹³

²⁰⁷ OBPR, Regulatory Burden Measurement Framework, March 2020, p. 1.

²⁰⁸ Administrative costs include the costs incurred by regulated entities primarily to demonstrate the compliance with the regulation (e.g. record keeping and reporting costs).

²⁰⁹ Substantive compliance costs include the costs associated with delivering the regulated outcomes being sought (e.g. purchase and maintenance costs).

²¹⁰ Delay costs include the expenses and loss of income incurred as a result of an administrative application or approval delay.

²¹¹ The tool is available from - <https://rbm.obpr.gov.au/help.aspx?path=4.Using+the+Compliance+Cost+Calculator.txt>

²¹² OBPR, Regulatory Burden Measurement Framework, March 2020.

²¹³ The average annual regulatory cost is an undiscounted figure.

The CRBM is a bottom-up calculation that relies on detailed input data, reflecting a cost of regulation for each activity. The quality of the CRBM outputs is therefore dependent on the quality of the inputs. As with the CBA, the estimates used for the CRBM have been based on the data provided by stakeholders in submissions, stakeholder forums and through the individual consultations that PwC held with a number of stakeholders.

Through the stakeholder consultation it became clear that the reform options are not expected to impose any regulatory costs on individuals or community organisations. Nor are they expected to give rise to any delay costs. The CRBM therefore focuses on the direct administrative and compliance costs to businesses, which in this case includes both service providers and shippers. For these businesses, the regulatory burden arises as a result of the increased level of regulation of pipelines under the new lighter and stronger forms of regulation, which gives rise to incremental implementation, access, reporting and, where relevant, dispute resolution costs.

The costs used in the CRBM are based on a subset of the data used in the CBA. Specifically, the CRBM uses the upfront and ongoing direct costs for services providers and shippers (see Appendix D.1 for more detail on these costs),²¹⁴ to estimate the regulatory burden per business. By factoring in the number of businesses involved, the CRBM then provides a total regulatory cost to all businesses. The upfront (referred to as start-up costs) and ongoing costs used in this calculation are based on Scenario 1 – High Impact because it represents the upper bound of the regulatory burden (i.e. it assumes the greatest number of pipelines become subject to the stronger and lighter forms of regulation). The cost estimates can therefore be viewed as conservative.

9.3.3 Results of the regulatory burden analysis

The results of the regulatory burden analysis are set out in Table 9.7.

Table 9.7: Average annual regulatory burden (Scenario 1 - High Impact)¹ (\$ million)

Option	Type of cost	Costs to businesses		Costs to individuals		Costs to Community organisations	
		Per business	Total all businesses ²	Per individuals	Total all individuals	Per organisation	Total all organisations
Option 2	Start-up cost ³	\$0.17	\$10.35	\$-	\$-	\$-	\$-
	Ongoing cost ³	\$0.12	\$7.20	\$-	\$-	\$-	\$-
Option 3A	Start-up cost ³	\$0.16	\$10.35	\$-	\$-	\$-	\$-
	Ongoing cost ³	\$0.14	\$ 8.51	\$-	\$-	\$-	\$-
Option 3B	Start-up cost ³	\$0.17	\$11.07	\$-	\$-	\$-	\$-
	Ongoing cost ³	\$0.14	\$ 8.95	\$-	\$-	\$-	\$-
Option 4	Start-up cost ³	\$0.17	\$11.07	\$-	\$-	\$-	\$-
	Ongoing cost ³	\$0.14	\$9.21	\$-	\$-	\$-	\$-

Source: PwC based on OBPR CRBM tool

Notes:

1. Scenario 1 has been used for the CRBM analysis as that represents the higher bound of the regulatory burden.
2. The number of businesses impacted under different options may differ based on the indicative shift of pipelines across forms of regulation as described in Table 9.3.
3. Businesses incur both start-up costs and ongoing compliance costs in the first year only but only the ongoing compliance costs occur annually. (i.e. for Option 2, costs to business for the first year are \$17.55, and \$7.20 for the following years).

²¹⁴ The CRBM includes an additional small annual allocation of costs for service providers relative to the CBA because in WA, the ERA recovers some of its costs directly from regulated service providers.

As this table shows, Option 2 is expected to impose the lowest regulatory burden on service providers and shippers, followed in ascending order by Option 3A, Option 3B and Option 4. The regulatory burden is estimated to be the lowest under Option 2, because fewer pipelines are expected to be subject to regulation under this option (see Table 9.3) and the improvements to information disclosure are not as significant under Option 2 as they are under the other three options.

When compared with the other options, the cost to businesses under Option 2 is estimated to be marginally lower than what it would be under Option 3A. The difference is more material though under options 3B and 4, because:

- a greater number of pipelines are expected to be subject to regulation under these two options; and
- in the case of Option 4, the stronger form of regulation would move to direct price control, which is expected to give rise to additional compliance costs for service providers.

For the purposes of the comparative assessment set out in section 9.5, Option 1 is ranked 1, Option 2 is ranked 2, Option 3A is ranked 3, Option 3B is ranked 4 and Option 4 is ranked 5.

9.4 Competitive effects analysis

9.4.1 What is the purpose of the CEA?

In addition to the risk analysis, CBA and CRBM analysis, the *Best Practice Regulation Guide* requires an assessment to be undertaken of the effects of the reform options on competition in relevant markets.

The purpose of this analysis is, as noted in the OBPR's *Competition and regulation guidance note*,²¹⁵ to determine whether a policy option will restrict competition and, if so, whether there are feasible options that would not do so.

9.4.2 How has the CEA been conducted?

As the OBPR notes in its *Competition and regulation guidance note*, an option could restrict competition if it:²¹⁶

- limits the number or type of businesses;
- limits the ability of businesses to compete;
- reduces the incentives for businesses to compete; and/or
- limits the choices and information available to consumers.

Consideration has therefore been given to whether any of the proposed reform options would restrict competition amongst service providers (existing and prospective), or in related markets (i.e. upstream and downstream markets). This has involved a qualitative

²¹⁵ OBPR, *Competition and regulation guidance note*, March 2020.

²¹⁶ *ibid*, p. 3.

assessment of the competition implications of each reform option, having regard, where relevant to the OECD's Competition Assessment Toolkit.²¹⁷

An assessment of the effect that each reform option would have on the following competition related indicators for both service providers and participants in upstream and downstream markets has also been undertaken:

- (a) barriers to entry for prospective services providers and participants in upstream or downstream markets;
- (b) the relative bargaining power of shippers and service providers; and
- (c) information asymmetries and the search and transaction costs associated with contracting pipeline services.

9.4.3 Results of the CEA

Before considering whether any of the reform options would restrict competition, it is relevant to consider the intent of the four reform options.

As noted throughout this Decision RIS, the intent of the four reform options is to pose more of a constraint on the exercise of market power by service providers relative to the status quo, with:

- Option 2 focusing on constraining exercises of static market power; and
- Options 3A, 3B and 4 focusing on constraining exercises of both static and dynamic market power and facilitating more competition for the development of new capacity.

The reform options are also, to varying extents, intended to:

- reduce the barriers to entry that:
 - access to pipelines and the price and non-price terms and conditions of access may otherwise pose for participants seeking to compete in upstream and downstream markets; and
 - exercises of dynamic market power by existing service providers may pose for prospective service providers seeking to compete to develop new capacity (options 3A, 3B and 4);
- reduce the information asymmetries and search and transaction costs that shippers may otherwise face when trying to negotiate access; and
- strengthen the bargaining power of shippers *vis-à-vis* service providers and support more effective negotiations with service providers and dispute resolution by simplifying the negotiation framework and strengthening the threat of arbitration by smaller shippers and under the stronger form of regulation.

As Table 9.8 shows, these competition related benefits are expected to be more pronounced under options 3A, 3B and 4 than they are under Option 2, because these three reform options:

- provide for greater regulatory oversight of the behaviour of service providers;

²¹⁷ <https://www.oecd.org/competition/assessment-toolkit.htm>

- include measures that are intended to pose more of a constraint on exercises of dynamic market power by service providers;
- involve a range of improvements to the quality, reliability, usability and accessibility of information that shippers require when negotiating access; and
- further strengthen the credibility of the threat of arbitration by smaller shippers.

The one additional benefit that options 3B and 4 offer over Option 3A is that these options require pipelines to provide third party access if access is sought by a shipper. This element of options 3B and 4 could therefore result in a further reduction in barriers to entry for shippers seeking to access pipelines that are not currently providing third party access, although relative to Option 3A the benefit is expected to be relatively modest because:

- While Option 3A does not provide for open access, it would allow shippers to access pipelines that are not voluntarily providing third party access where it could be demonstrated that the test for third party access is satisfied (as Table 9.3 shows, this test is not expected to result in a significant difference in pipelines required to provide access).
- Most pipelines that are not providing third party access are located in remote areas and are used to transport gas to or from dedicated upstream or downstream facilities. The likelihood of a shipper seeking access to most of these pipelines is therefore expected to be quite low (see Table 9.3).

Table 9.8: Competition related impacts of the reform options on service providers and participants in upstream and downstream markets

Stakeholder	Changes to barriers to entry	Information asymmetries and search and transaction costs	Relative bargaining power
Option 2			
Service providers	No change	No impact	Minor reduction in bargaining power as a result of some additional constraints on market power
Participants in upstream and downstream markets	Minor reduction in barriers to entry	Minor reduction in information asymmetries and search and transaction costs	Minor improvement in bargaining power
Option 3A			
Service providers	Moderate reduction in barriers to entry (i.e. due to constraints on dynamic market power)	No impact	Material reduction in bargaining power as a result of greater constraints on market power
Participants in upstream and downstream markets	Moderate reduction in barriers to entry	Material reduction in information asymmetries and search and transaction costs	Material improvement in bargaining power
Options 3B and 4 (open access)			
Service providers	Moderate reduction in barriers to entry (i.e. due to constraints on dynamic market power)	No impact	Material reduction in bargaining power as a result of greater constraints on market power
Participants in upstream and downstream markets	Material reduction in barriers to entry (i.e. because all pipelines to provide third party access if it is sought)	Material reduction in information asymmetries and search and transaction costs	Material improvement in bargaining power

Importantly, as Table 9.9 shows, **none** of the reform options involve changes that are expected to:

- limit the number or types of service providers (existing or prospective), or participants in upstream or downstream markets;
- limit the ability of service providers (existing or prospective), or participants in upstream or downstream markets, to compete (where competition is feasible);
- reduce the incentive for service providers (existing or prospective), or participants in upstream or downstream markets, to compete (where competition is feasible); or
- limit the choices available to shippers or the information required by shippers to negotiate effectively.

To the contrary, reform options 3A, 3B and 4 and, to a lesser extent Option 2, are expected to:

- mimic the outcomes of a workably competitive market for transportation services (i.e. by posing more of a constraint on exercises of market power by service providers and strengthening the bargaining power of shippers);
- facilitate more competition in upstream and downstream markets by:
 - providing for access to pipelines on better price and non-price terms and conditions; and
 - reducing the barriers to entry that access to pipelines and the price and non-price terms and conditions of access may otherwise pose in these markets; and
- provide shippers with choice and access to better information.

Reform options 3A, 3B and 4 are also expected to facilitate more competition between existing and prospective service providers for the development of new capacity.

Table 9.9: Impact of the reform options on competition

Impact	Observations
Limits on the number or type of businesses in the market	<p>None of the reform options are expected to result in a reduction in the number of service providers, or participants competing in upstream or downstream markets. That is, while the regulatory costs for service providers and shippers may increase, the increase is not expected to impact on the viability of the service providers to the extent that they exit the market (see Table 9.7). The reform options are not therefore expected to impose any additional barriers to entry (or exit) to service providers or participants in upstream or downstream markets, or limit their ability to provide services. Rather, in the case of:</p> <ul style="list-style-type: none"> ▪ Service providers, reform options 3A, 3B and 4 are expected to reduce the barriers to entry for prospective service providers, by preventing incumbent service providers from blocking competition from new pipelines. ▪ Participants in upstream and downstream markets, all of the reform options are expected to reduce the barriers to entry that access to pipelines and the price and non-price terms and conditions of access may otherwise pose in these markets. The additional measures in options 3A, 3B and 4 are expected to result in a greater reduction in these barriers, by posing more of a constraint on exercises of market power by service providers, strengthening the bargaining power of shippers and reducing information asymmetries and search and transaction costs for shippers.
Limits on the ability of businesses to compete	<p>None of the reform options are expected to limit the ability of service providers or participants in upstream or downstream markets to compete. Rather, in the case of:</p> <ul style="list-style-type: none"> ▪ Service providers, while the reform options would lead to greater regulation of pipelines this is expected to pose a constraint on the exercise of market power by service providers and not to restrict their ability to compete (where competition is feasible), or to set prices and other conditions that are consistent with what would occur in a workably competitive market. Nor is it expected to limit the ability of service providers to market their services, or to advantage some service providers over others.

Impact	Observations
	<ul style="list-style-type: none"> ▪ Participants in upstream and downstream markets, the reform options are expected to facilitate more competition in those markets by providing for access on better price and non-price terms and conditions and reducing the barriers to entry posed by pipelines. The additional measures included in options 3A, 3B and 4 are expected to facilitate greater competition in these markets by posing more of a constraint on exercises of market power by service providers, strengthening the bargaining power of shippers and reducing information asymmetries and search and transaction costs for shippers. The open access model under options 3B and 4 is expected to further improve the ability of those participants that require access to pipelines not voluntarily providing third party access to compete, by further reducing the barriers to entry for these pipelines, although as noted above relative to Option 3A this benefit is expected to be relatively small.
Reducing incentive of businesses to compete	<p>None of the reform options are expected to reduce the incentive service providers or participants in upstream or downstream markets have to compete (where competition is feasible). Rather, in the case of:</p> <ul style="list-style-type: none"> ▪ Service providers, reform options 3A, 3B and 4 are expected to increase the incentive of prospective service providers to compete by posing more of a constraint on the ability of incumbent service providers to block competition from prospective service providers. ▪ Participants in upstream and downstream markets, all the reform options could increase the incentive to compete in these markets by reducing the barriers to entry posed by pipelines and providing for access to pipelines on better price and non-price terms and conditions. The additional measures in options 3A, 3B and 4 are expected to result in a greater incentive to compete by posing more of a constraint on exercises of market power by service providers, strengthening the bargaining power of shippers and reducing information asymmetries and search and transaction costs for shippers.
Limiting the choices and information available to consumers	<p>None of the reform options are expected to restrict the choices or limit the information available to shippers. To the contrary:</p> <ul style="list-style-type: none"> ▪ Reform options 2, 3A, 3B and, to a lesser extent Option 4,²¹⁸ would allow service providers to continue to offer bespoke services that meet the needs of shippers. ▪ All the reform options provide for more information to be made available to shippers when considering whether or not to seek access to a pipeline and when negotiating access. Options 3A, 3B and 4 also provide for a range of improvements to be made to the quality and reliability, usability and accessibility of information, which is expected to further reduce shippers' search and transaction costs. It should also enable them to negotiate more effectively with service providers and make more informed and efficient decisions about their use of pipelines.

For the purposes of the comparative assessment set out in section 9.5, options 3B and 4 are ranked 1, Option 3A is ranked 3, Option 2 is ranked 4 and Option 1 is ranked 5.

9.5 Comparative assessment of the options

The results of the regulatory impact assessment are summarised in Table 9.10. As noted in the introduction, individual rankings have been developed for each element of the regulatory impact assessment. These rankings range from 1 to 5, with a ranking of 1 implying the most favourable impact and 5 the most negative impact. Where more than one option has the same impact, they are given the same ranking.

Because of the data constraints, the overall rankings are unweighted (i.e. each impact category is treated as equal). As outlined in this chapter, this is not the case in practice. Presenting the data in this way is nevertheless intended to highlight the trade-offs within

²¹⁸ This may differ under Option 4 because this option provides for a movement to direct price control under the stronger form of regulation. The movement to this form of regulation could result in greater standardisation of services on those pipelines subject to the stronger form of regulation, but not on those subject to the lighter form of regulation.

options and across options to aid in their comparisons and determine which option is likely to deliver the greatest net benefit.

It is also worth noting that:

- there is some overlap between the analyses (for example, the costs used in the regulatory burden analysis are also taken into account in the CBA);
- there are some elements of the reform options that perform well under one analysis, but not under another (for example, an element of the reform option may give rise to a benefit in the CBA, but may also constitute a risk in the risk analysis); and
- the differences between ratings are not standardised across the analyses, so in some cases they may imply quite a big difference between the options, while in others they may imply a small difference (for example, the difference between a ranking of 1 and 3 in the CEA is small because there is little difference between the competitive effects of options 3A, 3B and 4, while the difference between the same rankings in the CBA is intended to be more material).

Table 9.10: Comparative ranking of policy options

Impact	Option 1	Option 2	Option 3A	Option 3B	Option 4
Risk analysis	5	3	1	1	4
CBA	5	4	2	1	3
CRBM	1	2	3	4	5
CEA	5	4	3	1	1

As Table 9.10 shows, no single option was ranked 1 across all forms of the regulatory impact analysis. Option 3B was, however, ranked as 1 in the risk analysis, CBA and the CEA, and 4 in the CRBM. In relation to the CRBM, it is worth noting that while the regulatory burden associated with Option 3B is higher than options 1, 2 and 3A, the difference is relatively small (see Table 9.7) and is expected to be more than offset by the benefits associated with this option,²¹⁹ which include:

- the productivity, investment and other efficiency benefits associated with lower transportation costs arising as a result of:
 - more pipelines becoming subject to a stronger form of regulation; and
 - other measures that are expected to pose more of a constraint on the behaviour of service providers and place downward pressure on transportation costs on pipelines subject to the new lighter form of regulation;
- the productivity, investment and other efficiency benefits associated with improved access to pipelines that would not otherwise provide third party access;
- the reduction in information asymmetries and lower search and transaction costs arising as a result of the proposed improvements to information disclosure, including greater transparency of prices; and
- the cost savings associated with simplifying the regulatory framework.

The benefits also include the competition related benefits outlined in section 9.4 and the reduction in the risk rating outlined in section 9.1.

Option 3B is therefore expected to yield the greatest net benefit for the community across the five options.

²¹⁹ This can be seen in the quantitative element of the CBA, with the net economy-wide benefit (i.e. the benefit after taking into account the estimated costs, which are also included in the regulatory burden analysis) estimated to range from \$234.7 million to \$1.179 billion.

10. Preferred option, implementation and review

As noted in the introduction, the purpose of a Decision RIS is to:

- identify the preferred option, which is the option that yields the greatest net benefit for the community (having regard to the results of the regulatory impact assessment and the consultation process);
- set out how the preferred option will be implemented; and
- outline how the preferred option will be monitored and reviewed over time.

These matters are dealt with, in turn, in the remainder of this chapter.

10.1 What is the preferred option?

Having regard to the feedback provided by stakeholders and the results of the regulatory impact assessment set out in Chapter 9, the preferred option is **Option 3B**.

Relative to the other options, Option 3B is, as noted in Chapter 9, expected to:

- result in a material reduction in the risks associated with the regulatory framework;
- generate the highest net benefit in terms of the CBA, primarily as a result of:
 - the productivity, investment and other efficiency benefits arising as a result of:
 - lower transportation costs on pipelines subject to either the stronger or lighter forms of regulation; and
 - improved access to pipelines that would not otherwise provide third party access;
 - the reduction in search and transaction costs arising as a result of the proposed improvements to information disclosure; and
 - the cost savings associated with simplifying the regulatory framework.
- facilitate more effective competition in the pipeline segment of the supply chain and in upstream and downstream markets.

While the regulatory burden associated with this option is slightly higher than some of the options, the difference is relatively small²²⁰ and, as noted in Chapter 9, is expected to be more than offset by the benefits associated with this option.

Option 3B is therefore expected to yield the greatest net benefit for the community, which is why it is the preferred option.

The key elements of Option 3B are outlined in Table 10.1, while Figure 10.1 shows how the option is intended to operate. It is worth noting in this context that South Australia has indicated its intention to consult on a derogation from the requirement for pipelines to publish individual prices if this option is implemented. The proposed derogation is intended to apply to services provided to shippers that relate to gas delivered for end use in South Australia on pipelines wholly or partially in South Australia.

²²⁰ The start-up cost for Option 3B is estimated to be just \$0.72 m higher than it is under options 2 and 3A and the ongoing costs are estimated to be \$0.44 m p.a. higher than the equivalent costs under Option 3A and \$1.75 m p.a. higher than the costs under Option 2.

Table 10.1: Preferred Option – Option 3B

Element		Description
When should pipelines be regulated	Access to pipelines	<p>All pipelines required to provide 3rd party access and subject to some form of regulation.</p> <p>For transitional purposes, those pipelines that have already obtained a 15-year no coverage determination and are not providing third party access would be exempt from the obligation to provide third party access for the remaining term of the exemption period</p>
	Greenfield exemption	<p>A greenfield exemption would be available to new pipelines, where it can be demonstrated that the pipeline is unlikely to have substantial market power over the exemption period.²²¹ This incentive would provide the pipeline with an exemption from the stronger form of regulation and give effect to any competitive outcome to develop the pipeline for up to 15-years.</p>
Forms of regulation and the movement between the alternative forms	Forms of regulation	<p>Pipelines subject to one of two forms of regulation, with the:</p> <ul style="list-style-type: none"> ▪ Stronger form of regulation based on the existing full regulation (i.e. negotiate-arbitrate with reference tariffs approved by the regulator and a regulatory-oriented dispute resolution mechanism). ▪ Lighter form of regulation based on the existing Part 23 (i.e. a negotiate-arbitrate model with information disclosure and a commercially-oriented dispute resolution mechanism), which would be strengthened through the inclusion of the safeguards that currently apply to light regulation, but not the prohibition on inefficient price discrimination.²²² <p>For transitional purposes:</p> <ul style="list-style-type: none"> ▪ the pipelines currently subject to full regulation will become subject to the new stronger form of regulation ▪ the pipelines currently subject to Part 23 will become subject to the new lighter form of regulation ▪ the 5.5 pipelines currently subject to light regulation would be transitioned to the new lighter form of regulation unless the service provider elects to be subject to the stronger form of regulation.
	Dynamic market power measures	<p>Service providers would be:</p> <ul style="list-style-type: none"> ▪ required to comply with pipeline interconnection principles set out in the NGR ▪ prohibited from increasing the charges payable by existing shippers to cross-subsidise the development of new capacity (subject to limited exceptions specified in the NGR).²²³ and would also be required to disclose more information on extension/expansion costs.
	Monitoring and referral functions	<p>The relevant regulator would be required to more actively monitor the behaviour of service providers and to refer pipelines for a form of regulation assessment if it suspects market power is being exercised.</p>

²²¹ For example, because the pipeline has been developed as a result of a competitive process with the terms and conditions of that process made available to other users, or there are some other constraints that are expected to pose a constraint on the exercise of market power over the exemption period.

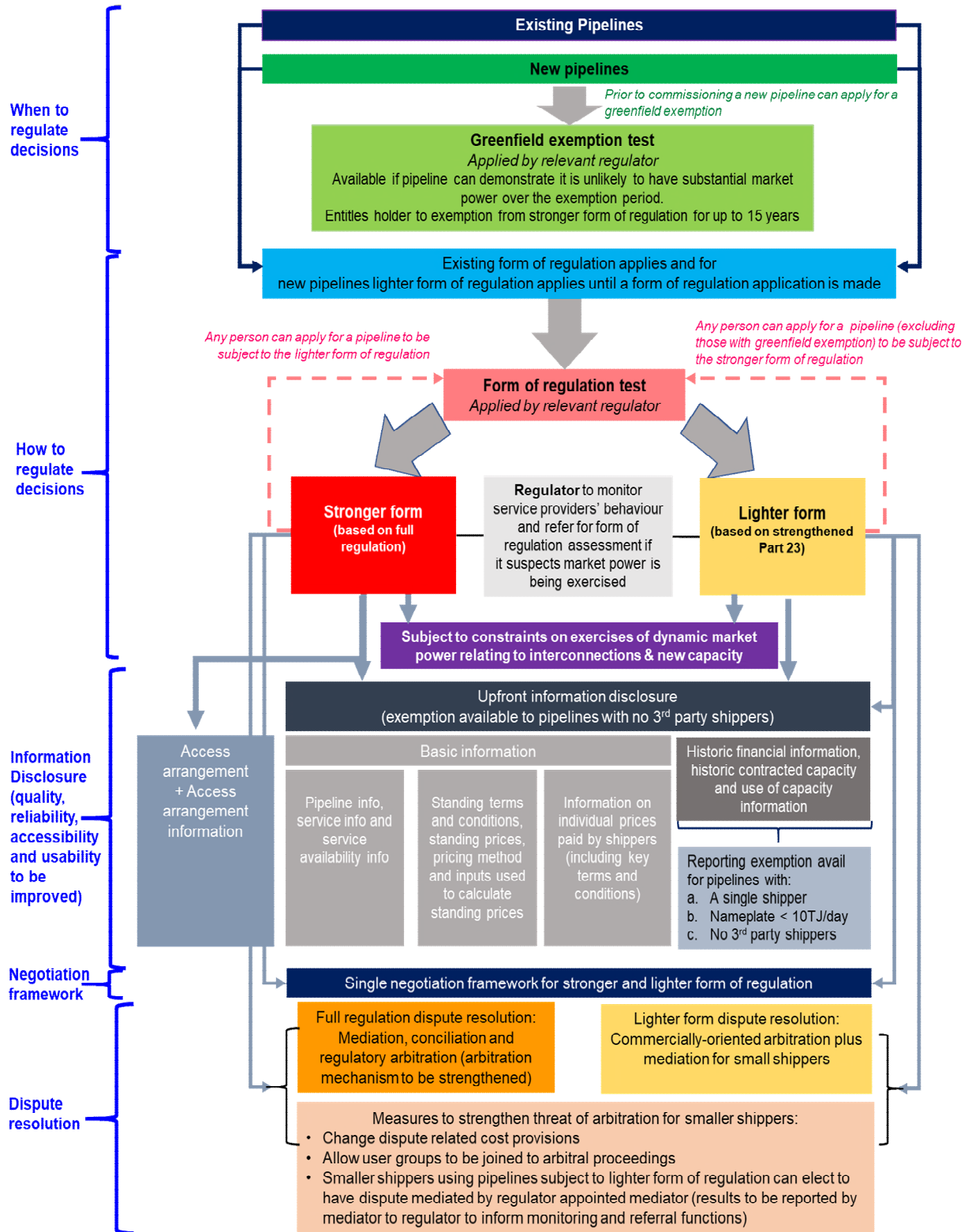
²²² Price discrimination will in most cases be efficiency enhancing. A notable exception to this is when a service provider favours an affiliate. To prevent this form of price discrimination, the associate contract provisions will be extended to all pipelines. These provisions, amongst other things, prohibit service providers from entering into or giving effect to contracts that have an anti-competitive effect or favour an affiliate (unless approved by the relevant regulator).

²²³ This is to cater for situations where existing users benefit from the augmentation and should therefore contribute to the expenditure.

Element		Description
	Form of regulation test	The coverage test would be removed and the existing form of regulation test would be used to determine whether a stronger or lighter form of regulation should apply (note the test and/or decision-maker's information gathering powers would be modified to address the concerns raised about the information asymmetries faced by the decision-maker when deciding on the form of regulation and some other minor modifications to the test would also be made. ²²⁴ – changes to the test will be consulted on as part of the consultation on the legal package).
Governance for when and how to regulate decisions		The relevant regulator (AER/ERA) would be responsible for deciding whether to grant a greenfield exemption and for making form of regulation decisions.
Information disclosure requirements	Information to be disclosed by <u>non-exempt</u> service providers	<p>All non-exempt service providers would be required to publish:</p> <ul style="list-style-type: none"> ▪ The Basic Information set out in Box 8.1. ▪ Historical financial and demand information. <p>Information on the prices paid by other shippers would be based on the individual prices (including key terms and conditions) paid by shippers (except in SA which proposes to derogate from this aspect of the reforms).</p> <p>The disclosure requirements would also be amended in the manner set out in Box 8.1 to address the identified information deficiencies and improve the quality and reliability, accessibility and usability of the information.</p>
	Exemptions from disclosure requirements	<p>The following exemptions from the information disclosure obligations would be available:</p> <ul style="list-style-type: none"> ▪ Pipelines that are not providing third party access would be able to obtain an exemption from publishing the Basic Information and the historical financial and demand information. ▪ Pipelines that are providing third party access, but have a single user or have a nameplate capacity less than 10 TJ/day would be able to obtain an exemption from the obligation to publish historical financial and service usage information. <p>If a pipeline no longer satisfies the exemption criteria, the exemption would be revoked.</p>
Negotiation frameworks and dispute resolution mechanism*	Negotiation framework	A single negotiation framework would apply under both forms of regulation (see Box 8.2).
	Threat of dispute for small shippers	<p>The credibility of the threat of smaller shippers triggering a dispute would be strengthened by:</p> <ul style="list-style-type: none"> ▪ changing the dispute related cost provisions ▪ allowing user bodies to be joined to proceedings involving smaller shippers ▪ allowing smaller shippers to elect to have a dispute involving a pipeline subject to the lighter form of regulation mediated by a regulator appointed party (who will be required to report back to the regulator to help inform the monitoring process).
	Dispute resolution mechanisms	<p>The Part 23 commercially-oriented mechanism would be maintained for the lighter form of regulation and the scheme pipeline regulatory-oriented mechanism would be used for the stronger form of regulation.</p> <p>The scheme pipeline dispute resolution mechanism would be strengthened in the manner set out in Box 8.3.</p>

²²⁴ The test would also be amended to: (a) allow the decision-maker to have regard to the results of the regulator's monitoring of the service provider's behaviour; and (b) remove the requirement to consider whether information is available to shippers to enable them to negotiate be removed, because under all of the policy options being contemplated service providers would be required to publish basic information.

Figure 10.1: How the regulatory framework would operate under Option 3B



In addition to yielding the greatest net benefit for the community, Option 3B is also consistent with the NGO, the Vision and the objectives of Energy National Cabinet Reform Committee action, which as noted in section 3.2 are to implement a more efficient, effective and integrated regulatory framework that:

- supports the efficient operation of the gas market and the long term interests of gas users; and

- is fit for purpose, targeted and proportionate to the issues it is intended to address.

As Figure 10.2 highlights, it will achieve these objectives by:

- providing for a simpler framework for access to pipelines that are not voluntarily providing third party access;
- continuing to support efficient investment in new pipelines;
- simplifying the forms of regulation and ensuring each form provides effective constraints on static and dynamic market power, while continuing to support the safe, reliable and efficient operation, use of and investment in pipelines;
- posing a more credible threat of a stronger form of regulation if market power is exercised by service providers; and
- better supporting commercial negotiations between shippers and service providers, while also minimising administrative burdens and costs.

Figure 10.2: Summary of how the preferred option will achieve the stated objectives

Implement a simpler framework for 3rd party access	Access to pipelines: Remove the coverage test and require all pipelines to provide third party access if requested to do so by a shipper.	Streamline governance arrangements for: • greenfield incentives • form of regulation decisions.
Continue to support efficient pipeline investment	Greenfield exemptions: Retain exemption from stronger form of regulation for new pipelines for up to 15 years where it can be demonstrated the pipeline is unlikely to have substantial market power over the exemption period.	
Simplify the forms of regulation and ensure each form provides effective constraints on market power while supporting the safe, reliable & efficient use of and investment in pipelines	Forms of regulation: Move from three to two forms of regulation : • Stronger form: Based on full regulation (i.e. negotiate-arbitrate with regulator approved reference tariffs and regulatory oriented dispute resolution). • Lighter form: Based on strengthened Part 23 (i.e. negotiate-arbitrate with commercially oriented arbitration plus safeguards applying under light regulation except the prohibition on inefficient price discrimination) Apply additional constraints on exercises of dynamic market power.	
Pose a more credible threat of stronger regulation if market power exercised by service providers	Form of regulation assessment : Remove coverage test from the form of regulation assessment framework, so that the movement to a stronger form of regulation if market power is being exercised poses a more credible threat to service providers.	
Better support commercial negotiations between shippers and service providers, while minimising administrative burdens and costs	Greater oversight by regulator: Active monitoring and a new power to refer a pipeline for a form of regulation assessment, to pose a more credible threat of a stronger form of regulation being applied if a service provider is exercising market power.	
	Better information disclosure: More consistent information disclosure across the forms of regulation (to address the identified gaps), better quality, more reliable, usable and accessible information and improved price disclosure.	
	Improved negotiating framework: A single negotiation framework to apply across both forms of regulation that will provide greater clarity about service provider obligations in terms of responding to preliminary enquiries and access requests, information disclosures and the limited circumstances in which an offer is not required to be made.	
	Stronger dispute resolution mechanisms: Additional measures to improve the credibility of threat of arbitration by smaller shippers and to strengthen the dispute resolution mechanism applying under the stronger form of regulation.	

10.2 How will the preferred option be implemented?

To implement the preferred option, changes to the NGL, Regulations and NGR will be required. Subject to Energy National Cabinet Reform Committee agreeing to implement the preferred option, the amendments to the NGL, NGR and Regulations required to give effect to the option will be prepared for public consultation.

Following consultation a package of changes to these legal instruments will be submitted to Energy National Cabinet Reform Committee for its approval. If the package of changes is approved, then:

- the required changes to the NGL would be progressed through the South Australian Parliament by the South Australian Minister for Energy and Mining; and

- following the proclamation of changes to the NGL, the required amendments to:
 - the Regulations would be made by the South Australian Governor; and
 - the NGR would be made by the South Australian Minister for Energy and Mining as initial rules.

In Western Australia, which has adopted modified versions of the NGL, the NGR and Regulations, the WA Government will be responsible for determining what changes it will adopt.

Subject to the completion of the South Australian legislative amendment process, it is anticipated that the new regulatory framework will commence in 2022.

10.3 How will the effectiveness of the preferred option be monitored and reviewed over time?

The effectiveness of the preferred option will be monitored and reviewed over time by Energy Senior Officials. It is also expected to be monitored by the ACCC as part of its gas market inquiry, which is scheduled to run until 2025.

In addition to these reviews, it will be open to market participants and other interested parties to submit a rule change to the AEMC if any of the reforms implemented through the NGR are found not to be working as intended.

Appendix A Gas pipeline regulatory framework

This appendix provides further detail on:

- how a pipeline can currently become subject to regulation;
- the alternative forms of regulation; and
- the provisions that have been included in the regulatory framework to encourage investment.

A.1 How a pipeline can currently become subject to regulation

Under the current regulatory framework, a pipeline can become subject to:

- full or light regulation if the pipeline has been classified as a scheme (covered) pipeline; or
- Part 23 if the pipeline is a non-scheme pipeline and is providing third party access.

A pipeline can be classified as a scheme (covered) pipeline if:

- the pipeline was deemed to be a covered pipeline when the Gas Code came into effect and coverage has not subsequently been revoked;
- a coverage application is made to the NCC and the relevant Minister,²²⁵ having regard to the NCC's recommendation, is satisfied the pipeline meets all the coverage criteria set out in s. 15 of the NGL (see Box 2.4);
- a service provider voluntarily submits a full AA for the pipeline to the relevant regulator;²²⁶ or
- the pipeline is developed through a CTP that is approved by the relevant regulator.²²⁷

The regulatory framework also provides for coverage to be revoked if the relevant Minister, having regard to the NCC's recommendation, finds that at least one of the coverage criteria is not satisfied.

In addition, the regulatory framework provides for the following greenfield pipeline related exemptions:

- a 15-year exemption from coverage can be obtained by a pipeline prior to commissioning if the relevant Minister, having regard to the NCC's recommendation, finds the pipeline does not satisfy one or more of the coverage criteria;^{228, 229} and

²²⁵ The identity of the 'relevant Minister' will depend on whether the pipeline is a transmission or distribution pipeline and if the pipeline crosses jurisdictions. For example, if the pipeline is a cross boundary transmission pipeline, the relevant Minister is the Commonwealth Minister but if the transmission pipeline is situated wholly within a jurisdiction, the relevant Minister will typically be the State or Territory Minister (the one exception is Queensland where the relevant Minister is the Commonwealth Minister). See definitions section of NGL.

²²⁶ See s. 127 of the NGL.

²²⁷ See s. 126 of the NGL.

²²⁸ Note that the exemption is from full and light regulation only and that Part 23 may be applied if the pipeline provides third party access.

²²⁹ Of the four greenfield pipelines, there is currently only one that is providing third party access: the Wallumbilla to Gladstone Pipeline (WGP). The remainder are not subject to any form of regulation.

- a 15-year exemption from price regulation (and a 15-year exemption from coverage) can be obtained by an international pipeline prior to commissioning, if the relevant Minister, having regard to the NCC's recommendation finds the benefits to the public of granting the exemption outweigh the detriments.

The regulatory framework also provides for the coverage status of a pipeline to change over time (except in those cases where a 15-year greenfield exemption has been granted) if circumstances change.

If a pipeline is a scheme pipeline and it has been classified as a 'designated' pipeline in the Regulations or in the application Act of a participating jurisdiction,²³⁰ it will be subject to full regulation. For all other scheme pipelines, the pipeline may be subject to full or light regulation.

Under the current regulatory framework, the NCC is responsible for deciding what form of regulation should apply to a pipeline that becomes a covered pipeline.²³¹ The NCC is also responsible for determining whether full or light regulation should apply to other scheme pipelines that are not 'designated' if an application is made for the form of regulation to change.²³² When making its determination, the NCC is required to consider:²³³

- the likely effectiveness of full and light regulation in promoting access to the services provided by the pipeline, and
- the effect of full and light regulation on the costs that may be incurred by an efficient service provider, efficient users and prospective users, and end-users.

In doing so, the NCC must have regard to the form of regulation factors (see Box 2.5), the NGO and any other matters it considers relevant. Like a coverage decision, the form of regulation applied to a particular pipeline can change over time if conditions change.

Pipelines that are not classified as a scheme pipeline are referred to as 'non-scheme' pipelines (this includes greenfield pipelines that have obtained a 15 year no coverage determination) and are subject to Part 23. Exemptions from Part 23 are available, on application to the relevant regulator, to pipelines that are not providing third party access.

A.2 Alternative forms of regulation

As noted above, there are currently three forms of regulation that may be applied to a gas pipeline in Australia: full regulation, light regulation and Part 23, all of which are variants of the negotiate-arbitrate model. Further detail on these three forms of regulation is provided below. Note the regulator for scheme pipelines is the AER for all states and territories except Western Australia, where the ERA is the regulator.

²³⁰ A designated pipeline is a pipeline classified by the Regulations, or designated in the application Act of a participating jurisdiction, that cannot be subject to light regulation. The pipelines that are designated include APA's Victorian Transmission System, AGN's SA Distribution Network, ATCO's Western Australian gas distribution system, the Dampier to Bunbury Natural Gas Pipeline, the Goldfields Gas Pipeline and the three Victorian gas distribution systems. See National Gas (South Australia) Regulations 2009, National Gas Access (WA) (Part 3) Regulations 2009, Schedule 1 and Victorian Government Gazette No. S222m, 30 June 2009.

²³¹ See s. 110 of the NGL.

²³² Provisions in the NGL currently allow service providers to apply the NCC for a determination that the services provided by the pipeline be subject to light regulation (see s. 110 of the NGL). If a pipeline is subject to light regulation, then service providers can advise the NCC that they wish to be subject to full regulation. Other interested parties can also apply to the NCC for a light regulation determination to be revoked (see ss.112-118 of the NGL).

²³³ Section 122 of the NGL.

A.2.1 Full regulation

The service provider of a pipeline that is subject to full regulation must periodically submit a 'full' AA to the relevant regulator for approval. An AA is a document that sets out the reference service(s) to be provided by the pipeline and the price and non-price terms and conditions applicable to each reference service, which must be approved by the regulator on an *ex ante* basis. An AA must also set out the pipeline's queuing,²³⁴ extension and expansion,²³⁵ and capacity trading requirements,²³⁶ as well as the terms on which receipt and delivery points can change.²³⁷

A proposed AA is assessed by the regulator through a multi-stage public consultation process. When assessing the proposed AA, the regulator must have regard to the matters set out in Parts 8-12 of the NGR, the revenue and pricing principles in the NGL and the NGO. The outcome of the regulatory process is an approved full AA.

Although regulatory approval of an AA is required, provision has been made in the NGL for service providers and shippers to negotiate alternative arrangements either for reference services or for non-reference services.^{238, 239}

To ensure that shippers (prospective or existing) have some degree of protection if they decide to negotiate an alternative arrangement, provision has been made in the NGL for either party to trigger the regulatory-oriented dispute resolution mechanism in Chapter 6 of the NGL and Part 12 of the NGR if an access dispute arises. The dispute resolution body in eastern Australia and the Northern Territory is the AER, while in Western Australia it is the Energy Disputes Arbitrator. The dispute resolution mechanism has not been triggered on any full regulation pipelines to date.

In addition to this safeguard, service providers of full regulation pipelines are required to comply with the facilitation of, and request for, access rules in Part 11 of the NGR. They are also prohibited from:

- bundling services unless it is "reasonably necessary";²⁴⁰
- engaging in conduct that would prevent or hinder access to pipeline services;²⁴¹ and
- adversely affecting competition in related markets, by carrying on a related business or by conferring an advantage on an associate that takes part in a related business (i.e. through the ring-fencing and associate contract provisions in the NGL).²⁴²

Following recent amendments to the NGR, all full regulation transmission pipelines in eastern and northern Australia are now classified as BB pipelines and are therefore subject to the reporting obligations in Part 18 of the NGR.

²³⁴ This policy is used to determine the order of priority for access to spare and developable capacity (rule 103).

²³⁵ See rule 104 of the NGR.

²³⁶ See rule 105 of the NGR.

²³⁷ See rule 106 of the NGR.

²³⁸ In the Victorian Transmission System (VTS) it is not possible to negotiate an alternative transportation service because it is operated on a simple injection / withdrawal basis. All users of the VTS therefore pay the reference tariff.

²³⁹ See s. 322 of the NGL.

²⁴⁰ See rule 109 of the NGR.

²⁴¹ See s. 133 of the NGL.

²⁴² Sections 137-148 of the NGL. These provisions are referred to as 'ring fencing' and associate contract obligations.

A.2.2 Light regulation

Under light regulation, there is no *ex ante* regulatory approval of prices for reference services. Rather, greater emphasis is placed on commercial negotiations. To facilitate these negotiations, service providers of light regulation pipelines are required to publish:

- (a) the price and non-price terms and conditions of access to light regulation services²⁴³ and the methodology used to calculate prices;²⁴⁴
- (b) a range of service and access information (i.e. pipeline information, pipeline service information, service usage information and service availability information);^{245, 246} and
- (c) financial and weighted average price information (the obligation to publish this information commences in 2020).²⁴⁷

Service providers are also required to comply with the facilitation of, and request for, access rules in Part 11 of the NGR and must also report to the relevant regulator on access negotiations (at least annually).²⁴⁸

The service provider of a light regulation pipeline also has the option under s. 116 of the NGL to develop a 'limited' AA for approval by the relevant regulator, but this option has not been used to date.²⁴⁹ The key difference between a limited and full AA is that the limited version does not need to include reference tariffs.

If negotiations between the service provider of a light regulation pipeline and a shipper fail, then either party can trigger the regulatory-oriented access dispute mechanism in Chapter 6 of the NGL and Part 12 of the NGR, which is administered by the AER and Energy Disputes Arbitrator in WA.²⁵⁰ The dispute resolution mechanism has not yet been triggered on any light regulation pipelines.

Like full regulation pipelines, the service providers of light regulation pipelines are prohibited from bundling (unless it is reasonably necessary), preventing or hindering access and adversely affecting competition in related markets. Service providers of light regulation pipelines are also prohibited from engaging in price discrimination, unless it is conducive to efficient service provision.²⁵¹

In a similar manner to full regulation, all light regulation transmission pipelines in eastern and northern Australia are now classified as BB pipelines and subject to the reporting obligations in Part 18 of the NGR. Recent amendments to parts 7 and 11 of the NGR have also resulted in light regulation pipelines being subject to similar information disclosure

²⁴³ See rule 36 of the NGR.

²⁴⁴ See rule 36(1)(c) of the NGR.

²⁴⁵ See rule 36C of the NGR.

²⁴⁶ Note that these obligations only apply to distribution pipelines and, in some cases, they only apply to large distribution pipelines. Similar but not identical obligations apply to transmission pipelines through the Natural Gas Services Bulletin Board reporting obligations in Part 18 of the NGR for pipelines located in the Northern Territory and eastern Australia.

²⁴⁷ See rules 36D and 36E of the NGR. Note that exemptions are currently available from the obligation to publish weighted average prices for each service if there are less than three shippers using a particular service.

²⁴⁸ See rule 37 of the NGR and AER, Annual Compliance Order, 2008.

²⁴⁹ Where the option is used, and the limited access arrangement is in force and is accessible on the service provider's website, the terms and conditions of access (other than price) need not be separately published on the service provider's website.

²⁵⁰ Chapter 6 of the NGL and Part 12 of the NGR.

²⁵¹ See s. 136 of the NGL.

obligations as those applying under Part 23 (albeit with some differences in reporting for larger distribution systems).

A.2.3 Part 23

Non-scheme pipelines that are providing third party access are subject to the information disclosure and arbitration framework set out in Chapter 6A of the NGL and Part 23 of the NGR, the objective of which is to:²⁵²

“...facilitate access to pipeline services on non-scheme pipelines on reasonable terms, which ... is taken to mean at prices and on other terms and conditions that, so far as practical, reflect the outcomes of a workably competitive market.”

As noted in rule 546, Part 23 is intended to contribute to the attainment of this objective through:

- “(a) requirements for the publication and exchange of information to facilitate timely and effective commercial negotiations in relation to access to non-scheme pipelines;*
- (b) a commercially-orientated arbitration process to resolve access disputes in a cost-effective and efficient manner; and*
- (c) principles that the arbitrator must have regard to when determining access disputes, which are consistent with the outcomes of a workably competitive market.”*

The key elements of this framework include:

- **An information disclosure regime** that requires service providers to publish a user access guide and a range of other information that shippers can use to make an informed decision about whether to seek access and to carry out a high level assessment of the reasonableness of a service provider’s offer, including:
 - (a) the standing terms for each pipeline service (including the standing price) and the methodology used to calculate the standing price;
 - (b) a range of service and access information (i.e. pipeline information, service information, service usage information and service availability information); and
 - (c) financial and weighted average price information.²⁵³
- **An access request and negotiation framework** that is intended to facilitate timely and effective commercial negotiations and minimise the reliance on arbitration.
- **A commercially-oriented arbitration mechanism** that can be triggered by either party if agreement cannot be reached during negotiations. To enable disputes to be resolved in a timely manner, Part 23 requires the arbitration to be conducted using the information exchanged in negotiations and to be completed within 50 business days (or 90 business days if the parties agree to an extension). Part 23 also sets out the pricing and other principles the arbitrator (a commercial arbitrator selected from a panel of arbitrators established by the relevant regulator) must have regard to when determining access disputes.

Since its introduction in August 2017, the dispute resolution mechanism has been triggered twice, with the first dispute being triggered on the Tasmanian Gas Pipeline in 2017-18 and the second being triggered on the Carisbrook to Horsham Pipeline in 2020.²⁵⁴

²⁵² See rule 546 of the NGR.

²⁵³ Note that exemptions are currently available from the obligation to publish weighted average prices for each service if there are less than three shippers using a particular service. See rule 556(3).

²⁵⁴ See <https://www.aer.gov.au/networks-pipelines/non-scheme-pipelines/arbitration-of-access-disputes>

As noted above, a service provider can apply to the relevant regulator for a full exemption from Part 23 if it is not providing third party access. Exemptions from some or all of the obligations to publish the information set out in (a)-(c) above can also be sought for pipelines that:

- **supply a single shipper:** In this case the service provider can obtain an exemption from the obligation to publish all of the information in (a)-(c); and
- **fall below a specified size threshold** (i.e. pipelines with an average daily injection for the preceding 24 months of less than 10TJ/d): In this case the service provider is required to publish pipeline and pipeline service information, but can obtain an exemption from the obligation to publish all of the other information in (a)-(c).

These exemptions were implemented to address the concerns that were raised during the development of Part 23 that the costs associated with publishing some of the information may outweigh the benefits on small pipelines and on pipelines supplying a single shipper.²⁵⁵ While exemptions from the obligation to publish information are available to these pipelines, prospective shippers can still request the same information from service providers in negotiations.

Table A.1 sets out the number of exemptions from Part 23 that have been obtained by pipelines that are not providing third party access and the number of exemptions from the information disclosure requirements that have been obtained by other pipelines.

Table A.1: Exemptions granted under Part 23 (as at July 2019)

	Full exemption	Exemption from some or all of the obligations to publish information		Total
	Pipeline not providing third party access	Single shipper pipelines	Pipelines below size threshold	
Eastern Australia and Northern Territory	37	22	17	76
Western Australia	18	19	6	43
Total	55	41	23	119
<i>Transmission</i>	51	35	10	96
<i>Distribution</i>	4	6	13	23

Source: AER and ERA Public registers.

As this table shows, a large number of pipelines that are not providing third party access have obtained an exemption from Part 23. In eastern Australia and the Northern Territory, the pipelines that are not providing third party access are predominantly dedicated pipelines owned and operated by gas producers, LNG producers and gas fired generators, while in Western Australia a large number are owned by mining companies. The majority of single shipper pipelines are also used by gas fired generators and mining companies, although some pipelines that are servicing demand centres that have been fully contracted by a single retailer and are therefore considered a single shipper pipeline.

A.3 Investment

The regulatory framework currently includes the following mechanisms, which were implemented to counter the adverse effects that regulation may otherwise have on pipeline investments:

²⁵⁵ GMRG, Final Design Recommendation: Gas Pipeline Information Disclosure and Arbitration Framework, June 2017, pp. 52-53.

- The greenfield provisions in Chapter 5 of the NGL, which enable pipelines (including major extensions of existing non-scheme pipelines) that are yet to be commissioned to obtain a 15-year exemption from coverage if one or more of the coverage criteria are not met (see section 3.1.1 for more detail).^{256, 257} If such an exemption is granted, the pipeline will be exempt from full and light regulation but not from Part 23. To date, four pipelines have been granted such an exemption, one of which is subject to Part 23.²⁵⁸
- The CTP provisions in Part 5 of the NGR, which allow the proponents of new pipelines²⁵⁹ (e.g. prospective users or government bodies) to apply to the relevant regulator to have a proposed tender approved as a competitive tender process. If the tender is approved by the relevant regulator, then the successful tenderer must submit an AA proposal to the relevant regulator for approval. If the regulator is satisfied the proposed AA reasonably reflects²⁶⁰ the price and non-price terms and conditions established through the tender, then it must approve the AA. In effect, these provisions allow the price and non-price terms and conditions established through the competition for the market to be locked in for the period specified in the tender. To date, only two pipelines have been developed using these provisions.²⁶¹

A number of provisions have also been included in the regulatory framework applying to full regulation pipelines to reduce the regulatory related investment risks and to ensure that investments can still occur in a timely and efficient manner, which have been used to varying extents by service providers. These provisions include:

- Sections 321 and 322 of the NGL, which protect pre-existing contractual rights and allow parties to reach alternative arrangements to those set out in an AA. In effect, these provisions allow investments to be underwritten by shippers through medium-to long-term GTAs, irrespective of whether or not they are approved by the regulator.¹
- Rule 80 of the NGR, which allows service providers to seek an advance determination from the relevant regulator on whether capital expenditure it proposes to undertake within an AA period will meet the conforming capital expenditure criteria. This rule, in effect, allows investments that were not approved at the time the AA decision was made to still be carried out within the regulatory period and for the service provider to have some certainty as to how the investment will be treated.
- Rule 51 of the NGR, which allows an AA to be reviewed at an earlier date if a trigger event specified in the approved AA occurs. The trigger event could, for example, include a significant investment in the pipeline (e.g. an expansion, extension or interconnection of the pipeline with another pipeline).
- Rule 65 of the NGR, which allows a service provider to seek the approval of the regulator to vary its AA during the regulatory period.
- Rules 81-84 of the NGR, which enable service providers that decide to undertake capital expenditure that has not been approved by the regulator to either:
 - recover that expenditure, or a portion thereof, through a surcharge approved by the relevant regulator or a capital contribution; or

²⁵⁶ These provisions also enable the operators of greenfield international pipelines to seek a 15-year exemption from price regulation.

²⁵⁷ The four pipelines include: APA's Wallumbilla to Gladstone Pipeline; APLNG's Surat Basin to Curtis Island pipeline; and GLNG's Comet Ridge to Wallumbilla Pipeline Loop and Surat Basin to Curtis Island pipeline. The Wallumbilla to Gladstone Pipeline is subject to Part 23.

²⁵⁸ These pipelines include, the APLNG Pipeline, the GLNG Pipeline, the Comet Ridge to Wallumbilla Pipeline Loop and the Wallumbilla to Gladstone Pipeline.

²⁵⁹ Rule 21(1)(b) of the NGR currently limits the application of these provisions to new pipelines.

²⁶⁰ The terms and conditions in the successful tender may be amended, with the regulator's approval, by agreement between the proponent and the service provider prior to the submission of the access arrangement.

²⁶¹ These pipelines include the Central Ranges Pipeline and the Central Ranges Gas Network. Another CTP process was also approved under the Gas Code for the Loddon Murray Region System but the tender did not attract any bids.

- include the investment (or a portion thereof) in a 'speculative capital expenditure account', which may be rolled into the regulated asset base at a later point in time if the investment is later found to be conforming capital expenditure.

Appendix B Recent reviews of regulatory framework

The gas pipeline regulatory framework has been subject to a number of reviews over the last five years, including by:

- the ACCC through its 2015-16 *Inquiry into the east coast gas market* (Inquiry);
- the AEMC through its 2015-16 East Coast Wholesale Gas Market and Pipeline Frameworks Review (East Coast Review) and 2017-18 Review into the scope of economic regulation applied to gas pipelines (Economic regulation review); and
- Dr Michael Vertigan AC through the *Examination of the current test for the regulation of gas pipelines* (Examination) and the GMRG through the subsequent development of Part 23 and preparation of a joint report with the ACCC on measures to improve the transparency of the gas market.

In 2019, three reviews of Part 23 were also undertaken, two of which were commissioned for this RIS (i.e. by OGW and by Brattle)²⁶² and the third undertaken by the ACCC.

The key findings of these reviews are outlined below.

B.1 ACCC 2015-16 Inquiry

One of the key findings of the ACCC's 2015-16 Inquiry was that while the service providers had responded well to the changes underway in the market, there was evidence that a large number of existing pipelines were engaging in monopoly pricing to the detriment of economic efficiency and consumers more generally.²⁶³

The ACCC also found that the ability and incentive for service providers to engage in this behaviour was not being effectively constrained by the countervailing power of shippers, or by competition from other pipelines or energy sources.²⁶⁴ Similarly, the ACCC found that:²⁶⁵

- the threat of regulation was failing to impose an effective constraint on service providers because the coverage test was not directed to the right market failure (i.e. monopoly pricing that results in economic inefficiencies with little or no effect on competition in dependent markets) and was unlikely therefore to be met by most pipelines;
- other gaps in the regulatory framework²⁶⁶ and limitations with the dispute resolution mechanism²⁶⁷ were allowing pipelines subject to full and light regulation to continue to engage in monopoly pricing; and
- the limited publicly available information on the costs incurred by service providers and the relationship between these costs and the prices charged for services were limiting

²⁶² Copies of the OGW and Brattle reports can be found on the Energy Ministers' website.

²⁶³ ACCC, *Inquiry into the east coast gas market*, April 2016, pp. 8-9.

²⁶⁴ *ibid.*, p. 18.

²⁶⁵ *ibid.*, Chapter 7.

²⁶⁶ The gaps in the framework that the ACCC identified were the limited number of reference services subject to ex ante approval by the relevant regulator and the ability for pipelines to exclude expansions from the covered pipeline.

²⁶⁷ The ACCC noted that market participants had informed it that the costs and resources associated with an access dispute, coupled with the uncertainty surrounding the final outcome, discouraged shippers from triggering these provisions.

the ability of shippers to readily identify any exercise of market power and to negotiate effectively with service providers.

To address these issues, the ACCC recommended that the former COAG Energy Council:²⁶⁸

1. Replace the coverage test with a new test for regulation that would be triggered if the relevant Minister, having regard to the NCC's recommendation, was satisfied that:
 - o the pipeline in question has substantial market power and the market power was likely to continue in the medium term; and
 - o coverage would, or would likely, contribute to the achievement of the NGO.
2. Ask the AEMC to conduct a review of Parts 8-12 of the NGR and make any amendments that may be required to:
 - o address the concern that pipelines subject to full regulation may still be able to exercise market power; and
 - o make the dispute resolution mechanism more accessible to shippers, so that it poses a more effective constraint on the behaviour of service providers.
3. Ask the AEMC to consider expanding the scope of the information disclosure requirements to require all pipelines providing third party access to publish financial information that shippers can use to determine whether or not the prices they are offered are cost reflective and to readily identify any exercise of market power.

The ACCC also noted the importance of maintaining the existing investment related safeguards in the NGL and NGR (e.g. the 15-year exemption from coverage for greenfield pipelines and the protection accorded to commercially negotiated contracts) to minimise the risk of regulation distorting investment incentives.²⁶⁹

The former COAG Energy Council responded to these recommendations in August 2016 by directing:²⁷⁰

- the Independent chair of the GMRG, Dr Vertigan, to examine the test for regulation and to review the information disclosure requirements (see B.3), and
- the AEMC to conduct a review of Parts 8-12 of the NGR (see section B.4).

B.2 AEMC 2015-16 East Coast Review

At the same time the ACCC was undertaking its inquiry, the AEMC was conducting its East Coast Review.

Like the ACCC, the AEMC examined the coverage test and found it may not be directed to the right market failure and, as a consequence, pipelines may not be subject to the appropriate level of regulation (see Box B.1 for more detail):²⁷¹

"...the Gas Access Regime is not a comprehensive regulatory instrument designed to solve a broad range of problems such as monopoly pricing and that if such behaviour was

²⁶⁸ ACCC, Inquiry into the east coast gas market, April 2016, p. 20.

²⁶⁹ *ibid*, p. 137.

²⁷⁰ COAG Energy Council, Bulletin Two: Gas Market Reform Package, August 2016.

²⁷¹ AEMC, Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review, 23 May 2016, p. 112

occurring pipelines may not be subject to the appropriate level of regulation. Unconstrained by competition or regulation, pipeline operators may be able to price capacity at a level higher than that which would be expected to prevail in a workably competitive market, which could have a detrimental effect on economic efficiency and consumers more generally, against the interests of the NGO.

Given the ACCC's analysis and evidence of the problem, which is consistent with the AEMC's own analysis, the AEMC concurs with the ACCC's recommended approach to progressing reforms to the Gas Access Regime. The AEMC further notes that moves to make a more industry specific access regime for gas in the manner envisaged by the ACCC is not inconsistent with the approach taken in some other sectors – indeed, the electricity sector is a clear example of an industry specific access regime.”

Box B.1: AEMC findings on the coverage test

The AEMC's findings on the coverage test, were informed by two independent economic experts that were engaged by the AEMC: Incenta and Castalia.

In its report to the AEMC, Incenta noted that:

“Rather than a problem of the denial of access, the issue with respect to gas pipelines is one of monopoly pricing. It is our view that criterion (a) is not centrally focused on this question, which in turn raises a prospect that price regulation may not be applied when it is justified.”²⁷²

“As demonstrated by the Hilmer Review, the national access regime was never intended to provide a regime for price regulation in instances of market power. By continuing to apply a form of test focused on providing regulated access to a circumstance where regulation should focus more on price, there is an increased risk that regulation is not applied in circumstances where it would otherwise be justified.”²⁷³

“It is our view that the potential risks of under or over-regulation that arise under the current regime for gas coverage can be addressed by asking a more straightforward question, namely: do the costs of regulation outweigh its benefits. In this case, this question can largely be answered by asking whether a gas pipeline owner possesses, and is able to apply, substantial and enduring market power.”²⁷⁴

Castalia formed a similar view, although it suggested that the test for regulation could be amended by replacing the term ‘competition’ in criterion (a) with the term ‘efficiency’.²⁷⁵

The AEMC also formed a similar view to the ACCC on the need for greater information disclosure by service providers and recommended that further consideration be given to these requirements, including the publication of information on the prices paid by shippers for capacity.²⁷⁶

In addition to these primary capacity related recommendations, the AEMC recommended a range of reforms to facilitate more secondary capacity trading on transmission pipelines operating under the contract carriage model to improve the efficiency with which capacity is allocated and used on these pipelines (see Chapter 2). These recommendations were endorsed by the former COAG Energy Council at its August 2016 meeting,²⁷⁷ and were

²⁷² Incenta, Assessment of the coverage criteria for the gas pipeline access regime, September 2015, p. 24.

²⁷³ *ibid*, p. 30.

²⁷⁴ *ibid*.

²⁷⁵ Castalia, AEMC Gas Access Regime Advice, 10 August 2015, p. 16

²⁷⁶ AEMC, Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review, 23 May 2016, p. 112

²⁷⁷ COAG Energy Council, Bulletin Two: Gas Market Reform Package, August 2016.

implemented in eastern Australia and the Northern Territory in late 2018 (with the capacity trading platform and day-ahead auction of contracted but un-nominated capacity commencing on 1 March 2019).²⁷⁸

B.3 Dr Vertigan’s Examination of the test for regulation and other work

Examination and the development of Part 23

In response to a direction from the former COAG Energy Council, Dr Vertigan, as independent chair of the GMRG, conducted an examination of the test for regulation in the latter half of 2016.

In a similar manner to the ACCC, Dr Vertigan found:

- that operators of existing pipelines have market power and the exercise of this power in some instances was resulting in inefficient outcomes that did not promote the NGO, or facilitate the achievement of the Energy Ministers’ Vision;²⁷⁹ and
- the test for regulation did not appear to be posing a credible threat to pipelines.²⁸⁰

While a change to the coverage test was explored with stakeholders through the Examination, most shippers stated they were not looking for a traditional regulatory solution. Rather, they wanted to find a way to reduce the imbalance in bargaining power they can face in negotiations.²⁸¹

Dr Vertigan therefore recommended that a new information disclosure and arbitration framework be introduced, to reduce the information asymmetry and imbalance in bargaining power shippers can face when negotiating with service providers. Specifically, Dr Vertigan recommended that the bargaining power of shippers be strengthened by:²⁸²

- requiring service providers to publish the information that shippers need to make an informed decision about whether to seek access to a pipeline service and to assess the reasonableness of an offer made by the service provider; and
- introducing a commercially oriented arbitration mechanism into the NGL that would be available to parties as a backstop if commercial agreement could not be reached.

Dr Vertigan recommended that this framework apply to all pipelines providing third party access, including those greenfield pipelines that had obtained a 15-year exemption from coverage but were providing third party access. In doing so, Dr Vertigan noted that “new shippers and existing shippers that want to negotiate access to new services are likely to face the same imbalance in bargaining power as shippers on other pipelines”.²⁸³

Dr Vertigan also recommended that a post-implementation review be conducted and that as part of this review consideration be given to whether the test for regulation should be

²⁷⁸ Note that a derogation has been implemented that will delay the application of the day-ahead auction to transportation facilities located wholly or partly in the Northern Territory for a period of time.

²⁷⁹ Vertigan, M., Examination of the current test for the regulation of gas pipelines, 14 December 2016, pp. 9-10.

²⁸⁰ *ibid.*, pp. 12-13.

²⁸¹ *ibid.*, p. 78.

²⁸² *ibid.*, pp. 13-15.

²⁸³ GMRG, Final Design Recommendation: Gas Pipeline Information Disclosure and Arbitration Framework, June 2017, p. 53.

amended.²⁸⁴ These recommendations were endorsed by the former COAG Energy Council in December 2016 and the new framework, which was developed by the GMRG in consultation with stakeholders, was implemented in August 2017.

Light regulation

In late 2017, Dr Vertigan was asked by the Chair of the former COAG Energy Council for his view on whether light regulation should be retained. In response to this question, Dr Vertigan noted that while the objectives of light regulation and Part 23 are essentially the same, a number of elements of Part 23 are more rigorous than they are under light regulation. Elaborating on this further, Dr Vertigan noted that if light regulation was retained in its current form it could operate to the detriment of shippers because:

- the information disclosure requirements do not adequately address the information asymmetries shippers face and do not facilitate timely and effective negotiations;
- insufficient guidance is provided on how an arbitration would be conducted, which could discourage users from having recourse to it; and
- the regulatory-oriented arbitration mechanism does not provide for a timely and cost-effective process to resolve disputes.

While noting the potential for these shortcomings of light regulation to be addressed through amendments to the NGL and NGR, Dr Vertigan concluded that the differences that would remain after doing so were not sufficiently material to warrant the retention of light regulation.²⁸⁵ Dr Vertigan therefore recommended that light regulation be removed and that refinements be made to Part 23 to:

- adopt some of the safeguards that currently apply to light regulation pipelines;²⁸⁶ and
- allow for joint access dispute hearings to be held if two or more disputes about access arise at a particular time and there are one or more matters common to the dispute.

Joint ACCC-GMRG transparency recommendations

In December 2018, the ACCC and GMRG provided the former COAG Energy Council with their joint recommendations on measures to improve the transparency of the gas market. While the recommendations spanned the entire gas supply chain, the ACCC and GMRG recommended a number of pricing related transparency measures for pipelines. Specifically, the ACCC and GMRG recommended that:²⁸⁷

- Scheme (full and light regulation) pipelines be subject to the same price and financial reporting obligations as non-scheme pipelines.

²⁸⁴ Vertigan, M., Examination of the current test for the regulation of gas pipelines, 14 December 2016, p. 16.

²⁸⁵ Dr Vertigan also noted the potential for the retention of light regulation to:

- increase the cost and complexity of the regulatory framework, without any clear corresponding benefit;
- cause confusion amongst users, which could be exploited by service providers; and
- increase the potential for forum shopping, particularly if one regime is perceived to be less onerous than the other.

²⁸⁶ The safeguards referred to in this context include the provisions in the NGL and NGR that prevent service providers from engaging in:

- conduct that would prevent or hinder access to the pipeline services;
- inefficient price discrimination;
- other behaviour that could adversely affect competition in a related market by carrying on a related business, or conferring an advantage on an associate; and
- bundling of services unless it is “reasonably necessary”.

²⁸⁷ ACCC and GMRG, Joint recommendations: Measures to improve the transparency of the gas market, December 2018, p. 7.

- Energy Senior Officials consider whether all non-scheme pipelines providing third party access should be required to publish standing prices.
- The ACCC examine the adequacy of the weighted average prices published by non-scheme pipelines in 2019 and provide advice on whether this metric should be retained in the NGR or replaced by a requirement to report individual prices. The results of this examination are set out in section B.7.

To facilitate more efficient planning and investment decisions, the ACCC and GMRG also recommended that entities proposing to develop new transmission pipelines with a nameplate capacity of 10TJ or more, be required to report on 'proposed' and 'committed' developments to AEMO for publication on the BB.²⁸⁸

B.4 AEMC 2017-18 review into scope of economic regulation and subsequent rule change

In 2017-18 the AEMC conducted a comprehensive review into the scope of economic regulation applied to scheme pipelines and provided its final recommendations to the former COAG Energy Council in mid-2018.

Recommended changes to the NGL and NGR and subsequent rule change

One of the key recommendations emerging from the AEMC's review was that the negotiate-arbitrate model that underpins full and light regulation should be retained, but changes should be made to the NGL and the NGR to:

- better support negotiations between shippers and service providers (i.e. through greater information disclosure and greater clarity around the negotiation process); and
- strengthen the credibility of the threat of arbitration (i.e. by clarifying the bases for determinations, improving the arbitration process and enhancing transparency).

The AEMC also recommended that light regulation be retained, but that it be strengthened by incorporating a number of aspects of Part 23. While the recommendation to retain light regulation was supported by the AER and a number of service providers and retailers, the ACCC, NCC and MEU had a number of reservations with the recommendation. The ACCC and NCC, for example, were concerned about the complexity, duplication and costs associated with retaining both light regulation and Part 23. The MEU, on the other hand, noted that the proposed changes to light regulation would result in the regulatory costs approaching that of full regulation and, in so doing, weaken the rationale for retaining light regulation.²⁸⁹

While acknowledging these issues, the AEMC noted that there were advantages to having multiple forms of regulation from which to choose and that removing light regulation would be a complex process, particularly given the need to decide what to do with the existing light regulation pipelines. The AEMC therefore recommended that an amended form of light regulation be retained but noted that the issue and the proposal by some stakeholders to incorporate some of the safeguards embodied in light regulation into Part 23 could be revisited as part of a broader review of the regulatory framework.²⁹⁰

The AEMC's recommendations on how full and light regulation should be strengthened are summarised in Table B.1.

²⁸⁸ *ibid*, p. 6.

²⁸⁹ AEMC, Final Report: Review into the scope of economic regulation applied to covered pipelines, 3 July 2018, pp. 51-52.

²⁹⁰ *ibid*, pp. 53-58.

Table B.1: Summary of AEMC recommendations

	Full Regulation	Light Regulation
Information disclosure	<p>Amend the NGR to require:</p> <ul style="list-style-type: none"> all full and light regulation transmission pipelines in eastern and northern Australia to become BB pipelines and subject to BB reporting requirements (including capacity and usage information); and all distribution pipelines to publish capacity and usage information and large distribution pipelines subject to some additional reporting obligations. 	<p>Amend the NGR to require:</p> <ul style="list-style-type: none"> light regulation service providers to publish financial information and weighted average prices; and the relevant regulator to determine an initial capital base for those light regulation pipelines that do not already have one (using the same method applying to full regulation pipelines) and for the value to be published.
Negotiation process	Amend the NGR to provide more prescription on the negotiation process to be followed on full and light regulation pipelines and timeframes within which service providers must respond.	
Dispute resolution mechanism	<p>Amend the NGL to:</p> <ul style="list-style-type: none"> introduce a 50 business day fast-track dispute resolution process (with stop the clock provisions) for disputes that meet one or more of a set of criteria (i.e. the pipeline is a full regulation pipeline, the service is the same or similar to a reference service, an extension is not required); better facilitate joint dispute resolution hearings; establish a reference framework for the dispute resolution body that access determinations would be made with reference to (i.e. the NGO, the revenue and pricing principles, the applicable AA, previous AAs/determinations, pre-existing contractual rights and applicable provisions from Part 9 of the NGR); provide additional guidance on the role of the dispute resolution expert and the process for appointing and using the evidence of such an expert; and require the dispute resolution body to publish certain information about the dispute. 	
Extensions-expansions	<p>Amend the:</p> <ul style="list-style-type: none"> NGR to require future expansions to form part of the covered pipeline and allow service providers to include existing extensions in the covered pipeline. NGL to require existing expansions to form part of the covered pipeline. 	
Reference services	Amend the NGR to enable a greater number of reference services to be identified and to provide for greater engagement with users on the services that should be reference services.	n.a.
Non-price terms and conditions and tariff variations	Amend the NGR to require the regulator to consider the allocation of risks when making its decision on non-price terms and conditions and the reference tariff variation mechanism.	n.a.
Investment provisions and efficient costs	Amend the NGR to provide greater guidance on the matters the regulator must have regard to when making decisions on new capital expenditure, speculative capital expenditure and cost allocation.	n.a.
Other	<p>Amend the NGR to:</p> <ul style="list-style-type: none"> remove the current limitations on the exercise of regulatory discretion; provide more time for engagement on AA proposals; require service providers to use financial models developed by the regulator; clarify the operation of revenue caps and the interval of delay provisions; amend the definition of rebateable services and the rebate methodology; and remove the requirement to report KPIs. 	n.a.

Source: AEMC, Final Report: Review into the scope of economic regulation applied to covered pipelines, 3 July 2018.

As this table shows, the AEMC recommended a number of changes to the investment related provisions applying to full regulation pipelines. This followed a detailed review of the capital expenditure provisions and the concerns that service providers raised about a number of specific provisions.²⁹¹

To enable the recommendations set out in Table B.1 to be implemented as quickly as possible, the AEMC suggested that they be implemented in two packages, with:

- package 1 focusing on changes to the NGR that were not dependent on changes to the NGL, and
- package 2 dealing with all the other changes to the NGL and NGR, including changes to the dispute resolution mechanism and the treatment of existing expansions.

These recommendations were considered by the former COAG Energy Council at its August 2018 meeting and it agreed to implement most of the recommendations identified in Package 1.²⁹² The former COAG Energy Council subsequently submitted a rule change proposal, which was completed by the AEMC in March 2019.²⁹³ Those recommendations that are still to be implemented are shaded in grey in Table B.1.

Further review of the regulatory framework

In addition to these recommendations, the AEMC suggested that a review of the framework for economic regulation be undertaken and that, as part of this review, consideration be given to:²⁹⁴

- the tests to be used to determine what form of regulation should apply;
- the number and types of forms of regulation that should be available; and
- related institutional, governance and process arrangements.

In doing so, the AEMC observed that:²⁹⁵

“...an unintended consequence of the introduction of Part 23 of the NGR is that in the case of pipelines that provide third party access, the coverage determination is no longer a test of whether regulation should be applied or not, but instead is a test of which form of regulation should be applied (full or light on the one hand, or Part 23 on the other). ... The questions being asked by the test are designed for assessing whether regulation should apply, but are not the most appropriate for determining which form of regulation is applied.

This may result in the inappropriate form of regulation applying to a particular pipeline. Both over-regulation and under-regulation could result, leading to additional costs that are ultimately borne by consumers...

Secondly, as noted by the NCC, the practical effect of introducing Part 23 of the NGR has been to apply near-universal regulation regardless of whether a market failure has been identified on a case-by-case basis. Specifically, the market failure of service providers using market power is assumed.. The possible impact of this is unnecessary regulation of those pipelines where there is no or only limited or transient market power, with associated direct and indirect costs.

²⁹¹ *ibid*, pp. 130-141.

²⁹² The only recommendation that the former COAG Energy Council decided should not be considered at this time was the recommendation that asset values be determined for light regulation pipelines.

²⁹³ AEMC, Rule Determination: National Gas Amendment (Regulation of covered pipelines) Rule 2019, 14 March 2019.

²⁹⁴ AEMC, Final Report: Review into the scope of economic regulation applied to covered pipelines, 3 July 2018, p. 12.

²⁹⁵ *ibid*, p. 54.

Thirdly, as also noted by the NCC, applying economic regulation under Part 23 to those pipelines that have been granted a 15-year no-coverage determination under the greenfields pipeline incentive framework may risk regulatory over-reach, and may distort investment incentives for new pipelines....

...

In practice, the overarching effect of the introduction of Part 23 may be an appropriate increase in regulation to address previous concerns with the regime...without imposing unnecessary regulation given the widespread monopoly power found by the ACCC, nor having detrimental impacts on future investment. It may be practically more appropriate to apply some form of regulation to (nearly) all pipelines given the likelihood of market power, rather than risking the mis-application of the test for determining whether regulation should be applied (at all) and so under-regulating.

Nevertheless, the introduction of the access regime for non-scheme pipelines has introduced the risk of over- or under-regulation on a case by case basis as a result of the coverage determination being used to determine which form of regulation should apply.”

It was on the basis of this recommendation that the former COAG Energy Council decided that a RIS should be conducted to examine options to improve the regulatory framework.

B.5 Oakley Greenwood Part 23 survey of shippers

In June 2019, OGW conducted a survey of 33 existing and prospective shippers. Amongst other things, these shippers were asked for their views on:

- the information disclosure requirements in Part 23 (including the user access guide);
- the access request and negotiation provisions in Part 23;
- the arbitration process and pricing principles in Part 23; and
- the exemptions available under Part 23.

Table B.2 provides a summary of the responses that were received on each of these issues. It is worth noting that because only a relatively small number of shippers were able to undertake the survey and a smaller number were able to express an opinion on Part 23, it was not possible to apply conventional statistical techniques to analyse the data.

Table B.2: Summary of responses to OGW’s shipper survey

Issue		Survey response
Information disclosure requirements		<p>The majority of respondents were generally satisfied with the information disclosure requirements and the user access guide. However, a reasonable number of respondents expressed some dissatisfaction with the:</p> <ul style="list-style-type: none"> ▪ standing terms and conditions, with a number of respondents noting that the information published by service providers does not allow them to understand how that published pricing methodology has been used to generate the standing price. ▪ service usage information, with some respondents suggesting that the information be available on a daily rather than monthly basis. ▪ service availability information, with some respondents suggesting the outlook period should be longer than 36 months. ▪ price information, with one respondent suggesting that there be full disclosure of the prices paid under each contract, while another suggested that information on the range of prices paid by shippers on the pipeline would be useful. ▪ financial information, with a number of respondents expressing concerns about the lack of transparency surrounding some information (e.g. how the return on capital was calculated for the recovered capital value (RCV) estimates and, in particular, the rate of return assumed) and the volume of information. ▪ ease with which the information can be used, with a number of respondents noting that it was either difficult or very difficult to understand the information and that prospective shippers would have to undertake extensive modelling and analysis to use the information. ▪ accessibility of information, with some respondents noting that service providers present information in different ways and in different locations, which can make it difficult to access. Some respondents also noted the potential for information to be removed or changed by a service provider during negotiations. It was therefore suggested that the information be reported in a centralised and independent location (e.g. the AER’s website or the BB/GBB). <p>Some respondents also expressed concerns with how the financial information gets translated into a tangible outcome (via the arbitration process), while others noted that a shippers’ ability to undertake any analysis was limited by their internal resources. These respondents noted that anything that could be done to assist in this regard would make the framework more accessible, particularly for smaller shippers.</p>
Negotiation framework	Preliminary vs formal access request	Most respondents that had negotiated access to a non-scheme pipeline noted that they had done so outside the formal Part 23 arrangements through a preliminary enquiry, but stated that having the fall-back position of being able to negotiate under Part 23 assisted them in their informal negotiations. One respondent did, however, raise some concerns with the use of preliminary enquiries because in its case “the service provider required all terms and conditions to be agreed before they made an access offer, so negotiations did not occur within the access offer framework”.
	Negotiations	Most respondents were satisfied with: (a) the requirement for parties to negotiate and exchange information in good faith; (b) the information to be provided by a service provider on request from a shipper; and (c) the timeframes for the provision of information by service providers.
Arbitration mechanism	Use of arbitration	Of the 19 respondents that had negotiated or were negotiating with a non-scheme pipeline service provider, 47% had reached a mutually acceptable conclusion so did not proceed to arbitration, 11% didn’t progress to arbitration because they were concerned about the cost, 5% were unsure why they didn’t proceed to arbitration and the remainder were either still in negotiations or were considering arbitration. One respondent that was considering arbitration and had engaged lawyers to prepare for arbitration noted they were not confident they would get a reasonable outcome so were continuing to pursue commercial negotiations.
	Arbitration process	Respondents were generally supportive of the arbitration process, with a number noting it was critical to the success of framework. The majority of respondents also noted they were comfortable with the timeframes (i.e. 50-90 business days).

Issue		Survey response
	Pricing principles	Respondents were supportive of the workably competitive market objective that underpins Part 23 and the pricing principles. However, only slightly more respondents than not were satisfied the pricing principles provided them with sufficient guidance as to what the arbitrator would hand down. When asked how they could be improved, some respondents suggested that the principles were too regulatory in nature and should be more commercially focused. Concerns were also raised about the asset valuation principles, with some respondents noting that more prescription should be provided because there was too much uncertainty under the current principles. Some also suggested more guidance was required on the rate of return and the treatment of shared costs and that the pricing principles should be amended to make it clear that service providers should not recover more than the cost of providing the service
	Publication of outcome	A number of respondents noted that there would be benefit in key elements of the arbitrator's decision being published, including how the tariff was calculated and the information the arbitrator had regard to, so that other shippers could leverage off those outcomes.
Exemptions under Part 23.		Most respondents thought the exemption criteria were reasonable, although one suggested the single shipper and small pipeline exemptions be removed.

Source: OGW, Gas Shippers Survey, September 2019.

As Table B.2 shows, respondents were generally satisfied with most elements of Part 23, with those respondents that had negotiated access to a pipeline that was subject to Part 23 being satisfied:

- with the terms and conditions they had been able to negotiate and the ability of Part 23 to accommodate their specific requirements; and
- that the design of the arbitration process would result in fair and reasonable outcomes.

Some respondents also noted that the introduction of Part 23 had provided service providers an incentive to behave more commercially, as reflected in the following statement by one respondent:²⁹⁶

"In the absence of Part 23 there is little recourse available to contain monopoly power of the pipeline. Formal use of Part 23 is only required when there is a bonafide disagreement on some matters or the pipeline is not cooperating in providing reasonable access. Availability of Part 23 has incentivised the pipelines to behave commercially."

While respondents were generally satisfied with Part 23, their responses do suggest that negotiating access under Part 23 is considered more costly than it is under full regulation. Respondents also suggest that a number of improvements be made to:

- the information disclosure requirements to make the information more accessible, usable and to address some of the perceived deficiencies with the information; and
- the arbitration principles to provide the arbitrator with more guidance on how the asset value, rate of return and shared costs should be calculated.

B.6 Brattle review of financial information

In early 2019, Brattle was retained to conduct a review of the financial information reported by a sample of non-scheme pipelines under Part 23 of the NGR and to consider the usability of the information and a number of other matters.²⁹⁷ Brattle reviewed the

²⁹⁶ OGW, Gas Shippers Survey, September 2019.

²⁹⁷ Brattle was also asked how the scope of financial information reported under Part 23 compares with the scope of the disclosure required by full regulation pipelines. Brattle found that the disclosure requirements differed in two key respects:

information reported in relation to fourteen non-scheme pipelines for the period 1 January 2018 – 30 January 2018.

In short, Brattle found that while the financial information could help shippers calculate some cost-based pricing benchmarks (see Box B.2), there were some deficiencies with the information that could limit its usefulness.²⁹⁸ Brattle, for example, found a number of inconsistencies in the financial information reported by service providers (see Box B.3), which it noted could result in shippers having to dedicate more time and resources to understanding the reported information.²⁹⁹ Brattle also made the following observations:³⁰⁰

- given the nature of pipeline operations, it is to be expected that a range of cost-based pricing benchmarks that spans incremental cost, fixed cost, and investment cost will be wide; however, wide ranges of cost-based pricing benchmarks calculated from Part 23 financial information also result from a lack of clarity in the reported information;
- while the recovered capital value (RCV) is useful for shippers to understand the past performance of a pipeline, it is sensitive to the inputs and assumptions that service providers employ, and it also contributes to the wide ranges of pricing benchmarks that can be calculated;
- the information is historical in nature, which may or may not reflect the expected future costs of providing services and therefore the prices payable for those services; and
- the financial information provides shippers with an understanding of the costs of operating a pipeline, but not the value of pipeline capacity, which may be higher than the cost of providing the capacity if, for example, demand exceeds capacity.

To address these issues, Brattle recommended:³⁰¹

- a number of changes to the regulator's Financial Reporting Guideline for Non-Scheme Pipelines (Financial Reporting Guideline) and reporting template to address the issues it had identified and to improve the consistency, transparency and reliability of the reported information;
- that the regulator require service providers to indicate whether expected future capital maintenance requirements are likely to be in line with, significantly above or significantly below the recent history reflected in their RCV calculations; and
- that service providers be required to report on the amount of available capacity.

Further detail on Brattle's recommendations is provided at the end of this appendix.

-
- First, non-exempt non-scheme pipelines are required to disclose historic information (with some information required to be reported for the entire history of the pipeline), while full regulation pipelines are required to disclose forecast information with some limited reporting of historic costs.
 - Second, non-exempt non-scheme pipelines are required to report annually, while full regulation pipelines are only required to provide information every five years.

Brattle noted while there is some overlap with the reporting of historic costs the information that non-scheme pipelines and full regulation pipelines are required to report differs (for example, full regulation pipelines are not required to report on the actual revenues or returns earned) and to obtain the entire history of costs for a full regulation pipeline a shipper would have to compile regulatory determinations across different regulatory periods, and the information is typically more complicated to review and use.

²⁹⁸ Brattle, *Financial Information Disclosed by Gas Pipelines in Australia Under Part 23 of the National Gas Rules*, August 2019, pp. 113-114.

²⁹⁹ *ibid.*, p. 103.

³⁰⁰ *ibid.*, p. 106.

³⁰¹ *ibid.*, p. 116-120.

Box B.2: Pricing benchmarks

Brattle identified a number of different cost-based pricing benchmarks and other matters that could be relevant to an assessment of a 'reasonable price' (i.e. a price that so far as practical reflects the outcomes of a workably competitive market) under Part 23, including:

- (i) the incremental cost of providing an additional unit of pipeline service,
- (ii) the fixed costs of operating the pipeline assets;
- (iii) the capital investment required and the corresponding expected return on capital (including the tax implications); and
- (iv) other matters, such as whether or not the pipeline is capacity constrained.

Brattle also noted that:³⁰²

“Overall, short-run efficiency means access should be priced at levels that reflect incremental cost. Long-run efficiency, however, requires prices at levels above incremental cost to allow the pipeline service providers to also recover fixed and sunk costs. An access price that provides a return of actual investment and a reasonable rate of return on that investment should be sufficient for the purpose of incentivising investment in the pipeline assets. However, an increase above the level that provides a normal rate of return on actual investment can be appropriate in certain circumstances.

In particular, if the demand for pipeline services exceeds the capacity of the pipeline, the price would need to rise such that only shippers with the highest willingness to pay (ie, shippers that derive the highest value from obtaining access) would be given access. High prices due to excess demand also serve as a signal for pipeline expansion.

If there is no excess demand, but the access price is nevertheless set above the level required to provide a return of and on invested capital, the result can be sub-optimal use of the asset, and upstream and/or downstream inefficiencies.”

Box B.3: Brattle’s findings on the consistency of reported information³⁰³

Through its review of the financial information reported by service providers, Brattle identified the following inconsistencies with the reported information:

- Service providers with multiple pipelines use different methods to allocate shared revenues and shared expenses across individual pipelines and do not always disclose the percentage that has been allocated or the calculations performed to implement the allocations.
- The information reported by some service providers is based on estimates, rather than the costs actually incurred by service providers or revenues actually earned.
- The inputs and assumptions used in service providers’ RCV calculations differ, for example:
 - the opening asset value reported by some service providers is based on a depreciated optimised replacement cost rather than the original construction cost;
 - some service providers have assumed capital expenditure is incurred in the middle of the year and included an allowance for a half year’s return, while others have not;
 - the rate of return assumed by service providers varies, with some using parameters set in prior regulatory decisions, while others used other approaches; and
 - the methods used by service providers to calculate net tax liabilities differs;
- The “catch-all” fields (such as “other direct revenue”, “other direct cost”, or “other shared cost”) in the financial reporting template were being used by some service providers to report costs that were not referred to in the AER’s Financial Reporting Guideline for Non-Scheme Pipelines and were not reported by other service providers.
- There were variations in the financial information reported across pipelines for the same line items, as well as across different tables in the reporting template for the same pipeline.

³⁰² *ibid*, pp. 19-20.

³⁰³ *ibid*, pp. 103-105.

B.7 ACCC review of the operation of Part 23

In the first half of 2019, the ACCC undertook a review of the operation of Part 23. Using its compulsory information gathering powers, the ACCC obtained a range of information from the service providers of non-exempt non-scheme pipelines, which it used to assess:

- whether the information disclosure obligations, negotiation framework and arbitration mechanism under Part 23 were working as intended; and
- the effect the introduction of Part 23 has had on pipeline investment.

While the ACCC found that the contracting environment had improved following the introduction of Part 23³⁰⁴ and there were signs Part 23 was having a positive effect on transportation prices, it expressed some concerns about:³⁰⁵

- the quality of information published and the potential non-compliance of some service providers with the information disclosure obligations in the NGR;
- the potential for the preliminary enquiry process to be used by service providers to avoid some of the rules in Part 23 regarding how they are to respond to access requests (including the timeframes for responses); and
- the potential for the threat of arbitration from smaller shippers to be viewed as less credible and for smaller shippers to therefore pay more for services.

Further detail on the ACCC's key findings and recommendations, which mirror some of the findings and recommendations from the OGW survey and Brattle's review, are outlined below.

Information disclosure

Through its review of the information disclosed by service providers, the ACCC found a number of instances where service providers did not appear to be complying with the reporting obligations. The ACCC also found that some service providers were trying to exploit the information asymmetries faced by shippers by publishing inaccurate information.³⁰⁶ The ACCC, for example, found:³⁰⁷

- A number of instances where service providers had not published standing prices for all the services they offer, as required by the NGR.
- The pricing methodologies published by most service providers did not allow shippers to determine whether the standing prices reflected the application of the method (as required by the NGR), or to assess the reasonableness of the prices.
- The RCVs published by a sample of seven pipelines³⁰⁸ were overstated by up to 45% (with over half the sample overstated by more than 20%) as a result of errors and/or the adoption of inflationary measures. The RCVs were further overstated by the adoption of relatively high rates of return for some pipelines. When informed of the errors, a number of service providers noted that they did not consider the errors to be

³⁰⁴ The ACCC, for example, found that since the introduction of Part 23, 126 GTAs have been negotiated or varied on the major Part 23 transmission pipelines in eastern Australia, with just one negotiation proceeding to arbitration.

³⁰⁵ ACCC, Gas inquiry report 2017-2020 Interim report, July 2019, pp. 128-129.

³⁰⁶ *ibid.*, p. 128.

³⁰⁷ *ibid.*

³⁰⁸ The pipelines included the South West Queensland Pipeline, the Moomba to Sydney Pipeline, the Moomba to Adelaide Pipeline System, the Eastern Gas Pipeline, the Port Campbell to Adelaide Pipeline, the Port Campbell to Iona Pipeline and the SESA Pipeline.

material (as required by the access information standard in Part 23) and did not therefore intend to publish revised estimates.

- The weighted average prices published by service providers did not provide a good representation of the prices actually paid by shippers and in some cases were not directly comparable to standing prices, because some service providers included other charges in the calculations (e.g. overrun and imbalance charges) that were not included in the standing price.

The ACCC expressed some concerns with this behaviour and noted that the publication of inaccurate or misleading information could undermine the efficacy of Part 23 and limit the reliance shippers could place on the information.³⁰⁹

In a similar manner to the OGW survey and Brattle, the ACCC also expressed some concerns with the quality, reliability, transparency, accessibility and usability of the financial information.³¹⁰ It also noted the concerns that had been raised by some shippers about the information asymmetries associated with the exemption that single shipper pipelines and pipelines falling below the size threshold have from the requirement to publish standing prices and standard terms and conditions.³¹¹ A similar concern was raised by shippers when the ACCC and GMRG were preparing their joint report on measures to improve the transparency of the gas market,³¹² and it was suggested that this was a gap in the disclosure requirements that should be addressed so that:³¹³

- prospective shippers can readily assess whether to seek access to the pipeline; and
- gas users that procure gas from a retailer have greater transparency of the costs likely to be incurred by retailers, which are usually charged on a pass-through basis.

Access requests, negotiations and arbitration

Through its review of access requests and negotiations material provided by service providers, the ACCC found that shippers' requests were often treated as 'preliminary enquiries' by service providers, rather than formal access requests.³¹⁴ The ACCC noted that this was a potential limitation in the framework that could undermine the effectiveness of Part 23 because it meant that:³¹⁵

- service providers could avoid some of the requirements in Part 23 regarding responses to access requests and negotiations (including response timeframes); and
- if negotiations fail and a shipper wants to proceed to arbitration, then it must submit a formal access request and go through the access offer and negotiations steps in Part 23 before it can trigger the arbitration mechanism, which could delay a shipper's access to arbitration.

³⁰⁹ ACCC, Gas inquiry report 2017-2020 Interim report, July 2019, pp. 27-28.

³¹⁰ *ibid*, pp. 137-155.

³¹¹ *ibid*, p. 132.

³¹² ACCC and GMRG, Joint recommendations: Measures to improve the transparency of the gas market, December 2018, p. 34.

³¹³ ACCC, Gas inquiry report 2017-2020 Interim report, July 2019, p. 132.

³¹⁴ As the ACCC noted, it is unclear whether service providers are encouraging shippers to make preliminary enquiries, or if shippers are choosing to seek access in this way. It is also unclear if shippers are aware of the consequences of their requests being treated in this manner.

³¹⁵ ACCC, Gas inquiry report 2017-2020 Interim report, July 2019, p. 156.

The ACCC's review also revealed that while shippers are using the threat of arbitration in their negotiations, service providers may view the threat as less credible when it involves a smaller shipper³¹⁶ and as a consequence smaller shippers may pay more for transportation.³¹⁷ The ACCC noted there was some evidence of this in the access request and offer information it reviewed, with some small shippers unable to secure the same prices offered to large shippers.

Effect on investment

In relation to investment, the ACCC found that a large number of pipeline investments had been announced since the decision was made to implement Part 23. It also found no evidence in service providers' internal documents to suggest that Part 23 was deterring investment. Rather, the ACCC found that service providers were investigating a range of other pipeline investments that would be captured by Part 23 if they were developed.³¹⁸

ACCC's recommendations

To address the issues identified in its review, the ACCC recommended a range of improvements to Part 23, the stated objectives of which are to:³¹⁹

- pose more of a constraint on the behaviour of service providers, by, for example, providing for greater prescription and regulatory oversight of the information to be reported; and
- empower shippers in their negotiations with service providers by improving the quality, reliability and accessibility of the information they can have recourse to when negotiating and ensuring the threat of arbitration is credible for all shippers.

The ACCC's recommendations are set out in Table B.3.

³¹⁶ This could occur because the shippers' demand may be relatively small and/or the shipper's use of gas may be a small input to the shipper's end-use requirements.

³¹⁷ ACCC, Gas inquiry report 2017-2020 Interim report, July 2019, p. 157.

³¹⁸ *ibid*, pp. 159-160.

³¹⁹ *ibid*, pp. 160-164.

Table B.3: Summary of ACCC recommendations

Area	Recommendations	How to progress
Standing prices and pricing methodologies	Energy Senior Officials should consider removing the exemption single shipper pipelines and pipelines with annual average gas flows of <10 TJ/day currently have from the obligation to publish standing prices and the standard terms and conditions of access on their website.	Pipeline RIS
	Energy Senior Officials should consider whether service providers should be required to publish the inputs used for standing prices.	
	The AER should consider developing a non-binding guide that provides service providers with greater guidance on what, at a minimum, the pricing methodology should include and sets out the reporting requirements if an amendment is made.	Development of a new AER guide
Weighted Average Prices Information	Energy Senior Officials should consult with stakeholders on the following alternatives to the requirement for service providers to publish weighted average prices: <ol style="list-style-type: none"> 1. Reporting individual prices (plus key terms and conditions) paid by each shipper for services instead of weighted average prices. 2. Reporting the minimum and maximum prices shippers paid for each service, in addition to the weighted average prices. When consulting on the options, consideration should be given to any impacts publication may have on competition in other markets.	Pipeline RIS
	Recovered Capital Method Asset Valuation	
Requirement to republish	Energy Senior Officials should consider amending the access information standard in Part 23 to require service providers to republish information they are required to report, including the financial reporting template and/or basis of preparation, if it is no longer accurate.	Pipeline RIS
Improving the accessibility of information	To improve the accessibility of information, the AER should consider developing a non-binding guide on how the information service providers are required to disclose, should be reported. This non-binding guide could set out what the standing price methodology should include, and for example could require service providers to: <ul style="list-style-type: none"> • include a more prominent link on their website to where the information can be found and require all the relevant information for each pipeline to be included on a single page • report their standing prices and weighted average prices on a single page • escalate their standing prices to the relevant period so that shippers can quickly see the prices payable in that period. When developing this guide, the AER could also consider requiring links to the information reported by pipelines to be published on the AER's website so that shippers can more readily find the information.	Development of a new AER guide
Access requests	Energy Senior Officials should consider removing distinction between preliminary enquiries and formal access requests in the NGR.	Pipeline RIS
Arbitration	Energy Senior Officials should consider whether the credibility of the threat of arbitration could be improved for smaller shippers.	

Source: ACCC, Gas Inquiry report 2017-20, Interim report, July 2019.

As Table B.3 shows, the ACCC suggested that a number of recommendations be considered as part of this RIS. The ACCC has, for example, suggested that consideration be given to:³²⁰

- removing the exemption that single shipper pipelines and smaller pipelines currently have from the obligation to publish standing prices and terms and conditions;
- requiring service providers to publish more information on how standing prices have been calculated (including the inputs used in the calculation) so that shippers can understand how the standing price reflects the application of the methodology and assess the reasonableness of the prices and underlying assumptions;
- requiring greater regulatory oversight of service providers' financial information to impose more discipline on service providers and their auditors and to provide shippers with more confidence in the reported information;
- replacing the current requirement to publish weighted average prices, with a requirement to report either:
 - a. the individual prices paid by each shipper and information on the key terms and conditions; or
 - b. the minimum and maximum prices paid for each service along with the weighted average prices;
- amending the access information standard in Part 23 to require information to be republished if it is no longer accurate;
- removing the preliminary enquiry process from Part 23; and
- improving the credibility of the threat of arbitration for smaller shippers.

The ACCC also recommended that the AER:

- conduct a review of the RCVs published for those pipelines that did not form part of the sample that the ACCC reviewed; and
- publish a guide that would provide more guidance on how service providers should report information on their website and, as part of this process, consider requiring links to the reported information to be published on the AER's website, so that information is more accessible to shippers.

In addition to these recommendations, the ACCC recommended a number of specific amendments to the AER's Financial Reporting Guideline and associated reporting template to:³²¹

- improve the quality of the weighted average price information if a decision is made to retain weighted average prices;
- require greater transparency of the inputs service providers use to calculate the RCVs (for example, the rate of return), limit service providers' discretion when calculating the RCVs, and improve the quality and accessibility of the RCV information;
- improve the standard of the basis of preparation that service providers are required to publish to provide more detail on the sources, methods of estimation and assumptions used to produce the financial and weighted average price information; and

³²⁰ *ibid*, pp. 160-164.

³²¹ *ibid*.

- improve the accessibility and usability of the financial and weighted average price information.

Further detail on these recommendations can be found in the following section.

B.8 ACCC and Brattle recommendations to improve the quality, reliability and accessibility of information

The tables below provide a summary of the ACCC and Brattle’s recommendations on the improvements that could be made to Part 23 and the financial reporting guideline applying to non-scheme pipelines. These improvements are intended to improve the quality, reliability and accessibility of the information that is reported by service providers.

Table B.4: ACCC recommendations on financial reporting guideline and template

Area	ACCC Recommendations
Weighted Average Prices Information	<p>To improve the WAP information that is currently reported by service providers, the AER should consider amending its Guideline to require:</p> <ul style="list-style-type: none"> ▪ WAPs to only include charges that are comparable to those reflected in the relevant standing price and therefore to exclude any penalty charges (however described) ▪ WAP categories to align as closely as possible with standing prices (for example, by requiring volumetric and capacity charges to be reported as a single WAP if that is how the standing price is expressed) ▪ service providers to identify any amendments made to the reporting template since the information was last published, and explain the reason for the amendments within the template itself, as well as in the basis of preparation (amendments should be signed by a competent officer of the company) ▪ an officer of the company to complete a statutory declaration to certify that the WAPs calculations are true and correct when the information is published and when any amendments are made to the WAP information. <p>To improve the accessibility of this information, the AER should consider amending its reporting template to include a summary tab that provides a “quick glance” view of the WAPs and the standing price for the equivalent point in time.</p>
Basis of Preparation	<p>To improve the standard of the bases of preparation, the AER should consider providing service providers further guidance on the objective of the basis of preparation and the standard that is expected in these documents (including the information to be reported and examples of how service providers are to demonstrate that any estimates have been arrived at on a reasonable basis and represent the best estimate possible in the circumstances).</p>
Requirement to republish information	<p>To improve useability and provide greater confidence in the information reported, the AER should consider amending the Guideline to require service providers to identify and explain the basis of any amendments to previously published information in the template and the basis of preparation.</p>

Area	ACCC Recommendations
Recovered Capital Method Asset Valuation	<p>The AER should consider amending its Guideline and/or financial reporting template to:</p> <ul style="list-style-type: none"> ▪ require greater transparency by, for example requiring service providers to publish: <ul style="list-style-type: none"> - how the pipeline’s return on capital has been calculated and the rate of return assumed in each year (including all the parameters underpinning the calculation of the rate of return) - how net tax liabilities have been calculated - the total shared operating expenditure and shared assets incurred by the service provider’s parent company and how these costs have been allocated across all the assets owned and/or operated by the parent company. ▪ limit service providers’ discretion by, for example: <ul style="list-style-type: none"> - only allowing previously regulated service providers to use the DAC estimated by the regulator - specifying whether mid-year adjustments of capital expenditure are permissible - specifying the method to be used to allocate the parent company’s shared operating expenditure, shared assets and any shared revenue to the pipeline - specifying how ‘other revenue’ derived from the operation of pipeline assets are to be treated. ▪ address other gaps that have been identified by, for example requiring: <ul style="list-style-type: none"> - service providers to explain material changes in operating expenditure - service providers to report information on the actual volume of gas transported by the pipeline in each year and the amount of capacity contracted on a firm basis in the year, so that shippers can use this information to calculate effective prices. ▪ improve the standard of the financial information that is reported by requiring an officer of the company to sign off on the contents of the reporting template and basis of preparation when the financial reports are published and when any amendments are made to the financial reports. <p>To improve the accessibility of the information, the AER should also consider amending the reporting template to include a summary tab that includes a “quick glance” view of some of the key financial information, including the service providers’ RCV.</p>

Source: ACCC, Gas inquiry 2017-2020 – Interim Report, July 2019, Table 6.4.

Table B.5: Brattle’s recommendations on financial reporting guideline and template

Issues	Findings / Recommendations
Financial reporting template	<p>Brattle recommended that:</p> <ul style="list-style-type: none"> ▪ The AER amend its financial reporting template to: <ul style="list-style-type: none"> - require greater transparency of the inputs used to calculate the RCV, including the assumed rate of return, the calculations of net tax liabilities and the timing assumed for capital expenditure and provide more guidance on how the latter two inputs should be estimated; - include additional fields that enable the depreciated book value to be reconciled with the RCV; - include a field that allows service providers to indicate if the information is reported consistently with the Guideline or deviates from the Guideline; - include a summary tab at the front of the template that includes the key reported information, such as the proportion of shared assets to total assets, shared costs to total costs, ratio of the RCV and the depreciated book value method; and - adopt consistent labelling of information (i.e. so it is clear when the same information is to be used across different tables), consistent structuring of tables and where information is used across multiple tables it should be linked and not hard-pasted. ▪ The AER review the additional information that some service providers have included in their financial reports to understand their significance and to determine whether the degree of disaggregation provided for in the financial reporting template is appropriate, or further changes are required. Brattle also suggested that the AER: <ul style="list-style-type: none"> - ask service providers to provide more detail on the “catch-all” items that have been added to the template such as “other shared costs”, “other assets”, or “other direct costs”; and - require service providers to disclose the magnitude of any adjustment they make to a reported figure (e.g. to include ‘other direct costs’ or ‘gross capex’).
Other information to be reported	<p>Brattle also recommended that service providers be required to report on:</p> <ul style="list-style-type: none"> ▪ whether the expected future capital maintenance requirements for a pipeline are likely to be in line with, significantly above or significantly below the recent history reflected in their RCV calculations; and ▪ the amount of available capacity.
Basis of preparation	<p>Brattle recommended that the AER develop a template for the basis of preparation that non-scheme pipelines are required to prepare to provide for more consistency in the level of information reported and to improve the usability of the information .</p>

Source: Brattle, Financial Information Disclosed by Gas Pipelines in Australia Under Part 23 of the NGR, August 2019, pp. 116-121.

Appendix C Risk analysis

As noted in Chapter 9, the Consultation RIS set out the results of the preliminary risk analysis that was undertaken and stakeholders were asked for their views on this analysis. The feedback that stakeholders provided is set out in section C.1, while section C.2 sets out the final results of the risk analysis.

C.1 Stakeholder feedback

Stakeholders expressed differing views on the preliminary risk analysis set out in the Consultation RIS.

The EUAA, Chemistry Australia and NSW BC, for example, stated that they agreed with the high and severe risk ratings for Option 1. The MEU also noted that it generally agreed with the assessment, but considered the consequences of: some pipelines being unnecessarily regulated to be minor; exercises of dynamic market power to be high; and unnecessary costs and delays on negotiating parties to be major for end users.

In contrast to these user associations, service providers disagreed with the 'severe' risk rating that was accorded to the status quo and, in doing so, noted the following:

- AGIG stated that status quo risk rating was “highly focussed on issues limited to transmission pipelines” and that “the risk associated with distribution pipelines overall and fully regulated distribution pipelines is significantly lower”.
- APA raised the following concerns with the risk ratings assumed under the status quo:
 - Ineffective forms of regulation: APA thought the 'critical' consequence was overstated and the likelihood of this risk being realised should not be 'highly likely'.
 - Inadequate information: APA thought the likelihood was at best 'unlikely' because of the disclosure required by Part 23.
 - Negotiation and arbitration: APA thought these consequence should be at best 'moderate'.
- APGA stated that the implementation of Part 23 had significantly reduce the risk of under-regulation posed by the status quo. It also noted that the risk rating for Option 4 should be 'severe' instead of 'high'.
- ATCO stated that the status quo and each of the reform options have a 'highly likely' risk of over regulation and high impact consequences for distribution pipelines.
- Epic stated that the implementation of Part 23 had reduced the status quo risk rating and noted that there was no evidence that warrants a 'severe' risk finding.
- Jemena stated that the risk, likelihood and consequences assumed for the status quo had been overstated, while the risks and consequences under the reform options were understated and gave “insufficient acknowledgement of adverse investment effects of changes to regulation and increased uncertainty under a new regulatory framework”.

In its submission, AGIG also stated that consideration should be given to the impact that non-regulatory measures, such as the Energy Charter, can have on the behaviour of service providers, which it noted can further reduce the risk under the status quo. Jemena similarly stated that consideration should be given to service providers “taking actions to improve processes and implement 'best practice'”.

This feedback, along with the feedback that stakeholders provided on the potential problems with the regulatory framework (see chapters 4-7), has been taken into account when developing the risk ratings for the status quo and reform options.

C.2 Risk matrix used for the risk analysis

Table C.1 sets out the risk matrix that has been used for the purposes of carrying out the risk analysis. Further detail on the definitions that have been used for both the likelihood of the risk eventuating and the consequences is provided in Tables C.2-C.3.

Table C.1: Risk Matrix

Likelihood	Consequence				
	Minor	Moderate	High	Major	Critical
Highly Likely	Medium	High	High	Severe	Severe
Likely	Low	Medium	High	High	Severe
Possible	Low	Medium	Medium	High	Severe
Unlikely	Low	Low	Medium	High	High
Rare	Low	Low	Low	Medium	High

Table C.2: Description of risk likelihood

Likelihood description	Chance of risk occurring	Qualitative description of risk occurring
Highly Likely	>80%	The impact of the risk is expected to occur in most circumstances if the proposed option is implemented or is currently occurring
Likely	60-79%	The impact of the risk will probably occur if the proposed option is implemented
Possible	29-59%	The impact of the risk might occur at some time if the proposed option is implemented
Unlikely	10-29%	The impact of the risk could occur but considered unlikely or doubtful if the proposed option is implemented
Rare	<10%	The impact of the risk may occur in exceptional circumstances if the proposed option is implemented

Table C.3: Description of risk consequence

Consequence description	Consequence of risk occurring on gas market
Critical	Eventuation of the risk would have a critical impact on the efficient transportation of gas and the efficient operation of the gas market, by: (a) making it extremely difficult to obtain access to transportation services, or to obtain access at a reasonable price (i.e. the price that would prevail in a workably competitive market); (b) severely impeding the incentive to invest in pipelines; or (c) imposing excessive costs (e.g. administrative, compliance, search and transaction costs etc) on decision-makers, regulators, service providers and/or shippers.
Major	Eventuation of the risk would have a major impact on the efficient transportation of gas and the efficient operation of the gas market, by: (a) making it very difficult to obtain access to transportation services, or to obtain access at a reasonable price (i.e. the price that would prevail in a workably competitive market); (b) substantially impeding the incentive to invest in pipelines; or (c) imposing significant costs (e.g. administrative, compliance, search and transaction costs etc) on decision-makers, regulators, service providers and/or shippers.
High	Eventuation of the risk would have a high impact on the efficient transportation of gas and the efficient operation of the gas market, by: (a) making it difficult to obtain access to transportation services, or to obtain access at a reasonable price (i.e. the price that would prevail in a workably competitive market); (b) impeding the incentive to invest in pipelines, or (c) imposing relatively high costs (e.g. administrative, compliance, search and transaction costs etc) on decision-makers, regulators, service providers and/or shippers.
Moderate	Eventuation of the risk would have a moderate impact on the efficient transportation of gas and the efficient operation of the gas market, by either: (a) making it somewhat difficult to obtain access to transportation services, or to obtain access at a reasonable price (i.e. the price that would prevail in a workably competitive market); (b) impeding the incentive to invest in pipelines; or (c) imposing moderate costs (e.g. administrative, compliance, search and transaction costs etc) on decision-makers, regulators, service providers and/or shippers.
Minor	Eventuation of the risk would have a minor impact on the efficient transportation of gas and the efficient operation of the gas market, by: (a) making it difficult to obtain access to transportation services, or to obtain access at a reasonable price (i.e. the price that would prevail in a workably competitive market); (b) impeding the incentive to invest in pipelines; or (c) imposing minor costs (e.g. administrative, compliance, search and transaction costs etc) on decision-makers, regulators, service providers and/or shippers.

C.3 Final results of the risk analysis

The final results of the risk analysis are set out below, with:

- Table C.4 setting out the risks associated with the status quo;
- Table C.5 setting out how these risks would change under the reform options and the additional risks associated with these options – note that in most cases, the reform options are expected to reduce the likelihood of the risk arising but not the consequence, although there are some elements of the Options 3B and 4 that could increase the consequence of the risk; and
- Table C.6 setting out the residual risk rating associated with each policy option, which reflects the range surrounding the ‘residual risk likelihood’, the ‘residual risk consequence’ and the ‘residual risk rating’ in Table C.5.

Table C.4: Risks associated with the status-quo

Risk Description	Impact	Existing Controls	Likelihood	Consequence	Risk Rating	Amendments in response to stakeholder feedback
Inappropriate threshold for economic regulation	Some pipelines that are providing 3 rd party access may be subject to economic regulation when they don't have the requisite degree of market power (i.e. the risk of over-regulation), which can give rise to unnecessary regulatory and compliance costs	n.a.	Possible	Minor	Low	The consequence has been reduced to minor in response to stakeholder feedback outlined above and in response to the feedback on whether this constitutes a problem with the current framework – see Ch. 4
	The application of regulation to pipelines with a greenfield exemption may distort the incentives service providers have to invest in new pipelines.	n.a.	Possible	Minor	Low	No change
	The use of the coverage test for third party access decisions may result in under-regulation and inefficient investment in and use of pipelines that do not voluntarily provide third party access.	n.a.	Highly likely	Minor	Medium	No change.
Ineffective forms of regulation applied to pipelines	Pipelines that should be subject to a stronger form of regulation will not be (i.e. the risk of under-regulation), which can result in shippers being more susceptible to exercises of market power with consequential effects for economic efficiency and consumers more generally.	n.a.	Highly likely	Major	Severe	The consequence has been reduced to major in response to the stakeholder feedback outlined above. The overall risk rating is still, however, ‘severe’ because having the coverage test act as a gateway between Part 23 and full regulation is limiting the credibility of the threat of a stronger form of regulation being applied to the large number of pipelines currently subject to Part 23.
	Unnecessary complexity in the existing forms of regulation resulting in higher administrative, compliance and regulatory costs.	n.a.	Highly likely	Moderate	High	No change
	Exercises of dynamic market power are not effectively constrained, which could further entrench incumbent service providers' market power.	n.a.	Possible	High	Medium	The consequence has been increased to high in response to stakeholder feedback that exercises of dynamic market power can have a material effect on the efficient transport of gas and efficient operation of the market over the longer term.
Inefficient governance arrangements	Inefficient governance (including lack of information gathering or other investigatory powers), which can duplicate effort and result in unnecessary costs and delays to decision making.	n.a.	Highly likely	Minor	Medium	No change

Risk Description	Impact	Existing Controls	Likelihood	Consequence	Risk Rating	Amendments in response to stakeholder feedback
Inadequate Information disclosures by service providers	Shippers have to negotiate on the basis of incomplete, inaccurate, confusing and/or asymmetric information, which can hinder the price discovery process, give rise to higher transaction costs and make shippers more susceptible to market power.	The existing compliance and enforcement framework could be used to address some but not identified deficiencies.	Likely	High	High	The likelihood has been reduced from highly likely to likely and the consequence have been reduced from major to high in response to stakeholder feedback. This has resulted in the risk rating falling from severe to high.
Ineffective negotiation frameworks and dispute resolution mechanisms	Differences in negotiation frameworks gives rise to unnecessary costs and delays on negotiating parties and hinders the ability of shippers to effectively negotiate with service providers.	n.a.	Likely	Moderate	Medium	The consequence has been increased to moderate in response to stakeholder feedback that unnecessary costs and delays for shippers can have a moderate impact on the transportation of gas and the efficient operation of the gas market.
	Vulnerability of smaller shippers to exercises of market power (because the threat of arbitration initiated by these shippers is not considered credible).	n.a.	Highly likely	Moderate	High	The consequence has been reduced from major to moderate in response to stakeholder feedback that the group of affected stakeholders is likely to be quite small and is unlikely therefore to have a major impact on the efficient transportation of gas and the efficient operation of the gas market.
	Inefficient and ineffective elements of the scheme pipeline dispute resolution mechanism, which undermine the credibility of the threat of arbitration.	n.a.	Highly likely	Moderate	High	The consequence has been reduced from high to moderate in response to stakeholder feedback that the consequence of these deficiencies is only likely to have a moderate impact on the efficient transportation of gas and the efficient operation of the gas market

Table C.5: Risks associated with the reform options

Impact	Option 2			Option 3A			Option 3B			Option 4			Rationale for deviations from the status quo	
	L*	C*	Risk Rating	L*	C*	Risk Rating	L*	C*	Risk Rating	L*	C*	Risk Rating		
Inappropriate threshold for economic regulation	Some pipelines providing 3 rd party access may be subject to economic regulation when they don't have the requisite degree of market power (i.e. the risk of over-regulation), which can lead to unnecessary regulatory and compliance costs	Rare	Minor	Low	Possible	Minor	Low	Possible	Minor	Low	Possible	Minor	Low	<p>The likelihood of this risk eventuating is:</p> <ul style="list-style-type: none"> lower under Option 2 than the status quo because pipelines would be able to obtain a full exemption from regulation if they can demonstrate they lack market power, which reduces the likelihood of the risk. the same as the status quo under options 3A, 3B and 4 because all pipelines providing third party access would be subject to regulation.
	The application of regulation to pipelines with a greenfield exemption may distort the incentives service providers have to invest in new pipelines.	Rare	Minor	Low	Possible	Minor	Low	Possible	Minor	Low	Possible	Moderate	Medium	<ul style="list-style-type: none"> The likelihood of this risk eventuating is lower under Option 2 than the status quo because pipelines would be able to obtain a full exemption from regulation if they obtain a greenfield exemption. The likelihood and consequence are the same as the status quo under options 3A and 3B because pipelines with a greenfield exemption would still be subject to the lighter form of regulation if, in the case of Option 3A, it is providing third party access. The likelihood of this risk eventuating under Option 4 is the same as the status quo but the consequence is higher because there would be no greenfield exemption under this option so a pipeline could be subject to the stronger form of regulation.
	Use of the coverage test for 3 rd party access may result in under-regulation and inefficient investment in and use of pipelines that don't provide access.	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	<p>This risk is lower under all options because the coverage test would be removed under each option.</p>

Impact	Option 2			Option 3A			Option 3B			Option 4			Rationale for deviations from the status quo	
	L*	C*	Risk Rating	L*	C*	Risk Rating	L*	C*	Risk Rating	L*	C*	Risk Rating		
Ineffective forms of regulation	Pipelines that should be subject to a stronger form of regulation will not be (i.e. the risk of under-regulation), which can result in shippers being more susceptible to exercises of market power with consequential effects for efficiency and consumers.	Possible	Major	High	Rare	Major	Medium	Rare	Major	Medium	Rare	Major	Medium	<ul style="list-style-type: none"> The likelihood of this risk is lower under Option 2 than the status quo because the coverage test would not be considered as part of the form of regulation test. The regulator would not, however, play an active monitoring role under this option so the likelihood of the risk eventuating is still possible. The likelihood of this risk is lower under options 3A, 3B and 4 because the coverage test would be removed and the regulator would play a more active role in monitoring the behaviour of service providers under these options.
	Unnecessary complexity in the forms of regulation resulting in higher administrative, compliance and regulatory costs.	Unlikely	Moderate	Low	Unlikely	Moderate	Low	Unlikely	Moderate	Low	Likely	Moderate	High	<ul style="list-style-type: none"> The likelihood of this risk is lower than the status quo under options 2, 3A and 3B because they all involve the movement to two forms of regulation, with limited changes to the two existing forms. The likelihood of this risk is also lower than the status quo under Option 4, but not as low as the other options. This is because while there would be only two forms of regulation under Option 4, the stronger form would be based on direct price control, the transition to which could give rise to higher costs and risks.
	Exercises of dynamic market power are not effectively constrained, which could further entrench incumbent service providers' market power.	Possible	High	Medium	Rare	High	Low	Rare	High	Low	Rare	High	Low	<ul style="list-style-type: none"> The likelihood of this risk is unchanged under Option 2 because no additional measures would be put in place to address exercises of dynamic market power. The likelihood of this risk is lower than the status quo under options 3A, 3B and 4 because additional measures would be put in place to constrain exercises of dynamic market power.

Impact		Option 2			Option 3A			Option 3B			Option 4			Rationale for deviations from the status quo
		L*	C*	Risk Rating	L*	C*	Risk Rating	L*	C*	Risk Rating	L*	C*	Risk Rating	
Inefficient governance	Inefficient governance arrangements for when and how to regulate decisions, which can duplicate effort and result in unnecessary costs and delays to decision making.	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	This risk is lower under all options because under each option there would be a single decision-maker.
Inadequate information disclosure	Shippers have to negotiate on the basis of incomplete, inaccurate, confusing and/or asymmetric information, which can hinder the price discovery process, give rise to higher transaction costs and make shippers more susceptible to market power.	Possible	High	Medium	Rare	High	Low	Rare	High	Low	Rare	High	Low	<ul style="list-style-type: none"> The likelihood of this risk is lower under Option 2 than the status quo because all service providers providing third party access would be required to publish Basic Information and all regulated service providers would be required to publish financial and service usage information. It would, however, still be higher than the other options because it does not provide for any measures to improve the information published under the lighter form of regulation. The likelihood of this risk is lowest under options 3A, 3B and 4 because in addition to all service providers providing third party access having to publish Basic Information and, where relevant, financial and demand information, improvements would be made the quality and reliability, usability and accessibility of information.
Ineffective negotiation frameworks and dispute resolution mechanisms	Unnecessary costs and delays on negotiating parties and hindered ability of shippers to negotiate.	Rare	Moderate	Low	Rare	Moderate	Low	Rare	Moderate	Low	Rare	Moderate	Low	This risk is lower under all reform options because a single negotiation framework would be implemented that addresses the concerns raised about the existing negotiation frameworks.
	Vulnerability of smaller shippers to exercises of market power (because the threat of arbitration)	Likely	Moderate	Medium	Unlikely	Moderate	Low	Unlikely	Moderate	Low	Rare	Moderate	Low	<ul style="list-style-type: none"> The likelihood of this risk is lower under Option 2 than the status quo because the barriers to accessing the dispute resolution mechanism would be reduced by amending the cost provisions (the likelihood of the risk arising is lower). It is not as low as the

Impact	Option 2			Option 3A			Option 3B			Option 4			Rationale for deviations from the status quo
	L*	C*	Risk Rating	L*	C*	Risk Rating	L*	C*	Risk Rating	L*	C*	Risk Rating	
initiated by these shippers is not considered credible).													<p>other options because it does not address all the impediments to smaller shippers triggering a dispute;</p> <ul style="list-style-type: none"> The likelihood of this risk is even lower under options 3A and 3B because under these options user groups would be allowed to be joined to proceedings and the smaller shipper would be able to elect to have the dispute mediated by a regulator appointed mediator. The likelihood of this risk is lowest under Option 4 because a smaller shipper using a pipeline subject to the lighter form of regulation would be able to elect to have dispute arbitrated by a regulator
Inefficient and ineffective elements of the full and light regulation dispute resolution mechanism, which undermine the threat of arbitration.	Unlikely	Moderate	Low	Unlikely	Moderate	Low	Unlikely	Moderate	Low	n.a.	n.a.	n.a.	<p>Under options 2, 3A and 3B the scheme pipeline dispute resolution mechanism would be amended to address the identified issues. The likelihood of the risk arising has therefore reduced.</p> <p>In the case of Option 4, there would be no dispute resolution mechanism under the stronger form of regulation because a direct price control form of regulation would apply.</p>

Impact	Option 2			Option 3A			Option 3B			Option 4			Rationale for deviations from the status quo	
	L*	C*	Risk Rating	L*	C*	Risk Rating	L*	C*	Risk Rating	L*	C*	Risk Rating		
Other risks associated with the options	Risk of regulatory error for regulatory exemptions that results in pipelines providing 3 rd party access being exempt from regulation when they should not be and leave shippers exposed to market power	Possible	High	High	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	This risk only arises under Option 2 because it is the only one that provides for a full exemption from regulation.
	Risk of regulatory error for 3 rd party access test that results in pipelines not being required to provide 3 rd party access when it would be efficient for such access to occur.	Possible	Moderate	Medium	Possible	Moderate	Medium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	This risk only arises under options 2 and 3A because they are the only ones that provide for the application of the third party access test.
	Over-regulation of pipelines not voluntarily providing 3 rd party access could impose costs on service providers	Rare	Moderate	Low	Rare	Moderate	Low	Possible	Moderate	Medium	Possible	Moderate	Medium	This risk is rated as medium under options 3B and 4 because without a test for third party access, there is a risk that access would be obtained where it would not be efficient for such access to occur.
	Reduced flexibility for shippers requiring bespoke services	Rare	High	Low	Rare	High	Low	Rare	High	Low	Highly Likely	Major	Severe	This risk is rated as severe under Option 4 because the movement to direct price control would result in a movement to standardised services and all shippers paying the same amount for capacity.
	Reduced investment because shippers can't pay a different price for new capacity, even be prudent to do so.	Rare	High	Low	Rare	High	Low	Rare	High	Low	Highly Likely	Major	Severe	

* L=Likelihood, C=Consequence.

Table C.6: Residual risks associated with the policy options

Option	Residual Risk Likelihood	Residual Risk Consequence	Residual Risk Rating
Option 1	Possible to Highly Likely	Minor to Major	Medium to Severe
Option 2	Rare to Likely	Minor to Major	Low to High
Option 3A	Rare to Possible	Minor to Major	Low to Medium
Option 3B	Rare to Possible	Minor to Major	Low to Medium
Option 4	Rare to Highly Likely	Minor to Major	Low to Severe

Appendix D CBA quantitative analysis

This appendix provides further detail on the quantitative analysis carried out by PwC as part of the CBA for those costs and benefits where it was possible to quantify.

D.1 Quantified costs

The table below provides a summary of the costs that were identified in consultation with stakeholders and quantified as part of the CBA:

Table D.1: Categories of costs arising from changes in regulation

	Service providers	Shippers	Regulators ^a
Implementation costs	Upfront administrative (staff and IT) costs and external consultancy costs for adapting to new forms of regulation		Staff effort to make form of regulation and other decisions ^b
Access costs	Ongoing administrative (staff and IT) costs to prepare access under stronger form of regulation	Possible fall in administrative (staff) costs to request access (accounted for in the simplification of regulatory framework)	Ongoing administrative (staff and IT) costs to support access arrangements
Information disclosure for service providers and monitoring and referral functions for regulators	Ongoing administrative (staff and IT) costs to prepare additional reporting requirements	Not applicable	Ongoing administrative (staff and IT) costs to support additional monitoring requirements
Arbitration	Internal staff costs and external consultancy and legal costs to undertake the arbitration process		Staff effort to resolve disputes*

Notes:

a. This category refers to bodies including the AER, ERA WA, dispute resolution bodies and the decision-maker for when to regulate, greenfield exemption and form of regulation decisions.

b. Implementation costs for regulators (including other dispute resolution bodies) may not all be incurred immediately as service providers and shippers may not make applications in the first year of the new regulations. However, given the uncertainty around when these applications would occur, they have been grouped in implementation costs as they are one-off costs resulting from the regulatory change.

These costs have been quantified based on the feedback provided by stakeholders - either through written submissions or through their engagement with PwC. The values provided by the stakeholders were used at an aggregate level and where necessary adjusted to costs per business to ensure a consistent comparison across all reported stakeholders. Due to the commercial sensitivity of some information, the costs described in this section are at a high level.

D.1.1 Service provider costs

The quantified increase in costs for service providers arises from moving to a stronger form of regulation. This is estimated across two categories:

1. Pipelines currently subject to light regulation or Part 23 moving to the stronger form of regulation.
2. Pipelines currently exempt from regulation moving to the new lighter form of regulation.

The quantified costs for service providers fall broadly into four categories:

1. **Implementation costs:** These costs include the IT and administrative costs associated with moving to a new form of regulation and setting up any additional systems that may be required (includes costs of obtaining compliance, legal and financial advice). These costs are assumed to arise in the first year of analysis only. The upfront implementation costs are assumed to be \$0.57 million per service provider moving to the stronger form of regulation, and \$0.24 million for the lighter form of regulation.
2. **Access costs:** These costs include the ongoing costs associated with providing access to third party shippers. Access costs are predominantly driven by the increase in costs for pipelines that move to stronger form of regulation and the requirement to prepare an access arrangement. For pipelines shifting to the lighter form of regulation, the increase in costs comes from preparing access offers and complying with other access related provisions. In addition, the estimates take into account the increase in costs under Option 4 where new investments do not receive a greenfield exemption. The access cost estimate assumes \$2.7 million per access arrangement (every 5 years) for those pipelines that become subject to the stronger form of regulation, and \$0.04 million per access request for those pipelines that are subject to the lighter form of regulation.
3. **Information disclosure and reporting costs:** These costs include the ongoing management, administrative and IT costs that are associated with having to comply with the reporting requirements under each reform option. These costs are estimated separately for pipelines moving to stronger or lighter forms of regulation.³²² The information disclosure and reporting cost estimate assumes \$0.16 million per service provider moving to the stronger form of regulation, and \$0.10 million per service provider that is subject to the lighter form of regulation.
4. **Dispute resolution process:** Under Scenario 1 – High Impact, more disputes are assumed to proceed to arbitration, which will impose costs on those service providers that are a party to the dispute. The costs for these service providers are assumed to be \$1.65 million per dispute.

The table below provides a break-down of upfront and ongoing costs for service providers under Scenario 1 – High Impact and Scenario 2 – Low Impact.

³²² Stakeholders were unable to estimate the difference in reporting costs across the options. Consequently, the difference in reporting costs across options is due to number of pipelines shifting to stronger and lighter handed forms of regulation.

Table D.1: Costs for service providers by option (20 year NPV \$m, 2020 dollars)

Options	Total	Implementation costs (upfront)	Access costs (ongoing)	Reporting costs (ongoing)	Arbitration costs (ongoing)
Scenario 1 - High Impact					
Option 2	\$82.2	\$6.6	\$53.4	\$12.8	\$9.4
Option 3A	\$97.1	\$6.6	\$57.8	\$23.3	\$9.4
Option 3B	\$102.7	\$7.3	\$59.3	\$26.8	\$9.4
Option 4	\$105.3	\$7.3	\$60.0	\$28.6	\$9.4
Scenario 2 - Low Impact					
Option 2	\$39.9	\$3.6	\$29.5	\$6.7	\$ -
Option 3A	\$48.1	\$3.6	\$32.0	\$12.6	\$ -
Option 3B	\$51.9	\$4.1	\$32.9	\$14.9	\$ -
Option 4	\$54.4	\$4.1	\$33.7	\$16.7	\$ -

Source: PwC analysis

Notes: NPV calculated for a 20-year period with a 7% discount rate.

D.1.2 Shipper costs

There are two categories of costs that shippers may incur as a result of the reform options:

1. **Implementation costs:** These costs include the upfront implementation costs that shippers incur may incur understanding the changes to the regulatory framework and participating in stakeholder engagement processes. The cost estimate assumes the average shipper implementation costs with an average number of shippers that would be impacted by the move of at least one pipeline that they operate on, into the stronger form of regulation.³²³ The upfront implementation costs are assumed to be \$0.08 million for each shipper on a pipeline that moves to the stronger form of regulation.³²⁴
2. **Dispute resolution costs:** Under Scenario 1 – High Impact, more disputes are assumed to proceed to arbitration, which will impose costs on those shippers that are a party to the dispute. The costs for those shippers that partake in the arbitration are assumed to be \$0.86 million per dispute.

The table below summarises these costs. Since the number of pipelines shifting to stronger form of regulation and the number of arbitrations assumed are the same under each scenario, these costs are the same under each of the options.

³²³ Based on current estimates of shipper numbers, it is assumed that on average five shippers would be impacted for each pipeline shifting to the stronger form of regulation. For example, in Scenario 1 it is assumed that the shift of nine pipelines to the stronger form of regulation impacts 45 shippers

³²⁴ Only one stakeholder, a major shipper, provided an estimate for the implementation costs. Other stakeholders suggested these costs would not be immaterial, however, were unable to provide an estimate. This is a conservative estimate as some shippers may wrap these implementation costs up into other IT system changes.

Table D.2: Costs for shippers by option (20 year NPV \$m, 2020 dollars)

Options	Total	Implementation costs (upfront)	Access costs (ongoing)	Reporting costs (ongoing)	Arbitration costs (ongoing)
Scenario 1 - High Impact					
Option 2	\$8.6	\$3.8	\$ -	\$ -	\$4.9
Option 3A	\$8.6	\$3.8	\$ -	\$ -	\$4.9
Option 3B	\$8.6	\$3.8	\$ -	\$ -	\$4.9
Option 4	\$8.6	\$3.8	\$ -	\$ -	\$4.9
Scenario 2 - Low Impact					
Option 2	\$2.1	\$2.1	\$ -	\$ -	\$ -
Option 3A	\$2.1	\$2.1	\$ -	\$ -	\$ -
Option 3B	\$2.1	\$2.1	\$ -	\$ -	\$ -
Option 4	\$2.1	\$2.1	\$ -	\$ -	\$ -

Source: PwC analysis

Notes: NPV calculated for a 20-year period with a 7% discount rate.

D.1.3 Regulator costs

There are four categories of costs that economic regulators (the AER and ERA), the dispute resolution bodies under the alternative forms of regulation³²⁵ and the decision-maker responsible for determining when and how a pipelines should be regulated (jointly referred to here as 'regulators') may incur as a result of the reform options:³²⁶

- 1. Implementation costs:** The reform to the various tests used to determine when third party access should be required, the availability of greenfield exemptions, the form of regulation to apply to a pipeline and information disclosure exemptions is expected to result in some additional costs for the decision-maker when assessing applications. The main implementation cost considered is the additional costs of the staff required for the decision-maker to evaluate applications resulting from regulatory change.³²⁷ For simplicity the analysis assumes this to be a one-off cost in Year 1 as it is uncertain when new applications would be submitted. The upfront costs are estimated to be approximately \$0.46 million per application considered by the decision-maker.
- 2. Access costs:** These costs include the incremental costs that the relevant regulator would incur reviewing the access arrangements for the additional pipelines that could become subject to the stronger form of regulation. These costs are assumed to be \$1.47 million per access arrangement review.
- 3. Monitoring and referral functions:** These costs include the additional resources that the relevant regulators will require on an ongoing basis to undertake the new

³²⁵ For the stronger form of regulation under options 2, 3a and 3b the AER in the east coast and NT and the Energy Disputes Arbitrator in WA and for the lighter handed form of regulation under all options, commercial arbitrators.

³²⁶ Cost data for regulators was sourced from the AER and ERA WA, with a single estimated cost figure calculated for each category by weighting the cost by the number of pipelines regulated in each jurisdiction. Some of ERA WA's costs are recovered from industry: <https://www.erawa.com.au/gas/gas-access/mid-west-and-south-west-gas-distribution-systems/tariff-variations>

³²⁷ These estimates relate to upfront costs for regulators to review coverage applications across all options to determine their form of regulation as well as additional administrative costs to review applications for change in regulatory status under different options. This includes service provider applications to have their regulation removed under Option 2, service provider applications for a greenfield exemption under options 2, 3A and 3B, and shipper applications to obtain third party access to a pipeline that is not voluntarily doing so under options 2 and 3A.

monitoring and referral functions under options 3A, 3B and 4. These costs are assumed to range from \$0.016 m to \$0.033 m per pipeline.

4. **Dispute resolution costs:** Under Scenario 1 – High Impact, more disputes are assumed to proceed to arbitration, which will give rise to additional costs for the dispute resolution bodies (which are expected to be passed on to the disputing parties). The costs for the dispute resolution body are assumed to be \$0.42 million per dispute.

The table below summarises these costs. Since the number of pipelines shifting to the stronger form of regulation and the number of arbitrations assumed are the same under each scenario, the implementation costs, access arrangement review costs and dispute resolution costs are the same under each option. The difference in total costs for regulators stem from the costs associated with the monitoring and referral functions, which would not be incurred under Option 2. These costs differ under options 3A, 3B and 4, because they are based on the number of pipelines shifting to the lighter form of regulation.

Table D.3: Costs for regulators by option (20 year NPV \$m, 2020 dollars)

Options	Total	Implementation costs (upfront)	Access arrangement review costs (ongoing)	Monitoring and referral costs (ongoing)	Arbitration costs (ongoing)
Scenario 1 - High Impact					
Option 2	\$37.6	\$3.7	\$31.6	\$ -	\$2.4
Option 3A	\$57.7	\$2.8	\$31.6	\$20.9	\$2.4
Option 3B	\$56.9	\$1.9	\$31.6	\$21.0	\$2.4
Option 4	\$57.3	\$1.7	\$31.6	\$21.6	\$2.4
Scenario 2 - Low Impact					
Option 2	\$20.0	\$2.4	\$17.6	\$ -	\$ -
Option 3A	\$40.6	\$1.9	\$17.6	\$21.1	\$ -
Option 3B	\$40.0	\$1.3	\$17.6	\$21.1	\$ -
Option 4	\$40.3	\$1.1	\$17.6	\$21.6	\$ -

Source: PwC analysis

Notes: NPV calculated for a 20-year period with a 7% discount rate.

D.2 Quantified benefits

As noted in section 9.2.2, only one of the benefits associated with the reform options has been able to be quantified. That is the productivity benefits associated with lower transportation costs arising as a result of more pipelines becoming subject to the stronger form of regulation.

The movement of more pipelines into full regulation will mean that some service providers' services will become 'reference services' and the prices subject to regulatory approval by the relevant regulator. As commercial rates of return are generally higher than the average regulatory rate of return, this would result in a reduction in the revenues earned by service providers that move into the stronger form of regulation from the provision of reference services. This would, in turn, flow through to a reduction in prices for shippers, and lower input costs for end-users of gas.

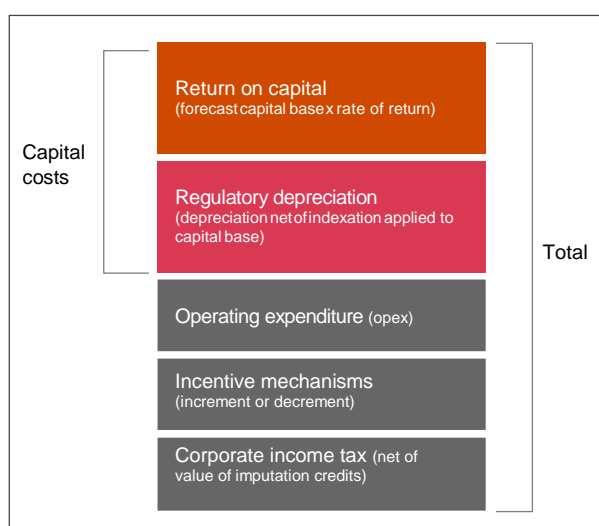
To quantify the benefits, it was necessary to calculate the reduction in revenue that service providers may experience if their pipelines become subject to a stronger form of regulation: The way in which this was done is outlined below.

D.2.1 Calculating the effect of regulation on pipeline revenue

1. Identify pipeline revenues by analysing return on capital

To analyse how revenues might change if a pipeline was to move from Part 23 or light regulation to the new stronger form of regulation, consideration has to be given to the proportion of revenue that might be affected by a change in the rate of return: the return on capital. The return on capital is the portion of the revenue received by fully regulated service providers through the provision of reference services that is affected by the rate of return approved by the relevant regulator (see Figure D.1).

Figure D.1: How the revenue requirement for gas transportation service providers is calculated and relationship between the return on capital and the rate of return



Source: AER, WACC – Overview of our framework the economics and related law, <https://www.aer.gov.au/system/files/AER%20information%20session%20two%20-%20Overview%20of%20WACC%20-%206%20December%202017.pdf>

Brattle³²⁸ has analysed the return on capital generated by 11 Part 23 pipelines using information reported under that regulatory framework. Brattle's data forms the basis of this analysis.

2. Scale the revenues to reflect the portion that would become reference services

Brattle's analysis relates to the total return on capital earned by the 11 pipelines from the provision of all pipeline services. Not all gas transportation services provided by a pipeline are, however, subject to regulation. It has been necessary therefore to scale Brattle's estimate down to reflect the return on capital that would be associated with the provision of reference services (i.e. the services that are subject to regulation).

³²⁸ Brattle, Financial Information Disclosed by Gas Pipelines in Australia Under Part 23 of the National Gas Rules, October 2019.

As firm forward haul is the main reference service under the stronger form of regulation, the proportion of revenue derived from firm forward haul services has been used to scale Brattle's estimates down.³²⁹

3. Calculate the difference between the revenue received under a commercial rate of return and a regulated rate of return

Brattle's analysis shows that the implied rates of return for the sample of 11 pipelines subject to Part 23 (8%) are higher than the relevant average regulatory rate of return on capital (6.34%). In dollar terms, PwC has estimated that this amounts to around \$178 million in 2017.

Adjusting this for the proportion of total revenue that comes from reference services (using firm forward haul transportation services as a proxy) gives \$153 million. That is, the revenue earned by service providers from the provision of reference services would be approximately 12% lower (see Table D.4 for more detail).

Table D.4: Analysis of information disclosed for selected pipelines under Part 23 requirements (\$m, 2018 dollars)

Category	Description	Value
Total return on capital in 2017 under pipeline rate of return (8.00% average)	(A) Total annualised return on capital across 11 selected pipelines^ based on 2017 inferred rates of return (see Table 35 of Brattle's report)	\$735m
Total return on capital under the regulatory rate of return in 2017 (6.34%)	(B) Total annualised return on capital across 11 selected pipelines^ based on the average 2017 regulatory rate of return (see Table 36 of Brattle report)	\$556m
Difference in return on capital	(C) (A – B)	\$178m
Decrease in annual revenue for pipelines	(D) (C) x the proportion of the total revenue that comes from reference services (using the firm forward haul transportation services as a proxy)	\$153m
Total annual revenue for pipelines	(E) Total annualised revenue for 11 selected pipelines^ in 2018* (see Table 22 of Brattle's report)	\$1,325m
Difference in annual revenue under AER's regulatory rate of return in 2017	(F) = (D / E)	12%

Source: PwC analysis of Brattle, Financial Information Disclosed by Gas Pipelines in Australia Under Part 23 of the National Gas Rules (2019), Tables 21, 22, 35 and 36.

Note: Totals may not sum due to rounding. ^Three pipelines included in the Brattle analysis are excluded from this table as they are outliers or are already partially heavily regulated. *Revenue available for 2018 and is used to provide an approximate indicator of the proportional difference in revenue (see Table 22 of Brattle report).

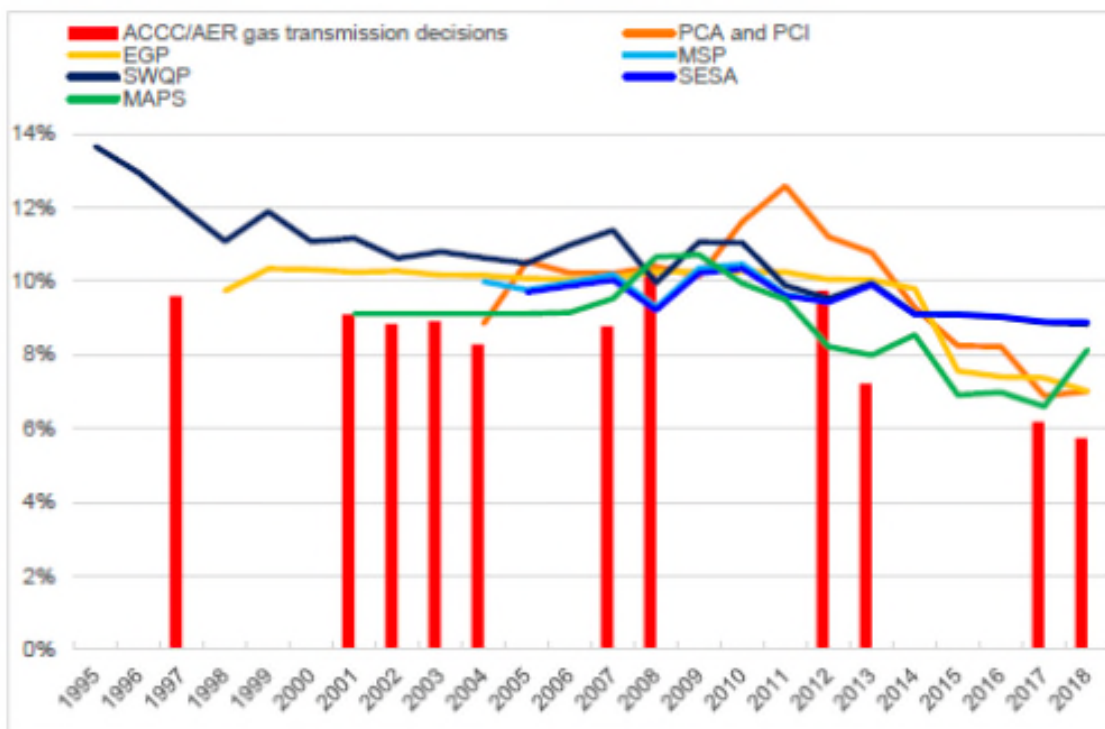
These findings are broadly consistent with the analysis undertaken by JP Morgan for Dr Vertigan's 2016 Examination and the findings of the ACCC's 2016 and 2017-2025 Inquiries.³³⁰ JP Morgan, for example, found that the total return earned by APA was double that of the average regulated electricity network operator and noted that difference was not wholly explained by the business's risk characteristics. In 2016 the ACCC also found evidence of a large number of service providers engaging in monopoly pricing, with

³²⁹ On average firm forward haul transportation refers to 89.3% of the total service revenue (ranging from 71.9-100.0%) across the 11 pipelines considered in this analysis. Brattle, Financial Information Disclosed by Gas Pipelines in Australia Under Part 23 of the National Gas Rules, October (2019).

³³⁰ Vertigan, Examination of the current test for the regulation of gas pipelines, December 2016. ACCC, Inquiry into the east coast gas market, April 2016.

the return on equity assumed for incremental investments in the majority of cases being significantly higher than the AER's benchmark return on equity. More recently, the ACCC has found that the rates of return used by Part 23 pipelines for the purposes of calculating their recovered capital asset values were substantially higher than the contemporaneous rates allowed by the regulator (see Figure D.2).

Figure D.2: Nominal vanilla WACC assumptions used by service providers versus regulated return



Source: ACCC, Gas Inquiry, July 2019 interim report, p. 151.

It is worth noting that the 12% revenue premium calculated above only accounts for the decrease in the rates of return and does not include other cost reductions that may arise from greater scrutiny by a regulator of a service provider's overall costs and asset values. The 12% may therefore be viewed as a conservative estimate of the magnitude of the decrease in prices that could be expected. If increased numbers of service providers' pipelines were to be subject to stronger form of regulation, the lower rates of return allowed by the AER would likely result in a fall in prices for reference services and benefit the broader economy.

The broader benefits relate to the indirect impact that lower transportation charges would have on the competitiveness of energy intensive and trade- exposed sectors of the economy. Businesses like smelters, plastics, glass, paper, steel and chemical manufacturers are particularly energy intensive and larger users of gas.³³¹ These sectors are also trade-exposed where they either export from Australia and compete against foreigners globally or they produce locally but compete against imported products. To the extent that their input costs are lower, these businesses will be more competitive internationally and locally. These benefits could extend to including the impacts of downward pressure on prices due to increased threat of regulation that arises when monitoring is undertaken (although that effect is not explicitly factored in here, just the change to the regulated rate of return).

³³¹ PwC analysis of Victoria University Regional Model.

It is important to note that increased shipper bargaining power leading to lower prices and a decrease in pipeline service operator revenue is an economic transfer; from producer surplus to consumer surplus. Due to the monopolistic nature of the market, there is also a net economic gain that may be captured from the reduction in the deadweight loss; this is seen in the improved competitiveness of downstream users of gas and is the focus of the benefit analysis.

D.2.2 Generating net economy-wide benefits through CGE analysis

The approach PwC has used to analyse this benefit is to quantify the direct impact - changes in service providers' revenues after accounting for the increased cost of regulation (for service providers, shippers and regulators)³³² - and then analyse this in an economy-wide model to simulate the flow on impact across the economy as lower gas transport costs improve the competitiveness of trade exposed energy intensive users.

The information to quantify the direct impact on revenues and the rates of return on capital has been informed by both consultations with stakeholders, regulators and desktop research.

The economy-wide model that PwC has used is a computable general equilibrium (CGE) model. CGE models provide a robust, coherent framework for assessing the general equilibrium effects of shocks to the gas market, by accounting for the flow on effects to other industries, households and prices over time. PwC has used the Victoria University Regional Model (VURM), which is a multi-regional, dynamic CGE model that distinguishes up to eight Australian regions (six States and two Territories) and up to 144 commodities/industries. This CGE model framework is described in further detail in Box D.1.

The economic impacts of the reforms have been quantified by comparing a base case – that is projections under the status quo (Option 1) – with the reform options. The reform options simulate the economy with 'shocks' to the base case to represent the direct impacts of the reforms. That is, the study does not aim to measure if the reforms are optimally designed or timed, but rather the benefits of the reforms relative to a continuation of the status quo.

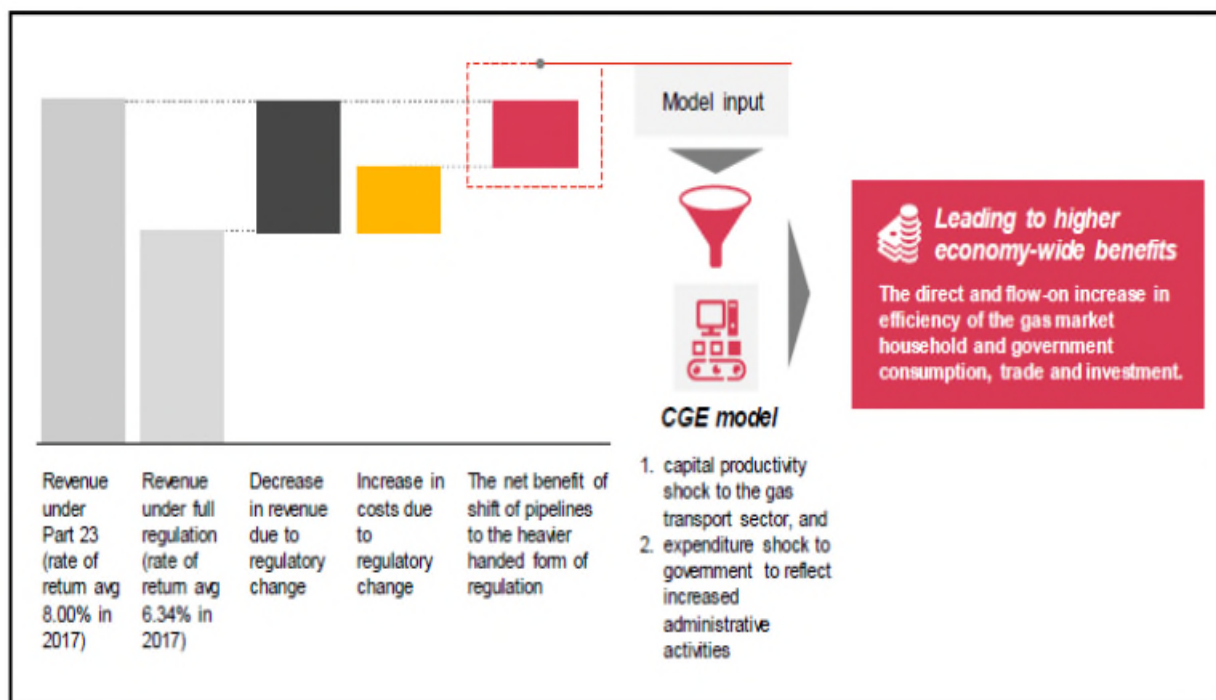
The change in economic welfare estimated from the CGE modelling is based on household consumption as this is considered a proxy measure for standard of living; if household consumption increases, then consumers are better off as they are able to spend more on goods and services.

The CGE model's base case represents the economic future under Option 1. The reform options include shocks to the base case, which alter the projected path of the economy. The resulting deviations of this path from the base case represent the economic impact of the policies. The shocks in the analysis are solely the product of the shift of pipelines under light regulation and subject to Part 23 to the stronger form of regulation and the decrease in the prices paid by the shippers on those pipelines. The shocks are assumed to begin in 2021.

³³² While a shift to a stronger form of regulation may reduce revenues to the service providers, there are also increased levels of costs as a result of the change. The costs incurred by service providers, shippers and regulators must therefore be factored into the analysis by deducting them from the reduction in revenue.

The figure below summarises how the model estimates the benefits from the decrease in return on capital from the firm forward haul transportation services becoming 'reference services' for the selected pipelines and how this is offset by the increased costs.

Figure D.3: Input based on the decrease in return on capital



Source: PwC analysis.

Box D.1: CGE Modelling

CGE modelling is an economic modelling technique used to evaluate the direct and indirect impacts of policy reforms, environmental impacts, and other economy-wide changes.

What are CGE models?

CGE models are detailed representations of the Australian economy, combining a real-world database (sourced from ABS input–output tables) with economic theory. These models are used to estimate the impact of external changes on the real economy. Based on the input – output National Accounting framework, they focus on the productive economy by looking at the way that different industries demand labour, capital and intermediate inputs subject to economic capacity constraints. Prices in the model are market clearing by default for all goods and services (although this assumption can be relaxed). The models include numerous industries, regions, and labour types, as well as several types of final demand (consumption, investment, state and federal governments, and exports).

CGE models are used to examine the economy-wide impacts of reform. By including each industry's demand for intermediate inputs, inter-state trade connections, and labour–capital intensity, the degree to which one industry impacts on another can be estimated. This not only includes the productive output of all industries, but also the income flows associated payments to labour, capital and governments (through taxation). In this way CGE models are used to examine three changes associated with an external impact to the economy (called a 'shock'):

- the degree to which the shock impacts directly on the industries targeted by the change;
- the degree to which other industries are indirectly impacted by their connections to the directly targeted industry; and

- the degree to which economy-wide aggregates (such as gross state or national product, household consumption or real wages) are impacted, through the aggregation and interaction of all the industries in the economy.

Due to the detail in CGE models, they are able to report on a large number of industry, regional, and macroeconomic results. At the industry level, CGE models can report changes in activity level, employment, capital utilisation, wages, and prices, amongst others. At the regional level, they can report domestic and international trade flows, final demands, and population movements. At the macroeconomic level, they can be used to examine:

- gross domestic product (GDP);
- final demand;
- trade balances;
- government accounts; and
- various price aggregates (e.g. CPI and the GDP deflator).

Assumptions within the CGE model can also be controlled to reflect the nature of the scenario being examined. Short-run policies (approximately five years) can be examined, as can longer run policies (estimating the impact of policy in 20+ years). Further, the models can be tailored to reflect certain characteristics of the economy unique to the modelling: the nature of government balances, drivers of government spending, and household consumption.

What the results of CGE models mean

CGE models are principally used to look at the impacts of policy changes on real economic variables, such as employment or the productive capital stock. They are used to estimate the relative expansion or contraction of industries or regions relative to one another. The models themselves are built on a strong and well researched academic foundation: including a variety of price responses and substitution effects.

However, CGE results should not be interpreted as a prediction of exactly where the economy will be at a certain point in the future. CGE models are based on the economic concept of the general equilibrium: the point at which the markets for all goods and services clear. As a result, CGE models do not incorporate the range of disequilibrium impacts seen in the short run in the real world. As a result, CGE model results can be thought of as the medium-to long-run impact that would result on the baseline level of output in the economy, abstracting from nominal and short-run disequilibrium effects.

CGE models only show the impact of the policy under investigation. They are not a broader tool for economic forecasting. As a result, any given CGE simulation will likely omit a range of external influences that are not directly relevant to the policy under investigation. Consequently, CGE results represent the change in the baseline level in the economic variables under investigation, solely attributable to the policy in question.

The interpretation and relevance of CGE results can be seen in the context of an example; in this case the construction of a new hospital in Victoria. A CGE model would describe the number of jobs created by the hospital, the degree to which it inflated the local wage and bid workers away from other industries, and the likely impact on gross state product. However, it would not reflect disequilibrium properties in the short run (e.g. the time required to train new labour to work in the hospital, financing issues associated with acquiring a capital (such as X-ray machines)). Further the results would be 'all other things equal': they would not reflect an unforeseen decline in labour supply that emerged five years down the line unless the modeller inserted this change). In this way, CGE models present an overarching 'big picture' impact of a change, once it has resolved itself in the economy and become part of the economic baseline.

CGE models do not include financial markets. It is argued that financial markets have no long-run persistent impacts on the real economy, only having real impacts in the short run. These short-run, disequilibrium states are not included in CGE results. Long-run impacts resulting from financial markets — such as changes in consumer preferences resulting from stocks of wealth — must be inserted into the modelling externally.

Further, CGE models are built around the ABS National Accounts Input–Output framework (as mentioned above), which does not include financial data. To include them would upset the balances in the national accounting.

The VURM model

The Victoria University Regional Model (VURM) is a multi-regional, dynamic CGE model. It distinguishes up to eight Australian regions (six States and two Territories) and up to commodities/industries. The model recognises:

- domestic producers classified by industry and domestic region;
- investors similarly classified;
- up to eight region-specific household sectors;
- an aggregate foreign purchaser of the domestic economy's exports;
- flows of greenhouse gas emissions and energy usage by fuel and user;
- up to eight state and territory governments; and
- the Commonwealth Government

The model contains explicit representations of intra-regional, inter-regional and international trade flows based on regional input-output data developed at the Centre of Policy Studies (CoPS) and includes detailed data on state and Federal governments' budgets. As each region is modelled as a mini-economy, VURM is ideally suited to determining the impact of region-specific economic shocks. Second round effects are captured via the model's input-output linkages and account for economy-wide and international constraints. Outputs from the model include projections of:

- GDP and aggregate national employment;
- sectoral output, value-added and employment by region;
- export earnings, import expenditure and the balance of trade;
- greenhouse gas emissions by fuel, fuel user and region of fuel use;
- energy usage by fuel, energy user and region of energy use;
- State and Territory revenues and expenditures;
- regional gross products and employment; and
- regional international export earnings, international import expenditures and international balance of payments.

Source: PwC

D.2.3 Scenario analysis

As with the cost analysis, the analysis of benefits also has a degree of uncertainty on the number of pipelines that might be reclassified into stronger regulation and the impact that might have on prices that service providers may charge.

One stakeholder, for example, noted that while regulation may reduce prices for some services service providers may respond by increasing the prices of non-regulated services. Given non-regulated services comprise a small proportion of the services on gas pipelines and there is otherwise no other change in the market power for negotiation on the non-regulated services, such a response is not expected to offset the price reductions on regulated services. It is also possible that some of these services could become reference services or treated as 'rebateable services' under the regulatory framework. Other stakeholders noted that the extension of stronger regulation to more pipelines could

reduce investment activities going forward, which could result in otherwise higher prices for gas transport.

Given the potential for these unintended consequences, a conservative approach was taken for the analysis, with the following high and low scenarios used to analyse the costs and benefits in the economy-wide modelling:

- **Scenario 1 – High impact:** This scenario assumes an average 12% decrease in prices paid by shippers for gas transport on pipelines shifting to the stronger form of regulation (before the increased costs of regulation for gas pipeline service providers are accounted for). Costs under the high impact scenario for service providers, shippers and regulators (as described above in section D.1) are also factored into the analysis.
- **Scenario 2 – Low impact:** This scenario assumes an average 5% decrease in prices paid by shippers for gas transport on pipelines shifting to the stronger form of regulation (before the increased costs of regulation for gas pipeline service providers are accounted for). This is based on rates as reported in stakeholder consultations, which indicated the price reduction could be in the range of 5-10%. Costs under the low impact scenario for service providers, shippers and regulators (as described above in section D.1) are also factored into the analysis.

D.2.4 Whole of economy impacts

The economy-wide modelling uses a shock of capital productivity in the gas transport sector increasing in line with the low and high impact scenarios (net of costs to service providers and shippers) and a shock to government expenditure reflecting the increased administrative activities for regulators. The capital productivity shock represents that for the same level of inputs (capital invested in the gas transport market) the sector is able to produce more output (gas transport services). The key results of the whole of economy impacts are that:

- Exports increase as energy intensive, trade exposed businesses fare better in globally competitive markets. Sectors that gain in exports include paper products, chemical manufacturing and metal manufacturing.³³³
- Increased consumption occurs as real wages rise, disposable incomes rise, costs of gas and energy intensive products drop, government taxes rise (from sources including higher individual incomes) and greater government expenditure follows.
- Lower levels of capital need to be invested, primarily in the gas transport sector as the capital employed is more productive and less capital is needed to produce the same level of output going forward as it is more efficient.
- Increased investment is seen in gas production and by end-users of gas as a result of improved margins and competitiveness in those sectors in a global market.
- Overall the increase in exports and higher consumption offset the lower investment and result in higher gross domestic product.

This analysis reports the change in consumption as the key measure of a change in economic welfare as a result of increased capital productivity in the gas transport sector.

³³³ Note that any increase in gas consumption may lead to changes in greenhouse gas emissions, the direction of which would be dependent on what gas generation is used to substitute for.

Consumption is the recommended measure of economic welfare as it is a proxy for standard of living.

D.2.5 Results of quantitative benefits analysis

The table below sets out the net economy-wide benefit that PwC has estimated under each of the reform options. Note that the main driver of this result is the productivity benefit associated with the reduction in transportation charges that is expected to flow from more pipelines becoming subject to a stronger form of regulation (net of the increased costs associated with regulation).

Table D.5: Summary of net economy-wide benefits quantified, by option (NPV \$m, 2020 dollars)

Options	Net economy-wide benefits				
	20 year NPV	Year 1	Year 5	Year 10	Year 20
Scenario 1 - High Impact					
Option 2	\$1,216.1	\$151.9	\$111.7	\$80.9	\$86.1
Option 3A	\$1,185.3	\$149.8	\$109.1	\$78.4	\$82.7
Option 3B	\$1,179.8	\$148.3	\$108.7	\$78.0	\$82.3
Option 4	\$1,177.1	\$148.2	\$108.5	\$77.8	\$81.9
Scenario 2 - Low Impact					
Option 2	\$263.3	\$29.1	\$24.8	\$17.6	\$18.4
Option 3A	\$238.4	\$27.7	\$22.7	\$15.4	\$15.4
Option 3B	\$234.7	\$26.8	\$22.4	\$15.2	\$15.2
Option 4	\$232.2	\$26.6	\$22.3	\$15.0	\$14.8

Source: PwC analysis utilising the VURM CGE model.

Notes: NPV calculated for a 20-year period with a 7% discount rate. Net economy-wide benefits represents the net increase in economic welfare considering the direct and indirect costs and benefits of the policy changes.

As this table shows, Option 2 yields a marginally higher net economy-wide benefit than options 3A, 3B and 4. That is, while the benefits of lower transportation costs arising from more pipelines being subject to the stronger form of regulation are expected to be the same under each reform option,³³⁴ the costs of regulation under Option 2 are expected to be lower than the other options. The differences in the net-economy-wide benefits presented in this table therefore just reflect the differences in costs associated with the reform options.

D.3 Break-even point

Break-even analysis considers the minimum required level of benefits to ‘break-even’ against the costs of the regulations. In this case, the key parameter that drives the scale of the net economy-wide benefits is the reduction in prices as a result of the increase in the number of pipelines subject to a stronger form of regulation.

³³⁴ Because the same number of pipelines are assumed to be subject to the stronger form of regulation under each option.

The break-even point has therefore been measured as the minimum average percentage reduction in prices charged by the pipelines moving to the stronger form of regulation that would be required for the benefits to 'break even' with the costs of the regulatory options.

To measure the break-even point, the economy-wide modelling results were scaled down so that the net economy-wide benefits are equal to the direct regulatory costs of the reform options. The results of this analysis, which do not take into account the qualitatively assessed impacts of the reform options, are set out in Table D.6.

Table D.6: Break even analysis (minimum percentage decrease in prices required for the benefits to break even with the costs)

Options	Break-even point
Scenario 1 - High Impact	
Option 2	2.17%
Option 3A	2.79%
Option 3B	2.88%
Option 4	2.94%
Scenario 2 - Low Impact	
Option 2	1.87%
Option 3A	2.79%
Option 3B	2.90%
Option 4	2.99%

Source: PwC analysis

Note: The break-even point represents the minimum average percentage decrease in prices charged by the pipelines moving to the stronger form of regulation that would be required for the benefits to 'break even' with the costs of the regulatory options.

D.4 Sensitivity analysis for the quantitative analysis

To test the sensitivity of the quantitative aspects of the CBA to the assumptions made about the appraisal period and discount rates, the following sensitivities were tested by PwC:

- Sensitivity 1: 10-year appraisal period (instead of 20 years);
- Sensitivity 2: 15-year appraisal period (instead of 20 years);
- Sensitivity 3: 3% discount rate (instead of 7%); and
- Sensitivity 4: 10% discount rate (instead of 7%).

The results of this analysis, which are measured in terms of their impacts on the net-economy-wide benefit are set out in the table below. Compared to the central case, all but one of the sensitivities result in falls in costs and the net benefits. For Sensitivity 3 (3% discount rate), these values increase.

Table D.1: Results of the sensitivity analysis (\$m, 2020 dollars)

Option	Net economy-wide benefits (\$ m)	% increase in net economy-wide benefits	Costs (\$m)	% increase in overall costs
Sensitivity 1: 10-year NPV				
Scenario 1 - High impact				
Option 2	\$904.1	-26%	\$89.9	-30%
Option 3A	\$884.8	-25%	\$112.7	-31%
Option 3B	\$880.5	-25%	\$115.9	-31%
Option 4	\$879.0	-25%	\$117.4	-31%
Scenario 2 - Low impact				
Option 2	\$196.1	-26%	\$43.8	-29%
Option 3A	\$181.2	-24%	\$62.7	-31%
Option 3B	\$178.4	-24%	\$64.8	-31%
Option 4	\$177.0	-24%	\$66.2	-32%
Sensitivity 2: 15-year NPV				
Scenario 1 - High impact				
Option 2	\$1,082.9	-11%	\$112.4	-11%
Option 3A	\$1,057.2	-11%	\$142.3	-11%
Option 3B	\$1,052.3	-11%	\$146.5	-11%
Option 4	\$1,050.1	-11%	\$148.7	-11%
Scenario 2 - Low impact				
Option 2	\$233.4	-11%	\$54.4	-11%
Option 3A	\$214.3	-10%	\$79.1	-10%
Option 3B	\$211.0	-10%	\$81.8	-10%
Option 4	\$209.0	-10%	\$83.9	-10%
Sensitivity 3: 3% discount rate (20-year NPV)				
Scenario 1 - High impact				
Option 2	\$1,564.4	29%	\$168.7	29%
Option 3A	\$1,521.9	28%	\$216.2	28%
Option 3B	\$1,511.2	28%	\$227.3	28%
Option 4	\$1,515.1	28%	\$222.8	28%
Scenario 2 - Low impact				
Option 2	\$338.9	29%	\$80.8	29%
Option 3A	\$303.9	28%	\$120.1	28%
Option 3B	\$295.8	27%	\$128.6	27%
Option 4	\$299.4	28%	\$124.4	28%
Sensitivity 4: 10% discount rate (20-year NPV)				
Scenario 1 - High impact				
Option 2	\$1,041.0	-14%	\$108.6	-14%
Option 3A	\$1,015.8	-14%	\$137.2	-14%
Option 3B	\$1,011.0	-14%	\$141.3	-14%
Option 4	\$1,008.9	-14%	\$143.5	-14%
Scenario 2 - Low impact				
Option 2	\$225.2	-14%	\$52.5	-14%
Option 3A	\$205.1	-14%	\$76.3	-14%
Option 3B	\$201.9	-14%	\$78.9	-14%
Option 4	\$199.9	-14%	\$81.1	-14%

Source: PwC analysis

D.5 Limitations

To carry out the quantitative analysis, PwC collected data directly from stakeholders through submissions and subsequent follow-up consultations. In general, stakeholders found it difficult to articulate the costs and benefits to their organisations from the reform options. The key data limitations identified for the CBA are shown in the table below.

Table D.1: Summary of data limitations and how they have been addressed

Category	Limitation	How limitation is addressed
Impact of more competitive market on prices	Stakeholders indicated there was significant uncertainty of the effect of the options on transportation charges	Two scenarios were used to model the possible impacts of the options. One uses data collected as part of the Brattle analysis on rates of return and compares this to the 2017 regulatory rate of return, and another uses the lower bound fall in prices of a range estimated by one stakeholder (see section D.2)
Cost savings	Stakeholders could not quantify anticipated savings in costs to pipeline operators as a result of regulatory simplification and to shippers from increased information disclosure	The likelihood of cost savings has been addressed qualitatively. Not including cost savings is a conservative assumption.
Small number of market participants	Small sample sizes make it difficult to utilise data provided confidentially.	Some confidential data have not been used and others have been adjusted, extrapolated or blended with other sources to maintain confidentiality.
Short time period since recent regulatory change	Previous reforms to the gas pipeline regulatory framework to introduce Part 23 were implemented in 2017. Combined with the hypothetical nature of the options, stakeholders found it difficult to consider the long-term industry pathway under the current state and to quantify the benefits of changes to Part 23 as it has only recently been introduced	Scenarios and a conservative attitude to developing cost estimates (e.g. not including any cost savings) provides the best possible approach to dealing with uncertainty inherent in these reforms.

Source: PwC analysis.

In addition to these data related limitations, stakeholders noted the uncertainty surrounding how many pipelines would be subject to each form of regulation (or exempt from regulation). To account for this, scenarios have been used to model the possible high and low number of pipelines shifting as a result of the changes to eligibility. These scenarios have not been developed with any formal input from possible decision-making bodies (NCC, ACCC/AER or ERA) and should not be taken to represent their views.

The other potential limitation with the analysis is that the gas market is a highly trade-exposed sector of the economy and there are global factors that may play a role in the real-world impacts of the reform options. Many elements of the sector affecting the pipelines, including exploration and emissions-reduction, are also subject to individual decisions by states and territories. It is considered however, that the possible impact of global and local factors is likely to be similar in the base case as under the reform options.

D.6 Stakeholder feedback on the CBA

Table D.1 provides a summary of how the analysis has considered the feedback provided by the stakeholders on the Consultation RIS. The feedback has been consolidated to the key common themes addressed by the stakeholders provided through:

- direct consultation with a range of service providers, shippers, and regulators,
- the written submissions provided by stakeholders, and
- stakeholder consultation forums held in Perth, Brisbane, Sydney and Melbourne.

Table D.1: Assessment of stakeholder feedback

Theme	Feedback	Response
Wider economic impacts	<ul style="list-style-type: none"> ▪ Extent of CGE model's capacity to capture gas market dynamics ▪ The CBA does not adequately capture positive and negative impacts of increased regulation and possible uncertainty on future investment 	<ul style="list-style-type: none"> ▪ The Victoria University Regional Model (VURM) is a multi-regional, dynamic CGE model. It includes a category for gas transportation services, which has been used to model the flow-on effects of these reforms. CGE modelling is an accepted method used to model economy-wide impacts of changes in policies. Under the scenario modelled, there is less investment in the gas transport sector as the rents in the sector are lower. ▪ The impact of the reforms on investment certainty and sentiment is unknown - some stakeholders considered there would be negative impacts due to a reduction in commercial flexibility, while others thought that it would increase investment certainty in the exploration and shipper sectors.
Impact of regulatory reform on gas prices and exploration	<ul style="list-style-type: none"> ▪ Whether reductions in transportation costs will lead to falls in the prices payable by householders, small to medium enterprises and commercial and industrial users that do not transport their own gas ▪ Whether reforms will encourage increased gas exploration (i.e. through higher ex-plant prices) 	<ul style="list-style-type: none"> ▪ Realisation of price reductions resulting from the reforms will depend on the level of competition in the exploration and shipper markets, noting that the East Coast Gas Market is undergoing structural change. While the ACCC has raised concerns about the level of gas supply in southern states, relaxations of rules regarding onshore conventional gas exploration are anticipated to increase contestability.³³⁵ A number of the reforms are intended to improve ease of access for shippers, which should also have flow-on impacts for competition in that segment. ▪ As is shown in this report, the scenario modelled leads to increased levels of investment in the gas production sector. So it is possible to suggest that reductions in the price of transporting gas to users could lead to, all other things being equal, an increase in gas exploration investment.
Impact of increased information disclosure	<ul style="list-style-type: none"> ▪ Information disclosure costs should also be applied to full regulation pipelines ▪ Minimal cost savings from increased information disclosure 	<ul style="list-style-type: none"> ▪ The analysis assumes no additional costs for pipelines remaining under the same form of regulation. Stakeholders were unable to provide estimates for the potential impact of new forms of regulation, however a number of the service providers stated that they did not anticipate material changes in reporting costs as much of the information sought is already collected and published internally. ▪ Many of the engaged shippers indicated the increased information provision would have minimal benefits for them.
Arbitration costs	<ul style="list-style-type: none"> ▪ Capturing positive effects of effective negotiation and dispute resolution mechanism ▪ Number of arbitrations each year 	<ul style="list-style-type: none"> ▪ The small number of arbitrations that have occurred over the last decade make it difficult to anticipate the number and outcomes of the arbitrations. PwC has incorporated two scenarios to highlight the uncertainty. ▪ There is insufficient information to estimate the change in the number of disputes in the new regulatory environment compared to the base case. The analysis considers two scenarios to provide an indication of the magnitude of these costs with the high scenario considering a conservative impact of the costs.
Regulator effort	<ul style="list-style-type: none"> ▪ Capturing regulator's costs for monitoring the new information requirements 	<ul style="list-style-type: none"> ▪ Monitoring costs are included in the analysis as per the regulators' estimates from direct consultations.
CBA parameters	<ul style="list-style-type: none"> ▪ Discount rate of 7% is too high 	<ul style="list-style-type: none"> ▪ The analysis follows OBPR's guidelines of using a real discount rate of 7% accompanied with a sensitivity analysis of 3% and 10%.

Source: PwC

³³⁵ ACCC, Inquiry into the east coast gas market, April 2016 and ACCC, Gas Inquiry Interim Report, July 2019