

Australian Energy Market Commission

DRAFT REPORT

Review into the scope of economic regulation
applied to covered pipelines

27 February 2018

REVIEW

Inquiries

Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

E: aemc@aemc.gov.au

T: (02) 8296 7800

F: (02) 8296 7899

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About the AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

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Summary

The Australian Energy Market Commission (AEMC or Commission) has made a number of draft recommendations on the application of economic regulation to full and light regulation transmission and distribution gas pipelines. These draft recommendations are intended to strengthen the regulatory framework and in doing so lower the prices and improve service terms and conditions for pipeline users and gas consumers across Australia.

Previous AEMC reforms, such as the East coast gas review that the Gas Market Reform Group is currently implementing, have made it easier to buy and sell gas in the wholesale markets. This review adds to the AEMC's reform package by making it easier and less costly to move that gas to where it is most valued.

The regulatory framework that applies to natural gas pipelines plays an important role in supporting users to negotiate gas transportation agreements that meet their needs. It also aims to address concerns about potential monopoly pricing by pipeline service providers.

Overview of the current pipeline regulatory regime

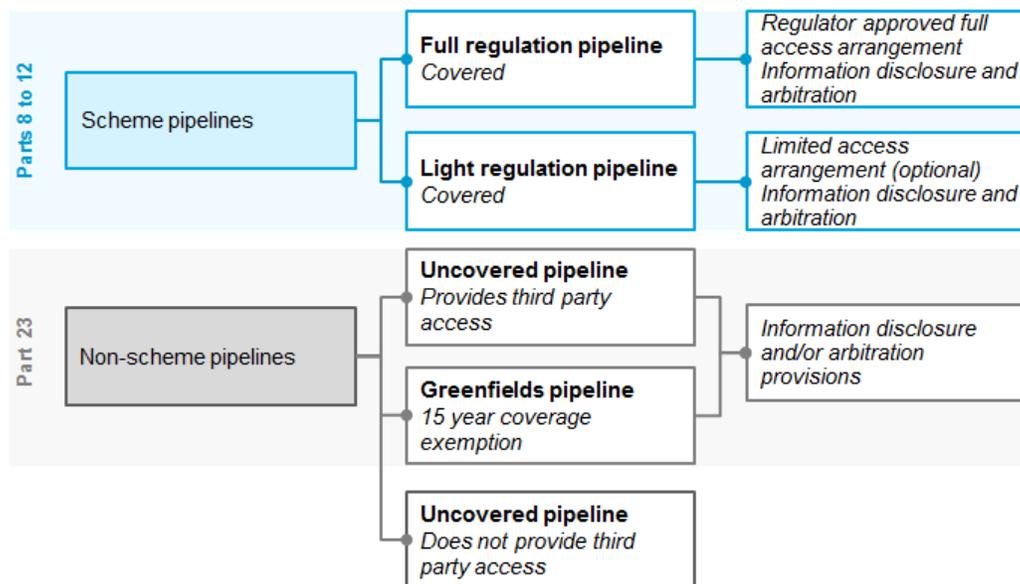
The current framework classifies pipelines as either scheme pipelines or non-scheme pipelines.

Scheme pipelines (also known as covered pipelines) are subject to regulatory oversight by the Australian Energy Regulator or the Economic Regulatory Authority of Western Australia. There are two forms of regulation that may be applied: full and light regulation, to both transmission and distribution pipelines.

Alternatively, a pipeline will be a non-scheme pipeline and not be subject to incentive-based regulation. Instead, these pipelines are to comply with the information provision and arbitration requirements of the access regime for non-scheme pipelines under Part 23 of the National Gas Rules (NGR). This access regime commenced in August 2017 and is not the subject of this current review.

The different key classifications of pipelines and the relevant regulatory regimes are illustrated in Figure 1 below.

Figure 1 Overview of pipeline classifications



In every case, pipeline service providers and prospective users negotiate the terms, conditions and tariffs for access to pipeline services to be included in a gas transportation agreement. Binding arbitration can be used when the negotiation process fails to lead to an outcome that is acceptable to both parties.

To aid the negotiation and arbitration processes for a full regulation pipeline, the AER and ERA must approve a full access arrangement. A full access arrangement sets out one or more reference services and the associated reference tariffs, and non-tariff terms and conditions, to inform negotiations. For light regulation pipelines, service providers are required to comply with information provision requirements to aid in negotiations and arbitrations for services provided by these pipelines. Alternatively, light regulation pipeline service providers may seek regulatory approval for a limited access arrangement.

The Commission's draft recommendations

The fundamental aspects of the framework discussed above were established by the National third party access code for natural gas pipeline systems (code) in 1997, and remain in the National Gas Law (NGL) and NGR. The Commission's draft recommendations do not change these features of the regulatory framework for gas pipelines.

However, the Commission recognises that for a negotiate-arbitrate framework to successfully constrain market power and support informed contract negotiations, all of the individual elements of the regime need to function well and work together. With this in mind, the Commission has made a number of draft recommendations to strengthen the economic regulation that applies to full and light regulation pipelines.

If implemented in full, the package of draft recommendations will help pipeline users negotiate lower prices and better terms for their gas transportation agreements. A broader range of services will be subject to access arrangements, prices will be set at

more efficient levels, contract terms will be more balanced, and arbitration will act as a more credible back-stop if negotiations fail.

The Commission's key draft recommendations include:

- A new approach to determine which pipeline services should be specified as reference services in a full access arrangement. The new approach responds to concerns from many stakeholders that additional services should be specified as reference services so that the regulator sets the efficient tariff for each of those services to assist prospective users. The new approach includes new criteria for reference services. This reflects that recent changes in the dynamics of the east coast gas market have resulted in services such as bi-directional transport becoming more important for many users. The new approach will also provide users with greater opportunity for engagement regarding this decision as well as providing regulators with a specific framework to focus on this important question at an early stage of the access arrangement assessment process.
- Strengthened information reporting obligations on light regulation pipeline service providers. These changes apply many of the information provision obligations that apply to Bulletin Board pipelines and non-scheme pipelines under Part 23 of the NGR to light regulation pipelines. This will result in more relevant, timely and accessible information for users and prospective users to inform their negotiations with service providers.
- A more credible threat of arbitration to constrain the use of market power by clarifying the bases for determinations, improving the arbitration process and enhancing its transparency. A new fast-tracked arbitration process is also recommended to be available to users and prospective users under certain circumstances. The regulators will be required to calculate an initial capital base for light regulation pipelines, where one does not already exist, for use in arbitration.
- More efficient tariffs and non-tariff terms and conditions set in access arrangements. This will be achieved by amendments and clarifications in the assessment criteria for depreciation, capital expenditure, and non-tariff terms and conditions.
- Reducing the ability for service providers to exercise market power over pipeline expansions. This is achieved by including all pipeline expansions as part of the relevant pipeline. In addition, existing extensions may also be incorporated into an existing access arrangement, bringing related pipeline assets under one regulatory framework. These changes will also reduce the regulatory burden and support improved decision-making.
- Facilitating greater stakeholder engagement in the access arrangement assessment process. Adjustments to the access arrangement assessment process will provide more time for stakeholder engagement (in addition to the introduction of the separate reference service process noted above).
- Improving regulatory decision making through the removal of the regulatory discretion framework applied to certain elements of an access arrangement so that

it is clearer that the regulator has the power to make decisions that best contribute to the national gas objective.

In addition, the Commission has considered the governance and process by which the form of regulation applied to a pipeline is determined. Specifically, it has found that the current order and construction of the tests which determine the form of regulation that applies to a pipeline may no longer be consistent with good regulatory practice. This may result in an inappropriate form of regulation applying to a particular pipeline, with a risk that it may be difficult to achieve the application of full regulation to a pipeline where this outcome is appropriate. The Commission is seeking stakeholder views on the materiality of this issue and whether changes should be considered to the governance and processes now used to determine the form of regulation that applies to a pipeline as part of this review or potentially through a separate process.

Background

The Council of Australian Governments (COAG) Energy Council requested that the AEMC review the economic regulatory framework that currently applies to covered transmission and distribution natural gas pipelines. This framework has not been comprehensively reviewed since the inception of the National third party access code for natural gas pipeline systems in 1997.

Next steps

Stakeholders are invited to provide written submissions in response to this draft report. Submissions should be provided to the AEMC no later than COB Tuesday 27 March 2018. These submissions, and other stakeholder consultation, will inform the AEMC's final report that is to be provided to the COAG Energy Council in June 2018. The final report will also be published.

The Commission expects that the final report will contain drafting of recommended changes to the NGR. Accordingly, stakeholders are encouraged to comment not only on whether they support the draft recommendations but to also comment on potential drafting and implementation issues related to the recommendations.

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1 Introduction

1.1 Background

On 19 August 2016, the Council of Australian Governments (COAG) Energy Council published a gas market reform package in response to the 2016 reports into the east coast gas market by the Australian Competition & Consumer Commission (ACCC) and the Australian Energy Market Commission (AEMC or Commission).¹ Included in the reform package was the requirement for the AEMC to review Parts 8 to 12 of the National Gas Rules (NGR). Consequently, on 5 May 2017, the COAG Energy Council issued the AEMC with terms of reference for a review into the scope of economic regulation applied to covered pipelines.² The terms of reference request the AEMC to:

“make recommendations on any amendments it considers necessary to Part 8-12 of the NGR to address concerns that pipelines subject to full regulation are able to exercise market power to the detriment of economic efficiency and the long term interests of consumers.”

The terms of reference also specify that the review is to consider whether any changes should be made to the dispute resolution mechanism in Chapter 6 of the National Gas Law (NGL) and Part 12 of the NGR, to provide a more effective constraint on any exercise of market power by service providers. The AEMC is required to work closely with the Gas Market Reform Group (GMRG) in this regard.

Parts 8 to 12 of the NGR set out how scheme gas pipelines are regulated, as follows:³

- Part 8: Access arrangements
- Part 9: Price and revenue regulation
- Part 10: Other provisions of and concerning access arrangements
- Part 11: Facilitation of, and request for, access
- Part 12: Access disputes.

Part 23 of the NGR commenced on 1 August 2017. This part sets out an access regime for non-scheme pipelines.

This review covers transmission and distribution pipelines that are subject to economic regulation by either the Australian Energy Regulator (AER) or Economic Regulation Authority of Western Australia (ERA).

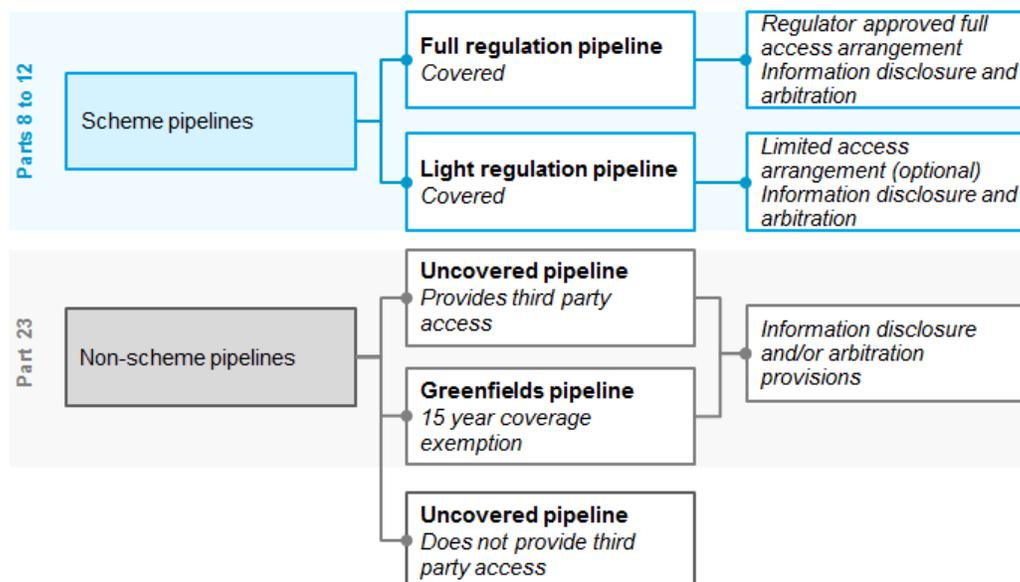
¹ ACCC, *Inquiry into the east coast gas market*, April 2016; AEMC, *East coast wholesale gas markets and pipeline frameworks review, stage 2 final report*, May 2016.

² See Appendix D of this draft report.

³ A covered gas pipeline is a pipeline that is covered under the NGL and NGR. Covered pipelines and international pipelines are referred to as scheme pipelines. This review does not include consideration of the regulatory regime for international pipelines (of which there is currently zero).

An overview of pipeline classifications is illustrated in Figure 1.1.

Figure 1.1 Overview of pipeline classifications



1.2 Stakeholder engagement

On 27 June 2017, the AEMC published an issues paper and received 20 submissions from stakeholders. These submissions are available from the AEMC website.

The AEMC also met more than 25 stakeholders including gas pipeline service providers, users and relevant jurisdictional policy bodies. It also held regular meetings with the ACCC, AER, ERA and GMRG.

Following this initial consultation on issues, the AEMC published an interim report on 31 October 2017. The interim report set out a summary of stakeholder views and identified the issues that were to be considered further in preparation of the draft report for the review. It also identified issues not to be considered further and the rationale for this position.

An all-day stakeholder meeting was subsequently held on 14 December 2017 to discuss possible solutions to key issues in the interim report. Further consultation with a number of stakeholders was also held in this period.

1.3 This report

This draft report sets out the Commission's assessment of issues related to the economic regulation of covered pipelines under the NGL and NGR. It includes the Commission's draft recommendations on these issues for further stakeholder comment.

Chapter 2 of this draft report provides an overview of the Commission's assessment and its draft recommendations. This is followed by a chapter on each area of interest included in this review:

- Chapter 3 – framework for pipeline regulation
- Chapter 4 – reference services

- Chapter 5 – access arrangements
- Chapter 6 – determining efficient costs
- Chapter 7 – negotiation and information
- Chapter 8 – arbitration.

These are followed by an appendix on other issues raised by stakeholders not included in the chapters (Appendix A) and Appendix B setting out a description of the current regulatory framework. Appendix C provides a map of gas pipelines in Australia, noting their regulatory status. The terms of reference to this review are included at Appendix D.

1.4 Assessment criteria

In conducting this review, the Commission aims to determine how the current framework could be improved to better meet the national gas objective (NGO), which is to:⁴

“... 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”

In preparing this draft report, the Commission has assessed submissions and other relevant information on the potential changes to provisions governing the economic regulation of gas pipelines against the extent to which they are expected to better achieve the NGO.

In particular, consideration of the NGO raises the following questions relevant to the assessment of the economic regulation of gas pipelines:⁵

- Do the rules provide for an efficient and effective regulatory framework that is consistent with the NGO?
 - Does the framework for economic regulation of gas pipelines provide incentives that are in line with the purpose of the framework and deliver the policy objectives at least cost and in a timely manner?
- Does the NGR support efficient investment in gas transmission and distribution pipelines?
 - This includes considering the investment made in pipelines, expansions, extensions and new pipelines services.
- How do the requirements under the NGR affect the efficient operation and use of gas transmission and distribution pipelines?

⁴ Section 23 of the NGL.

⁵ AEMC, *Review into the scope of economic regulation applied to covered pipelines*, issues paper, 27 June 2017, pp. 13-15.

- For example, the impact on the utilisation and trading of pipeline capacity, expanding and extending pipelines and the development and use of performance indicators to better inform stakeholders.
- Does the NGR provide appropriate incentives to service providers to provide access to pipeline services for users?
 - Both upstream and downstream users should be considered in regard to the purpose and definition of reference services, implementation of the light regulation regime, information disclosure requirements, and the dispute resolution framework. The Commission will also have regard to the access regime for non-scheme pipelines as developed by the GMRG.
- Do the requirements under the NGR influence the tariff and non-tariff terms and conditions of access to pipeline services for the long term interests of gas consumers?
 - This includes considering the NGR provisions on cost allocation, determination of total revenue and reference tariffs for pipelines, the operation of tariff variation mechanisms, and the determination of appropriate non-tariff terms and conditions.

To assist in this assessment, the Commission has also considered each element of the regulatory framework in terms of best practice regulation. Specifically, in relation to:⁶

- transparency – sufficient information should be available and relevant for users to negotiate access to a pipeline as well as to enable effective regulatory decision making
- proportionality – the context of the issue identified and the potential benefits that may result from changes to the regulation of pipelines should be assessed such that an appropriate balance between the costs and benefits of regulation can be found
- consistency and fit for purpose – while a regulatory framework should apply consistently, it should also accommodate differences in particular requirements where this is necessary and appropriate to do so
- adverse and unintended consequences – while regulation does have an impact on stakeholders, consideration should be had as to whether any adverse or unintended consequences arise
- resilience – immediate concerns raised by stakeholders have alerted the Commission to issues with the current regulation of gas pipelines, however, solutions to these issues should aim to be flexible and resilient to future market developments.

1.5 Next steps

Stakeholders are invited to provide written submissions in response to this draft report. Submissions should be provided to the AEMC no later than COB

⁶ For further information see Department of the Prime Minister and Cabinet, *The Australian Government guide to regulation*, 2014.

Tuesday 27 March 2018. These submissions, and other stakeholder consultation, will inform the AEMC's final report that is to be provided to the COAG Energy Council in June 2018. The final report will also be published.

The Commission expects that the final report will contain drafting of recommended changes to the NGR. Accordingly, stakeholders are encouraged to comment not only on whether they support the draft recommendations but to also comment on potential drafting and implementation issues related to the recommendations.

2 Overview

Australia's gas markets are in a period of significant change. Conventional gas reserves are declining while unconventional gas production is increasing. Linkages between gas and electricity are impacting the domestic energy market with wholesale gas prices influencing the gas consumption of gas fired generators and industrial users in particular. In addition, the natural gas export industry has become the driver of supply and demand on the east coast. It now represents approximately 68 per cent of total east coast demand for gas.⁷ In light of the changes in the Australian gas sector, the ability to efficiently transport gas from the various sources to its many consumers is a key factor to making gas available across the economy at efficient prices.

Over the last two years the AEMC has recommended significant reforms to improve the wholesale gas commodity markets and the ability of users to trade unused capacity on pipelines. These include:

- The east coast wholesale gas market and pipeline framework review – the AEMC developed a set of reforms regarding:
 - The redevelopment of wholesale gas markets.
 - Secondary pipeline capacity markets, including a package of pipeline capacity trading reforms currently being implemented by the GMRG.
 - Improvements to the provision of pipeline operation information through the Natural Gas Service Bulletin Board. One rule change has already been made; with further rule change requests expected after the requisite changes to the NGL are made.
- The review of the Victorian declared wholesale gas market – this review assessed the operation of the Declared Wholesale Gas Market (DWGM), particularly in relation to the incentives to invest in the transmission pipeline, and made recommendations for its redevelopment.
- A rule change to implement a standard gas day start time across the east coast gas markets to support the development of secondary capacity trading across pipelines.

The COAG Energy Council, through the GMRG, has also improved the way in which users and prospective users of non-scheme pipelines can access pipeline capacity, through the introduction of an access regime for non-scheme pipelines in Part 23 of the NGR.

As a result of these reforms, large and small users will benefit from the efficient movement of gas across the east coast in response to changing price signals in those markets and a greater insight into the availability of pipeline capacity. In addition, the development of improved wholesale prices will support the creation of financial risk management tools.

The benefits to users from these recent reforms can be enhanced further with improvements to the economic regulation of covered pipelines. Previous reforms have

⁷ Oakley Greenwood, *Gas price trends review 2017*, January 2018, p. 16.

made it easier to buy and sell gas in the wholesale markets. This review adds to the AEMC's reform package by making it easier and less costly to move that gas to where it is needed the most.

Accordingly, this review focuses on the economic regulation of the services provided by scheme pipelines (pipelines that are subject to full or light regulation under Parts 8 to 12 of the NGR). The purpose of this review is to better support pipeline users to negotiate efficient and appropriate tariff and non-tariff terms and conditions for pipeline services or achieve these outcomes through arbitration if negotiations are unsuccessful.

Gas pipelines are subject to economic regulation on the basis that these infrastructure assets display natural monopolistic characteristics which can provide their owners a degree of market power. Without effective regulation, the use of that market power could result in users paying more than the efficient cost-based tariff for services. Users may also face other terms and conditions for services that are onerous and do not reflect an efficient allocation of risk.

Applying economic regulation to such assets aims to constrain the ability of service providers to exercise market power in order to charge tariffs that are above the level that reflects efficient costs or impose unreasonable terms, while still providing incentives for efficient investment in and operation of the pipeline.

For gas pipelines, there are three forms of economic regulation that may apply: full regulation, light regulation and the recently introduced access regime for non-scheme pipelines under Part 23 of the NGR. Full regulation requires an access arrangement approved by the regulator (the AER or, in Western Australia, the ERA) on the basis of efficiency and other relevant criteria. This is the strongest of the available forms of regulation to address the behaviours of hindering access and monopoly pricing of services provided by gas pipelines.

However, the ACCC recently concluded that "there is evidence that a large number of existing pipelines have been engaging in monopoly pricing".⁸ It also stated that "even if a pipeline is subject to full regulation, it may still be able to exercise market power".⁹

As a result, this AEMC review is focussed on improving the outcomes for pipeline users and gas consumers from the application of economic regulation to scheme pipelines.

2.1 Recommended reforms

As set out in this report, the regulatory framework applied to scheme pipelines is incentive-based, with an underlying reliance on the use of negotiation and arbitration. Pipeline service providers and prospective users negotiate the tariff and non-tariff terms and conditions for access to pipeline services provided by a scheme pipeline. These negotiations are informed by access arrangements for some pipelines and published pipeline information. Binding arbitration can be used when negotiations fail to result in an agreed outcome.

This framework has been constructed recognising the importance of contractual negotiations in the pipeline industry. The ability for parties to negotiate provides the

⁸ ACCC, *Inquiry into the east coast gas market*, April 2016, p. 9.

⁹ ACCC, *Inquiry into the east coast gas market*, April 2016, p. 11.

opportunity to minimise regulatory intervention and costs while allowing the parties to determine which services should be provided under the conditions that best suit them.

For these reasons, the negotiate-arbitrate concept is still appropriate for the regulation of gas pipelines and should remain the core premise of the regulatory framework. This distinguishes it from the fundamentals of economic regulation applied to the large majority of services provided by electricity networks.

Nevertheless, the benefits of contractual negotiations must be balanced against the need to constrain the exercise of market power of pipeline service providers in these negotiations in order to protect the interests of users, prospective users and ultimately consumers of gas. The regulatory framework for pipelines achieves this balance by supporting negotiations between parties through the publication of information and access arrangements as well as providing arbitration (or the threat of arbitration) as a final option to resolve negotiations.

However, for a negotiate-arbitrate framework to successfully constrain the use of market power, all the individual components of the framework need to work together and function well in practice. This has been the focus of the Commission's work for this review.

Accordingly, the Commission has identified a number of significant changes to the economic regulatory framework for scheme pipelines that should be made in order to improve the operation of gas pipeline regulation and consequently, improve outcomes for pipelines users and gas consumers.

The Commission's key draft recommendations include:

- A new approach to determine which pipeline services should be specified as reference services in a full access arrangement. The new approach responds to concerns from many stakeholders that additional services should be specified as reference services so that the regulator sets the efficient tariff for each of those services to assist prospective users. The new approach includes new criteria for reference services. This reflects that recent changes in the dynamics of the east coast gas market have resulted in services such as bi-directional transport becoming more important for many users. The new approach will also provide users with greater opportunity for engagement regarding this decision as well as providing regulators with a specific framework to focus on this important question at an early stage of the access arrangement assessment process.
- Strengthened information reporting obligations on light regulation pipeline service providers. These obligations apply many of the information provision obligations that apply to Bulletin Board pipelines and non-scheme pipelines under Part 23 of the NGR to light regulation pipelines. This will result in more relevant, timely and accessible information for users and prospective users to inform their negotiations with service providers.
- A more credible threat of arbitration to constrain the use of market power by clarifying the bases for determinations, improving the arbitration process and enhancing its transparency. A new fast-tracked arbitration process is also recommended to be available to users and prospective users under certain circumstances. The regulators will be required to calculate an initial capital base

for light regulation pipelines, where one does not already exist, for use in arbitration.

- More efficient tariffs and non-tariff terms and conditions set in access arrangements. This will be achieved by amendments and clarifications in the assessment criteria for depreciation, capital expenditure, and non-tariff terms and conditions.
- Reducing the ability for service providers to exercise market power over pipeline expansions. This is achieved by including all pipeline expansions as part of the relevant pipeline. In addition, existing extensions may also be incorporated into an existing access arrangement, bringing related pipeline assets under one regulatory framework. These changes will also reduce the regulatory burden and support improved decision-making.
- Facilitating greater stakeholder engagement in the access arrangement assessment process. Adjustments to the access arrangement assessment process will provide more time for stakeholder engagement (in addition to the introduction of the separate reference service process noted above).
- Improving regulatory decision making through the removal of the regulatory discretion framework applied to certain elements of an access arrangement so that it is clearer that the regulator has the power to make decisions that best contribute to the national gas objective.

Related to these draft recommendations is the question of how pipelines are able to move from one form of regulation (full, light or Part 23) to another as appropriate over time. The Commission acknowledges the COAG Energy Council's decision to implement an access regime for non-scheme pipelines has resulted in near universal regulation of gas pipelines across Australia. This is an important development in the regulation of gas pipelines.

Nevertheless, consideration should be given to what form of regulation is most appropriate, or fit for purpose, for a particular pipeline. It is also aware that as the market environment changes over time, what is an appropriate form of regulation at one point may not be at another. Consequently, there is value in not only providing different forms of regulation, but providing a workable decision making framework to allow the application of economic regulation to adapt to circumstances over time.

For these reasons, the Commission has considered the governance and process by which the form of regulation applied to a pipeline is determined. Specifically, it has found that the current order and construction of the tests which determine the form of regulation that applies to a pipeline may no longer be consistent with good regulatory practice. This may result in an inappropriate form of regulation applying to a particular pipeline, with a risk that it may be difficult to achieve the application of full regulation to a pipeline where this outcome is appropriate. The Commission is seeking stakeholder views on the materiality of this issue and whether changes should be considered to the governance and processes now used to determine the form of regulation that applies to a pipeline as part of this review or potentially through a separate process.

2.2 Implementation of reforms

The Commission's draft recommendations represent a package of reforms to achieve a regulatory approach that will have significant benefits to users of gas pipelines and ultimately gas consumers.

Implementation of the draft recommendations in this report would require a number of amendments to the NGL and NGR. In addition, guidelines produced by the regulators, such as those on access arrangements and arbitration, would require amending to reflect those changes.

These draft recommendations have been developed as a complete package of reforms that work together. Prompt implementation of the Commission's recommendations will enable the benefits to pipeline users that are expected to be realised sooner.

The Commission will develop, in consultation with stakeholders, a more detailed approach to the implementation of the pipeline regulation reforms to be set out in its final report in June 2018. The Commission expects that the final report will contain drafting of recommended NGR changes. Accordingly, stakeholders are encouraged to comment not only on whether they support the draft recommendations but also to comment on potential drafting and implementation issues related to the recommendations.

2.3 Draft recommendations

The draft recommendations made by the Commission are reproduced here. Discussion on each is included in the following chapters of this draft report.

2.3.1 Framework for pipeline regulation (Chapter 3)

Draft recommendation 1: Include all expansions in an access arrangement

That the NGR be amended such that:

- all future expansions be included in access arrangements
- an existing expansion that is not included in the existing access arrangement must be included in the access arrangement at the next access arrangement revision.

Draft recommendation 2: Remove regulator's discretion to exclude an expansion from light regulation

That the framework be amended such that:

- the regulator's discretion to exclude an expansion from a light regulation pipeline under s. 19 of the NGL be removed
- expansions that have been excluded from a light regulation pipeline without a limited access arrangement are to be treated as part of that pipeline.

Draft recommendation 3: Enable existing extensions to be included in access arrangements

That the NGR be amended to permit a service provider to seek an existing extension to a scheme pipeline be included in the relevant access arrangement. This option is to be available at the next access arrangement revision.

2.3.2 Reference services (Chapter 4)

Draft recommendation 4: Clarify the requirements for defining pipeline services

To amend the definition of pipeline service in the NGL and the requirement to describe pipeline services in an access arrangement under the NGR. Specifically, amendments should require that:

- a pipeline service is to be stated or identified in terms of parameters such as type, location and priority (firmness of service), consistent with the provisions for the distinction between pipeline services under rule 549(3) of the NGR for non-scheme pipelines
- the service provider of a covered pipeline is to provide, as part of an access arrangement proposal, a full list of available and potential pipeline services. This list of pipeline services can be referenced to existing gas transportation agreements for that pipeline.

Draft recommendation 5: Clarify the requirements for defining reference services

To amend the NGL and NGR in order to:

- clarify the purpose of the reference service
- set out the parameters that must be included in a statement of a reference service, which may include:
 - clarifying what the statement of reference service required by rule 101 of the NGR should contain, considering the amendments to the definition of pipeline service
 - moving rule 101 to Division 4 of the NGR in order to clarify the interaction between rules 48 and 101 and create a clear, chronological process for the specification of reference services.

Draft recommendation 6: Update the test for determining a reference service

To amend the NGR in order to require the regulator to determine one or more pipeline services to be reference services, having regard to the following criteria:

- historical and forecast demand for the service and the number of prospective users
- the extent to which the service is substitutable with other pipeline services
- the feasibility of allocating costs to the service
- the usefulness of the service in supporting access negotiations.

Draft recommendation 7: Introduce a reference service setting process

To amend the NGR in order to:

- introduce a fit for purpose process to determine the reference services to be provided by the service provider with the following key design elements:
 - the service provider submits to the regulator its full list of pipeline services and proposed reference services, based on the reference service criteria to be specified in the NGR
 - the process is four to six calendar months, with at least one round of consultation
 - the regulator's final decision on the reference services is guided by the reference service criteria and is binding on the access arrangement process, unless there is a material change in circumstances
- enable service providers to set a review submission date and revision commencement date, with the approval of the regulator (rule 50 of the NGR)
- remove the pre-submission conference (rule 57 of the NGR).

2.3.3 Access arrangements (Chapter 5)

Draft recommendation 8: Develop financial models to be used by service providers

To include in the NGR a rule allowing the regulators to develop and publish financial models. If the models are developed and published, service providers will be required to use them to construct the capital base, and the total expected revenue from the building block approach. These models should be developed (and in future, modified or replaced) and published in line with:

- a consultation period of no less than 30 business days from publication of the proposed models
- the publication of issues, consultation and discussion papers, and the holding of conferences and information sessions, as appropriate
- the publication of a final decision within 80 business days.

The models should be available on the regulators' websites within six calendar months of the commencement of the rule and reviewed (at least) every five years.

Draft recommendation 9: Clarify the operation of revenue caps

To amend the NGR to clarify that the use of a variable revenue cap or a revenue yield control tariff variation mechanism is to allow for any over or under recovery of the revenue cap or yield in the last year of one access arrangement period to be included in the tariff variation for the first year of the following access arrangement period.

Draft recommendation 10: Clarify that the regulator is to have regard to risk sharing arrangements

To amend rules 97 and 100 of the NGR to clarify that the regulator is to have regard to the risk sharing arrangements implicit in the economic elements of the access arrangements when determining:

- the non-tariff terms and conditions
- the reference tariff variation mechanism.

Draft recommendation 11: Extend the revision period

To amend rule 59(3) of the NGR to extend the revision period from at least 15 business days to at least 30 business days.

Draft recommendation 12: Clarify the process for equalising revenue during the interval of delay

To amend the NGR in order to clarify that:

- the process for equalising revenue during an interval of delay is to result in a service provider being no better or worse off as a result of the interval of delay
- the definition of the access arrangement period includes the period known as the interval of delay.

To achieve this draft recommendation, the Commission expects that amendments to rules 3 and 92 of the NGR will be required.

Draft recommendation 13: Remove the limited and no discretion regulatory framework

To remove the limited discretion and no discretion framework contained in rule 40 from the NGR.

2.3.4 Determining efficient costs (Chapter 6)

Draft recommendation 14: Clarify the application of the new capital expenditure criteria

To insert the word “and” in rule 79 between subrules 79(1)(a) and 79(1)(b) to make it clear that regardless of which subrule (2) criteria are relevant for the purposes of subrule 79(1)(b), the expenditure in question must also meet the prudence criterion under rule 79(1)(a).

Draft recommendation 15: Provide guidance on the allowed return for speculative capital expenditure

To clarify that the rate of return to be applied to speculative capital expenditure under rule 84 of the NGR is, at a minimum, the return implicit in the reference tariff but that this could be adjusted upwards if the regulator deemed it was appropriate having regard to the circumstances of the particular investment.

Draft recommendation 16: Clarify the term depreciation when used in capital base valuations

To amend the NGR to clarify that the term “depreciation” when applied in calculating an opening capital base in rule 77 refers to economic depreciation. This gives the regulator or dispute resolution body the discretion to take previous returns into account when setting an opening capital base for a scheme pipeline.

Draft recommendation 17: Require an initial capital base valuation for light regulation pipelines

That the NGR be amended such that:

- for those light regulation pipelines without an initial capital base, the regulator must calculate an initial capital base within six calendar months of the commencement of the amendments
- a light regulation pipeline service provider must comply with a request from the regulator for information required to calculate the initial capital base within 20 business days of the request
- an initial capital base determination will be carried out in accordance with the relevant provisions in rule 77 of the NGR
- the dispute resolution body, in a dispute regarding a light regulation pipeline, will apply the relevant initial capital base determination
- the roll forward of an existing capital base valuation for subsequent dispute resolution proceedings will be carried out in accordance with rule 77 of the NGR.

Draft recommendation 18: Enable the addition of existing extensions and expansions to the opening capital base

To amend the NGR to apply the capital base methodologies to:

- calculate the initial capital base that is associated with existing extensions and expansions
- include the existing extensions and expansions in the capital base of the pipeline.

Draft recommendation 19: Require allocation of expenditure between covered and uncovered parts of a pipeline

To amend the NGR in order to:

- require an access arrangement revision proposal to include proposed forecast capital and operating expenditures that refer to costs after an allocation of expenditure between the covered and uncovered parts of a covered pipeline
- require a service provider to provide to the regulator details of the basis and methodology used to calculate the proposed forecast capital expenditure and operating expenditure and the allocation of the expenditure
- clarify the regulator's discretion in assessing the total expenditure and cost allocation.

Draft recommendation 20: Amend definition of rebateable services and rebate methodology

To amend the NGR to:

- add a requirement that if an access arrangement includes rebateable services then it must also allow for the rebate of revenues from the rebateable services in the reference tariff variation mechanism
- remove the requirement that rebateable services must be in a different market to reference services.

2.3.5 Negotiation and information (Chapter 7)

Draft recommendation 21: Require transmission pipeline service providers to disclose Bulletin Board information

To require all full and light regulation transmission pipeline service providers to disclose the same capacity and usage information that would be disclosed if they were Bulletin Board pipelines.

Draft recommendation 22: Require distribution pipeline service providers to disclose capacity and usage information

That full and light regulation distribution pipeline service providers publish the same set of capacity and usage information as non-scheme distribution pipeline service providers.

Draft recommendation 23: Clarify the role of the regulator in passing on information requests to service providers

To improve rule 107(2) of the NGR to make it clear that the regulator may decline to issue a notice to the scheme pipeline service provider for all or part of the prospective user's requested information if, in the regulator's reasonable opinion:

- the prospective user has not previously requested the information from the pipeline service provider
- the information is otherwise already available to the prospective user
- the pipeline service provider has not had sufficient time to provide the information requested to the prospective user, or
- the information is not reasonably required by the prospective user in order to decide whether to seek access to a service provided by the service provider, or to apply for access.

Draft recommendation 24: Introduce a financial and offer information disclosure regime for light regulation pipelines

That light regulation pipeline service providers publish the same set of financial and offer information as non-scheme pipeline service providers.

Draft recommendation 25: Remove the requirement to provide KPIs as part of the access arrangement

That the requirements in the NGR on service providers to include key performance indicators (KPIs) in an access arrangement be removed. Regulators should instead set and collect KPIs through regulatory information notices (RINs) and regulatory information orders (RIOs).

Draft recommendation 26: Improve the Scheme Register

That the NGR be amended such that:

- service providers for non-scheme pipelines be required to provide the AEMC with a description of the pipeline upon commencement of the relevant rule. Subsequently, both scheme and non-scheme pipeline service providers should be required to provide a description of the pipeline for inclusion in the register whenever a new pipeline is built or when it is affected by an extension or expansion
- the Scheme Register's contents be expanded to include published information about access determinations made under Division 4 of Part 23 of the NGR and exemption decisions made under Division 6 of Part 23 of the NGR
- the name Scheme Register be changed to Pipeline Register
- the current requirement for the Scheme Register to be made available for inspection at the AEMC's public offices during business hours be removed from the NGR.

2.3.6 Arbitration (Chapter 8)

Draft recommendation 27: Amend trigger for dispute resolution process

To expand the negotiation process in the NGR to set out the steps that are to be followed by each party, and assign timeframes for each step. These steps include:

- upon receiving an access request from a prospective user, the pipeline service provider will acknowledge receipt within five business days
- the pipeline service provider will investigate whether access can be provided, and inform the prospective user with evidence if it cannot within 10 business days of receiving the access request
- if the pipeline service provider can provide access, then it will provide the prospective user with an access proposal within 20 business days of receiving the access request
- if the prospective user wishes to seek access based on the access proposal, it must notify the service provider within 15 business days of receiving the access proposal
- if the prospective user wishes to request modifications to the access proposal, it must notify the service provider within 15 business days of receiving the access proposal and the service provider should respond within 15 business days of receiving the access proposal

- if the prospective user does not agree with the service provider's response, then it may trigger dispute resolution.

The Commission's draft recommendation is to redefine the trigger for the dispute resolution process as failure of the parties to agree within the negotiation timeframes (45 business days) in the NGL and NGR. The dispute resolution body will be able to terminate an access dispute if it considers that the notifying party had, but did not avail itself of, an opportunity to engage in negotiations in good faith.

Draft recommendation 28: Clarify the role of the dispute resolution expert

To clarify the role of the dispute resolution expert. The dispute resolution framework for scheme pipelines should provide additional guidance on the role of the dispute resolution expert in providing advice on dispute resolution, energy industry, gas industry and matters relevant to the particular dispute.¹⁰ The framework should also set out the process for appointing the dispute resolution expert and using the evidence or reports that the expert provides.

Draft recommendation 29: Establish a reference framework for the dispute resolution body

That the dispute resolution framework for scheme pipelines include a decision framework for dispute resolution on scheme pipelines that access determinations would be made in reference to. This framework would be in line with that under Part 15C of the NGR and include the following:

- national gas objective
- revenue and pricing principles
- access arrangements for full and light regulation pipelines
- regulatory determinations for full regulation and light regulation pipelines
- building block approach to calculate total revenue for light regulation pipelines (where applicable)
- other criteria such as efficiency of process, and preservation of relationship between the parties.

Draft recommendation 30: Introduce a fast-tracked dispute resolution process

That the dispute resolution framework for scheme pipelines set out that a dispute can be resolved under a fast-tracked dispute resolution process if it meets a set of factors that are assessed by the dispute resolution body.

The Commission's draft recommendation is for the fast-tracked dispute resolution process is to resolve a dispute within 50 business days. The dispute resolution framework for scheme pipelines would set out the steps and timeframes for the fast-tracked dispute resolution process.

¹⁰ The draft report uses “dispute resolution framework for scheme pipelines” to refer to disputes under Chapter 6 of the NGL (including Part 12 of the NGR).

Draft recommendation 31: Publish dispute resolution commencement, outcome and other information

That the dispute resolution framework for scheme pipelines require the dispute resolution body to publish, as soon as practicable:

- a notice outlining parties to the dispute, and subject of the dispute
- the arbitration determination and relevant financial calculations (if applicable, for example the capital base valuation)
- the information provided to the dispute resolution body during the course of the dispute.

The above should be subject to the publication requirements should be subject to the confidentiality provisions under s. 329 of the NGL.

Draft recommendation 32: Enable joint dispute resolution hearings

That Part 7 of Chapter 6 of the NGL be amended to enable parties to request that the dispute resolution body join them to an existing dispute. The NGL should also include the criteria for the dispute resolution body to accept or reject such a request, in addition to the process for parties to request to be joined to an existing dispute.

Draft recommendation 33: Clarify the definition of rule disputes under the NGL

To clarify in the NGL that the term 'rule dispute' does not include a dispute under the dispute resolution framework for scheme pipelines or the dispute resolution framework for non-scheme pipelines.¹¹ Therefore, the jurisdictional commercial arbitration acts do not apply to disputes under the dispute resolution framework for scheme pipelines or the dispute resolution framework for non-scheme pipelines.

¹¹ The draft report uses “dispute resolution framework for non-scheme pipelines” to refer to disputes under Chapter 6A of the NGL (including Part 23 of the NGR).

3 Framework for pipeline regulation

Summary of findings and draft recommendations

A variety of different forms of economic regulation (or no regulation at all) apply to different gas pipelines, depending on the circumstances. A series of tests are used to determine which form should apply.

Each of the forms of economic regulation are types of negotiate-arbitrate regulation. This is appropriate for gas pipelines as it balances the direct and indirect costs of regulation with effectively addressing the potential market power of gas transportation asset owners.

However, the process to decide the specific form of regulation applied to a pipeline may be inappropriate. This could lead to under-regulation (insufficiently addressing the market failure) or over-regulation (direct and indirect costs) – both of which ultimately result in higher prices for consumers of gas. While over- or under-regulation may in practice be applied on a case-by-case basis, there is reason to believe there may over time be a risk of a reduced application of “stronger” forms of economic regulation.

The existing regime has only been recently introduced, so the materiality of this issue is not yet clear. The Commission therefore welcomes feedback in this regard.

Two of the forms of regulation (light regulation and the access regime for non-scheme pipelines) are similar in overall concept but differ substantially in their specific design. Furthermore, it is likely that the forms of regulation are not successively more intrusive, with the intent of more substantially addressing the market power of the pipeline owner. Some stakeholders have suggested removing light regulation to simplify the regime.

However, the Commission's draft recommendation is that:

- an amended form of light regulation be retained
- certain aspects of the access regime for non-scheme pipelines (Part 23) be implemented in the light regulation regime in order to improve light regulation.

Currently there is regulatory discretion as to whether extension and expansions to a covered pipeline are included in the access arrangement. This discretion has led to inconsistent treatment of extensions and expansions across pipelines and in some cases resulted in part of the capacity of a covered pipeline being uncovered. The Commission recommends that all existing and future expansions to a covered pipeline be included in the access arrangement. However, extensions should continue to be treated on case by case basis.

Under the current economic regulatory regime for gas pipelines in Australia, different forms of economic regulation (or no economic regulation at all) apply to different pipelines depending on the circumstances. A number of tests assess the circumstances in question and determine whether regulation should apply, and if so which form. For the purposes of this report, the different forms of regulation, and the tests for determining which (if any) form is applied, are collectively described as the "framework" for pipeline regulation.

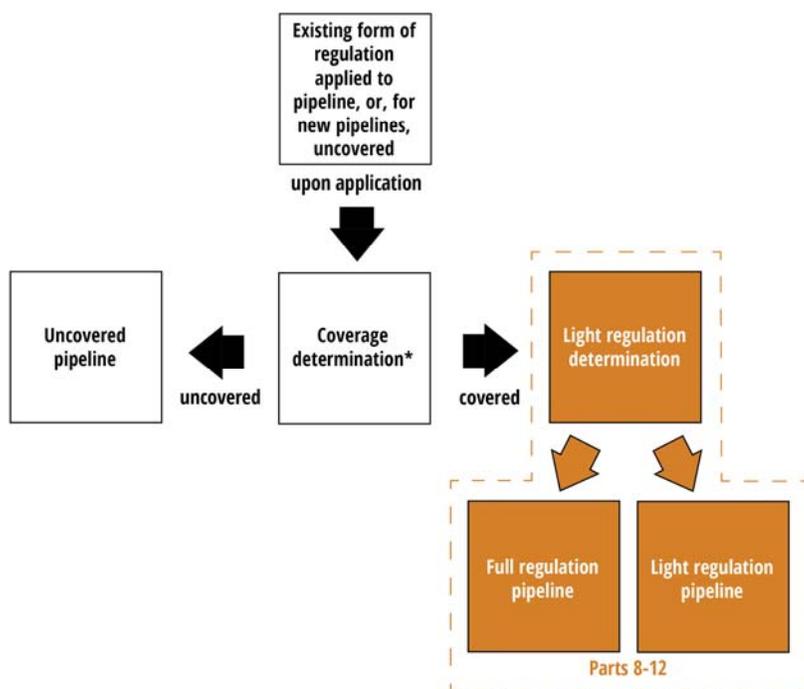
This chapter analyses and makes recommendations regarding the framework for pipeline regulation:

- section 3.1 outlines the current and recently historical framework
- sections 3.2 to 3.5 analyse various aspects of the framework and make draft recommendations:
 - section 3.2 describes the negotiate-arbitrate regime which is used in all forms of economic regulation in the current regime, in comparison to other broad types of economic regulation
 - section 3.3 discusses how the recently changed framework addresses a previous issue that no form of economic regulation could apply despite the market power of pipeline owners
 - section 3.4 outlines how the existing tests which determine which form of regulation applies could risk under-regulation of pipelines
 - section 3.5 examines inconsistencies and overlaps between the different forms of regulation in the regime
- section 3.6 discusses the framework for pipeline regulation as applied to pipeline assets which are expansions or extensions. The framework for these assets currently differs from the framework applied to other assets.

3.1 Current framework

Prior to 1 August 2017, the framework for pipeline regulation was as summarised in Figure 3.1:

Figure 3.1 Overview of framework prior to August 2017



* Coverage criteria in National Gas Law similar to those in Part IIIA of the CCA.

Note that Figure 3.1 is not intended to be an exhaustive representation of the framework prior to 1 August 2017. For example, a pipeline could also be covered if deemed a covered pipeline when the code came into effect, developed through a competitive tender process approved by the AER (s. 126 of the NGL) or if the service provider submits a voluntary access arrangement to the AER (s. 127 of the NGL). Furthermore, applications could be made for tests to be reapplied so that over time, pipelines could move between forms of regulation.

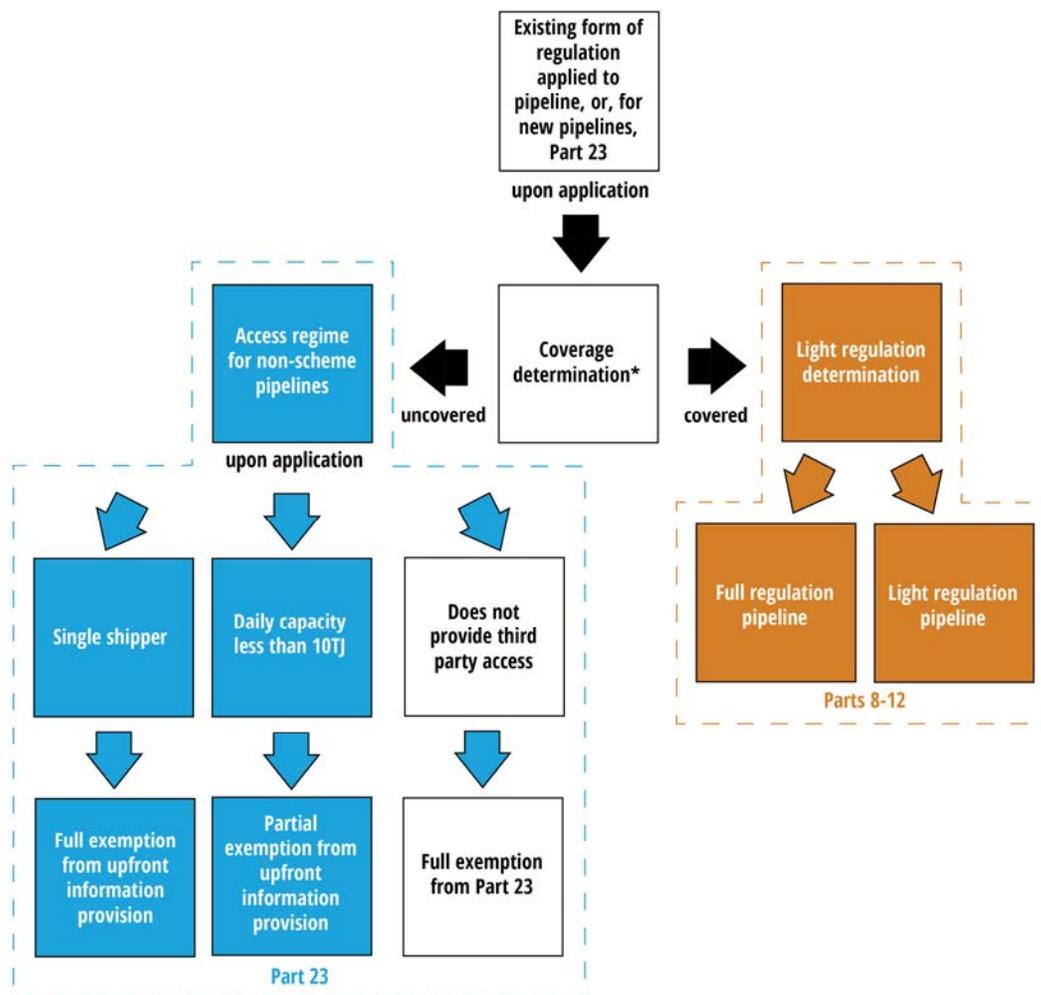
There were two forms of regulation (full and light) and two successive tests which could be applied upon application by certain parties (as discussed below) for determining firstly whether regulation should apply (the coverage determination) and if so, secondly, which form of regulation should apply (the light regulation determination).

Additionally, under s. 151 of the NGL, a service provider of a greenfields pipeline that was yet to be commissioned could apply to the National Competition Council (NCC) for a determination that exempts the pipeline from coverage for 15 years.¹²

¹² Additionally, under s. 160 of the NGL, a service provider of an international greenfields pipeline can apply to be exempt from price or revenue regulation. There has never been an international greenfields pipeline that has applied for or been granted an exemption from price or revenue regulation. Given this, and that there have been no issues raised or identified with regard to the

On 1 August 2017, the framework was changed, with the introduction of an access regime for non-scheme pipelines¹³ (Part 23 of the NGR) enabled by changes to the NGL (Chapter 6A).¹⁴ The current regime for pipeline regulation is summarised in Figure 3.2:

Figure 3.2 Overview of current framework



* Coverage criteria in National Gas Law similar to those in Part IIIA of the CCA.

Note that, as with Figure 3.1, Figure 3.2 is not intended to be an exhaustive representation of the current framework. For example, a pipeline may also be covered if deemed a covered pipeline when the code came into effect, developed through a competitive tender process approved by the AER (s. 126 of the NGL) or if the service provider submits a voluntary access arrangement to the regulator (s. 127 of the NGL).

international greenfields pipeline exemption regime, only very limited further discussion of them is provided in this report.

¹³ A non-scheme pipeline is defined in s. 216C of the NGL as a pipeline which is not a scheme pipeline (including pipelines which have been exempt from coverage, or is not an international pipeline to which a price regulation exemption applies).

¹⁴ *National Gas (South Australia) (Pipelines Access – Arbitration) Amendment Act 2017*. Under s. 216C(2) of the NGL, Chapter 6A also does not apply to a pipeline excluded from the operation of Chapter 6A by the NGR.

Furthermore, applications can be made for tests to be reapplied so that over time, pipelines can move between forms of regulation.

There are now three main forms of regulation: full, light and the access regime for non-scheme pipelines. There are also a number of full or partial exemptions from regulation within Part 23. There are three groups of tests which determine which form of regulation (or no regulation) should apply: the pre-existing coverage determination, the pre-existing light regulation determination and an exemption regime within Part 23.

Service providers of greenfields pipelines may continue to apply for an exemption from coverage. However, greenfields pipelines which have been granted a 15-year no coverage determination are defined as non-scheme pipelines and so are regulated as such.¹⁵

As can be seen by comparing Figure 3.1 with Figure 3.2, those pipelines which are uncovered are now subject to regulation under Part 23 (unless the pipeline does not provide third party access). Previously, uncovered pipelines were not subject to any form of economic regulation. No other consequential changes were made to the existing forms of regulation (full or light) or the wording of the coverage determination or light regulation determination.

Each of the elements of the current regime for pipeline regulation is described in more detail below.

3.1.1 Forms of regulation

While the forms of regulation that can apply have substantial differences, in common to all is that they are negotiate-arbitrate regimes.

Prospective users and service providers are able to negotiate access by negotiating the tariff and the non-tariff terms and conditions for the service. The central importance of negotiation in the regime is emphasised in s. 322 of the NGL, which notes that nothing in the NGL is to be taken as preventing a service provider from entering into an agreement with a user or a prospective user about access to a pipeline service provided by means of a scheme pipeline.

In all cases where regulation is applied, underpinning these negotiations is the ability of prospective users to take unresolved negotiations to arbitration which is binding on the service provider. In an arbitration to seek access to a pipeline, the arbitrator will determine tariff and non-tariff terms and conditions for the provision of the service in dispute. An arbitrated tariff, or the threat of an arbitrated tariff, is intended to restrict a service provider's ability to withhold access entirely, or to price monopolistically. The threat of arbitration is also intended to constrain the service provider from exercising its market power (to the extent that it holds it) in negotiations.

These arrangements are in place for both transmission and distribution pipelines.

¹⁵ International greenfields pipelines that have been granted exemption from price or revenue regulation are not subject to any form of regulation. In contrast to (domestic) greenfields pipelines they are defined as scheme pipelines under the NGL, and hence the access regime for non-scheme pipelines does not apply.

Appendix C provides a map which details which form of regulation applies to each pipeline in Australia.

Full regulation

The key distinguishing feature of full regulation is that the regulator (AER or ERA) undertakes an assessment of, and subsequently approves, a full access arrangement or revisions to a full access arrangement. The access arrangement determines at least one reference service, and the corresponding reference tariff and non-tariff terms and conditions. The access arrangement is made binding through s. 189, which states that the dispute resolution body (arbitrator) must give effect to the access arrangement. While the access arrangement is therefore enforced through arbitration, it is, for practical purposes, indistinguishable from ex ante price cap regulation (a form of direct, regulatory price control) applied to reference services, with the reference tariff acting as the price cap.

Where a prospective user of the pipeline seeks a service other than the reference service it is able to negotiate the tariff and terms and conditions of that service. Reference tariffs and reference services act as a direct constraint on a pipeline owner's ability to price reference services monopolistically (or deliver a lower service standard). More importantly, however, within the negotiate-arbitrate framework, the primary rationale of reference services and reference tariffs is to inform negotiations between service providers and users, in reference to the access arrangement. If negotiation does not result in a mutually agreeable outcome, an arbitrator determines the tariff and non-tariff terms and conditions for a non-reference service, informed by the reference services, reference tariffs and associated non-tariff terms and conditions.¹⁶

As covered pipelines, full regulation pipelines also have other regulatory requirements, which include:

- The general duties of a service provider, such as:¹⁷
 - requirements not to prevent or hinder access¹⁸
 - where the service provider has offer terms and conditions for supply and haulage on a pipeline, the service provider is required to offer terms and conditions at a producer's exit flange and a statement of reasons of the difference in the two sets of terms and conditions in case the price offered at the exit flange is different¹⁹
 - complying with queuing requirements set out in the applicable access arrangement.²⁰
- Structural and operational separation requirements (ring fencing), such as:
 - prohibition on the carrying on of a related business²¹

¹⁶ Section 189 of the NGL requires that the arbitrator ("dispute resolution body") must "give effect" to the access arrangement.

¹⁷ As set out in Chapter 4 Part 1 of the NGL.

¹⁸ Section 133 of the NGL.

¹⁹ Section 134 of the NGL.

²⁰ Section 135 of the NGL

- providing lists of associates of the service provider, including those that provide pipeline services or related services, and associated contracts²²
- keeping separate accounts for each covered pipeline and consolidated business accounts²³
- complying with all ring fencing requirements on and from the notified compliance date in the ring fencing determination²⁴
- Other requirements on a service provider of a full regulation pipeline are set out in the NGL and NGR, and include:
 - a prohibition on the bundling of services²⁵ and confidentiality requirements²⁶
 - responding to access requests²⁷ and complying with access determinations²⁸
 - publishing access arrangements on its website.²⁹

Service providers of full regulation pipelines are required to report to the regulator on the compliance status of these requirements annually.³⁰

Light regulation

A negotiate-arbitrate regime applies to all services provided by a light regulation pipeline. If negotiation does not result in a mutually agreeable outcome, an arbitrator determines a service and tariff and non-tariff terms and conditions.

In contrast to a full regulation pipeline, a light regulation pipeline is not required to have an access arrangement, and even in the case where it chooses to submit a limited access arrangement,³¹ no reference services or reference tariffs are determined in that limited access arrangement. Where a light regulation pipeline service provider elects to

21 Section 139 of the NGL.

22 Sections 147 & 148 of the NGL.

23 Section 141 of the NGL.

24 Section 143(6) of the NGL.

25 Rule 109 of the NGR.

26 Rule 137 of the NGR.

27 Rule 112 of the NGR.

28 Section 195 of the NGL.

29 Rule 107 of the NGR.

30 All covered pipelines (both full and light regulation) are required to comply with the AER's Annual Compliance Order. The order requires covered gas transmission and distribution pipeline businesses to report on their compliance status regarding key regulatory obligations for the 12 month period ending 30 June of that year. The Order was issued under s. 48(1) of the NGL in November 2008 (AER, *Overview of compliance reports by gas distribution and transmission pipelines, for reporting period 2015-16*, June 2017).

31 Under s. 116(2) of the NGL, a service provider providing light regulation services may choose, but is not required, to submit a limited access arrangement. Rule 45 states that a limited access arrangement must identify the pipeline, describe the pipeline services, state non-tariff terms and conditions, in addition to specified requirements. A limited access arrangement does not include tariffs.

not submit a limited access arrangement, it must publish certain information on its website.³² A more detailed discussion of information provision requirements for light regulation is provided in Chapter 7.

The main benefit of light regulation compared to full regulation is the avoided upfront cost of a full access arrangement – particularly determining reference services and reference tariffs. However, this means that prospective users of a light regulation pipeline do not receive the benefits of regulator approved reference services and reference tariffs to inform their negotiation processes or the associated information submitted to the regulator in support of the access arrangement. Instead, they must rely on the information provision requirements under light regulation or the limited access arrangement (if there is one).

As covered pipelines, light regulation pipelines also have many of the other regulatory requirements which apply to full regulation pipelines, noted above.

Access regime for non-scheme pipelines

The access regime for non-scheme pipelines under Part 23 is also a negotiate-arbitrate regime and also requires the publication of certain information by the service provider.

The access regime for non-scheme pipelines shares key characteristics of light regulation:

- neither involve the upfront determination of reference services and reference tariffs (unlike full regulation)
- both require the provision of information by service providers to aid service seekers in their negotiations
- both have a binding arbitration regime.

However, the specifics of the regimes are different, as summarised below:

³² Rule 36(2) of the NGR.

Table 3.1 Key differences between light regulation and access regime for non-scheme pipelines

	Light regulation	Access regime for non-scheme pipelines
Information publication and disclosure	Less comprehensive information disclosure provisions.	More comprehensive information disclosure provisions on usage and financial information.
Arbitration	The objective is the NGO.	The objective of Part 23 is to 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 reflect the outcomes of a workably competitive market.
	AER or the Western Australian Energy Disputes Arbitrator is the dispute resolution body and can appoint a dispute resolution expert.	In consultation with disputing parties, the scheme administrator (AER or ERA) selects arbitrator from pool of commercial arbitrators as established and maintained by the scheme administrator.
	Pricing and revenue principles refer to efficient costs.	Pricing principles do not expressly reference efficient costs (interpretation will be guided by the objective).
	Capital base valuation method is not prescribed.	Expressly requires the arbitrator to take account of past returns in setting the asset values unless it is inconsistent with the objective of Part 23.
	Arbitration hearing may be public, dispute resolution body may hold joint dispute hearings, confidentiality of material must be claimed, and parties to a dispute must comply with the arbitrator's access determination.	Arbitrator's rulings and access determination are confidential (other than publication of some information after the conclusion of the arbitration proceedings). The scheme administrator may join a party to a dispute if it requires it to do something.
	Not specified.	Up to 65 business days or up to 105 business days upon agreement of parties - periods for provision of information by parties or for experts to consider matters are discounted.
Other regulatory requirements	Requirements not to hinder access or price discriminate.	Do not apply.
	Queuing requirements for transmission pipelines (and if required by the regulator for distribution).	
	Structural and operational separation requirements (ring fencing): <ul style="list-style-type: none"> • provision of list of associates of the service provider, including those that provide pipeline services or related services, and associate contracts • keeping separate accounts for each covered pipeline and consolidated business accounts • providing audited financial reports. 	
	Service bundling requirements.	

More detailed discussions of the differences and similarities between scheme and non-scheme pipelines regarding information provision requirements and the arbitration frameworks are provided in Chapters 7 and 8 respectively.

Additionally, there are a number of exemptions from certain provisions in Part 23. Exemptions are applied for by the service provider and are granted by the relevant regulator as follows:³³

- Pipelines that do not provide third party access are exempt from all provisions in Part 23, and consequently, have no economic regulatory obligations
- Pipelines that are single shipper pipelines:
 - are subject to arbitration provisions, but
 - are exempt from all information publication provisions of Part 23, but are still required to provide information to a prospective user through the negotiation process or to an arbitrator should arbitration be sought
- Pipelines with an average daily injection of gas calculated over the immediately preceding 24 months of less than 10TJ:
 - are subject to arbitration provisions, and
 - are required to publish certain usage and availability information under Part 23, but
 - are exempt from publishing all financial information and certain other usage and availability information under Part 23, but are still required to provide this information to a prospective user through the negotiation process or to an arbitrator should arbitration be sought.

New pipelines are, by default, regulated under Part 23 of the NGR, until such time that a coverage application is made (discussed below) and, as a result of that application, a coverage determination is made to cover the pipeline.

3.1.2 Tests for determining which form of regulation applies

The following tests determine which form of regulation applies.

The discussion below is not intended to be an exhaustive description of each of the tests, with the discussion instead focusing on those aspects of the tests which have potential associated issues.

Coverage determination

Coverage determinations are set out in Part 1 of Chapter 3 of the NGL.

An application for a coverage (or a revocation of coverage) determination can be made by any person to the NCC. Once such an application is received, the NCC is required to assess the application and make a recommendation to the relevant Minister³⁴ who

³³ Rules 585 to 590 of the NGR.

³⁴ If the pipeline is completely within one jurisdiction, the relevant Minister of that jurisdiction or for a transmission pipeline situated wholly within a participating jurisdiction, the designated Minister (as defined in the relevant application Act). If a transmission pipeline crosses jurisdictional boundaries then the decision is made by the Commonwealth Minister. If a distribution pipeline crosses jurisdictional boundaries then the decision is made by the Minister of the jurisdiction with which the pipeline is most closely connected. See the definition of 'relevant Minister' in s. 2 of the NGL. Section 9 of the *National Gas (Queensland) Act 2008* (Qld) defines 'designated Minister' as the Commonwealth Minister.

makes the decision based on the coverage criteria and the NGO. The NCC is required to publicly consult on the application in accordance with the standard consultation procedures.³⁵ The standard consultative procedures require two rounds of written consultation.

State Minister coverage determinations can be challenged in accordance with state administrative law regimes. Some states have specific legislation, while others rely on the common law.³⁶ Commonwealth Minister coverage determinations can be challenged in accordance with the *Administrative Decisions (Judicial Review) Act 1977* (Cth) (ADJR Act).³⁷

The *Competition and Consumer Amendment (Abolition of Limited Merits Review) Act 2017* removes merits review³⁸ of Commonwealth Minister coverage determinations made under the NGL.³⁹

The current coverage determination determines whether a pipeline is:

- covered, and so subject full or light regulation, or
- uncovered, and so subject to the access regime non-scheme pipelines (noting that the regulator can exempt a pipeline from all regulatory economic requirements under Part 23 if it does not provide third party access).

As noted above, this represents a change to the framework that existed prior 1 August 2017, where an uncovered pipeline was not subject to any form of economic regulation (other than the threat of coverage).

The coverage determination remains worded as it was prior to the introduction of Part 23. The four criteria below (the pipeline coverage criteria) must all be met for a pipeline to be recommended by the NCC to the relevant Minister for coverage.⁴⁰ The NCC is also required take into account the NGO in making its recommendation.⁴¹ The coverage criteria in the NGL were initially modelled on the declaration criteria in the *Competition and Consumer Act*,⁴² and are as follows:

³⁵ Rules 8, 16 and 19 of the NGR.

³⁶ For example, Queensland has the *Judicial Review Act 1991* (Qld), while in NSW, review is under common law and usually proceeds in the Common Law Division of the Supreme Court under the Administrative Law List by proceedings known as “judicial review of administrative action”.

³⁷ The ADJR Act applies to decisions by a “Commonwealth authority” of an administrative character and an application can be made to the Federal Court based on one of the grounds for review set out in s. 5 of the ADJR Act.

³⁸ The fundamental distinction between judicial and merits review is whether the review assesses the legality or merits of the decision.

³⁹ The amendments made by the *Competition and Consumer Amendment (Abolition of Limited Merits Review) Act 2017* to the *Competition and Consumer Act 2010* (Cth) remove merits review of Commonwealth Minister decisions, but in theory, leave it open for each state to set up its own state specific legislation and decision making body to provide for merits review of decisions by state Ministers, although no such process currently exists in any of the states.

⁴⁰ See ss. 15 and 97 of the NGL.

⁴¹ Section 97(1)(b) of the NGL.

⁴² Part IIIA of the *Competition and Consumer Act* is a general third party access regime. However, recent changes to the declaration criteria in Part IIIA made by the *Competition and Consumer*

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

Light regulation determination

A light regulation determination determines whether full or light regulation applies to a covered pipeline.

Under s. 110 of the NGL, at the same time as the NCC makes a coverage recommendation to the relevant Minister, it must also decide whether to make a light regulation determination.

In addition, under s. 112 of the NGL, the service provider of a covered pipeline can apply to the NCC for a light regulation determination under which the services provided by that covered pipeline are classified as light regulation services. Any person can apply to the NCC to revoke a light regulation determination.⁴³ A light regulation determination is made by the NCC (not the Minister on the advice of the NCC) depending on, among other factors:⁴⁴

- the effectiveness of the form of regulation to promote access
- the likely cost of the various forms of regulation
- consistency with the NGO
- the form of regulation factors, which are:⁴⁵
 - (a) the presence and extent of any barriers to entry in a market for pipeline services
 - (b) the presence and extent of any network externalities (that is, interdependencies) between a natural gas service provided by a service provider and any other natural gas service provided by the service provider
 - (c) the presence and extent of any network externalities (that is, interdependencies) between a natural gas service provided by a service provider and any other service provided by the service provider in any other market

Amendment (Competition Policy Review) Act 2017 (Cth) have increased the differences between the Part IIIA criteria and the coverage criteria in the NGL.

⁴³ Sections 117 and 118 of the NGL.

⁴⁴ Section 122 of the NGL.

⁴⁵ These are set out in s. 16 of the NGL.

- (d) 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
 - (e) 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
 - (f) the presence and extent of any substitute for, and the elasticity of demand in a market for, electricity or gas (as the case may be)
 - (g) 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 to them by the service provider.
- any other matters it considers relevant.

The NCC must consult on applications for light regulation determinations under the standard consultative procedures.⁴⁶

Light regulation determinations of the NCC are subject to judicial review under the ADJR Act, but merits review of NCC decisions is no longer available.⁴⁷

Part 23 exemption framework

As noted above, there is an exemption framework within Part 23 of the NGR which can be used to determine which specific provisions of Part 23 apply to a particular non-scheme pipeline.

In the cases of exemptions for small pipelines and single shipper pipelines, the exemption regime is intended to reduce the regulatory burden in circumstances where the cost of regulation under all the provisions of Part 23 is likely to outweigh the benefits.

Part of the exemption framework also acts as a test of whether regulation should apply at all. Those pipelines which are not covered and which also do not provide third party access are not subject to any form of economic regulation.

The relevant regulator determines whether exemptions to Part 23 apply.⁴⁸ These decisions are subject to judicial review under the ADJR Act, but not merits review.⁴⁹

⁴⁶ Rules 8, 35 and 39 of the NGR.

⁴⁷ The *Competition and Consumer Amendment (Abolition of Limited Merits Review) Act 2017* removed merits review of decisions under the NGL, which includes NCC decisions.

⁴⁸ Rule 585 of the NGR.

⁴⁹ The amendments made by the *Competition and Consumer Amendment (Abolition of Limited Merits Review) Act 2017* to the Competition and Consumer Act (CCA) remove merits review of AER decisions. Section 44ZZMAA of the CCA provides that there is to be no merits review of decisions under energy laws by the Tribunal. Section 44AIA further provides that a decision of the AER under a state or territory law or local energy instrument is not to be subject to merits review (however described) by a body established under a law of a state or territory. This additional provision prevents state jurisdictions from setting up their own state specific legislation and decision making bodies that can carry out merits review of AER decisions.

Greenfields pipelines

A service provider of a greenfields pipeline that is yet to be commissioned can apply to the NCC for a determination that exempts the pipeline from coverage for 15 years.⁵⁰ In a similar manner to coverage determinations, the NCC makes a recommendation to the relevant Minister, who makes the decision, based on the coverage criteria and the NGO. Such decisions are subject to judicial review, but not merits review.⁵¹

3.2 Negotiate-arbitrate regulation

3.2.1 Commission analysis

Rationale for economic regulation

Gas pipelines often exhibit substantial economies of scale and scope, and sunk costs. These characteristics can confer substantial market power on service providers, which, if exploited, can result in inefficient outcomes to the ultimate detriment of gas consumers. The underlying rationale for economic regulation is to provide incentives for efficient investment in and operation of the services while containing the pricing and inefficiencies that can arise from the exercise of market power.⁵²

Relationship of market failure to form of regulation

As a general proposition, the greater the market power and the greater potential economic efficiency loss from its use, the greater the likelihood that more intrusive forms of regulation will improve overall outcomes. Conversely, where market power is less substantial, and so the lower the potential inefficiency loss, the stronger is the case for less intrusive forms of regulation (or no regulation at all). This is because regulation (and more intrusive regulation) results in direct costs (that is, the regulatory burden for regulators, service seekers, service providers and other interested parties) and indirect costs arising from regulatory error and resultant inefficiencies.

As noted above, each form of regulation in the current regime share in common that they are a negotiate-arbitrate form of regulation. Alternative regulatory regimes to negotiate-arbitrate include:⁵³

- more intrusive direct price or revenue control (as is in place for many electricity network services), where the regulator determines (typically *ex ante*) the maximum prices of services or the maximum revenue that can be derived from a collection of services⁵⁴

50 Under s. 151 of the NGL.

51 The amendments made by the *Competition and Consumer Amendment (Abolition of Limited Merits Review) Act 2017* to the Competition and Consumer Act remove merits review of Commonwealth Minister decisions but in theory, leave it open for each state to set up its own state specific legislation and decision making body to provide for merits review of decisions by state ministers, although no such process currently exists in any of the states.

52 Expert panel on energy access pricing, report to the Ministerial Council on Energy, April 2006, pp. 10-11, 41.

53 Expert panel on energy access pricing, report to the Ministerial Council on Energy, April 2006, p. 44.

54 Note that the *de facto* effect of reference tariffs for reference services for pipelines subject to full regulation is the imposition of direct price controls on these services.

- less intrusive price monitoring, where the regulator monitors and typically reports prices and/or service standards either periodically or after a change in prices or service standards arises, accompanied by the threat of more direct regulation should market power be misused to place a discipline on prices.

Negotiate-arbitrate regime represents an appropriate balance

Compared to direct price or revenue control regulation, the Commission considers that the primary benefits of a negotiate-arbitrate framework include:

- Users and prospective users (producers, retailers and industrial consumers) are at the heart of the regulatory process. Users and prospective users are able to negotiate specific, bespoke services that suit their business models, needs and risk appetites, as opposed to the services on offer being determined through a regulatory process.⁵⁵
- Pipeline service providers are able to adapt flexibly to changing user preferences, prospective new users, and developments in natural gas markets.
- The framework reduces the regulatory burden, particularly in the case of light regulation and pipelines subject to regulation under Part 23 of the NGR. In these cases, the regulation is "reactive" rather than "proactive" in that much of the direct regulatory costs are only incurred if and when a matter is taken to arbitration. For full regulation pipelines, only reference services and reference tariffs are determined by the regulator, as opposed to a full suite of services and tariffs.⁵⁶

DBP and AGN agreed that there are benefits of the negotiate-arbitrate framework, including that the approach to setting reference services creates a benchmark service, rather than prescribing a menu of available services that users and prospective users may not be interested in.⁵⁷

The Commission considers that, compared to direct price or revenue controls, the benefits of a negotiate-arbitrate framework are particularly pertinent in the gas industry (compared to, for example, the electricity industry). Pipeline users and prospective users are relatively few in number, typically relatively well resourced and well informed with regard to the negotiation process. Some may have a degree of countervailing market power. These factors serve to constrain (to a degree) the extent of market power of pipeline owners.⁵⁸

The Commission further considers that the imposition of a "lighter" overall form of regulation (such as price monitoring and reporting) would be unlikely to be appropriate. In the case of gas pipeline services, the negotiate-arbitrate regime therefore represents an appropriate balance between the direct and indirect cost of regulation on the one hand and the ability for the regulation to constrain market power on the other.

⁵⁵ Users and prospective users of pipelines can also be referred to as shippers. These parties deal directly with pipeline service providers in order to ship gas through a pipeline. Small gas users are customers of retailers.

⁵⁶ This reduction in regulatory costs should be netted against the cost of the negotiation process, which is borne by the counterparties.

⁵⁷ DBP and AGN, submission to the issues paper, p. 7.

⁵⁸ Expert panel on energy access pricing, report to the Ministerial Council on Energy, April 2006, p. 45.

Box 3.2**A comparison of gas and electricity regulation**

The negotiate-arbitrate framework used for gas pipeline services differs substantially from the framework in place for the regulation of the large majority of electricity network services. The majority of electricity network services are classified as standard control services (distribution) or prescribed transmission services (transmission). A small number of services are classified otherwise, including as negotiated distribution and negotiated transmission services

For these electricity services, direct price or revenue control is applied: the regulatory process determines, *ex ante*, both the specific services that are regulated and the prices of the services or the total revenue to be derived from the provision of those services. In electricity, for the majority of services, distribution network service providers deliver services to consumers as well as retailers under tripartite arrangements. Hence, there are not just a small number of relatively well-informed and resourced counterparties to negotiate with a network service provider.

Nevertheless, the Commission recognises that negotiate-arbitrate regulation has limitations where information asymmetry is substantial and there are high transaction costs involved in negotiation and arbitration. For these reasons, the Commission is seeking to improve these aspects of the regime, as discussed in Chapters 7 and 8.

Distribution pipelines

A number of stakeholders suggested that the negotiate-arbitrate framework may be less appropriate in the case of distribution pipelines compared to transmission pipelines. The AER noted that distribution pipelines had less services that were more standardised and raised for further discussion whether the negotiate-arbitrate framework is the best fit for distribution pipelines.⁵⁹ Australian Pipeline and Gas Association (APGA) noted that transmission and distribution infrastructure had different characteristics.⁶⁰ While noting that the negotiate-arbitrate framework works well for transmission pipelines, PIAC suggested that the framework for distribution pipelines might not be sufficient to promote the long-term interests of some gas consumers, such as households and small businesses.⁶¹

The Commission considers that the option for users (for example, retailers or large consumers) of distribution pipelines to negotiate (often on the basis of a regulator-approved access arrangement) is an important feature. It provides flexibility to accommodate the needs of prospective users and changing needs of existing users. This may be most relevant for larger industrial and commercial gas users.

The Commission recognises that for many gas distribution services, the benefit of being able to negotiate specific, bespoke services is positive but more limited than for gas transmission services. However, even in those cases where all prospective users choose

⁵⁹ AER, submission to the issues paper, p. 7.

⁶⁰ APGA, submission to the issues paper, pp. 3-4.

⁶¹ PIAC, submission to the issues paper, pp. 4 & 12.

not to negotiate a different service and instead contract for the reference service, the regime becomes a de facto price cap regime, with the reference tariffs acting as the price caps. The Commission has not been presented evidence to suggest that this outcome is inappropriate.

Therefore, the Commission's draft assessment is that in the case of distribution pipelines:

- there are likely to still be some benefits of the negotiate-arbitrate regime for distribution pipelines by providing the option for users to negotiate a different service (even if this option might only be rarely taken up)
- if reference services are always used, the regime functions adequately as a de facto price cap regime
- there would be significant one-off and ongoing costs associated with changing the framework and introducing different regulatory regimes for distribution and transmission pipelines
- there do not appear to be any benefits of removing the negotiate-arbitrate framework.

Effect of retail competition

In meetings, a number of stakeholders have suggested that retailers are not incentivised to negotiate low prices for access because they pass these costs to end consumers and are able to do so because the retail market is insufficiently competitive. These stakeholders have suggested that direct price or revenue controls, rather than the negotiate-arbitrate regime, might be more appropriate as a result, given that any negotiations that do occur are not effective in promoting the interests of consumers.

It is beyond the scope of this review to consider the extent to which retail gas markets are workably competitive in Australia. However, even in uncompetitive markets, it would be a profit maximising strategy for retailers to seek as low a price as possible for access (and any other cost of running their businesses). The Commission also notes that even if competition between gas retailers is limited in some markets, the risk of consumers switching from gas to electricity if gas prices increase significantly should also incentivise retailers to seek as low an access cost as possible.

Regardless, the imposition of more intrusive regulation such as direct price controls is unlikely to address this problem (to the extent it exists). Were the outcome of more intrusive forms of regulation lower prices for access, retailers would still be able to exercise their market power in the retail market (to the extent this power exists) and continue to charge monopoly prices in that market. The effect of the lowered access price would be the transfer of the economic rent from the pipeline service provider to the retailer, with no clear overall benefit to the consumer.

3.2.2 Conclusion

For the reasons set out above, the Commission does not recommend any changes away from the negotiate-arbitrate framework which applies in all forms of regulation and for both transmission and distribution pipelines.

3.3 Near universal regulation addresses concerns of previous regime

3.3.1 Commission analysis

In 2016, the ACCC identified a shortcoming in the framework that was in place prior to the introduction of the access regime for non-scheme pipelines: the coverage determination was primarily designed to test the market failure of denial of access and not monopoly pricing.⁶² Depending on the interpretation of the coverage criteria,⁶³ to the extent that monopoly pricing existed on a pipeline but not denial of access, then the pipeline may not be covered by regulation, despite the inefficiencies that arise from monopoly pricing. The ACCC found that monopoly pricing was pervasive on transmission pipelines, unconstrained by competitive forces or economic regulation, with detrimental effects on economic efficiency and the long term interest of consumers.⁶⁴ Consequently, the ACCC recommended that the coverage test be changed so that it directly assessed the issue monopoly pricing.

⁶² ACCC, *Inquiry into the east coast gas market*, April 2016, pp. 129-130.

⁶³ See Box 3.4 for further details.

⁶⁴ ACCC, *Inquiry into the east coast gas market*, April 2016, pp. 8-12, 121. The ACCC inquiry focussed on transmission pipelines and not distribution pipelines (ACCC, *Inquiry into the east coast gas market*, 2016d., p. 92).

Box 3.3 Denial of access and monopoly pricing

The physical characteristics of gas pipelines means that they exhibit natural monopoly characteristics which can confer market power on gas pipeline owners. This market power can be exploited in a number of ways, including:

- **monopoly pricing** – where an owner of infrastructure, unconstrained by competition, increases prices (or reduces service standards for any given price) to maximise its profits. In turn, this creates the potential for inefficient utilisation of the infrastructure. While this may reduce competition in related markets, this is not necessarily the case, and is not the intent of the infrastructure owner.
- **denial of access** – where an owner of infrastructure denies access to otherwise spare capacity and so gains a competitive advantage in a market upstream or downstream to the infrastructure. It may deny access either by completely refusing to sell access at any price or on any terms, or providing it at a price or level of service which squeezes the profit margins of an access seeking competitor in a related market. While denying access is not profit maximising for a firm within the infrastructure segment of the supply chain (access to the infrastructure could otherwise be sold at the price which profit maximises in that part of the supply chain – as in the case of monopoly pricing), it may be profit maximising for a firm that operates upstream and/or downstream of the infrastructure. This is due to the competitive advantage it derives across the supply chain from limiting pipeline capacity to its potential upstream or downstream competitors, or squeezing their profit margins. Such behaviour can result in inefficient utilisation of the infrastructure (as is the case with monopoly pricing). Additionally, and importantly for the purposes of this discussion, this behaviour reduces economic efficiency by conferring market power in related markets to the infrastructure owner, reducing competition in those markets. Indeed, this is the intent of the infrastructure owner.

Criterion (a) of the coverage determination assesses the impact of competition in related markets - and hence is focused on the issue of denial of access. Monopoly pricing may have no material impact on competition in related markets but could still result in inefficiencies.

Denial of access typically arises in vertically integrated industries – where firms have interests in both the infrastructure and one or more related parts of the supply chain. In contrast, monopoly pricing may arise in any natural monopoly infrastructure:

- a vertically dis-integrated firm (usually) only has interests in the infrastructure segment of the supply chain, meaning that raising prices to profit maximise within that segment is profit maximising for the firm as a whole, although
- a vertically integrated firm would seek to maximise profits across the value chain, weighing up whether the monopoly profits to be made from providing access at monopoly prices are greater or less than the profits to be

made from denying access and improving its competitive position in related markets.

Given that gas pipelines in Australia are typically vertically dis-integrated (that is, their owners are usually not also gas producers, retailers or consumers), the more likely market failure to occur in the pipeline sector is monopoly pricing. As noted above, monopoly pricing may not result in a reduction in competition in related markets, and hence pipelines undertaking monopoly pricing may not be covered, despite the inefficiencies that may arise as a result.⁶⁵

As part of its review of east coast gas markets and pipeline frameworks the AEMC concurred with the ACCC's view.⁶⁶ Submissions to this current review have also made similar comments.⁶⁷

As a consequence of the ACCC's findings, Dr Vertigan was engaged by the COAG Energy Council to undertake an examination of test for the regulation of gas pipelines. Dr Vertigan agreed that while the market failure of denial of access is not a significant issue, it is clear that gas pipelines have natural monopoly characteristics creating a high barrier to entry for prospective competitors, in turn translating to market power, monopoly pricing and the prospect of inefficient outcomes.⁶⁸

In order to address the issues identified by the ACCC, Dr Vertigan recommended that the coverage test be retained in its current form, but instead that:⁶⁹

- the disclosure and transparency of pipeline service pricing and contract terms and conditions be enhanced, including requiring the provision of information on the full range of pipeline services which are available or sought
- a framework for binding arbitration, available to all open access pipelines in the event parties are unable to reach a commercial agreement, be introduced into the NGL
- the appropriateness of amending the coverage test should be reviewed within five years after the arbitration framework is operational.

Dr Vertigan considered this was appropriate because compared to a change to the coverage determination (which may result in more pipelines subject to full or light regulation), the proposed information and arbitration regime would reduce the regulatory burden, avoid the time, cost and uncertainty associated with the existing regulatory processes and avoid any 'chilling' effect on investment.⁷⁰

65 For a more detailed discussion see ACCC, *Inquiry into the east coast gas market*, 2016, Chapter 6; Incenta Economic Consulting, *Assessment of the coverage criteria for the gas pipeline access regime*, September 2015 (available from AEMC website).

66 AEMC, *East coast wholesale gas markets and pipeline frameworks review*, stage 2 final report, p. 112.

67 For example, Major Energy Users, submission to the issues paper, p. 6.

68 Dr Vertigan, *Examination of the current test for the regulation of gas pipelines*, August 2017, pp. 9-13.

69 Dr Vertigan, *Examination of the current test for the regulation of gas pipelines*, August 2017, pp. 14-16.

70 Dr Vertigan, *Examination of the current test for the regulation of gas pipelines*, August 2017, p. 16.

In December 2016 the COAG Energy Council agreed to Dr Vertigan's recommendations, but in implementing the necessary changes to the NGL made a number of amendments to Dr Vertigan's recommendations which are pertinent to this discussion:⁷¹

- Dr Vertigan's recommended the new information disclosure and a binding arbitration regime be made available to all open access pipelines. However, Chapter 6A of the NGL which enables the recommendations only applies to non-scheme pipelines. Non-scheme pipelines are defined through the introduction of Chapter 6A as pipelines which are neither covered pipelines (including those greenfields pipelines which have been granted a 15 year no-coverage exemption) nor an international pipeline to which a price regulation exemption applies.
- The COAG Energy Council intends to undertake a review of Part 23 in 2019. The exact scope, timing and governance of that review are yet to be determined.

3.3.2 Conclusions

The introduction of the access regime for non-scheme pipelines (Chapter 6A of the NGL and Part 23 of the NGR) appears to have addressed a problem with the framework as it was: the market failure of monopoly pricing, as distinct from denial of access, was not considered when determining whether to regulate a pipeline. The result of the introduction of the access regime for non-scheme pipelines is that most pipelines are subject to some form of economic regulation—either full or light if covered, or under Part 23 if uncovered.

The only pipelines which are not subject to any economic regulation are those that do not deny access (and hence do not meet the coverage criteria) and also do not provide third party access and so by definition do not engage in monopoly pricing. Indeed, the GMRG's rationale for why an exemption to Part 23 is available for pipelines that do not provide third party access is that the coverage determination process is the appropriate path to test whether regulation should apply to these pipelines.⁷² The AEMC has also concluded that pipelines which do not provide third party access (and so cannot be monopoly pricing) and which have not been found to be denying access should not be subject to economic regulation.

3.4 Risk of under-regulation of pipelines

3.4.1 Commission analysis

As with the decision about which broad form of regulation should apply, which specific form of regulation should apply within the negotiate-arbitrate genre should also be a function of the extent of market power that can be exercised by the pipeline owner and the direct and indirect cost of each form of regulation.

⁷¹ *National Gas (South Australia) (Pipelines Access – Arbitration) Amendment Act 2017.*

⁷² GMRG, *Gas pipeline information disclosure and arbitration framework*, final design recommendations, June 2017 p. 52.

However, the current tests which determine which form of regulation applies do not expressly consider this trade-off. As a result, there is the possibility that an inappropriate form of regulation may be applied to some pipelines.

The introduction of Chapter 6A of the NGL means 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). However, the wording of the test is unchanged despite the change in outcomes of the test. 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.

The Commission is not in a position to state whether an inappropriate form of regulation is being, or would be, applied in practice. This would require a detailed analysis of the nature and extent of the potential market failures on each pipeline. Indeed, a different, more appropriate test for determining which form of regulation should apply would be the mechanism through which such an assessment would be undertaken.

While over- or under-regulation may in practice be applied on a case-by-case basis depending on the outcomes of a coverage determination, there is reason to believe there may be a risk of a reduced application of full regulation with some pipelines moving to regulation under Part 23 (that is, for the "strength" of regulation to decrease, potentially leading to under-regulation of some pipelines).

This risk arises because the introduction of Part 23 may have had the inadvertent effect of making the coverage determination "harder" to satisfy, that is, fewer pipelines covered and subject to full regulation and more pipelines subject to regulation under Part 23.

Criterion (a) of the coverage test (which must be met for coverage to be applied) is that access (or increased access) to pipeline services provided by means of the pipeline would promote a material increase in competition in a related market. Interpretation of criterion (a) as part of the national access regime has been the subject of substantial debate and disagreement (see box 3.4). Subject to the discussion in Box 3.4:

- Prior to the introduction of Part 23, the coverage determination might have assessed the increase in the level of competition in related markets under the status quo (that is, regulated or not regulated) compared to the counterfactual (of not regulated or regulated, respectively). This is known as a "with-or-without regulation" test.
- Now, following the introduction of Part 23, the status of being uncovered has changed. The coverage determination may now assess the relative levels of competition in related markets with regulation under Part 23 on the one hand and regulation under Parts 8 to 12 on the other. It is possible that this could raise the bar for obtaining coverage because the difference between the status quo and the counterfactual has been reduced, meaning that the increase in competition in a related market (the subject of the coverage criterion) may also be reduced.

A consequence of this could be an inadvertent (and potentially inappropriate) reduction in the number of fully regulated pipelines. New pipelines may be less likely to be covered (upon application), while existing pipelines subject to full regulation could, conceivably, apply for the coverage determination to be (re)applied given the new counterfactual of regulation under Part 23 is now the alternative to coverage.

Consideration of this issue is somewhat speculative. It is a matter for the relevant minister to determine how to apply the coverage criteria on the advice of the NCC, with the courts being the final decision maker, were this matter to be taken to judicial review. Nevertheless, there is the prospect, at least in theory, that coverage (and the application of full or light regulation) is less likely for a given pipeline as a consequence of the introduction of the access regime for non-scheme pipelines.

Additionally, PIAC raised the concern that it is not in retailers' interest to seek full regulation, because they prefer a lower level of regulation with less transparency. PIAC suggests that this enables retailers to not pass through any benefits of lower negotiated prices to end consumers. PIAC is concerned that this has led to the inappropriate application of light regulation, because the NCC, in making its light regulation determination, is not adequately informed of the countervailing arguments against the application of light regulation.⁷³

This may particularly be the case if the coverage criteria in the NGL are aligned to the declaration criteria in the national access regime, for reasons discussed in Box 3.4 below.

⁷³ PIAC, submission to the issues paper, pp. 12-14.

Box 3.4 Interpreting "access" in criterion (a)

The above discussion is further complicated by various interpretations of "access (or increased access)" within criterion (a) of the coverage criteria in s. 15 of the NGL and recent changes to the national access regime (Part IIIA of the Competition and Consumer Act 2010) in this regard.

Criterion (a) in the national access regime was initially interpreted as requiring a test of whether declaration (equivalent to "coverage" in the gas regime) of the facility in question would promote competition in related markets.⁷⁴ That is, it was interpreted as a "with-or-without coverage test".⁷⁵

However, the decision by the Full Federal Court in the Virgin/SACL case marked a significant departure from the interpretation of criterion (a) that had previously been adopted by the Tribunal.⁷⁶ The Court was of the view that the word "access" should be read according to its ordinary meaning and not as "declaration under" the access regime. That is, it could be described as a question of whether any use of the facility in question was necessary for competition in the related market – whether the imposition of regulation had any discernible effect on the level of competition in related markets was irrelevant.⁷⁷ Put another way, the two things being compared were not the status quo and the counterfactual as a result of a change to the declaration status of the facility, but instead two potentially hypothetical scenarios: one where no access is provided compared to one where some access is provided. This is known as a "with-or-without access test". This interpretation was recently confirmed by the Federal Court in the Port of Newcastle/Glencore case.⁷⁸

Under this interpretation, the hurdle for coverage is likely to be lower. This is because instead of taking into account the level of access currently being provided, the test considers the hypothetical scenario⁷⁹ where no access is provided at all. Put another way, the difference between the level of competition in related markets in the hypothetical "no access" scenario and the "some access" scenario is likely to be greater than the difference between the level of competition in the coverage scenario versus no-coverage scenario.

Recently, and consistent with the recommendations of both the Productivity

⁷⁴ Incenta Economic Consulting, *Assessment of the coverage criteria for the gas pipeline access regime*, September 2015, p. 4.

⁷⁵ A "with-or-without coverage test" is also known interchangeably as a "with-or-without declaration test" or "with-or-without regulation test".

⁷⁶ *Sydney Airport Corporation Limited v Australian Competition Tribunal* [2006] FCAFC 146.

⁷⁷ Incenta Economic Consulting, *Assessment of the coverage criteria for the gas pipeline access regime*, September 2015, p. 4.

⁷⁸ *Port of Newcastle Operations Pty Ltd v Australian Competition Tribunal* [2017] FCAFC 124.

⁷⁹ This scenario is hypothetical in almost all cases in the gas pipeline sector given that the large majority of gas pipelines are vertically dis-integrated and so provide third party access.

Commission,⁸⁰ and the Competition Policy Review (Harper Review)⁸¹, criterion (a) of the declaration test within Part IIIA of the *Competition and Consumer Act* (2010) has been changed to make it clear that the original interpretation of the test should be used.⁸²

While the gas access regime contained in the NGL is a quite separate regime, there has been some suggestion that the gas access regime coverage criteria could be amended to be more consistent with the national regime.⁸³ If that occurred, it would confirm the "with or without coverage" interpretation of the criterion, in turn likely raising the bar for coverage.

The introduction of the access regime for non-scheme pipelines may exacerbate this outcome further because the without-coverage scenario nevertheless involves regulation under Part 23. This is likely to further narrow the difference in competition in related markets between the status quo and counterfactual cases.

Addressing the risk of under-regulation

If it was considered that the risk of under-regulation described above was significant and that changes were warranted, there are a number of possible options to address this issue.

Outlined below is one possible option.

Description of option

This option involves retaining the wording of the coverage determination (although potentially aligning it with that of the national access regime), while changing:

- the pipelines to which the test is applied, so that it is only applied to those pipelines that are likely to engage in denial of access
- the outcomes of the test, so that it determines whether regulation should be applied (at all) in those circumstances.

Chronologically, the first question to ask whether a pipeline provides third party access. If not, the existing coverage criteria would be applied to assess whether this pipeline is denying access, unless the pipeline has been awarded a greenfields 15-year exemption from coverage. If not covered, no regulation would be applied, consistent with the current arrangements where pipelines which are not covered and also do not provide third party access are not regulated, including under Part 23.

If a pipeline does not provide third party access but is found to deny access, or if a pipeline provides third party access, the next step would be to determine which form of regulation should apply. This would apply would be determined through a test analogous to the light regulation determination (that is, based on the form of regulation factors, the relative cost of regulation and the NGO). However, the selection would be

⁸⁰ Productivity Commission, *National access regime inquiry report*, 2013.

⁸¹ Harper et al, *Competition Policy Review*, March 2015.

⁸² *Competition and Consumer Amendment (Competition Policy Review) Act 2017*.

⁸³ For example, Dr Vertigan, *Examination of the current test for the regulation of gas pipelines*, August 2017, p. 16.

from full regulation, light regulation (both suitably amended as per the recommendations throughout this report) and Part 23.

The governance of the test could be the same as the current light regulation determination (an NCC decision). Alternatively, the decision could be made by the relevant minister on the advice of the NCC. As now, tests would only be applied upon application, with the status quo form of regulation remaining in effect until that time.

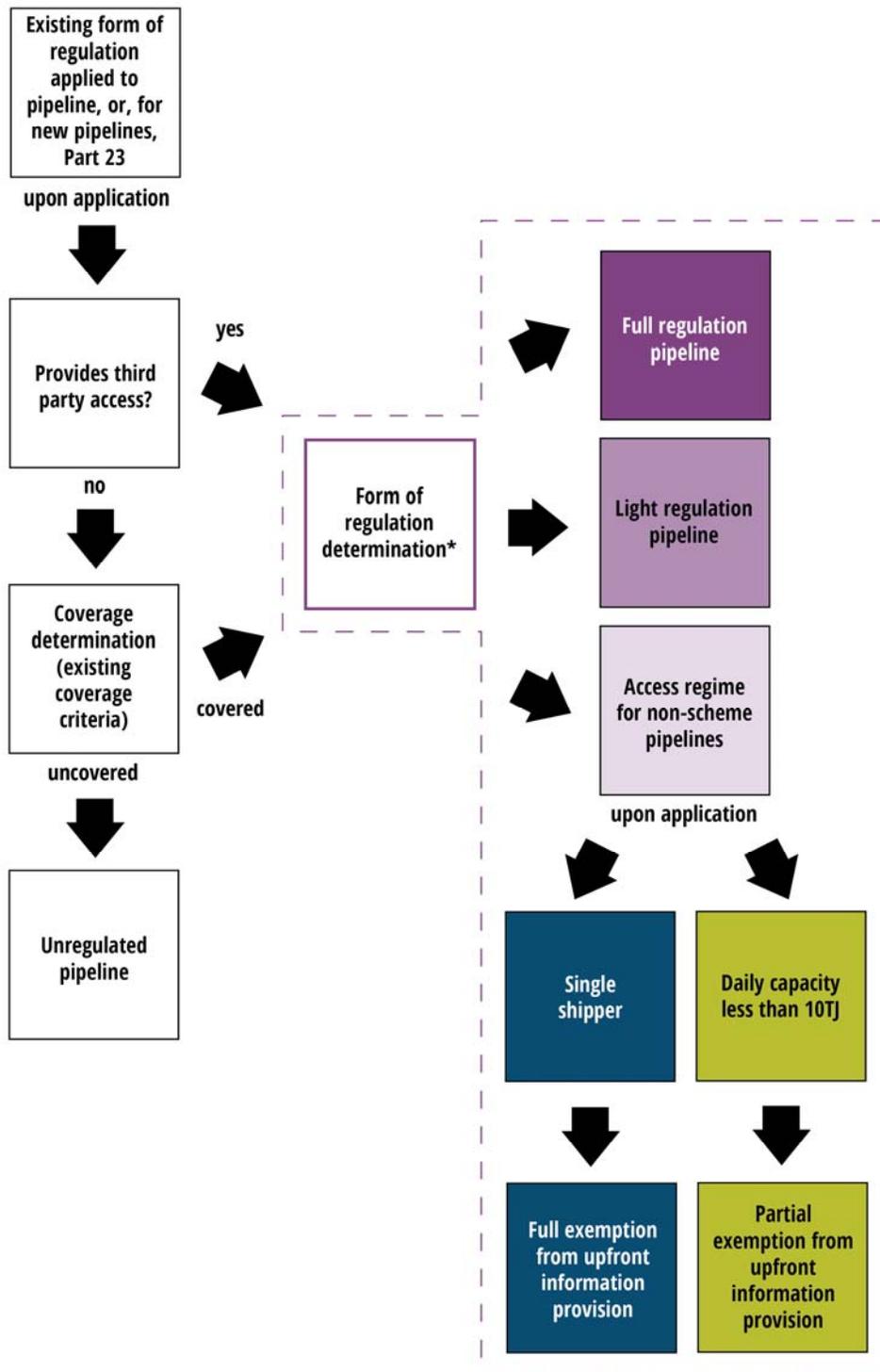
The form of regulation factors and other criteria on which the NCC (or relevant minister) would make its decision would remain unchanged, as these are appropriate criteria on which to determine which form of regulation should apply. The exception to this is the case where a pipeline has been granted a 15-year no coverage exemption (and provides third party access), in which case Part 23 would be applied.

To address any concerns that the NCC is not adequately informed of stakeholder views in making its light regulation determinations, changes could be made to the level of stakeholder engagement that the NCC undertakes for the form of regulation determination under this option.

As currently, the same framework would apply to both distribution and transmission pipelines. Although clearly, the form of regulation which is applied may differ between pipelines, or between distribution and transmission pipelines, as a consequence of the outcomes of the framework).

This option is outlined in Figure 3.3 below:

Figure 3.3 Overview of option for framework for pipeline regulation



* Existing factors from light regulation determination (form of regulation factors, relative cost, NGO)

Note that Figure 3.3 is not intended to be an exhaustive representation of the option. For example, a pipeline may also be able to be covered if deemed a covered pipeline when

the code came into effect, developed through an approved competitive tender process (section 126 of the NGL) or if the service provider submits a voluntary access arrangement to the regulator (section 127 of the NGL). Furthermore, applications could be made for tests to be reapplied so that over time, pipelines could move between forms of regulation.

Benefits of option

This option addresses the concerns raised in the previous section. The form of regulation determination would be used to determine which form of regulation applies, rather than the coverage determination. This reduces the prospect of an inappropriate form of regulation being applied on a case-by-case basis (with a potential bias towards under-regulation) because the test to determine which form of regulation applies (the current coverage determination) may be inappropriate for that purpose. In turn, the prospect of under- or over-regulation is reduced, reducing inefficient use of market power in the case of under-regulation, and inefficient regulatory burden and market distortions in the case of over-regulation.

Additionally, the coverage criteria could be more closely aligned to those of the declaration criteria of the national access regime without exacerbating the risk of under-regulation, as discussed in section 3.4.1.

Importantly, this option does not reintroduce the prospect of no regulation applying in circumstances where this is not currently possible. As now, no regulation would only apply in circumstances where the pipeline does not meet the coverage criteria and does not provide third party access. If the pipeline provides third party access then some form of regulation is applied, including if a greenfields exemption to coverage is in place. This was a deliberate and fundamental aspect of Dr Vertigan's recommendations that have recently been endorsed and implemented by the COAG Energy Council, based on the ACCC's findings of "pervasive" monopoly pricing being undertaken by transmission pipeline owners.⁸⁴ A number of stakeholders concurred that the market power of transmission pipeline service providers was clear, and so that some form of regulation should apply universally.⁸⁵

To maintain consistency with the status quo, Part 23 would automatically apply to a pipeline which has been granted a 15-year no coverage determination.

Costs and potential transitional arrangements

The Commission acknowledges that it may be challenging for the NCC or relevant Minister to assess the extent of market power of a pipeline and determine between an increased number of options of which form of regulation can apply.

Costs and transitional arrangements would have to be carefully considered. To avoid a large amount of work upon making the changes, the existing form of regulation applied to each pipeline would be retained until a coverage determination or form of regulation determination is sought. This would reduce the total workload and may mean that the NCC is only required to make a very small number of decisions. Furthermore, the existing arrangement where new pipelines are by default regulated under Part 23

⁸⁴ ACCC, *Inquiry into the east coast gas market*, April 2016, p. 121.

⁸⁵ Submissions to the issues paper: Central Petroleum, cover letter, p. 1; MEU, pp. 5-6 & 14-15.

would be retained. As a result, decisions regarding the form of regulation would only have to be made for new pipelines upon application.

3.4.2 Conclusions

The existing regime has only been recently amended with the introduction of Part 23 of the NGR, and so the materiality of the issue described above is not yet clear. The Commission considers that while in theory there may be benefits in making a change such as the option described above, evidence of a problem in practice is limited.

The Commission therefore welcomes feedback from stakeholders on whether the issue raised is likely to be material and needs to be addressed as part of this review. To the extent it is considered to be a material issue, the Commission also welcomes comments on whether the option outlined above should be developed further. Feedback is also welcome on alternative options.

The option outlined in this chapter would involve significant changes to the NGL, which may take considerable time to draft and enact. Most of the other changes recommended in this draft report could be implemented more quickly though changes to the NGR, although a number of less significant changes to the NGL may also be required. It is important that the NGR and less substantial NGL changes recommended in the final report of this review be implemented promptly, and that they are not delayed by the consideration and introduction of more substantial NGL changes that would be required to address this issue. If this issue is considered to be material, the Commission will consider in its final report how to progress it without delaying the implementation of the other recommended NGR and NGL changes.

The COAG Energy Council intends for there to be a review of Part 23 in 2019 which may also consider coverage determination issues. To the extent that there is currently insufficient information to determine the materiality of this issue, there may be merit in using this future review (or another suitably timely review) to consider this matter.

Finally, the Commission notes that changes to the coverage criteria to make them more consistent with the national access regime's declaration criteria is likely to exacerbate the issue set out in this section and make its resolution more important and urgent. The Commission cautions against making changes to the coverage criteria to make them more consistent with the those of the national access regime, without also considering more substantial changes to these regulatory decision making arrangements (such as the option outlined in this chapter).

3.5 Inconsistencies and overlap between forms of regulation

3.5.1 Commission analysis

Overlap between light regulation and the access regime for non-scheme pipelines

There are similarities between light regulation and the access regime under Part 23 of the NGR. Both have the key characteristic of being negotiate-arbitrate regimes with information provision requirements. However, they differ substantially in how this key characteristic is applied, as discussed in section 3.1.1.

A number of stakeholders have noted these similarities and raised the question as to whether retaining both is necessary, and whether light regulation should be removed.

Australian Pipelines and Gas Association (APGA), Jemena, AGL, EnergyAustralia, Energy Users Association of Australia (EUAA), PIAC and APA submitted to the issues paper that the apparent (high level) similarity of light regulation and the access regime under Part 23 of the NGR raised the question of why they were both required.⁸⁶

MEU, Hydro Tasmania and the ACCC expressed the view that some of the provisions in Part 23 should also apply to pipelines subject to light and/or full regulation.⁸⁷ In contrast, APGA suggested applying Part 23 provisions to pipelines subject to light and/or full regulation would not be appropriate.⁸⁸

MEU stated that it did not consider that light regulation effectively constrained a service provider's market power. It suggested that light regulation pipelines become subject to full regulation.⁸⁹ PIAC highlighted the importance of determining how pipelines would be transitioned to another form of regulation should light regulation be removed.⁹⁰

There are both advantages and disadvantages to having multiple forms of regulation.

Having a larger number of forms of regulation comes at a cost. It increases complexity and administrative burden for the regulators, service providers, users and prospective users. It would also present a challenge for the relevant decision maker to choose between them in a form of regulation determination, were the option discussed in section 3.4.1 above implemented.

However, there are advantages to having multiple forms of regulation from which to choose. It allows the regulation applied to be fine-tuned to the circumstances in question—allowing for a more precise trade-off between direct and indirect regulatory costs on the one hand and addressing the market failure in question on the other. A number of stakeholders supported this view.⁹¹ Indeed, light regulation was introduced into the gas pipeline regulation regime within the NGL and NGR (in addition to what is now called full regulation) to provide a more ‘fit for purpose’ regulatory approach for some pipelines.⁹²

There are also some elements of light regulation which appear to be more suitable than Part 23 for certain types of pipelines in some circumstances. This includes a number of the arbitration provision requirements and a number of ring-fencing and other additional regulatory requirements discussed in Table 3.1 which do not apply to

⁸⁶ Submissions to the issues paper: APGA, p. 6; Jemena, p. 4; AGL, p. 2; EnergyAustralia, p. 2; EUAA, p. 1; PIAC, p. 4; APA, pp. 39-42.

⁸⁷ Submissions to the issues paper: MEU, p. 17; Hydro Tasmania, p. 2; ACCC, pp. 9-11.

⁸⁸ APGA, submission to the issues paper, p. 9.

⁸⁹ MEU, submission to the issues paper, pp. 16-17.

⁹⁰ PIAC, submission to the issues paper, p. 4.

⁹¹ Submissions to the issues paper: AusNet, p. 3; ENA, pp. 10-11; DBP and AGN, pp. 4 & 12; APGA, p. 6; APA, pp. 39-42.

⁹² *National Gas (South Australia) Bill 2008*, second reading speech, July 2008, p. 7.

non-covered pipelines. Removing light regulation therefore seems to be an inappropriate step, as it is a useful option to have in the regulatory toolkit.

Furthermore, removing light regulation would be complex, with a process required to decide whether existing light regulation pipelines should become subject to full regulation or Part 23. Moving from light to full regulation (without some sort of form of regulation test) would appear to contradict a light regulation determination made by the NCC. Careful consideration would also need to be given to whether it is appropriate to move the existing distribution pipelines subject to light regulation to Part 23. There are also legal limitations on the ability to remove light regulation for Carpentaria Gas Pipeline, which might only be able to be done prior to 2023 through changes to Queensland legislation.⁹³

Therefore the Commission considers that making changes to light regulation to more closely align certain aspects of it with Part 23 is the most appropriate step at this time. This would serve to improve light regulation and also reduce the complexity of the regulatory framework by reducing the differences between different forms of regulation.

Why specific Part 23 features can also be applied to light regulation pipelines is discussed in detail in following chapters. In short:

- A number of the information provision requirements of Part 23 appear to better meet the NGO than those currently required of light regulation pipelines. Changes to light regulation in this regard should be made (see Chapter 7).
- In some circumstances, the arbitration requirements for light regulation pipelines appear to be more suitable for certain types of pipelines than those requirements contained in Part 23. Consequently it is appropriate that some differences in the form of regulation be retained in this regard (see Chapter 8).

For certainty in negotiations and arbitrations, the Commission also recommends that the regulators determine an initial capital base for all light regulation pipelines that do not have such a determination already (see Chapter 6).

Table 3.2 summarises the key differences between light regulation under the Commission's draft recommendations and the access regime for non-scheme pipelines.

⁹³ Section 15A of the *National Gas (Queensland) Act* (2008).

Table 3.2

Key differences between light regulation under draft recommendations and access regime for non-scheme pipelines

	Light regulation under draft recommendations	Access regime for non-scheme pipelines
Information publication and disclosure	Comprehensive information disclosure provisions on usage and financial information.	Comprehensive information disclosure provisions on usage and financial information.
Arbitration	The objective is the NGO.	The objective of Part 23 is to 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 reflect the outcomes of a workably competitive market.
	AER or the Western Australian Energy Disputes Arbitrator is the dispute resolution body and can appoint a dispute resolution expert with a broader role.	In consultation with disputing parties, the scheme administrator (AER or ERA) selects arbitrator from pool of commercial arbitrators as established and maintained by the scheme administrator.
	Pricing and revenue principles refer to efficient costs.	Pricing principles do not expressly reference efficient costs (interpretation will be guided by the objective).
	Capital base valuation method is prescribed as per rule 77 of the NGR, and enables the regulator or dispute resolution body to take previous returns into account.	Expressly requires the arbitrator to take account of past returns in setting the asset values unless it is inconsistent with the objective of Part 23.
	All light regulation pipelines will have initial capital base determinations. The framework will clarify how the dispute resolution body can roll forward the capital base of a light regulation pipeline (if required).	The arbitrator calculates the asset value. The determination is not binding on subsequent arbitrations or arbitrators, including on the same non-scheme pipeline.
	Arbitration hearing may be public, dispute resolution body may hold joint dispute hearings and parties may join existing disputes, confidentiality of material must be claimed, and parties to a dispute must comply with the arbitrator's access determination.	Arbitrator's rulings and access determination are confidential (other than publication of some information after the conclusion of the arbitration proceedings). The scheme administrator may join a party to a dispute if it requires it to do something.
	Fast-tracked dispute resolution process of 50 business days under specified circumstances.	Up to 65 business days or up to 105 business days upon agreement of parties - periods for provision of information by parties or for experts to consider matters are discounted.
Other regulatory requirements	Requirements not to hinder access or price discriminate.	Do not apply.
	Queuing requirements for transmission pipelines (and if required by the regulator for distribution).	
	Structural and operational separation requirements (ring fencing): <ul style="list-style-type: none"> • provision of list of associates of the service provider, including those that provide pipeline services or related services, and associate contracts • keeping separate accounts for each covered pipeline and consolidated business accounts • providing audited financial reports. 	
	Service bundling requirements.	

"Strength" of regulation not successively stronger

The forms of regulation are not, in all respects, progressively more intrusive (with the intent of more substantially addressing the market power of the pipeline service provider). For example, the information provision requirements of Part 23 are more intrusive than those of light regulation, despite light regulation pipelines being covered pipelines.

This could lead to a number of inappropriate outcomes. In particular, some stakeholders have suggested that service providers could "forum shop" by seeking, through the various tests for determining which form of regulation applies, a form of regulation which while notionally stronger is in fact less strong than alternatives.⁹⁴

To address these issues, the Commission has been mindful that the changes to light regulation noted above and discussed in more detail in Chapter 7 should also serve to reduce this "mis-ordering" of regulatory strength. With respect to the information provision requirements, for example, light regulation will become similar to Part 23 with the intent that it is equally effective at balancing the information asymmetry between service providers and users.

By increasing the strength of light regulation, such changes should also serve to address the concern that light regulation is insufficiently strong to address pipeline service provider market power. Nevertheless, it is currently the responsibility of the NCC to determine, upon receiving an application for a light regulation determination, whether full or light regulation is more appropriate for a pipeline.

3.5.2 Conclusions

The Commission concludes that:

- an amended form of light regulation should be retained
- certain aspects of the access regime for non-scheme pipelines (Part 23) can be implemented in the light regulation regime in order to:
 - improve and strengthen light regulation
 - improve the usefulness of light regulation pipeline information for users negotiating services on those pipelines
 - more closely align light regulation with the access regime for non-scheme pipelines, in order to reduce the frameworks' complexity
 - allow for the "strength" of each form of regulation to become the same or stronger when progressing from Part 23 to light regulation to full regulation.

⁹⁴ Hydro Tasmania, submission to issues paper, p. 2.

3.6 Extensions and expansions

3.6.1 Current framework

Expansions are augmentations of a pipeline's capacity that are achieved through the addition of compressors or loops.⁹⁵ In contrast, extensions of a pipeline increase the geographic range of the pipeline, but not always the capacity of the original pipeline. A lateral which connects to the original pipeline would be an extension. A lateral that connects to the original pipeline but is not owned by the original pipeline service provider is not an extension but a separate pipeline, and would be treated as such for regulatory purposes.

The regulatory framework for expansions and extensions currently depends on the form of regulation that applies to the original pipeline that is being extended or expanded. This section discusses the approach to extensions and expansions under each form of regulation below. Table 3.3 provides a summary.

Section 18 of the NGL states that an expansion or extension to a covered pipeline must be taken to be part of a covered pipeline if the extension and expansion requirements in an access arrangement will apply to services provided by means of the covered pipeline as extended or expanded. For light regulation pipelines that do not have a limited access arrangement, s. 19 of the NGL states that an extension or expansion of the light regulation pipeline must be taken to be part of the covered pipeline unless the AER determines otherwise in writing.

The NGR require a full access arrangement (rule 48) and a limited access arrangement for a light regulation pipeline (rule 45) to include extension and expansion requirements.⁹⁶ Rule 104 of the NGR states that the extension and expansion requirements:

- may state whether the applicable access arrangement will apply to services to be provided as a result of an extension to, or an expansion of the capacity of, the pipeline
- may outline the basis to later determine whether the applicable full access arrangement will apply to services to be provided as a result of a pipeline extension or expansion
- for a full access arrangement, must specify the impact on tariffs in cases where the access arrangement applies to incremental services as a result of an extension or expansion.

Under s. 18, the service provider has the ability to propose an approach in the access arrangement, but the regulator approves the access arrangement, and can therefore, reject the proposed approach and make an alternative decision as part of its decision on the access arrangement. Under s. 19, the starting point is coverage, but the regulator may still decide otherwise.

⁹⁵ Compressor pumps that increase gas pressure on their output side. Loops are extra sections of pipe that are added in parallel to existing sections.

⁹⁶ The definition of 'extension and expansion requirements' is set out in s. 2 of the NGL.

For the purposes of regulation, extensions and expansions not included in an access arrangement (either full or limited), will not be covered pipelines and therefore, are non-scheme pipelines. Thus Part 23 of the NGR will apply, subject to the exemption criteria.

Part 23 applies to non-scheme pipelines. Therefore, an extension or expansion to a non-scheme pipeline will themselves be non-scheme pipelines and therefore be subject to Part 23 (unless an exemption is granted).

Table 3.3 summarises the current regulatory approach to expansions and extensions. For those expansion and extensions that are uncovered, any person can apply to the NCC for the uncovered part of the pipeline to be covered. The Minister would apply the coverage criteria to determine coverage of that part of the pipeline on the advice of the NCC (see section 3.1).

Table 3.3 Current approach to expansions and extensions

Form of regulation applied to pipeline	Coverage of expansion	Coverage of extension
Full regulation Light regulation - with limited access arrangement ^a	The regulator determines if an access arrangement applies to the services provided by an expansion. If the access arrangement applies, then the expansion is part of the covered pipeline and the same form of regulation will apply to it (s. 18 of the NGL). Otherwise, Part 23 applies to the expansion.	The regulator determines if an access arrangement applies to the services provided by an extension. If the access arrangement applies, then the extension is part of the covered pipeline and the same form of regulation will apply to it (s. 18 of the NGR). Otherwise, Part 23 applies to the extension.
Light regulation - no limited access arrangement	An expansion is included as part of the covered pipeline and light regulation will apply to those services unless the regulator determines otherwise. (s. 19 of the NGL)	An extension is included as part of the covered pipeline and light regulation will apply to those services unless the regulator determines otherwise. (s. 19 of the NGL)
Non-scheme pipeline	Part 23 also applies to expansions of the pipeline.	Part 23 also applies to extensions of the pipeline.

Note: None of the service providers of light regulation pipelines have submitted a limited access arrangement under rule 45 of the NGR.

3.6.2 Commission analysis

Discretion

The discretion allowed under the NGR, discussed in section 3.1.2, has led to inconsistent treatment of capacity and assets that are linked to extensions and expansions. In some cases, this has resulted in part of the capacity of a covered pipeline being uncovered. For example:

- In the current Central Ranges Pipeline access arrangement, the service provider has the discretion to exclude extensions or expansions from being part of the covered pipeline.⁹⁷
- In the current Roma to Brisbane Pipeline access arrangement:⁹⁸

⁹⁷ Access Arrangement for Central Ranges Pipeline, November 2005, p. 28.

- the service provider will seek a regulatory determination on proposals to cover extensions that are not already forecast and approved in the access arrangement
- expansions will be covered by default, however the service provider can seek a regulatory determination on a proposal that an expansion not form part of the covered pipeline.
- The Goldfields Gas Pipeline has 46 per cent of the pipeline capacity uncovered⁹⁹ and one of the six extensions (the Newman lateral) is part of the covered pipeline.

In the cases where the discretion on the regulatory treatment of expansions has resulted in part of the capacity of a covered pipeline being uncovered:

- The service provider may have market power to monopoly price the uncovered capacity. This concern was expressed by the ACCC, which considered that pipeline service providers may be able to engage in monopoly pricing on the expanded capacity in a relatively unconstrained manner.¹⁰⁰ The ERA concluded this to be the case for the Goldfields Gas Pipeline.¹⁰¹
- The reference tariff may include costs associated with the uncovered capacity. Having uncovered capacity on a full regulation pipeline makes cost allocation more complex and could result in users paying for costs which are not relevant to the services they use. In addition, the current cost allocation rules are ambiguous in providing guidance on how to allocate costs between covered and uncovered capacity of a pipeline. This issue is discussed in Chapter 6.
- Regulation is more complex. Having covered and uncovered parts of a pipeline will have the effect that a single pipeline will be required to comply with two regulatory regimes, as the uncovered part of the pipeline will be subject to Part 23 of the NGR. An example of the increased complexity is that service providers have made the case that they are unable to provide key performance indicators (KPIs) because they are unable to split out the performance of the covered part of the pipeline separately from the uncovered part.¹⁰²

The issues associated with the discretion afforded by the NGR have to date been limited to full regulation contract carriage transmission pipelines.

Expansions

The AER and ACCC are of the view that all expansions of a covered pipeline should automatically become part of the covered pipeline.¹⁰³ The ACCC noted that in its view there was no effective competition for the provision of expanded capacity on an existing

⁹⁸ Access Arrangement for Roma Brisbane Pipeline, August 2012, pp. 32-33.

⁹⁹ ERA, Final decision on proposed revisions to the access arrangement for the Goldfields Gas Pipeline, June 2016, p. 5.

¹⁰⁰ ACCC, *Inquiry into the east coast gas market*, April 2016, p. 135.

¹⁰¹ ERA, *Final decision on proposed revision to the access arrangement for the Goldfields Gas Pipeline*, as amended on 21 July 2016, pp. 430-431, 517.

¹⁰² See for example, ERA *Final decision on proposed revisions to the access arrangement for the Goldfields Gas Pipeline*, 21 July 2016, pp. 67-69.

¹⁰³ Submissions to the issues paper: AER, p.14; ACCC, p. 9.

pipeline. However, DBP and AGN, APGA and APA were supportive of the status quo because they believe regulators have sufficient discretion to require an access arrangement to appropriately deal with extensions and expansions.¹⁰⁴ Moreover, the ERA considers that default coverage of expansions in the capacity of the covered pipeline is appropriate so that that investment decisions improve the efficient provision of services in the long term interests of consumers as consistent with the NGO.¹⁰⁵

A service provider is able to benefit from market power over both the existing covered pipeline and the expansion. This is due to the expansion facing substantially the same market landscape as the pipeline itself as it will enjoy similar barriers to entry and similar potential competitors. As discussed above, there are additional regulatory costs and complexity from having the same pipeline subject to different regulatory requirements (that is an access arrangement for the original pipeline and Part 23 for the uncovered expansion).

Therefore, the Commission has concluded that if a pipeline is covered, then an expansion of that pipeline should be covered to prevent any market power being used to monopoly price the services provided by the expansion. This approach will prevent expansions being excluded from full and limited access arrangements and so avoid the added costs and complexity of having parts of the same pipeline being subject to an access arrangement and Part 23.

The Commission has also assessed the specific case where expansions are required as a result of an extension to a pipeline. For example, where an extension was being developed to provide gas transmission to a new customer which, as a result, required an expansion of the original pipeline to allow delivery of the new gas. The Commission's conclusions under such a scenario do not change. There are no alternatives to acquiring the additional capacity from the original pipeline and therefore the service provider will have the ability and incentive to monopoly price.

The draft recommendation is summarised in Table 3.4.

¹⁰⁴ Submissions to the issues paper: DBP and AGN, p. 9; APGA, p. 8; APA, p. 21.

¹⁰⁵ ERA, *Final decision on proposed revisions to the access arrangement for the Goldfields Gas Pipeline*, 21 July 2016, p. 517.

Table 3.4 Draft recommended approach for expansions

Form of regulation applied to pipeline	Coverage of existing expansion	Coverage of new expansion
Full regulation Light regulation - with limited access arrangement	An existing expansion included in the current access arrangement will remain included and be treated as part of the covered pipeline. The form of regulation applied to the pipeline applies to the expansion. An existing expansion that is not included in the current access arrangement will be included in the access arrangement from the next access arrangement period. The expansion will be treated as part of the covered pipeline and the form of regulation applied to the pipeline will apply to the expansion.	A new expansion will be included in the access arrangement of the relevant pipeline and be treated as part of that covered pipeline. The form of regulation applied to the pipeline will apply to the expansion.
Light regulation - no limited access arrangement	An existing expansion that is treated as part of the covered pipeline will remain treated as part of that pipeline. Light regulation applies to the expansion. An existing expansion that the regulator has determined to not be treated as part of the covered pipeline will be treated as part of that pipeline. Light regulation will then apply to the expansion.	A new expansion will be treated as part of the covered pipeline and light regulation will apply to that expansion.
Non-scheme pipeline	Part 23 applies to existing expansions of the pipeline.	Part 23 applies to new expansions of the pipeline.

As shown in Table 3.4, all expansions to a covered pipeline are to be included in the relevant access arrangement: the regulator’s discretion to not include an expansion in a covered light regulation pipeline is to be removed. The new approach should be transitioned in over a period of time. That is, access arrangements will not be reopened during the current access arrangement period. Instead, the changes will be implemented the next time that an access arrangement is revised so that:

- all future expansions will be included in the access arrangement
- existing expansions that are not included in the existing access arrangement, will be included in the next revision of the access arrangement.

The appropriate approach to ensuring any expansions that have been excluded from a covered light regulation pipeline become covered will be specific to individual pipelines.

The approach set out in Table 3.4 will mean that during the current access arrangement periods, the differential treatment between pipeline assets will continue. However, this transitional approach has the advantage of avoiding the regulatory burden of re-opening existing access arrangements before their next scheduled review date, and

allows service providers to prepare for the new regulatory arrangements. These changes will require amendments to the NGR and NGL (possibly encompassing rules 45, 48 and 104 of the NGR and ss. 18 and 19 of the NGL). The approaches to valuation and including existing expansions into the capital base are discussed in Chapter 6.

Extensions

The application of an access arrangement to extensions is more complex. A pipeline extension may face a different market landscape than the pipeline itself. For example, the original pipeline may transport gas to a town with a variety of end users but an extension may be built to service a gas fired generator or mine. As a result, the pipeline and the extension may have different degrees of market power, different risks reflecting the different end use customers, different vertical integration issues and potentially different competitors. Alternatively, an extension may face the same market landscape as the original covered pipeline. For example, an extension to a new site of an existing customer for which there was no competition from other parties or from self-supply would enjoy the same market power as the original pipeline. In this scenario, inclusion in the same access arrangement would be appropriate.

Accordingly, the Commission has concluded that the question of whether an extension should be included in a pipeline's access arrangement should continue to be resolved on a case by case basis. That is, for extensions that are not currently covered, and for future extensions, there should be two options available:

- the service provider can propose to include the extension as part of the covered pipeline at the time the access arrangement is next revised¹⁰⁶
- if an extension is not included in the access arrangement, then a third party can submit to the NCC an application for coverage for the extension. If covered, a form of regulation test could then determine which form of regulation should apply.¹⁰⁷

The recommended approach for extensions is summarised in Table 3.5.

¹⁰⁶ While an existing extension can be added to an access arrangement, the NGR only allows capital expenditure from the current access arrangement period to be added to the capital base. Changes to the NGR will be required to allow older capital expenditure to be added to the capital base. These changes are discussed in Chapter 6.

¹⁰⁷ This option is currently available. It does not require a change to the NGR or NGL.

Table 3.5 Draft recommended approach for extensions

Form of regulation applied to pipeline	Coverage of existing extension	Coverage of new extension
<p>Full regulation Light regulation - with limited access arrangement</p>	<p>An existing extension included in the current access arrangement will remain included and be treated as part of the covered pipeline. The form of regulation applied to the pipeline applies to the extension.</p> <p>An existing extension that is not included in the current access arrangement:</p> <ul style="list-style-type: none"> • may be included in the access arrangement from the next access arrangement period if sought by the service provider and approved by the regulator. The form of regulation applied to the pipeline will apply to the extension. • may become a covered pipeline as the result of a successful coverage application by the service provider or a third party. 	<p>A new extension:</p> <ul style="list-style-type: none"> • may be included in the access arrangement if sought by the service provider and approved by the regulator. The form of regulation applied to the pipeline will apply to the extension. • may become a covered pipeline as the result of a successful coverage application by the service provider or a third party.
<p>Light regulation - no limited access arrangement</p>	<p>An existing extension that is treated as part of the covered pipeline will remain treated as part of that pipeline. Light regulation applies to the extension.</p> <p>An existing extension that the regulator has determined to not be treated as part of the covered pipeline will remain as such.</p>	<p>A new extension will be treated as part of the covered pipeline and light regulation will apply to that extension, unless the regulator determines that the extension should not be part of the covered pipeline.</p>
<p>Non-scheme pipeline</p>	<p>Part 23 applies to existing extensions of the pipeline.</p>	<p>Part 23 applies to new extensions of the pipeline.</p>

3.6.3 Draft recommendations

Draft recommendation 1: Include all expansions in an access arrangement

That the NGR be amended such that:

- all future expansions be included in access arrangements
- an existing expansion that is not included in the existing access arrangement must be included in the access arrangement at the next access arrangement revision.

Draft recommendation 2: Remove regulator’s discretion to exclude an expansion from light regulation

That the framework be amended such that:

- the regulator’s discretion to exclude an expansion from a light regulation pipeline under s. 19 of the NGL be removed
- expansions that have been excluded from a light regulation pipeline without a limited access arrangement are to be treated as part of that pipeline.

Draft recommendation 3: Enable existing extensions to be included in access arrangements

That the NGR be amended to permit a service provider to seek an existing extension to a scheme pipeline be included in the relevant access arrangement. This option is to be available at the next access arrangement revision.

4 Reference services

Summary of findings and draft recommendations

Reference services are the cornerstone of full access arrangements, which are the defining feature of the economic regulatory framework for full regulation pipelines under the NGL and NGR. Tariff and non-tariff terms and conditions of access to all services on full regulation pipelines are regulated by reference to reference services.

Determining the appropriate number of reference services, and what those reference services should be, is a trade-off between:

- The benefits that reference services provide to prospective users. A reference service acts as an aid to the negotiation process, by narrowing the points of contention and providing greater predictability of the outcomes of any arbitration. In turn, this should constrain the market power of a service provider in its negotiations, reduce the prospect of negotiation leading to arbitration, and reduce the cost of arbitration in the event that it is necessary.
- The cost and regulatory burden of ex ante determining reference services and corresponding reference tariff and non-tariff terms and conditions (for service providers, the regulator and other stakeholders through the access arrangement assessment process).

However, the NGR are not explicitly worded for the regulator to make the above trade-off in determining the number and type of reference services. Consequently, the test for specifying pipeline services as reference services should be changed so that a number of criteria that reflect the above trade-off would be used by the regulator to determine reference services.

The Commission has also found that there are a number of ambiguities in the definition of pipeline services, reference services and the intent of related provisions. The Commission recommends changes to reduce these ambiguities.

Finally, the Commission considers that the current access arrangement process does not provide sufficient time to consider, consult and determine reference services. Consequently, a new reference service setting process should be introduced. This aims to improve the prospect of the regulator determining the appropriate number and type of reference services, and better enable pipeline users (who are the users of reference services) to inform the process.

The reference service is the cornerstone of the full access arrangement, which is the defining feature of the economic regulatory framework for full regulation pipelines under the NGL and NGR. The reference service performs the following functions:

- statement of reference service sets the parameters of the service and is the starting point of the access arrangement, and this is covered in this chapter
- reference services provide the basis for full access arrangement tariff and non-tariff reference terms and conditions (Chapter 5), efficient cost and revenue requirements and cost allocation (Chapter 6)
- full access arrangements aid negotiations (Chapter 7) and arbitration (Chapter 8).

This chapter sets out the current framework, discusses key issues and makes draft recommendations with regard to the:

- approach to determining reference services
- process for determining reference services.

4.1 Approach to determining reference services

4.1.1 Current framework

Reference services and full access arrangements are the defining feature of full regulation under the NGL and NGR. Pipelines subject to light regulation or the access regime for non-scheme pipelines do not have reference services. For each reference service on a full regulation pipeline, a reference tariff and reference terms and conditions are approved by the regulator, and set out in the full access arrangement.

Section 2 of the NGL defines a reference service as:

“a pipeline service specified by, or determined or approved by the AER under, the Rules as a reference service.”

Section 2 of the NGL defines a pipeline service as follows:

“pipeline service means –

(a) a service provided by means of a pipeline, including –

(i) a haulage service (such as firm haulage, interruptible haulage, spot haulage and backhaul); and

(ii) a service providing for, or facilitating, the interconnection of pipelines; and

(b) a service ancillary to the provision of a service referred to in paragraph (a), but does not include the production, sale or purchase of natural gas or processable gas”

Rule 48 of the NGR states that:

“(1) A full access arrangement must: ...

(a) describe the pipeline services the service provider proposes to offer to provide by means of the pipeline; and

(b) specify the reference services; and

- (c) specify for each reference service
- (d) the reference tariff; and
- (e) the other terms and conditions on which the reference service will be provided.”

In addition, rule 101 of the NGR states that a full access arrangement must contain a statement of reference services, and provides the basis on which reference services are determined in full access arrangements:

- “(1) A full access arrangement must specify as a reference service:
 - (a) at least one pipeline service that is likely to be sought by a significant part of the market; and
 - (b) any other pipeline service that is likely to be sought by a significant part of the market and which the AER considers should be specified as a reference service.
- (2) In deciding whether to specify a pipeline service as a reference service, the AER must take into account the revenue and pricing principles.”

It should be noted that service providers and users are not limited to contracting only for a reference service. Section 322 of the NGL states that a service provider can enter into an access agreement with a user or prospective user under terms and conditions that are different from the applicable access arrangement.

4.1.2 Commission analysis

Policy intent of reference services

As discussed in Chapter 3, a prospective user that seeks the reference service at the reference terms and conditions can refer to the reference tariff in access negotiations. Consequently, a reference tariff directly constrains the market power of a service provider in the provision of the reference service. Moreover, the determination of a reference tariff through a transparent access arrangement process by a regulator is intended to assist parties that are seeking access to the reference service or similar services in negotiation and arbitration.

A reference service defines a specific service offered by a pipeline owner, in respect of which the regulator has approved tariffs, terms and conditions. Subject to capacity constraints, a pipeline service provider must offer its reference services to any user or prospective user. The user can accept the reference service and reference tariff and non-tariff terms and conditions, or negotiate for different services, tariff and non-tariff terms and conditions.

The access arrangement provides a starting point for negotiation and arbitration:

- If access negotiations for a reference service fail and dispute resolution follows, then s. 189 of the NGL requires that the access arrangement applies.¹⁰⁸

¹⁰⁸ Section 189 of the NGL states the dispute resolution body must give effect to the access arrangement when making an access determination.

- In the case that a prospective user seeks a service that differs only slightly from the reference service, then the reference service would provide a good basis for the negotiation process. In this case, an arbitrator may only need to determine the marginal cost of the change to the non-tariff terms and conditions - as opposed to determining the appropriate tariff from first principles.¹⁰⁹
- In the case that a prospective user seeks a service that differs substantially from the reference service, then the reference service may provide only limited information to the negotiation process. Consequently, there would be greater uncertainty in both the negotiation and arbitration processes.

Understood in this light, not all services in which a service provider may have market power have to be reference services.¹¹⁰ A reference service acts as an aid to the negotiation process, by narrowing the points of contention and providing greater predictability of the outcomes of any arbitration. In turn, this should reduce the prospect of negotiation leading to arbitration, and reduce the cost of arbitration in the event that it is necessary. Services that are not reference services (including all services on light regulation pipelines) are still subject to economic regulation through information provision and binding arbitration (if required).

Definition of pipeline services and reference services

The definition of pipeline services in the NGL¹¹¹ and the description of pipeline services in an access arrangement in the NGR¹¹² could be interpreted by a service provider in one of two ways:

- that the access arrangement needs only to include a description of the services that the pipeline proposes to offer
- that the access arrangement should set out a list of all of the services that the pipeline offers or can offer and that a user or prospective user can seek access to.

This suggests that different levels of specificity used in describing pipeline services in an access arrangement may equally satisfy the requirements of the NGR. For example, a pipeline service could be described or identified:

- relatively broadly, such as firm forward haul, or
- more specifically, such as firm forward haul between points A and B.

The AER and ERA have indicated in discussions with the AEMC that covered pipeline service providers tend to only provide a general description of services on the pipeline as part of an access arrangement proposal. Service providers have not provided a more fulsome list of pipeline services in response to rule 48. Additionally, the regulators themselves have not required such a list from service providers.

¹⁰⁹ The service provider may still decide to offer the service at a tariff equal to the reference tariff under some minor variations to the reference terms and conditions.

¹¹⁰ Rule 101 of the NGR only requires “at least one” reference service to be specified in the access arrangement. The regulator has full discretion (noting the significant part of the market test) to require that the service provider specify more reference services.

¹¹¹ Section 2 of the NGL.

¹¹² Rule 48 of the NGR.

As noted above, the NGR require a reference service to be a pipeline service that is likely to be sought by a significant part of the market.¹¹³ Under the current framework, if a pipeline service is broadly defined (for example, firm forward haul), then it is not clear how a reference service should be subsequently described or identified so that it is relevant to contract negotiations. One option may be that a reference service is to be a specific service within the broadly defined pipeline service (suggesting that pipeline service is more like a type of service). Another option would be that the pipeline service and reference service are the same service. In this case, if a relatively broadly defined pipeline service is likely to be sought by a significant part of the market, then this may be specified as a reference service. As such, a pipeline service and reference service may not be distinguishable (except that a pipeline service is only specified as a reference service if likely to be sought by a significant part of the market). However, this outcome raises the question of whether a reference service defined or described in a broad way is a useful reference point for contract negotiations.

In considering which of these options is more appropriate, it should be noted that the NGR do not:

- set out the purpose of the reference service, in order to better guide the service provider and regulator on identifying which pipeline services should be reference services
- distinguish the statement or identification of what a reference service is from the more detailed terms and conditions on which the service is provided.

Rule 101 of the NGR requires a 'statement of reference service' without clarifying what is to be included in such a statement, nor its purpose. For example, it is not clear whether the detail of entry and delivery points is part of the statement of a reference service or a term and condition relevant to the reference service.¹¹⁴

All of these elements indicate that overall, there is currently a lack of clarity and guidance provided in the NGL and NGR for service providers and regulators on:

- the relationship between pipeline services and reference services
- the degree of specificity required to describe or identify a pipeline service and a reference service
- the purpose of the reference service.

The current framework may be able to achieve the policy intent that an access arrangement include reference services for pipeline services that are likely to be sought by users and prospective users. However, given stakeholder concerns, the application of the rules in practice, and the above analysis, the Commission considers that the current framework would benefit from clarification because:¹¹⁵

- The definition of pipeline services in the NGL is too broad and the reference in the NGR to the access arrangement including a description of pipeline services may

¹¹³ Rule 101 of the NGR.

¹¹⁴ Note that a distinction can generally be made between what the reference service is and the terms and conditions on which the service is provided. See the wording in rule 48(1)(c) and (d) of the NGR.

¹¹⁵ Submissions to the issues paper: MEU, p. 16; ACCC, p. 3; AER, p. 18; PIAC, pp. 5, 34; AEMO, p. 2.

be ambiguous. The regulator, users and prospective users may not have a full understanding of the pipeline services that are or can be offered by a pipeline. Users and prospective users may not know all the services on the pipeline that they can seek access to, or from which one or more reference services can be determined.

- The current definition of reference service in the NGL and its application in the NGR is ambiguous, in that there is no stated purpose of the reference service. Users and prospective users may not engage effectively in the reference service determination without the purpose of reference services being set out in the NGR as a guide.
- The NGR refer to a 'statement of reference service' without clarifying what is to be included in such a statement. Determined reference services may be too broadly defined so as to be less useful as a benchmark for tariff negotiations.

Together, these issues create uncertainty around both negotiation and arbitration. This may provide the opportunity (or perceived opportunity) for service providers to exploit any market power by charging monopoly prices.

The Commission notes that Part 23 of the NGR (the access regime for non-scheme pipelines) has sought to address the application of the definition of pipeline service through the following provisions:¹¹⁶

- “(3) For the purposes of this Part, a pipeline service is to be treated as distinct from another pipeline service having regard to matters including service type (for example, forward haul, backhaul, park and loan) and the priority of the service relative to other pipeline services of the same type.
- (4) For the purposes of this Part, in relation to a prospective user, a pipeline service is also to be treated as distinct from another pipeline service having regard to the service term and the capacity sought by the prospective user.”

Part 23 also provides clarity in relation to pipeline service information:¹¹⁷

- “(3) The pipeline service information for a pipeline comprises a list of the pipeline services available on the pipeline and for each pipeline service:
 - (a) a description of the service and any locational limitations on availability; and
 - (b) the priority ranking of the service in relation to the other pipeline services including when scheduling and in the event of curtailment.”

Having considered the issues noted above and the approach under Part 23, the Commission has concluded that amendments to the relevant definitions should be made.

¹¹⁶ Rule 549 of the NGR.

¹¹⁷ Rule 553 of the NGR.

Amending the definitions would provide greater guidance to the following:

- the service provider in proposing the reference service
- regulators in the determination of reference services
- users and prospective users in understanding reference services, effectively engaging in the access arrangement review process and negotiating tariffs in reference to reference tariffs
- the access arrangement in defining a reference tariff and reference terms and conditions that can be attributed to a distinct service.

Test for determining reference services

A number of stakeholders raised concerns that rule 101 of the NGR does not effectively constrain a service provider's monopoly power.¹¹⁸

Specifically, some stakeholders were concerned that because reference services must be a "service that is likely to be sought by a significant part of the market,"¹¹⁹ services that are not sought by a significant part of the market and for which the service provider has market power would not be likely to be specified as reference services. For example, a specific pipeline service may be sought by a large industrial user. Despite the market power that the service provider may have in this scenario, a service required by a single user may not meet the test that the service is likely to be sought by a significant part of the market. If so, such a service would not be a reference service.

Stakeholders also raised a concern that rule 101 does not require a reference service for each type of service. For example, if pipeline services were defined as firm forward haul and park and loan,¹²⁰ then (according to some stakeholders) there should be a reference service for both of these types or categories of pipeline services.

In light of the policy intent of reference services and these concerns, the Commission considers that determining the appropriate number of reference services, and what those reference services should be, is a trade-off between:

- the benefits that reference services provide to prospective users. These are: aiding the negotiation process, narrowing the scope of contention, reducing negotiation costs, reducing the prospect of arbitration and reducing the cost of arbitration (should it be required)
- the cost and regulatory burden of ex ante determining reference services and corresponding reference tariff and non-tariff terms and conditions (for service providers, the regulator and other stakeholders through the access arrangement assessment process).

¹¹⁸ Submissions to the issues paper: MEU, p. 16; ACCC, p. 3; AER, p. 18; PIAC, pp. 5, 34; AEMO, p. 2.

¹¹⁹ Rule 101 of the NGR.

¹²⁰ As compared to imbalances that may accrue on other pipeline services due to forecasting error or arise due to supply or demand interruptions, park and loan services allow the shipper to nominate to either temporarily borrow (loan) gas from the pipeline owner (depleting the line pack of the pipeline) or temporarily deposit (park) gas in the pipeline (increasing the line pack). Park and loan services generally provide that the gas be parked at a receipt point and delivered at the same receipt point or an adjacent delivery point, and do not entitle the user to transport that gas.

It is therefore not appropriate that every service for which the pipeline owner has market power be a reference service. This would significantly increase the cost and regulatory burden of ex ante determining reference services and corresponding reference tariff and non-tariff terms and conditions, while only providing limited benefit. Any non-reference service that is provided by a covered pipeline is economically regulated, and subject to information provision and binding arbitration should negotiations prove unsuccessful.

However, rule 101 is not explicitly worded for the regulator to make the above trade-off in determining the number and type of reference services. Consequently, the Commission considers that the test for specifying pipeline services as reference services should be changed so that a number of criteria would be used by the regulator to determine reference services. These criteria would guide the regulator in making the trade-off, and would include:

- Historical and forecast demand for the service and the number of prospective service seekers: Services with historical or forecast high demand are likely to be useful to a larger number of users and prospective users in their negotiations. Consequently, the benefits of making this service a reference service are likely to be relatively high. Conversely, for rarely demanded services the cost of ex ante determining the reference service and associated reference tariff and terms and conditions may be unjustifiably high. Should, in hindsight, a user or prospective user and service provider be unable to negotiate access for the service, the tariff and associated terms and conditions for that service would be determined at that time through arbitration. Consequently, direct regulatory costs are only incurred in the less likely event of the service being brought to arbitration.
- The extent to which the service is substitutable with other pipeline services: Multiple substitutable reference services increase the regulatory burden for little additional benefit. Instead, were only one service that is substitutable to be specified as the reference service, that would provide a sufficiently good basis to aid the negotiation process for all other substitutable services. Conversely, two services that are not substitutable are each unlikely to be useful reference points for one another in the negotiation process and it may therefore be justified for both to be reference services.
- The feasibility of allocating costs to the service: In order to determine a meaningful reference tariff for a reference service, the cost of providing that reference service must be identified and allocated to the service. If this is not feasible, then the reference tariff is unlikely to be appropriate. Inappropriate tariffs (either the reference tariff itself or other tariffs negotiated or arbitrated by reference to the reference tariff) can lead to inefficiencies such as the under-utilisation of, or under-investment in, pipelines. Reference services should therefore only be those services where there is a reasonable prospect of allocating costs to the service in an appropriate manner.

These changes would address the concern that each "type" of pipeline service should be a reference service, but only to the extent that doing so represents an appropriate trade-off against the regulatory burden of determining reference service and reference tariffs. For example, were firm forward haul and park and loan services considered by

the regulator to have a low degree of substitutability then it may (depending on the other criteria) determine both to be reference services.

The Commission does not recommend any changes to the policy intent of reference services. However, the Commission recommends a set of changes that would align the NGL and NGR provisions in relation to the determination of reference services with the policy intent.

The Commission expects that its draft recommendations will benefit regulators, users, prospective users and consumers by:

- providing transparency about the availability and potential availability of pipeline services
- specifying appropriate reference services in an access arrangement to guide negotiation and arbitration.

These improvements are expected to balance the cost of determining reference services and reference tariff and non-tariff terms and conditions (that are ultimately borne by consumers) with the benefits of reference services in aiding negotiation and arbitration on pipeline services.

4.1.3 Draft recommendations

Draft recommendation 4: Clarify the requirements for defining pipeline services

To amend the definition of pipeline service in the NGL and the requirement to describe pipeline services in an access arrangement under the NGR. Specifically, amendments should require that:

- a pipeline service is to be stated or identified in terms of parameters such as type, location and priority (firmness of service), consistent with the provisions for the distinction between pipeline services under rule 549(3) of the NGR for non-scheme pipelines
- the service provider of a covered pipeline is to provide, as part of an access arrangement proposal, a full list of available and potential pipeline services. This list of pipeline services can be referenced to existing gas transportation agreements for that pipeline.

Draft recommendation 5: Clarify the requirements for defining reference services

To amend the NGL and NGR in order to:

- clarify the purpose of the reference service
- set out the parameters that must be included in a statement of a reference service, which may include:
 - clarifying what the statement of reference service required by rule 101 of the NGR should contain, considering the amendments to the definition of pipeline service
 - moving rule 101 to Division 4 of the NGR in order to clarify the interaction between rules 48 and 101 and create a clear, chronological process for the specification of reference services.

Draft recommendation 6: Update the test for determining a reference service

To amend the NGR in order to require the regulator to determine one or more pipeline services to be reference services, having regard to the following criteria:

- historical and forecast demand for the service and the number of prospective users
- the extent to which the service is substitutable with other pipeline services
- the feasibility of allocating costs to the service
- the usefulness of the service in supporting access negotiations.

4.2 Process for determining reference services

4.2.1 Current framework

The NGR require full regulation pipeline service providers to submit to the regulator, for approval, a full access arrangement proposal or revision to a full access arrangement.¹²¹

The regulator assesses the access arrangement proposal under Part 8 to 11 of the NGR. The regulator seeks submissions on the proposal, issues a draft decision for consultation, and then makes a final decision to approve or refuse to approve the access arrangement proposal. Prior to submitting the access arrangement proposal, a service provider may request a pre-submission conference in order to discuss questions affecting the proper formulation of the proposal.¹²²

If the regulator approves the access arrangement proposal, it approves all elements in the proposal, including the non-price terms and conditions on which the reference service will be provided.¹²³

Rule 62(7) of the NGR states that the regulator must make an access arrangement final decision within six months of receiving the proposal, and rule 62(8) states that this time cannot be extended by more than two months. The regulator will "stop the clock" on the decision making timeframe where additional information or consultation is required.¹²⁴

Rule 13(1) gives an absolute overall time limit of 13 months between the date that the service provider submits a full access arrangement proposal and the date that the regulator makes a final decision.

4.2.2 Commission analysis

In response to the Commission's issues paper, a number of stakeholders, including the AER, raised the issues that the time period provided under the NGR is insufficient to fully consider, consult and decide on an access arrangement proposal, particularly where there has been a material change to the:

¹²¹ Access arrangement proposal refers to the initial access arrangement. Access arrangements are then periodically revised. Access arrangements generally do not expire.

¹²² Rule 57 of the NGR.

¹²³ Rule 41 of the NGR.

¹²⁴ AER, *Access arrangement guideline*, March 2009, pp. 17-18.

- reference services offered (increased or varied reference services)
- non-tariff terms and conditions relevant to each reference service.¹²⁵

To address these concerns, the AER suggested the introduction of an upfront process, similar to the framework and approach process under the NER (see Box 4.2). An upfront process in the NGR could be used to determine the reference service, or suite of reference services, to be included in the service provider's access arrangement proposal.¹²⁶

¹²⁵ See Chapter 5 for further discussion on non-tariff terms and conditions.

¹²⁶ AER, submission to the issues paper, p. 19.

Box 4.2 NER framework and approach process

The framework and approach process is the first step in the regulatory process used by the AER to determine and set efficient prices for electricity distribution network services (clause 6.8.1(a) of the NER).

Through the framework and approach process, the AER assesses and proposes an approach on a range of matters, including:

- which services provided by the distribution network service provider will be regulated
- form of regulation that should apply to each service
- service classification: direct control, negotiated or unclassified (unregulated)
- how incentives should be applied.

One of the benefits of the framework and approach process is that service classification decisions drive many other aspects of the subsequent distribution determination process. The distribution determination process may be able to operate much more efficiently if the AER has already made preliminary decisions on which services should be regulated and the form of regulation that should apply to those services. The AER can depart from the framework and approach service classifications during the distribution determination process (clause 6.12.3(b) of the NER) if there is a material change in circumstances that justifies the departure.

The Commission does not consider that the NER framework and approach process is fully suited to the economic regulation framework for full regulation pipelines. This is because the gas pipeline regulation regime is a negotiate-arbitrate regime that retains the flexibility of service providers, users and prospective users to negotiate commercial outcomes.

However, the introduction of an upfront process (prior to the lodgement of the full access arrangement proposal) that is restricted to the determination of reference services for full regulation pipelines would support the introduction of additional reference services. As discussed in section 4.1, the inclusion of additional reference services in an access arrangement is expected to address concerns about monopoly pricing by providing additional reference points (including tariff and non-tariff terms and conditions) on which to base access negotiations. Further, the inclusion of an upfront process to set reference services is expected to improve customer engagement in the access arrangement assessment process.

The Commission considers the rationale for introducing an upfront mechanism is two-fold:

- An upfront mechanism would provide the regulator with additional time to carefully consider the complex information that underpins some elements of the access arrangement in order to determine the most appropriate reference service (or suite of services). In doing so, the regulator may be able to expand the number and type of reference services. This in turn may enable users to better negotiate with pipeline service providers for the services they seek.

- Pipeline users are better informed about their preferences than the regulator; as such constructive engagement between service providers, the regulator, users and consumers increases the likelihood that the reference services will align with the long term interests of the consumer. Further, improved user and consumer engagement with the regulatory process helps reduce the risk of regulators making sub-optimal decisions because of poor information on user and consumer preferences.¹²⁷

An upfront specific reference service setting process could commence 24 months prior to the expiry of the current access arrangement. A 24-month period would balance the risk that changes in circumstances mean that the decisions made in the reference service setting process are out-of-date with the time it would take to undertake the additional process and then subsequently allow the service provider to build a proposal around the reference services as approved by the regulator.

A reference service setting process is shown in Figure 4.2 and would include the following key steps:

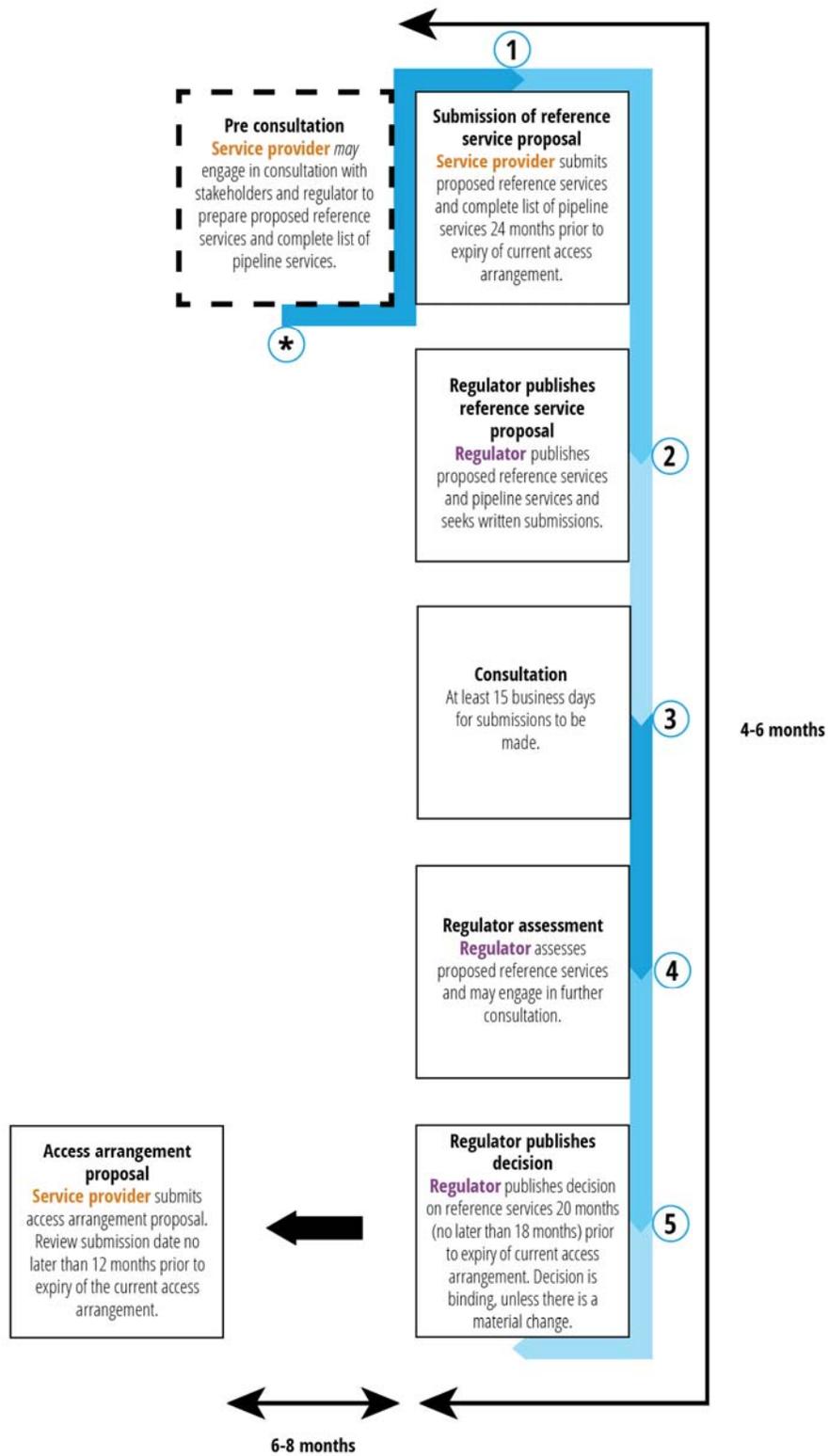
- Pre-consultation: the service provider may engage with consumers, users and other stakeholders and the regulator in order to prepare the list of pipeline services and proposed reference services
- Pipeline service list and proposed reference services submission: the service provider submits the list of pipeline services and proposed reference services 24 months prior to the expiry of the current access arrangement
- Publication: the regulator publishes the proposed reference services and list of pipeline services and seeks written submissions from stakeholders, over a consultation period of at least 15 business days
- Assessment: the regulator makes its assessment of the proposed reference services based on the reference service criteria and having regard to any pre-consultation by the service provider with its users and stakeholders. In making its assessment, the regulator has the discretion to undertake further consultation, if required (noting the maximum six month timeframe)
- Decision: the regulator publishes its decision on the reference services between 18 to 20 months prior to the expiry of the current access arrangement. The regulator would not change the approach set out in this decision, unless there is a material change in circumstances that warrants a departure.

A "material change in circumstances" provides flexibility for the regulator to respond to changes in the service provider's business structure or planning, technological changes, changes in regulatory arrangements and changes in users' needs or preferences. This is consistent with the recent changes to the threshold for changing a service classification during the regulatory determination process for a distribution network service provider following a framework and approach process.¹²⁸

¹²⁷ Productivity Commission, *Australia's urban water sector*, Inquiry report, vol 1, no. 55, 31 August 2011, p. 234.

¹²⁸ AEMC, National Electricity Amendment (Contestability of energy services) Rule 2017, 12 December 2017, pp. iii-iv.

Figure 4.1 Proposed reference service setting process



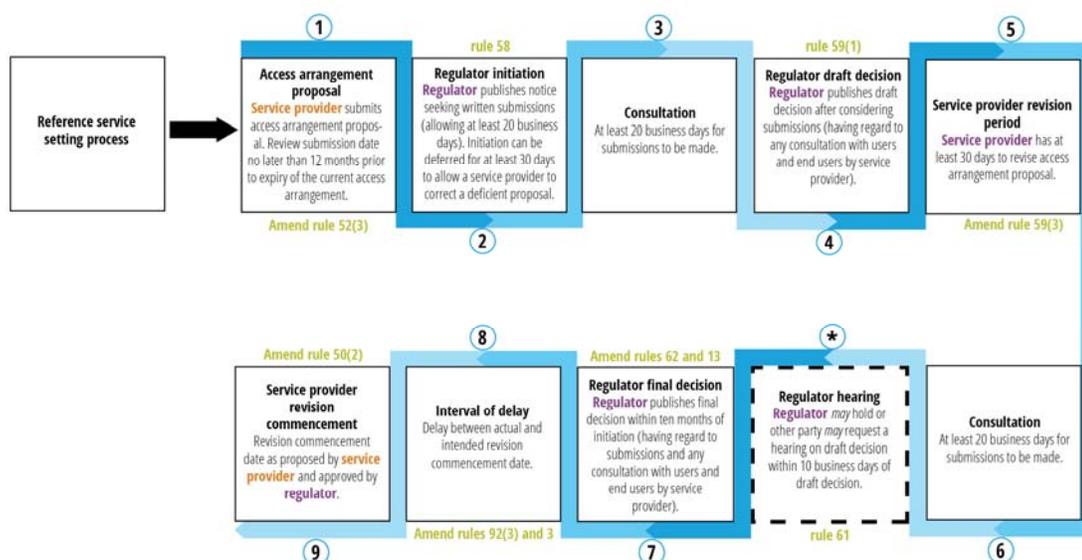
The service provider submits the full access arrangement proposal based on the pre-determined reference service, no later than 12 months prior to the expiry of the current access arrangement. This is likely to be between six and eight months after the

regulator's reference service decision. It is not expected that the service provider would wait for a final decision on the reference services before commencing its preparation of its access arrangement. This is because some elements of the access arrangement are not contingent on the determination of the reference service by the regulator. These include the service provider's ongoing operational and capital expenditure (notwithstanding additional expenditure that may be associated with the addition of new reference services) and standard terms and conditions.

The regulator would assess the access arrangement, and make a final decision within 10 months of initiating the assessment, having regard to any consultation the service provider has undertaken with stakeholders.

The Commission considers the new reference service setting process, which will commence 24 month prior to the expiry of the current access arrangement, as well as the access arrangement process will provide sufficient opportunity for the service provider and regulator to engage on the proper formulation of the proposal, without the need for a formal request for a pre-submission conference. The amended access arrangement process is shown in Figure 4.2.

Figure 4.2 Proposed access arrangement process



Service providers generally submit a revised access arrangement proposal every five years, or within a different review period as approved by the regulator in line with the NGO and revenue and pricing principles.¹²⁹ The Commission has considered this requirement and other elements of the process in Chapter 5.

The Commission notes that the COAG Energy Council is currently considering options for improving the resourcing available to consumer groups to support more effective engagement in the AER's processes to make revenue determinations and access arrangements under the national gas and electricity laws and rules.¹³⁰ This review's

¹²⁹ Rule 50(4) of the NGR.

¹³⁰ COAG Energy Council, *Consumer participation in revenue determinations and associated regulatory processes*, consultation paper on consumer resourcing, 5 October 2017.

final recommendation in relation to improving the access arrangement process will consider the COAG Energy Council's findings.

The Commission considers the introduction of a new process under the NGR would assist in the implementation of the draft recommendations in section 4.1.3 that:

- service providers submit to the regulator a list of all pipeline services that are or could be offered by the service provider on that pipeline
- service providers propose one or more reference services from the list of pipeline services
- the service provider's proposal and regulator's assessment is based on the recommended criteria for reference services.

4.2.3 Draft recommendation

Draft recommendation 7: Introduce a reference service setting process

To amend the NGR in order to:

- introduce a fit for purpose process to determine the reference services to be provided by the service provider with the following key design elements:
 - the service provider submits to the regulator its full list of pipeline services and proposed reference services, based on the reference service criteria to be specified in the NGR
 - the process is four to six calendar months, with at least one round of consultation
 - the regulator's final decision on the reference services is guided by the reference service criteria and is binding on the access arrangement process, unless there is a material change in circumstances
- enable service providers to set a review submission date and revision commencement date, with the approval of the regulator (rule 50 of the NGR)
- remove the pre-submission conference (rule 57 of the NGR).

5 Access arrangements

Summary of findings and draft recommendations

All full regulation pipelines are required to have a full access arrangement which sets out reference tariff and non-tariff terms and conditions for each reference service on that pipeline.

The Commission has found there are significant concerns in relation to key elements of the full access arrangement process including: tariff setting (including aspects of the tariff variation mechanism); the allocation of risk in non-tariff terms and conditions; the process for reviewing access arrangements; the process for equalising revenue during any interval of delay between access arrangement periods; and the regulatory discretion framework.

The Commission considers that there are opportunities to provide clarity and certainty around these key aspects of the access arrangement process in order to reduce regulatory and administrative burden and facilitate better outcomes for pipeline users, and ultimately gas consumers.

As such, the Commission has made the following draft recommendations for changes to the NGR:

- consistent use of financial models: allow the regulators to develop and publish financial models that must be used by service providers in preparing an access arrangement proposal
- tariff variation mechanism: clarify that any over or under recovery of revenue arising from the use of a variable revenue cap or revenue yield control is to be addressed through the tariff variation mechanism
- allowed rate of return: clarify that the regulator is to have regard to the risk sharing arrangements implicit in the economic elements of the access arrangements when considering the non-tariff terms and conditions and the tariff variation mechanism
- revision period: extend the time in which service providers must submit a revised proposal to at least 30 business days and some consequential changes to the access arrangement process as a result
- interval of delay: clarify that the interval of delay is part of the access arrangement period, as well as the process for equalising revenue during this period
- regulatory discretion: remove the limited and no discretion regulatory framework so that there are not inappropriate limits on the regulator's ability to make decisions consistent with achieving the NGO.

A full access arrangement is revised for each access arrangement period through a public consultation process conducted by the regulator. The starting point of this revision process is the service provider's access arrangement revision proposal.

This chapter sets out the key issues and proposes draft recommendations in relation to:

- reference tariff setting: consistent financial models and tariff variation mechanism
- non-tariff reference terms and conditions
- access arrangement process: revision period and interval of delay
- regulatory discretion.

Chapter 6 focuses on the determination of efficient costs and total revenue that underlie the reference tariffs.

5.1 Reference tariff setting: consistent financial models

5.1.1 Current framework

Reference services and reference tariff and non-tariff terms and conditions inform access negotiation and dispute resolution for services on a full regulation pipeline. It is important that reference tariffs are set at a cost reflective level and that costs are correctly allocated across pipeline services. In order to set the tariffs for transmission reference tariffs and distribution tariff classes, the regulator must first determine the service provider's efficient costs using the building block approach set out in Part 9 of the NGR.¹³¹

Reference tariffs are then set as follows:

- transmission pipelines: the NGR require that the tariffs are set in order to generate from the provision of each reference service the portion of revenue applying to that reference service.¹³²
- distribution pipelines: the service provider divides users into tariff classes that group customers based on their characteristics (such as residential and large industrial customers). Tariffs are then required to recover the revenue associated with providing the reference service to each of those tariff classes, as well as to send signals to customers about the cost impact of their consumption.¹³³

5.1.2 Commission analysis

Currently, service providers use different financial models to generate the total revenue requirements, from which reference tariffs are derived. The AEMC understands that most east coast service providers submit access arrangement revision proposals using modified versions of the AER's published financial models (discussed further below). There is also inconsistency in the financial models used by service providers of Western Australian full regulation pipelines. The inconsistency is both across different pipelines, as well as across different access arrangement periods for the same pipeline.

¹³¹ See Chapter 6 for discussion on total revenue and cost allocation.

¹³² Rule 95 of the NGR.

¹³³ Rule 94 of the NGR.

This has led to the following concerns being raised by the AER¹³⁴ and other stakeholders:¹³⁵

- the financial models used by service providers are varied and prone to errors from both the service providers and the regulator
- it can be difficult for regulators and stakeholders to compare the inputs and results between access arrangement revisions
- possible development of new financial models for different revisions of access arrangements may incur additional costs on service providers and generate process inefficiencies
- interested stakeholders may face difficulty in understanding and interpreting the inputs and results generated by the varied models
- regulators may find working with various financial models challenging, which possibly reduces the efficiency of the access arrangement review process.

Additionally, the AER submitted that in order to improve efficiency and consistency of the access arrangements, service providers should be required to use the AER's post-tax revenue model (PTRM) and roll forward model (RFM). Under the NER, these models must be used by electricity network service providers when preparing their regulatory proposals:

- PTRM: calculates the annual revenue requirement for each year of a regulatory control period using the building block approach¹³⁶
- RFM: is used to calculate the closing regulatory asset base (RAB) for the regulatory period, which becomes the opening RAB in the next regulatory control period.¹³⁷

The NER requires that the AER develop the models in accordance with consultation procedures¹³⁸ set out in the rules and that from time to time, the models may be amended or replaced. The AER is required to comply with the consultation procedures in making, developing, reviewing, or amending any guidelines, methodologies, models, schemes, or tests and it:

- must publish the proposed guideline, methodology, model, scheme, test or amendment, with an explanatory statement and invite written submissions (no less than 30 business days)
- may publish issues, consultation and discussion papers and hold conferences and information sessions, as it considers appropriate

¹³⁴ AER, submission to the issues paper, p. 15.

¹³⁵ This issue was raised at the AEMC's stakeholder workshop (14 December 2017) where there was a discussion by the regulators, users and consumer groups about the benefit of the use consistent financial models by service providers.

¹³⁶ Clauses 6.4.1(a) and 6A.5.2(a) of the NER.

¹³⁷ Clauses 6.5.1(b) and 6A.6.1(b) of the NER.

¹³⁸ Rules 6.16 and 6A.20 of the NER.

- must publish its final decision within 80 business days.¹³⁹

The AER subsequently indicated in discussions with the AEMC that the use of these models by electricity network service providers allows it to focus on the building block inputs, rather than revisiting established approaches. As noted above, these models were developed following industry and consumer consultation. The AER's view is that as a result, consumers also understand the models and are able to undertake analysis and make comparisons across regulatory proposals. In contrast, significant resources are spent understanding the operation of the models used by pipeline service providers, before regulators and consumers are able to work through the building block inputs.

On this basis, the Commission has concluded that amending the NGR to mandate use of regulator developed financial models by service providers is likely to assist the regulators in assessing efficient costs, total revenue and reference tariffs by:

- reducing the opportunity for errors both by the service provider and the regulator
- making it easier for stakeholders to engage in the assessment of total revenue.

This potential amendment to the NGR received broad support from stakeholders, including regulators and service providers, when discussed at the AEMC stakeholder workshop in December 2017.

5.1.3 Draft recommendation

Draft recommendation 8: Develop financial models to be used by service providers

To include in the NGR a rule allowing the regulators to develop and publish financial models. If the models are developed and published, service providers will be required to use them to construct the capital base, and the total expected revenue from the building block approach. These models should be developed (and in future, modified or replaced) and published in line with:

- a consultation period of no less than 30 business days from publication of the proposed models
- the publication of issues, consultation and discussion papers, and the holding of conferences and information sessions, as appropriate
- the publication of a final decision within 80 business days.

The models should be available on the regulators' websites within six calendar months of the commencement of the rule and reviewed (at least) every five years.

¹³⁹ A similar process is specified in the NGR for the rate of return consultative procedures (rule 9B of the NGR).

5.2 Reference tariff setting: tariff variation mechanism

5.2.1 Current framework

Rule 97 provides a mechanism for varying the approved reference tariffs within an access arrangement period. Reference tariffs may vary in accordance with a fixed schedule (for example, annually), as a result of a cost pass through for a defined event (such as changes in taxation arrangements), or in accordance with a formula set out in the access arrangement. The reference tariff variation formula may provide for:

- tariff basket price control (also known as a weighted average price cap): where the reference tariff for one or more reference services are set by the regulator in order to allow the service provider to generate the revenue to cover the efficient costs of providing those reference services. Weightings are used to account for different factors. This is the most common form of price control used under the NGR.
- variable caps on the revenue derived from a particular combination of reference services: where there is more than one reference service, the regulator may approve a maximum revenue that can be earned by the service provider for a combination of those reference services.
- revenue yield control: which is effectively a revenue cap, as the regulator sets the overall allowed revenue relevant for the reference services for the service provider and allows the service provider flexibility to adjust tariffs in line with changes in demand, in order to achieve the total revenue.
- a combination of the above.

The reference tariff variation mechanism in an access arrangement proposal must give the regulator "adequate oversight or powers of approval over variation of the reference tariff."¹⁴⁰

5.2.2 Commission analysis

The NGR allow for a tariff variation mechanism that is effectively a revenue cap, either through a variable revenue cap or a revenue yield control.¹⁴¹

Under these rules, the regulator is able to set a revenue target for each year of the access arrangement and the service provider is able to adjust reference tariffs (approved by the regulator) in order to achieve that revenue. The tariffs are based on forecast demand, set in advance while the actual revenue can only be observed ex-post. In practice, as the forecast and actual demand are unlikely to reconcile over the period, the service provider can reasonably be expected to under or over recover revenue year to year. As such, revenue yield controls generally require some mechanism to account for the over or under recovery of revenue across years and access arrangement periods.

In contrast to gas pipelines, most electricity distribution network service providers are regulated through a revenue cap. Under the NER, the under or over recovery of

¹⁴⁰ Rule 97(4) of the NGR.

¹⁴¹ Rules 97(2)(a) & (c) of the NGR.

revenue arising from the application of a control mechanism in the previous period is included as part of the building blocks.¹⁴²

“(a) Building blocks generally

The annual revenue requirement for a Distribution Network Service Provider for each regulatory year of a regulatory control period must be determined using a building block approach, under which the building blocks are:

...

- (6) the other revenue increments or decrements (if any) for that year arising from the application of a control mechanism in the previous regulatory control period - see paragraph (b)(6).

...

(b) Details of the building blocks

For the purposes of paragraph (a):

...

- (6) the other revenue increments or decrements referred to in paragraph (a)(6) are those that are to be carried forward to the current regulatory control period as a result of the application of a control mechanism in the previous regulatory control period and are apportioned to the relevant year under the distribution determination for the current regulatory control period.”

However, the AER has observed that while providing for variable revenue caps and revenue yields controls in the tariff variation mechanism provisions, the NGR do not include any specific provisions to allow the regulator to account for over or under recovery of revenue across access arrangement periods. The AER has suggested that changes to rules 76 and 92 of the NGR be made to specifically provide for the operation of a revenue cap in a manner similar to that under the NER.¹⁴³

Currently, there are no access arrangements with a variable revenue cap or a revenue yield control tariff variation mechanism. However, a revenue yield control mechanism has been used under the code. This suggests that these tariff control mechanisms may be approved by a regulator and used for a pipeline provided the access arrangement clearly establishes the operation of the mechanism. The Commission does not regard the operation of rule 92 of the NGR unambiguously prevents the successful use of a variable revenue cap or revenue yield tariff variation mechanism as the AER has suggested.

The general approach of the NGR is to have an access arrangement provide clarity on the operation of the tariff variation mechanism for a particular pipeline. This applies to any specific method of tariff variation mechanism employed by a service provider.¹⁴⁴

Nevertheless, the Commission considers that greater guidance to service providers and regulators may be provided if the NGR was amended to clarify that if a variable

¹⁴² See clauses 6.4.3(a)(6) and 6.4.3(b)(6) of the NER.

¹⁴³ AER email to AEMC, 31 January 2018.

¹⁴⁴ The NGR level of prescription regarding within-period tariff variations distinguishes it from the equivalent provisions in the NER.

revenue cap or a revenue yield control mechanism is approved for an access arrangement, then the tariff variation mechanism can accommodate an adjustment relevant to the final year of one access arrangement period to be made in the first year of the next access arrangement period.

A specific issue regarding the over and under recovery of revenue across access arrangement periods is contemplated in the Jemena Gas Networks (JGN) rule change request submitted to the AEMC in December 2017.¹⁴⁵ In the rule change request, JGN is seeking to amend the NGR to allow for cross period revenue and price smoothing between its 2015-2020 and 2020-2025 access arrangement periods.¹⁴⁶ The Commission will assess this rule change request during 2018.

5.2.3 Draft recommendation

Draft recommendation 9: Clarify the operation of revenue caps

To amend the NGR to clarify that the use of a variable revenue cap or a revenue yield control tariff variation mechanism is to allow for any over or under recovery of the revenue cap or yield in the last year of one access arrangement period to be included in the tariff variation for the first year of the following access arrangement period.

5.3 Non-tariff reference terms and conditions

5.3.1 Current framework

In approving the reference services and reference tariffs for a full access arrangement, the regulator must also assess the proposed non-tariff terms and conditions. As provided by rule 100 of the NGR, all provisions in an access arrangement should be consistent with the NGO, NGR and any procedures in force when the terms and conditions of the access arrangement are determined or revised.

In assessing reference service terms and conditions, the AER considers:¹⁴⁷

- risk allocation: risks are allocated to the party best placed to control or mitigate that risk, as effective risk mitigation is likely to reduce the total cost of providing the reference service(s) to the consumers in the long-term
- legal consistency and clarity: terms and conditions must be clear and legally certain as they are used as the basis for commercial negotiations and in resolving any access dispute

¹⁴⁵ Jemena Gas Networks, Cross period price smoothing for Jemena Gas Networks, Rule change proposal, 14 December 2014.

¹⁴⁶ The JGN rule change request relates to JGN's specific circumstances, where the (higher) 2015-2020 tariffs have prevailed due to an undertaking (and not an access arrangement) with the AER. The approved tariffs for its 2020-2025 access arrangement are considerably lower and JGN is concerned that without a mechanism to allow cross period revenue and price smoothing, its customers will be exposed to price volatility.

¹⁴⁷ AER, Draft decision, *Roma to Brisbane Gas Pipeline access arrangement 2018-22*, Attachment 12, pp. 19-20 (note, this attachment forms part of the AER's final decision (AER, Final decision, *Roma to Brisbane Gas Pipeline access arrangement 2018-22*, Overview, November 2017, p. 2); see also AER, *Draft decision, Australian Gas Networks Victoria and Albury Gas access arrangement 2018-22*, July 2017, p. 48.

- consistency with the relevant requirements in the NGL, NGR and the relevant procedures in force.

In making a decision on the terms and conditions of the Goldfields Gas Pipeline access arrangement, the ERA stated:¹⁴⁸

“The Authority considered it important that the terms and conditions for a reference service included in the access arrangement are presented so they can be readily accepted by a prospective user "as is" (without requiring any further changes), if a prospective user wishes to enter a contract for the reference service.”

5.3.2 Commission analysis

Assessing terms and conditions

Pipeline users have expressed concern that there is insufficient guidance in the NGR on the link between the tariff and the non-tariff terms and conditions, particularly in relation to risk allocation.¹⁴⁹

Further, stakeholders are concerned that the regulators have given limited attention to the construction of the non-tariff terms and conditions contained within access arrangements.¹⁵⁰ On this, the AER has stated:¹⁵¹

“In some cases, greater prescription or intervention on our part in determining these terms and conditions may impede competitive market outcomes and be inefficient. There are two reasons for this: first, our lower levels of information than that of [service providers] and users and second, the user-specific nature of many issues. Accordingly, we will generally avoid proposing amendments in these cases where flexibility to negotiate commercial outcomes is desirable. We expect that both service providers and users will negotiate in good faith on such matters.”

In its submission to the AEMC's issues paper, AGL noted that the terms and conditions often remove commercial risks from service providers, particularly in relation to increasingly restrictive terms and conditions contained within warranty and indemnity clauses.¹⁵² Other stakeholders expressed concern about the price of overruns and imbalances, noting that these charges degrade the value of the primary service. In particular, Hydro Tasmania commented that the building block approach does not account for the costs of such restrictive terms and conditions on users, when determining the reference tariff.¹⁵³

¹⁴⁸ ERA, *Final decision on proposed revisions to the access arrangement for the Goldfield Gas Pipeline*, 30 June 2016, p. 541.

¹⁴⁹ Submissions to the issues paper: EUAA p. 2; AGL, p. 3; Hydro Tasmania, p. 3.

¹⁵⁰ Submissions to the issues paper: EUAA, p. 2; MEU, p. 16; PIAC, p. 6; Central Petroleum, p. 3.

¹⁵¹ AER, *Draft decision, Roma to Brisbane Gas Pipeline access arrangement 2018-22*, Attachment 12, pp. 19-20 (note, this attachment forms part of the AER's final decision (AER, *Final decision, Roma to Brisbane Gas Pipeline access arrangement 2018-22*, Overview, November 2017, p. 2).

¹⁵² AGL, submission to issues paper, p. 2.

¹⁵³ Hydro Tasmania, submission to issues paper, p. 3.

The price of overruns and imbalances was also raised by stakeholders in response to the Roma to Brisbane Pipeline access arrangement proposal.¹⁵⁴ Both the Australian Energy Council and Shell's Queensland Gas Consortium (QGC) asked the AER to consider whether:

- the proposed rates for overruns, imbalances and variances were reasonable
- the tariffs reflected the level of risk borne by the service provider.

In regard to these points, the Commission notes that the allowed rate of return that is applied to the asset base to determine total revenue and reference tariffs is set to account for a degree of risk in providing the reference service. Rule 87(3) of the NGR states:

“The allowed rate of return objective is that the rate of return for a service provider is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the service provider in respect of the provision of reference services (the allowed rate of return objective).”

However, there is no explicit corresponding link made to:

- rule 100: the allowed rate of return is not referenced in relation to the assessment of terms and conditions for appropriate risk allocation
- rule 97(3): which sets out the criteria for the regulator to assess a proposed tariff variation mechanism. These criteria do not include the allowed rate of return as a criterion in assessing the risk underlying a tariff variation mechanism.¹⁵⁵

The Commission considers the rules could be clarified in order to explicitly require the regulator to have regard to the risk sharing arrangements in the economic elements of the access arrangement when determining the non-tariff terms and conditions and the reference tariff variation mechanism.

Standardisation of non-tariff terms and conditions

Some stakeholders are of the view that standardisation of non-tariff terms and conditions in the access arrangement may address concerns about risk allocation in contracts and reduce costs for users.

In its east coast gas review, the Commission recommended that in order to facilitate a greater level of capacity trading, key primary and secondary capacity¹⁵⁶ contractual terms for pipeline services should be standardised (such as operational and prudential terms).¹⁵⁷ The Commission considered that the standardisation of operational gas

¹⁵⁴ APA, *Roma to Brisbane Pipeline, Proposed revised access arrangement, 2017-22*, September 2016.

¹⁵⁵ For example, one of the formulas for tariff variation listed under rule 97(2) allows for revenue yield control. A revenue yield control effectively allows the service provider to change the reference tariff in response to the difference between actual and forecast demand.

¹⁵⁶ Primary capacity is the service provided by the service provided to the user (shipper). Secondary capacity is the pipeline service that has been contracted from user to use (shipper to shipper).

¹⁵⁷ AEMC, *East coast wholesale gas market and pipeline frameworks review*, Stage 2 Final report, 23 May 2016, pp. 85-87.

transport agreements (GTAs)¹⁵⁸ should be prioritised over primary GTAs¹⁵⁹ in order to make capacity more "fungible" and to reduce search and transaction costs.¹⁶⁰ The GMRG is currently developing the Operational GTA Code which is expected to be effective by 1 March 2019.

The issue of standardisation of non-tariff terms and conditions of full access arrangements was discussed at the December 2017 AEMC stakeholder workshop. The discussion indicated that there is some commonality between the non-tariff terms and conditions of the range of pipeline services, and that to some degree standardisation of non-tariff terms and conditions already exists. Specifically in relation to full regulation pipelines, the regulators encourage standardisation and regularly review non-tariff terms and conditions for consistency across access arrangements. The Commission understands that the ERA carries out a review of non-tariff terms and conditions for each access arrangement proposal in order to consider the appropriateness of those terms for that pipeline.

The Commission also notes APA has adopted a pro-forma contract which lists the standard pipeline services offered on its pipelines.¹⁶¹ The pro-forma contract provides for facility specific terms and conditions, such as contract Maximum Daily Quantity (MDQ), rates and contract term, with standard terms forming the remainder of the contract.

It appears the essence of the issue is whether a standard set of terms and conditions would be to user's satisfaction with the particular non-tariff terms and conditions for a pipeline. The Commission's current view is that user concerns regarding the non-tariff terms and conditions of an access arrangement should be raised within the context of an access arrangement process. The regulators can support users in this by communicating their own assessment of the proposed non-tariff terms and conditions and working collaboratively with users on this matter. In relation to this, the Commission considers that its draft recommendation to introduce a specific reference service setting process will provide both regulators and stakeholders with time and opportunity to carefully consider the detail of the non-tariff terms and conditions to make a thorough assessment within the access arrangement process (see Chapter 4).

Further, the Commission understands that significant resources would be required from users, service providers and regulators in order to standardise the non-tariff terms and conditions of full access arrangements. From discussions with stakeholders it is not clear that there is sufficient support for such a process.¹⁶²

For these reasons, the Commission does not consider that there is a clear case for introducing a new regulatory process to assess all non-tariff terms and conditions

¹⁵⁸ Operational GTAs are shipper to shipper (user to user) contracts for secondary capacity. Operational GTAs do not form part of an access arrangement.

¹⁵⁹ Primary GTAs are the contracts between the service provider and user (shipper).

¹⁶⁰ AEMC, *East coast wholesale gas market and pipeline frameworks review*, Stage 2 Final report, 23 May 2016, p. 86.

¹⁶¹ APA, Gas transportation agreement.

¹⁶² At the December 2017 AEMC stakeholder workshop and in subsequent discussions with regulators and other stakeholders.

across all scheme pipelines for the purpose of setting common terms at this time. The Commission has concluded that no change be made to the NGR in relation to this issue.

5.3.3 Draft recommendation

Draft recommendation 10: Clarify that the regulator is to have regard to risk sharing arrangements

To amend rules 97 and 100 of the NGR to clarify that the regulator is to have regard to the risk sharing arrangements implicit in the economic elements of the access arrangements when determining:

- the non-tariff terms and conditions
- the reference tariff variation mechanism.

5.4 Access arrangement process: revision period

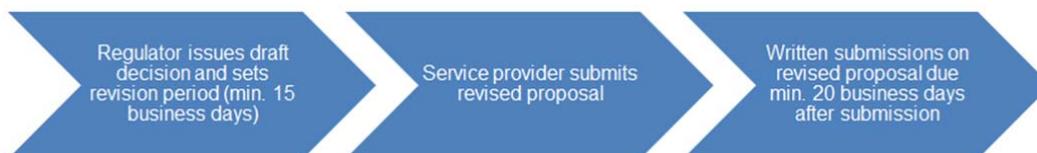
5.4.1 Current arrangements

The timeframe for submitting a revised access arrangement proposal in response to the regulator's draft decision is at least 15 business days, as set out in rule 59(3) of the NGR:

“If an access arrangement draft decision indicates that revision of the access arrangement proposal is necessary to make the proposal acceptable to the AER, the decision must fix a period (at least 15 business days) for revision of the proposal (the revision period).”

The NGR also provide a consultation period of at least 20 business days for stakeholders to make submissions on the service provider's revised proposal.¹⁶³ See Figure 5.1.

Figure 5.1 NGR timeframes for responding to a draft decision



Under the current framework, the regulator has full discretion to set the revision period and consultation period. In recent times, both the AER and ERA have set revision periods of between 27 and 40 business days and consultation periods of between 20 and 25 business days.¹⁶⁴

¹⁶³ Rule 59(5)(c)(iii) of the NGR.

¹⁶⁴ See AEMC, *Review into scope of economic regulation applied to covered pipelines, interim report*, 31 October 2017, pp. 29-30.

5.4.2 Commission analysis

In submissions to the issues paper¹⁶⁵ and in subsequent discussions with AEMC staff, service providers expressed concern that the 15 business day time period does not provide adequate time to digest and respond to the regulator's draft decision. Nor does this period allow them to engage with stakeholders on any required changes.

Revising an access arrangement can be complex and additional time may be required in order to clarify, respond, and make appropriate changes to the access arrangement proposal in response to the draft decision. For example, in the AER's draft decision on the Roma Brisbane Pipeline (RBP) some relatively straightforward wording amendments, as well as other more significant changes were required including:¹⁶⁶

- removing a reference service from the proposal (short term firm service)
- amending the total revenue requirement
- adding rebateable services (park and loan, in-pipe trading and capacity trading services).

In this instance, the AER set the revision period as 27 business days.

Service providers and users have suggested that a longer revision period may encourage service providers to work collaboratively with the regulator and stakeholders to resolve the areas of contention and make necessary changes.¹⁶⁷ This would increase the likelihood that the revised proposal would be acceptable to the regulator, and aligned with user preferences. Further, while regulators customarily set longer revision periods, the service provider cannot rely on a longer period in its planning for managing the access arrangement process if the decision on extending the revision period beyond 15 business days is only made at the time the draft decision is made. A change to the NGR to make a longer revision period would enable service providers to rely on that specified period in planning their response to the draft decision. This would make resourcing and planning its work over access arrangement process more straightforward.

The Commission also notes that under the NER, network service providers have more than 15 business days to submit a revised regulatory proposal in response to the regulator's draft determination.¹⁶⁸

For these reasons, the Commission considers that a period greater than 15 business days is required for the revision period.

Under the current framework, as a consequence of extending the revision period, the regulator would have less time to consider the revised proposal and issues its final decision without further changes being made. The introduction of a separate process to determine reference services is expected to provide capacity for the regulator to assess

¹⁶⁵ Submissions to the issues paper: DBP and AGN, p. 5; ENA, p. 2; Jemena, p. 3.

¹⁶⁶ AER, *Draft Decision, Roma Brisbane Pipeline Access Arrangement 2017-2022*, June 2017.

¹⁶⁷ Submissions to the issues paper: DBP and AGN, p. 5; ENA, p. 2; Jemena, p. 3; EUAA, p. 3.

¹⁶⁸ Under clauses 6.10.3(a) and 6A.12.3(a) of the NER, network service providers have 45 days in which to submit a revised regulatory proposal.

the remaining elements of the access arrangement within the access arrangement assessment timeframe (as discussed in Chapter 4).

5.4.3 Draft recommendation

Draft recommendation 11: Extend the revision period

To amend rule 59(3) of the NGR to extend the revision period from at least 15 business days to at least 30 business days.

5.5 Access arrangement process: interval of delay

5.5.1 Current framework

The NGR provide that where there is a delay between the intended commencement of a revised access arrangement and its actual commencement, the tariffs in force in the previous access arrangement will continue until the revised access arrangement commences. This delay between the two dates is referred to as the 'interval of delay.' Rule 92(3) of the NGR states:

“ However, if there is an interval (the interval of delay) between the revision commencement date stated in a full access arrangement and the date on which revisions to the access arrangement actually commence:(a) reference tariffs, as in force at the end of the previous access arrangement period, continue without variation for the interval of delay; but(b) the operation of this subrule may be taken into account in fixing reference tariffs for the new access arrangement period.”

The effect of rule 92(3)(a) of the NGR is that during an interval of delay, the applicable reference tariffs are not derived using the approved tariff variation mechanism set out in rule 92(2). As a consequence, reference tariffs may not reflect an assessment of efficient forecast costs of providing the reference services after the revision commencement date for the duration of the interval of delay.

The definitions of 'an access arrangement period' in rule 3 of the NGR include six different meanings of the term, each of which could apply at varying times of the access arrangement process.

“**access arrangement period** for an applicable access arrangement means any of the following periods that may be applicable to the access arrangement:

- (a) the period between the commencement of the access arrangement and the commencement of the first revision of the access arrangement;
- (b) if the first revision of the access arrangement has not yet taken effect - the period between the commencement of the access arrangement and the revision commencement date for the access arrangement;
- (c) if revision of the access arrangement prior to its expiry is not contemplated - the period between the commencement of the access arrangement and the expiry date for the access arrangement period;
- (d) the period between the actual commencement of successive revisions of the access arrangement;

- (e) the period between the commencement of the last revision of the access arrangement and the revision commencement date for the access arrangement;
- (f) if the access arrangement has been revised but further revision prior to its expiry is not contemplated - the period between the commencement of the last revision of the access arrangement and the expiry date for the access arrangement.”

5.5.2 Commission analysis

In discussions with the AEMC, the ERA raised concerns about the process for equalising revenue during the interval of delay.

In its final decision on the Goldfields Gas Pipeline 2015-2019 access arrangement, the ERA relied on rule 92(3) of the NGR to determine the reference tariffs for this period by taking account the tariffs that applied during the 18 month period between the intended and actual commencement dates of the access arrangement (that is, the interval of delay).

The ERA considered that rule 92(3) of the NGR allowed it to set tariffs for the 2015-2019 access arrangement by taking into account that the forecast revenue during the interval of delay was higher than the total revenue that would have been received using the building block approach in rule 79. In effect, the ERA applied a true-up to the 2015-2019 tariffs to account for the higher tariffs received during the interval of delay. In making its final decision, the ERA stated:¹⁶⁹

“In calculating the approved reference tariffs for the third access arrangement the Authority has factored in the interval of delay and determined tariffs that begin on 1 July 2016 to ensure that GGT [Goldfields Gas Transmission Pty Ltd] is no better or worse off as a result of the delay.”

The ERA's final decision is currently subject to judicial review and this issue is currently being considered by the Supreme Court of Western Australia.

The Commission previously considered the role of rule 92(3) of the NGR in its final determination of the economic regulation of network service providers and price and revenue regulation of gas services in 2012.¹⁷⁰ In this context, APA raised concerns that the then proposed amendments to the NGR would result in a delay in the commencement of the access arrangement revisions for the ATCO Gas distribution network and the Goldfields Gas Pipeline. The Commission noted:¹⁷¹

“...There are existing provisions within the NGR that set out what is to occur when there is a delay between the revision commencement dates specified

¹⁶⁹ ERA, *Goldfields Gas Pipeline access arrangement*, Final Decision, 30 June 2016, p. 449.

¹⁷⁰ AEMC, National Electricity Amendment (Economic Regulation of Service Providers) Rule 2012; National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012, 29 November 2016.

¹⁷¹ AEMC, National Electricity Amendment (Economic Regulation of Service Providers) Rule 2012; National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012, 29 November 2016, p. 276.

in an access arrangement and the date on which the revisions actually commence.”

Specifically in relation to the operation of rule 92(3) of the NGR to true-up revenue during any interval of delay, the Commission stated:¹⁷²

“...the reference tariffs prevailing at the end of the previous access arrangement period continued for the duration of the delay and a NPV [net present value] neutral true-up was carried out on a smoothed basis when the new reference tariffs were approved.

...the Commission is satisfied that rule 92(3) can be relied upon to deal with the effect of any delay between:

- the revision commencement date specified in the ... access arrangements; and
- the date the revisions actually take effect for these two pipelines.”

The Commission also noted:¹⁷³

“The Commission accepts that the use of the word "may" [in rule 92(3)(b)] appears to provide the AER with some discretion as to whether a true-up will be carried out. However, it must be borne in mind that when exercising discretion, the AER is required to have regard to be the NGO and RPP. In the Commission's opinion, these sections of the NGL would support the application of a true-up mechanism if the reference tariffs prevailing in the period of delay were lower (higher) than what they would otherwise have been.”

The ERA has previously applied rule 92(3) of the NGR to true-up the reference tariffs of ATCO Gas following an interval of delay. ATCO Gas contended this approach was incorrect. In that instance, the Australian Competition Tribunal found that the ERA had not erred in its interpretation of rule 92(3) of the NGR.¹⁷⁴

Given the above, and without affecting the current judicial review proceedings or expressing a view on the argument in those proceedings, the Commission has concluded that the operation of the NGR in respect of the interval of delay warrants clarification for future access arrangements.

¹⁷² AEMC, National Electricity Amendment (Economic Regulation of Service Providers) Rule 2012; National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012, 29 November 2016, p. 276.

¹⁷³ AEMC, National Electricity Amendment (Economic Regulation of Service Providers) Rule 2012; National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012, 29 November 2016, p. 252.

¹⁷⁴ Application by ATCO Gas Australia Pty Ltd [2016] ACompT10.

5.5.3 Draft recommendation

Draft recommendation 12: Clarify the process for equalising revenue during the interval of delay

To amend the NGR in order to clarify that:

- the process for equalising revenue during an interval of delay is to result in a service provider being no better or worse off as a result of the interval of delay
- the definition of the access arrangement period includes the period known as the interval of delay.

To achieve this draft recommendation, the Commission expects that amendments to rules 3 and 92 of the NGR will be required.

5.6 Regulatory discretion

5.6.1 Current framework

The NGL requires the regulator, in performing or exercising an economic regulatory function or power, to perform or exercise that function or power in a manner that will or is likely to contribute to the achievement of the NGO.¹⁷⁵

Rule 40 of the NGR sets out three levels of discretion that apply to the regulator when making a decision on specified elements of the access arrangement proposal:

- **No discretion:** The regulator's discretion is entirely excluded in regard to that element of the access arrangement if the proposal meets the requirements of the relevant provision. This applies to the access arrangement review date and access arrangement revision date (rule 50(2)).
- **Limited discretion:** The regulator may not withhold its approval of an element of the access arrangement if the regulator is satisfied that the element complies with the requirements of the NGL and NGR and is consistent with any applicable criteria in the NGL and NGR. The regulator's discretion is limited in relation to:
 - conforming capital expenditure (rule 79)
 - the depreciation schedule (rule 89)
 - operating expenditure (rule 91)
 - for distribution pipelines, the setting of tariff classes to allow service providers to recover the expected revenue (rule 94)
 - for transmission pipelines, the reference tariffs set to recover the portion of total revenue referable to the reference service (rule 95).
- **Full discretion:** The regulator may withhold its approval to the access arrangement element if in its opinion, a preferable alternative exists that complies with the requirements of the NGL and NGR and is consistent with any applicable criteria in the NGL and NGR. This applies to most elements of an access arrangement.

¹⁷⁵ Section 28(1) of the NGL.

5.6.2 Commission analysis

Policy intent and history of the regulatory discretion framework in the NGR

The discretion framework was included in the NGR following findings from the Expert Panel on Energy Access Pricing:¹⁷⁶

“In terms of the level of discretion given to the regulator through the Rules, this raises a number of conflicting objectives, particularly from the viewpoint of regulated entities. Prescription in the Rules promotes certainty and stability of regulatory outcomes. It also assists in promoting a transparent commercial and policy assessment of the regulatory approach, given the nature of the Rule making process that now applies under the NEL and that is to be included in the NGL. Conversely, a high level of prescription reduces the regulator’s ability to accommodate the particular circumstances of individual market participants in regulatory decisions.”

The Expert Panel on Energy Access Pricing concluded that a fit-for-purpose model of regulation should be applied to the energy regulatory regimes.¹⁷⁷ The fit-for-purpose model of decision making comprises a combination of 'consider-decide' and 'propose-respond' to best achieve the NGO and NEO and the revenue and pricing principles:

- consider-decide: the ultimate discretion for an aspect or the whole of a regulatory decision rests with the AER within the guidance and limitations offered by the law. In this model, the AER may prefer what it considers the best solution, value or mechanism rather than be limited by first needing a ground to reject the proposal of the service provider
- propose-respond: where the AER’s task is to assess a proposed aspect or the whole of a regulatory decision and is forced to accept the proposal where it is within the bounds defined by the rules. In this model the AER cannot prefer what it considers a better outcome if the service providers proposal is compliant with the test in the rules.¹⁷⁸

In effect, the Ministerial Council on Energy (MCE)'s subsequent adoption of this approach has enabled the Commission to determine how the AER would exercise its economic regulatory powers as it makes the rules.¹⁷⁹ The Commission increased the regulator's discretion in assessing electricity network service provider regulatory proposals under the NER through the National Electricity Amendment (Economic

¹⁷⁶ Expert Panel on Energy Access Pricing, Report to the Ministerial Council on Energy, 13 April 2006, p. 26.

¹⁷⁷ Expert Panel on Energy Access Pricing, Report to the Ministerial Council on Energy, 16 April 2006, pp. 59-60.

¹⁷⁸ Nicolas P, *Administrative Law in the Energy Sector: Accountability, Complexity and Current Developments*, Australian Institute of Administrative Law Forum, No.59, Vol. 73, 2008, p. 82.

¹⁷⁹ Nicolas P, *Administrative Law in the Energy Sector: Accountability, Complexity and Current Developments*, Australian Institute of Administrative Law Forum No.59, Vol. 73, 2008, pp. 82-83.

Regulation of Network Service Providers) Rule 2012.¹⁸⁰ In doing so, the Commission stated:¹⁸¹

“The final rule provides the regulator with discretion to consider the changing circumstances of each NSP, and make decisions on a case by case basis so that the best outcomes can be achieved - at the same time, the regulator must do so in an accountable and transparent manner.”

Interaction of the regulatory discretion framework with the NGL

Stakeholders¹⁸² have indicated that there may be some ambiguity surrounding the link between the regulatory discretion framework in the NGR and the manner in which the regulator must perform or exercise its regulatory functions or powers under the NGL.¹⁸³ The AER in particular, suggested that the discretion framework be removed as the limited discretion framework has constrained it from challenging proposals made by the service provider.¹⁸⁴ In discussions with the AEMC, the ERA expressed support for this change.

Section 28 of the NGL provides that in making an access arrangement decision where there are two or more decisions that will or are likely to contribute to the NGO, the regulator must make the decision that is "satisfied will or is likely to contribute to the achievement of the NGO to the greatest degree."¹⁸⁵

- “(1) The AER must, in performing or exercising an AER economic regulatory function or power -
 - (a) perform or exercise that function or power in a manner that will or is likely to contribute to the achievement of the national gas objective; and
 - (b) if the AER is making a designated reviewable regulatory decision -
 - ...
 - (iii) if there are 2 or more possible designated reviewable regulatory decisions that will or are likely to contribute to the achievement of the national gas objective -
 - (A) make the decision that the AER is satisfied will or is likely to contribute to the achievement of the national gas objective to the greatest degree (the preferable designated reviewable regulatory decision); and

¹⁸⁰ AEMC, National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, 29 November 2012.

¹⁸¹ AEMC, National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, 29 November 2012, p. 8.

¹⁸² Submissions to the issues paper: Jemena, p. 3; EUAA, p. 2; MEU, p. 18; PIAC, p. 17; AER, pp.10-11. The issue was also discussed at the AEMC's workshop on 14 December 2017.

¹⁸³ Section 28(1)(b)(iii)(A) of the NGL.

¹⁸⁴ This matter of removing the regulatory discretion framework was discussed at the December 2017 AEMC stakeholder workshop and was generally supported. See also: AER, submission to issues paper, pp. 10-11.

¹⁸⁵ Section 28(1)(b)(iii)(A) of the NGL.

- (B) specify reasons as to the basis on which the AER is satisfied that the decision is the preferable designated reviewable regulatory decision.”

However, it is difficult for the regulator to make a more preferable designated reviewable regulatory decision on the overall access arrangement under s. 28(1)(b)(iii) of the NGL where it is prevented, in respect of an element of the access arrangement, from making a decision that better met the NGO.

While there may not be a direct conflict between rules 40(1) and (2) and s. 28(1)(b)(iii) of the NGL, the limited discretion framework created by rule 40 does not sit well with the operation of s. 28(1)(b)(iii) of the NGL. In other words, a tension arises because it is difficult for the regulator to give full effect to s. 28 (that is to make a preferable designated reviewable regulatory decision on the overall access arrangement) if it is hampered in its discretion to make decisions on the individual elements of the access arrangement.

Under the NGR, for full discretion provisions, rule 40(3) provides that the regulator has discretion to withhold its approval to an element of an access arrangement proposal, if in the regulator's opinion, a preferable alternative exists that:

- complies with the applicable requirements of the NGL and NGR
- is consistent with any applicable criteria (if any) prescribed in the NGL and NGR.¹⁸⁶

The tension that arises with limited and no discretion provisions does not arise in relation to full discretion provisions, as an alternative decision can clearly be contemplated by the regulator. However in practice, the regulator's discretion is always limited in the sense that its decision making, even for full discretion provisions, is guided by some set of factors or principles that ultimately place a form of constraint on its decision making power. Therefore, even for full discretion provisions, there are specific criteria set out in the relevant rules, as well as the overarching requirement to have regard to the NGO, that operate to 'limit' the regulator's discretion.

Extent of the regulator's discretion under the NGR

Regardless of the level of discretion allowed under the NGR, the regulator's ability to make decisions or exercise its functions remains constrained by the application of administrative law. As the regulators (the ERA and AER) are government bodies, they are subject to the requirements of administrative law¹⁸⁷ and this imposes a form of constraint on the regulators' exercise of discretion when making decisions.¹⁸⁸

In addition, the gas pipeline regulatory framework sets out additional limitations or constraints on how the regulator can exercise its discretion when making decisions. The

¹⁸⁶ Rule 40(3) of the NGR.

¹⁸⁷ Administrative law is a set of principles contained in both court decisions and legislation. It sets out how administrative decision makers must make decisions and provides affected parties with a way to challenge those decisions.

¹⁸⁸ Criteria for making a valid decision include: where does the power to make the decision come from (head of power); appropriate exercise of discretion; authorisation to make the decision; procedural fairness; preconditions to a decision; consideration of all relevant matters and evidence; correctly recorded decisions (Law Institute of Victoria, *A user's guide to administrative decision making*, 2013).

NGL provides an overarching constraint, in that the regulator must perform or exercise a function in a manner that will or is likely to contribute to the achievement of the NGO. Further, under the NGR, there are more detailed factors, criteria and principles that place a constraint on how the regulator can make decisions regarding specific elements of an access arrangement proposal.

Consistency of the discretion framework with the NER and other parts of the NGR

Chapters 6 and 6A of the NER set out the framework for economic regulation of electricity distribution and transmission network businesses, respectively. Under the NER, there is not a framework similar to that set out in rule 40 of the NGR which explicitly defines categories of discretion (no discretion, limited discretion and full discretion). As discussed above, under the NER the regulator has the discretion to make decisions appropriate to the circumstances of network service providers in assessing regulatory proposals, subject to addressing the relevant factors and considerations set out in the NER.¹⁸⁹

However, the NER includes an overall framework that provides a similar 'spectrum of discretion.' That is, there are clauses that limit the AER's discretion by providing factors and criteria that the AER must take into account with approving certain elements of a revenue proposal. For example, there are provisions that set out matters that the AER must approve or reject if certain requirements are met.¹⁹⁰ These requirements have a similar effect, in practice, to the relevant criteria set out in each relevant rule of the NGR.

Conclusion

The Commission considers that:

- as a matter of principle, the regulator should not be prevented from making a decision on an access arrangement proposal that best promotes the NGO, having regard to all the relevant factors, criteria and principles in the NGL and NGR
- the effect of the current regulatory discretion framework is unclear and confusing and could impede regulatory decisions to best promote the NGO.

On this basis, the Commission considers that no individual rules in the NGR should be identified as 'no' or 'limited' discretion provisions. All decisions made by the regulators in regard to the elements of an access arrangement proposal, and the access arrangement proposal in total, should be 'full' discretion decisions subject to the relevant requirements.¹⁹¹

The Commission has considered whether consequential amendments to the drafting of the each rules previously identified as either a limited or no discretion rule are required

¹⁸⁹ AEMC, National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012, 29 November 2012, p. 32.

¹⁹⁰ For example, see clauses 6.12.3 and 6A.14.3 of the NER.

¹⁹¹ As discussed in Chapter 4, the Commission has made a draft recommendation to amend rule 50 of the NGR (review of access arrangements) to allow service providers to fix a revision commencement date (and corresponding review submission date) to suit the business, with the approval of the regulator.

so that appropriate guidance for decision making is provided to the regulators. No consequential amendments have been identified at this stage.

5.6.3 Draft recommendation

Draft recommendation 13: Remove the limited and no discretion regulatory framework

To remove the limited discretion and no discretion framework contained in rule 40 from the NGR.

6 Determining efficient costs

Summary of findings and draft recommendations

The accurate determination of efficient costs is key to the setting of efficient reference tariffs. Efficient, cost reflective reference tariffs are required to enable the efficient use and provision of reference services as well as efficient investment in the pipeline.

A number of issues have been raised by stakeholders that go to the determination of efficient costs for full regulation pipelines. These issues relate to the assessment of capital and operating expenditure, the determination of the capital base, including the application and meaning of depreciation in this context. The Commission has also considered concerns regarding the operation of the cost allocation and rebateable services rules.

In response, the Commission has made a number of draft recommendations. These are set out in this chapter and include:

- clarification that the new capital expenditure criteria require that the prudent service provider requirement always be satisfied
- that the rate of return for speculative capital expenditure should be at least that implicit in the relevant reference tariff
- clarification that the regulator or dispute resolution body has the discretion to take previous returns into account when setting an opening capital base for a scheme pipeline
- requiring the use of the capital base calculation rules to determine the value of existing expansions and extensions that are to be included in the capital base of full regulation pipelines
- require the regulators to determine an initial capital base for light regulation pipelines where such a valuation does not already exist
- require a dispute resolution body to use a capital base valuation determined by the regulator
- amend the capital and operating expenditure requirements to clearly require service providers to carry out a cost allocation between covered and uncovered assets
- remove the requirement that a rebateable service must be in a separate market to a reference service and introduce a requirement that where relevant, the rebating of rebateable service revenue must be set out in the reference tariff variation mechanism.

6.1 Introduction

The revenue and pricing principles in the NGL set out that a service provider should be provided with a reasonable opportunity to recover the efficient costs of providing the reference services.¹⁹² The revenue and pricing principles also state that the service provider should be provided with incentives to promote economic efficiency with respect to reference services, which includes efficient investment, efficient provision of pipeline services and efficient use of the pipeline.

Reference tariffs are set based on efficient costs of a prudent service provider acting in accordance with good industry practice and forecast demand to deliver efficient total revenue that is calculated using the building block approach.¹⁹³ The simplified steps in calculating a reference tariff are set out in Figure 6.1 below along with the relevant rules.¹⁹⁴

Figure 6.1 Simplified calculation of a reference tariff

Step 1: calculate total revenue

Total revenue = (rate of return x *projected capital base*) + depreciation on *projected capital base* + estimated income tax + increments/decrements from incentive mechanism + forecast operating expenditure
(see rules 76, 87, 87A, 88-90, 91, 98)

given that:

Projected capital base = *opening capital base* + conforming forecast capital expenditure – forecast depreciation for the period – forecast disposals
(see rules 78, 79, 88-90)

and

Opening capital base = opening capital base of previous access arrangement period + approved capital expenditure + adjustments for capital contributions, speculative capital expenditure and former redundant assets – depreciation over the previous access arrangement period – redundant assets – disposals
(see rules 77, 79, 82, 84, 86)

Step 2: allocation

Allocate *total revenue* between reference services and non-reference services (see rule 93).

Step 3: reference tariffs

Calculate reference tariffs by dividing relevant *total revenue* by forecast demand for the relevant reference service.

A reference tariff is calculated by dividing the total revenue allocated to the reference service by the forecast demand for the reference service. Total revenue is calculated as the sum of the allowed return on the projected capital base, depreciation, estimated corporate income tax and operating expenditure, plus or minus any adjustments for the incentive mechanism as approved by the regulator.¹⁹⁵

¹⁹² Section 24 of the NGL.

¹⁹³ Rule 76 of the NGR.

¹⁹⁴ This example is simplified as it assumes a single reference tariff for a single year (the first year of an access arrangement period) for a pipeline that has a previous access arrangement period. In reality, regulators may approve reference tariffs for multiple services over multiple years and in cases where there may or may not be an access arrangement already in place. More details of the alternative methods for calculating capital bases are discussed in section 6.2.1 below.

¹⁹⁵ Rule 76 of the NGR.

This chapter sets out the current framework, analyses key issues and provides draft recommendations for the determination of efficient costs that are used to calculate reference tariffs. It covers:

- capital and operating expenditure
- capital base
- depreciation
- cost allocation
- rebateable services.

6.2 Capital and operating expenditure

6.2.1 Current framework

Conforming and approved capital expenditure

Capital expenditure is assessed ex-ante and ex-post by the regulator:

- ex-ante: At the beginning of an access arrangement period, the regulator determines whether projected capital expenditure for that period is 'conforming'.
- ex-post: Prior to the start of the next access arrangement period, the regulator determines whether actual capital expenditure for the current period is 'approved'. Approved capital expenditure is rolled into the opening capital base and is included in the calculation of total revenue and reference tariffs for the next and subsequent access arrangement periods.

To be assessed as conforming or approved by the regulator, capital expenditure must satisfy the criteria that are set out in rule 79 of the NGR. This test has multiple limbs.

First, the capital expenditure in question must be that which would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing pipeline services.¹⁹⁶

Second, projected and actual capital expenditure must be 'justifiable' under one of the following criteria to be assessed as either 'conforming' or 'approved':¹⁹⁷

- the overall economic value of the expenditure is positive
- the present value of the expected incremental revenue to be generated as a result of the expenditure exceeds the present value of the capital expenditure
- the capital expenditure is necessary to:
 - maintain and improve the safety of services, or
 - maintain the integrity of services, or
 - comply with a regulatory obligation or requirement, or
 - maintain the service provider's capacity to meet levels of demand for services existing at the time the capital expenditure is incurred.

¹⁹⁶ Rule 79(1)(a) of the NGR.

¹⁹⁷ Rules 79(1)(b) and 79(2) of the NGR.

This rule is currently applied by the regulator with limited discretion.¹⁹⁸

Advance determinations

Rule 80 of the NGR allows the regulator to make a determination in advance that if capital expenditure were to be made in accordance with the service provider's proposal and as specified in the determination, then that expenditure will meet the new capital expenditure criteria in rule 79 of the NGR.

An advance determination is binding on the regulator. However, not making an advance determination does not mean that the expenditure will not meet the new capital expenditure criteria in the future. This rule has not been utilised since the NGR commenced.

Surcharges

If a service provider undertakes non-conforming capital expenditure,¹⁹⁹ it may notify the regulator that it proposes to recover the amount, in full or in part, through a surcharge.²⁰⁰ A surcharge is in addition to a reference tariff, or another tariff, which is levied on users of incremental services.

The regulator must only approve a surcharge if the amount recovered from the surcharge in net present value terms is equal to or less than the amount of non-conforming expenditure that would be incurred by a prudent service provider acting efficiently in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services.

Capital expenditure recovered by means of a surcharge can never be rolled into the capital base as this would result in the recovery of the non-conforming capital cost through reference tariffs. This rule has not been utilised since the NGR commenced.

Speculative capital expenditure

The NGR allows for the creation of a speculative capital expenditure account.²⁰¹ It is possible that capital expenditure that was not conforming at the time of the regulator's assessment could be approved subsequently due to volume or service changes. A full access arrangement can allocate non-conforming capital expenditure to a speculative capital expenditure account. If as a result of changes to volume or services the capital expenditure would be approved, the relevant portion of the speculative capital expenditure account (including a return that is approved by the regulator) can be rolled into the capital base at the commencement of the next access arrangement period. This would then allow the capital cost to be recovered through reference tariffs in the future. This rule has not been utilised since the NGR commenced.

Capital contributions

Capital expenditure can also be fully or partially funded by users through capital contributions. The regulator may allow the capital expenditure to which capital contributions have been made to be rolled into the capital base. Regulatory approval to

¹⁹⁸ Rule 79(6) of the NGR. See Chapter 5 for draft recommendations on regulatory discretion.

¹⁹⁹ Rule 81 of the NGR.

²⁰⁰ Rule 83 of the NGR.

²⁰¹ Rule 84 of the NGR.

include such capital expenditure in the capital base is subject to the access arrangement including a mechanism so that the service provider cannot benefit from the capital contributions made through increased revenue.²⁰² This rule has not been utilised since the NGR commenced.

Redundant assets

The NGR allow for an access arrangement to include a mechanism to remove from the capital base assets that cease to contribute to the delivery of pipeline services.²⁰³ A mechanism for sharing the costs associated with a decline in demand for pipeline services between the service provider and users may also be included in the access arrangement.²⁰⁴ This rule has not been utilised since the NGR commenced.

Operating expenditure

Operating expenditure is assessed once by the regulator (ex-ante). Prior to the start of an access arrangement period, the regulator determines whether forecast operating expenditure for the forthcoming period is approved and is to be included in the building block approach to the calculation of total revenue.

To be approved, rule 91 states that operating expenditure must be at a level that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services. This is currently a limited discretion provision.²⁰⁵

6.2.2 Commission analysis

Unspent conforming capital expenditure

Some stakeholders have raised concerns that some service providers do not spend all the conforming capital expenditure during an access arrangement period.²⁰⁶

Submissions to the issues paper focussed on unspent conforming capital expenditure related to the Brooklyn compressor station on the Victorian Declared Transmission System (DTS). APA carried out other capital expenditure that it considered to be more prudent. Some DTS users disagreed with APA's decision, and considered that the proposed forecast conforming capital expenditure would have better addressed the constraint issues in the DTS.

In addition to the above specific issue, submissions raised two broader concerns in relation to unspent conforming capital expenditure:²⁰⁷

- service providers may deliver actual capital expenditure that delivers an inferior outcome to the proposed capital expenditure

²⁰² Rule 82 of the NGR.

²⁰³ Rule 85 of the NGR. If the redundant assets later contribute to the delivery of pipeline services, the assets may be treated as new capital expenditure (rule 86 of the NGR).

²⁰⁴ Rule 85 of the NGR.

²⁰⁵ See Chapter 5 for draft recommendations on regulatory discretion.

²⁰⁶ Lochard et al, submission to the issues paper, p. 1.

²⁰⁷ AGL, submission to the issues paper, p. 2.

- reference tariffs over the access arrangement period include a return of and on unspent conforming capital expenditure.

The NGL and NGR have been designed to provide an incentive-based framework for gas pipeline service providers. For capital expenditure assessment, this has meant that the framework allows the service provider to adjust actual capital expenditure from that assessed as conforming by the regulator during the access arrangement period. This enables the service provider to propose more efficient capital expenditure for approval at the end of the access arrangement period. The NGR also allows service providers to benefit from any reduction in capital expenditure between that proposed as projected at the beginning of the period, and that proposed as actual at the end of the period, through keeping the return on and of the expenditure that did not occur. This incentive regime also means that the service provider bears the cost of any overspend in capital expenditure and is not able to attempt to recover those extra costs during the access arrangement period.

The Commission considers that it is important that the NGR retain the incentive for the service provider to deliver more efficient outcomes through altering its actual capital expenditure from the proposed projected capital expenditure. The benefits of these efficiencies are shared with consumers, with the reduced capital expenditure taken account of in reduced reference tariffs in subsequent access arrangements.²⁰⁸

As for the concern that service providers are allowed a return on unspent capital expenditure, this is a fundamental feature of incentive regulation. Service providers are unlikely to reduce expenditure unless they receive some share of the benefits that arise from doing so. Although service providers are allowed a return for a short period, the underspend leads to lower tariffs for users in the long term.

There is an incentive for service providers to try to overstate projected capital expenditure in order to benefit from the return on and of the unspent capital expenditure up to the start of the next access arrangement period. However, regulators are aware of this risk when assessing projected capital expenditure and often approve a lower amount of expenditure that they consider satisfies the relevant criteria than that proposed by the service provider.

Contingent project mechanism

The AER suggested that the inclusion of a contingent project mechanism, similar to that available to electricity network service providers under the NER, be considered.²⁰⁹ The purpose of adopting this approach would be to reduce the discrepancy between a service provider's proposed projected and actual capital expenditure. A contingent project mechanism would introduce triggers to approve specified capital expenditure.

In consultation with stakeholders including the ERA, the Commission has concluded that the NGR does not prevent a contingent project type mechanism from being applied. This is because there are a range of mechanisms already open to the regulators

²⁰⁸ To further encourage efficiencies, rule 98 of the NGR (incentive mechanisms) permits revenue allowance changes in the following access arrangement periods to reflect the sharing of capital expenditure efficiency gains or losses. These have been used recently by the AER in AusNet Services Gas access arrangement 2018 to 2022, November 2017.

²⁰⁹ AER, submission to the issues paper, p. 13. See rules 6.6A and 6A.8 of the NER.

to achieve a similar result. For example, making an advance determination (rule 80), the ability of service providers to make nonconforming expenditure but potentially recover through surcharges (rule 83) and use of the speculative capital expenditure account (rule 84). For this reason, the Commission is not proposing to amend the NGR to include a contingent project mechanism similar to that in the NER.

Speculative capital expenditure

DBP and AGN considered that rule 84 on speculative capital expenditure is ambiguous on whether the allowed rate of return on speculative capital expenditure would be commensurate with the risk of the investment.²¹⁰ Rule 84(2) of the NGR states that the rate of return may, but need not be, the rate of return used to determine the reference tariff. It does not provide guidance that the return, for example, should be commensurate with the risk of the expenditure so as to attract financing. APA suggested that as a result, the rule does not provide an incentive to finance speculative investment.²¹¹

The Commission considers that, in relation to speculative capital expenditure, the framework should balance encouraging efficient speculative capital expenditure and deterring the service provider from taking risk that creates inefficient costs for users.

The key issue for the speculative capital expenditure account rule as it is currently worded is the lack of clarity on the rate of return that would apply. Rule 84(2) sets out that the return may be, but need not be, the rate of return used to determine the reference tariff. Thus, the return could be above or below the rate of return used to determine the reference tariff.

However, the appropriate rate of return will likely be specific to the particular investment project and its level of risk. Accordingly, it would not be appropriate for the NGR to be too prescriptive on the rate of return that should be applied in all speculative capital expenditure scenarios. Some discretion on deciding the rate of return is needed.

Given the speculative nature of the investment project, the allowed rate of return would be unlikely to provide a return sufficient for the service provider to undertake the investment. Accordingly, the NGR should be amended to provide greater certainty on the rate of return that can be set by a regulator for speculative capital expenditure while still allowing the regulator the flexibility to reflect, where appropriate, the specific circumstances of speculative investment.

Given this, it is recommended that rule 84 be clarified such that the rate of return under rule 84(2) is at a minimum the return used to calculate the reference tariff but that this could be adjusted upwards if the regulator deemed it was appropriate having regard to the speculative nature of the particular investment.

²¹⁰ DBP and AGN, submission to the issues paper, p. 24.

²¹¹ APA, submission to the issues paper, p. 23.

New capital expenditure criterion

There has been some stakeholder concern regarding various aspects of the new capital expenditure criteria on the integrity and safety of pipeline services.²¹² These concerns are discussed in turn.

Reliability criterion

AEMO has suggested that in order for there to be clarity on the application of the new capital expenditure criteria under rule 79(2)(c) of the NGR, there needs to be a reliability standard. AEMO's comments particularly focus on the Victorian DTS where it considers that a reliability standard would not only clarify whether expenditure met the criteria in rule 79 but also aid in the coordination of investment between the transmission and distribution pipelines.

Relevantly, the Victorian Government has initiated a review into the electricity and gas safety framework.²¹³ The review's interim report recommended the introduction of a reliability standard for gas and that the Victorian Government seek AEMC assistance in developing a framework for the standard.²¹⁴

Setting a reliability standard is beyond the scope of the AEMC's current responsibilities. The Australian Energy Market Agreement sets out that the states and territories retain responsibility for setting service reliability standards for electricity distribution networks and gas pipelines.²¹⁵ However, the Commission would support and participate in further investigation of this issue with the Victorian Government and other state governments as requested.

In addition, the Commission has assessed whether the new capital expenditure criteria under rule 79(2)(c) of the NGR should be amended to include a new criterion for reliability in the same way as the rule currently references safety of services. In considering this, the Commission has concluded that capital expenditure relating to service reliability can already be assessed under rule 79(2)(c)(ii) which refers to maintaining the integrity of services. In addition, should the outcome of the Victorian Government safety and reliability framework inquiry result in a reliability standard requirement, expenditure needed to meet this requirement would be captured under rule 79(2)(c)(ii) as it would be 'an obligation to comply with a regulatory obligation or requirement'. Other state government requirements would similarly satisfy this criterion.

Accordingly, the Commission has concluded that no amendments to the new capital expenditure criteria in the NGR are required to permit expenditure required for reliability purposes to be assessed by the regulator.

212 Rule 79(2)(c) of the NGR.

213 A final report was submitted to the Victorian Minister for Energy in December 2017.

214 *Review of Victoria's Electricity and Gas Network Safety Framework*, Interim Report, October 2017.

215 *Notice of Amendment to the Australian Energy Market Agreement*, Annexure 2, 9 December 2013.

Safety criterion

The regulators have indicated that they consider that the new capital expenditure criteria have constrained their ability to address the efficiency of capital expenditure if it meets the safety criterion in rule 79(2)(c)(i) of the NGR.²¹⁶

For capital expenditure to be conforming, it must be expenditure that:

- would be incurred by a prudent service provider acting efficiently (under rule 79(1)(a) of the NGR)
- must also be justifiable (under rule 79(1)(b) of the NGR) in that it meets at least one of the criteria in rule 79(2) (that is, overall economic value is positive; net present value is positive; safety, integrity, regulatory requirement; or to meet demand).

Although, rule 79(1) has omitted the use of either “and” or “or” between subrule (1)(a) and subrule (1)(b), the Commission considers the proper interpretation of rule 79(1) is that it is a cumulative test given the lead in words in (1) “conforms with the following criteria”.

That is, expenditure that is necessary to maintain and improve the safety of services would also need to be expenditure that is incurred by a prudent service provider acting efficiently. Thus, the NGR currently allows the regulator to assess the efficiency of safety related expenditure.

Nonetheless, to clarify this, the Commission is recommending the insertion of the word “and” at the end of rule 79(1)(a) to be clear that all expenditure, regardless of which criteria it meets in subrule (2), must also meet subrule (1)(a). Specifically, that all new capital expenditure must be such that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services.

As set out in Chapter 5 of this draft report, the Commission recommends removing the limited regulatory discretion framework created by rule 40 of the NGR. As a result, limited discretion will no longer apply to the assessment of new capital expenditure.

Operating expenditure

The assessment of operating expenditure rule is simple, clear and succinct and no substantial issues (with the exception of the rule being of limited discretion) have been raised by stakeholders. Rule 91 is the only rule in the NGR relating to the assessment of operating expenditure. As noted in Chapter 5, the Commission is making a draft recommendation that limited discretion be removed from this rule (and all other limited discretion rules). No other changes are proposed to the operating expenditure framework.

²¹⁶ For example, see the ERA process for the MidWest to South West Distribution Systems 2014 -2019 access arrangement and in particular the submissions from Energy Safety WA. See <https://www.erawa.com.au/gas/gas-access/mid-west-and-south-west-gas-distribution-systems/access-arrangements/access-arrangement-for-period-2014-2019>.

6.2.3 Draft recommendations

Draft recommendation 14: Clarify the application of the new capital expenditure criteria

To insert the word “and” in rule 79 between subrules 79(1)(a) and 79(1)(b) to make it clear that regardless of which subrule (2) criteria are relevant for the purposes of subrule 79(1)(b), the expenditure in question must also meet the prudency criterion under rule 79(1)(a).

Draft recommendation 15: Provide guidance on the allowed return for speculative capital expenditure

To clarify that the rate of return to be applied to speculative capital expenditure under rule 84 of the NGR is, at a minimum, the return implicit in the reference tariff but that this could be adjusted upwards if the regulator deemed it was appropriate having regard to the circumstances of the particular investment.

6.3 Capital base

6.3.1 Current framework

Capital base for full regulation pipelines

The initial opening capital base for a newly covered pipeline is determined under rule 77(1) of the NGR and is dependent on the date of commissioning of the pipeline:

- for a covered pipeline commissioned before the commencement of the NGR in 2008: the opening capital base is determined with reference section 8.10 of the code, which states that the regulator should take into account, among a number of other factors:
 - “the basis on which tariffs have been (or appear to have been) set in the past, the economic depreciation of the Covered Pipeline and the historical returns to the Service Provider from the Covered Pipeline.”
- for a covered pipeline commissioned after the commencement of the NGR: the opening capital base is determined as the cost of construction of the pipeline and pipeline assets incurred before commissioning of the pipeline (including easement and real property costs), plus the amount of capital expenditure since the commissioning of the pipeline, less depreciation and disposed assets.

For a full regulation pipeline, the initial capital base calculation occurs only once. Under rule 77 there is an ongoing regulatory process where the initial opening capital base is rolled forward and the opening capital base is calculated at the beginning of each access arrangement period. The approach is set out in rule 77(2) as:

- the opening capital base as at the commencement of the earlier access arrangement period
- plus approved capital expenditure made during the earlier access arrangement period plus any amounts to be added to the capital base due to speculative expenditure account, capital contributions and surcharges

- less depreciation over the earlier access arrangement period and redundant and disposed assets.

Rule 77(3) deals with the situation where there is not a continuous series of full access arrangements in place for a pipeline. It sets the opening capital base for an access arrangement period to be:

- the opening capital base determined in accordance with the NGR for a notional access arrangement taking effect at the end of the access arrangement period for the last full access arrangement (“the relevant date”)
- plus the amount of capital expenditure from the relevant date
- less depreciation from the relevant date
- less disposals since the relevant date.

Capital base valuation for light regulation pipelines

Under the current provisions of the NGR, there are no requirements for a capital base valuation to be made for a light regulation pipeline that has never been a full regulation pipeline or has had an arbitration that required such a determination. A limited access arrangement does not include a capital base valuation, and information disclosure provisions do not require the service provider to publish such information. For light regulation pipelines, there is no express guidance for, or limitation on, the dispute resolution body's approach to capital base valuation. In addition:

- where a capital base has been determined for a light regulation pipeline, there is no express requirement for the dispute resolution body to use it
- where a capital base has been determined for a light regulation pipeline and the dispute resolution body uses it, there is no guidance on the appropriate methodology to roll the capital base forward.

Asset base for non-scheme pipelines

Part 23 of the NGR sets out the approach for calculating an asset base for a non-scheme pipeline subject to arbitration. When making a determination under Part 23 of the NGR, the arbitrator must take into account, among other things, the pricing principles which are set out in rule 569(3). The pricing principles require that the price reflects the cost of providing the service including a commercial rate of return. The asset valuation to which this commercial rate of return is applied set out in rule 569(4).²¹⁷ Unless inconsistent with the objective of Part 23 (that is, setting prices that reflect the outcome of a workably competitive market) then the asset valuation is calculated as:

- (i) the cost of construction of the pipeline and pipeline assets incurred before commissioning of the pipeline (including the cost of acquiring easements and other interests in land necessary for the establishment and operation of the pipeline);
plus
- (ii) the amount of capital expenditure since the commissioning of the pipeline;
less:

²¹⁷ Rule 569(1) of the NGR.

- (iii) the return of capital recovered since the commissioning of the pipeline; and
- (iv) the value of pipeline assets disposed of since the commissioning of the pipeline.

The GMRG intended that the 'return of capital recovered' in this context take into account previous returns.²¹⁸ The approach adopted by the AER in its financial reporting guidelines for non-scheme pipeline service providers is consistent with this interpretation.²¹⁹

The process under Part 23 of the NGR does not determine a capital base, but calculates an asset value each time there is a new arbitration requiring the calculation of tariffs. There is no requirement to use a previous asset value or asset valuation methodology for any subsequent arbitration, even on the same pipeline.

Calculating returns and indexation of the capital base

The NGR is less prescriptive in its approach to calculating returns and indexation of the capital base than the NER. Rule 73 of the NGR provides that financial information provided by a service provider must be provided with a recognised basis for dealing with the effects of inflation. However, there is no specific requirement in the NGR for the capital base to be indexed for inflation. Rule 87(4)(b), however, does mandate that a nominal vanilla rate of return be used.

6.3.2 Commission analysis

Capital base valuation

Central Petroleum submitted that it was concerned with the level of tariffs that it has been offered for access to the Carpentaria Gas Pipeline and the Amadeus Gas Pipeline. According to Central Petroleum, the high tariffs inhibit the promotion of efficiency in both the upstream and downstream markets. It considers that the main reasons for the high tariffs are:

“the present asset valuation techniques and the present pricing principles (which are now inconsistent with and anomalous to Rule 569 of the National Gas Rules (“NGR”)) do not adequately take account of the return of capital recovered since the commissioning of the pipeline.²²⁰”

For some stakeholders, the use of different language in referring to "depreciation" in calculating initial capital bases under rule 77 in Part 9 of the NGR and "return of capital" in asset value determinations by an arbitrator under rule 569 of Part 23 of the NGR has raised the question of whether a different meaning is intended.

The interpretation of “depreciation” in Part 9 and “return of capital” in Part 23 can have implications for asset valuations and as a result, the determined prices. The key driver of these different outcomes is whether past returns can be considered.

218 GMRG, *Gas pipeline information disclosure and arbitration framework: initial National Gas Rules explanatory note*, 2 August 2017, p. 38; GMRG, *Gas pipeline information disclosure and arbitration Framework, final design recommendation*, June 2017, p. 50.

219 AER, *Financial reporting guideline for non-scheme pipelines, Explanatory statement*, December 2017.

220 Central Petroleum, submission to the issues paper, p. 2.

Even though most scheme pipelines have an initial capital base determination, this is relevant for the following:

- the draft recommendation on expansions contained in Chapter 3 means that there are likely to be expansions that need to have an initial capital base calculated
- the draft recommendation on extensions contained in Chapter 3 means that there may also be extensions that need to have an initial capital base calculated
- non-scheme pipelines may become scheme pipelines and require an initial capital base determination
- not all current light regulation pipelines have an initial capital base determination.

The Commission's view is that the correct interpretation of depreciation as it is used in rules 77(1) and 77(3) is as a high-level term that refers to economic depreciation (not accounting or tax depreciation) as would be expected in economic regulatory frameworks and models. Economic depreciation encompasses a range of approaches including the AER's interpretation for Part 23 financial reporting purposes.

To clarify the situation, it is recommended that the term "depreciation" when used in the calculation of an initial capital base in rules 77(1) and 77(3) of the NGR be defined such that it is clear that this is a broad term that refers to economic depreciation.

Related to this, the dispute resolution body is currently not explicitly required to follow the capital base valuation methodologies contained in rule 77 of the NGR nor have regard to an existing capital base determination in disputes regarding a light regulation pipeline. The Commission considers that the framework intends that consistent capital base valuation and roll forward methods be applied to light and full regulation pipelines. The Commission also considers that the current framework does not provide sufficient guidance to the dispute resolution body in this regard.

There are currently two light regulation pipelines that do not have an initial capital base. These are the Kalgoorlie to Kambalda Pipeline in Western Australia that is regulated by the ERA, and the Carpentaria Gas Pipeline in Queensland that is regulated by the AER. There are a number of benefits in having an initial capital base determination for light regulation pipelines. These include:

- increased certainty for service providers, users and prospective users as to dispute resolution outcomes in relation to tariffs
- the increased certainty improves the likelihood of a negotiated settlement
- if a dispute resolution in relation to tariffs was to eventuate, it would be simpler and quicker given the initial asset base, a key component in the determination of a tariff, has already been determined.

There are costs associated with developing an initial capital base for both the regulator and service provider. However, the Commission considers that the benefits outlined above outweigh such costs. In addition, these costs would be incurred, in any event, should there be a dispute resolution proceeding. In discussing this approach with the AEMC, the regulators have indicated their support for such a rule if it were made.

Therefore, the Commission recommends amendments to the NGR that will require:

- for those light regulation pipelines without an initial capital base determination, the regulator to determine an initial capital base within six calendar months of the commencement of the amendments
- the service provider to comply with a request from the regulator for information required to calculate the initial capital base within 20 business days of the request
- the initial capital base calculations to be carried out in accordance with the relevant provisions in rule 77 of the NGR
- the dispute resolution body, in a dispute regarding a light regulation pipeline, to apply the relevant initial capital base determination
- the roll forward of existing capital base valuations for subsequent dispute resolution proceedings will be carried out in accordance with rule 77 of the NGR.

Extensions and expansions

As a result of recommendations contained in Chapter 3, it is likely that some existing assets associated with extensions and expansions will be rolled into capital bases for full regulation pipelines at the next access arrangement review. Service providers may also elect to include existing extension assets in an access arrangement.

The appropriate approach for these valuations is to apply the methods contained in rules 77(1) and 77(3) of the NGR. Rules 77(1) and 77(3) apply when either a pipeline first becomes covered or after a period intervenes between access arrangement periods.

The application of rule 77(1) would treat the pipeline assets as if they were a separate pipeline for the calculation of the initial capital base. The outcome would be an initial capital base determination for the pipeline assets. This would then be added to the opening capital base for the next access arrangement period for the relevant pipeline under an amended rule 77(3). This would be a one-off change to the opening capital base calculation for the relevant pipelines that would need to be achieved by amendments to rule 77 of the NGR.

Therefore, the Commission's draft recommendation is that amendments be made to rule 77 of the NGR so that the capital base methodologies are used to calculate the initial capital base that is associated with existing extensions and expansions, and to roll them forward.

Indexation of the capital base

The AER has requested that amendments be made to the NGR to require service providers to index the capital base in the revenue model for an access arrangement. The AER also requested that the NGR specify the use of the two key regulatory models (the post-tax revenue model and roll forward model) by service providers.²²¹

In the NER, the regulator's models, the post-tax revenue model and roll-forward model, must be used to develop a revenue proposal.²²² In addition, the capital base must be

²²¹ AER, submission to the issues paper, p. 15. See Chapter 5 for a detailed discussion of the use of regulator financial models.

²²² Clauses 6.3.1(c) and 6.5.1 of the NER.

indexed by inflation,²²³ and a nominal rate of return is to be used.²²⁴ Meeting these requirements also requires an adjustment be made to the building block calculations to prevent double counting of the impacts of inflation given that a nominal return is being applied to a nominal capital base.²²⁵

The AER considers that despite recent support for its approach from Australian Competition Tribunal decisions,²²⁶ the less prescriptive approach on this matter in the NGR allows service providers to argue against the use of these models. For this reason, the AER seeks a greater level of prescription, consistent with the NER, in the NGR.²²⁷

It is important to note that the AER's approach of a nominal WACC (weighted average cost of capital), indexed asset base and depreciation adjustment to avoid double counting is not the only appropriate approach that could be used in a regulatory model.²²⁸ The Commission also notes that the current rules do not prevent the AER from implementing its preferred approach.

On balance, the Commission has concluded that the requirements and the level of prescription currently provided in the NGR on this issue are appropriate. The key to this conclusion is that currently the AER can implement its preferred approach. In addition, implementing more prescription may prevent development of different approaches over time should the regulators believe these to be warranted.²²⁹

Chapter 5 of this draft report discusses the issues raised by the AER regarding the adoption of regulator financial models for access arrangements.

6.3.3 Draft recommendations

Draft recommendation 16: Clarify the term depreciation when used in capital base valuations

To amend the NGR to clarify that the term "depreciation" when applied in calculating an opening capital base in rule 77 refers to economic depreciation. This gives the regulator or dispute resolution body has the discretion to take previous returns into account when setting an opening capital base for a scheme pipeline.

²²³ Clause 6.2.3(c)(4) of the NER.

²²⁴ Clause 6.5.2(d)(2) of the NER.

²²⁵ Clause 6.4.3(b)(1) of the NER.

²²⁶ APA GasNet Access Arrangement 2013-17, Australian Competition Tribunal Decision, September 2013.

²²⁷ AER, submission to the issues paper, p. 16.

²²⁸ For example, IPART uses an equivalent approach while applying a real post tax WACC. IPART, *Review of our WACC method*, October 2017 p. 77.

²²⁹ Rule 87 requires the AER to consult and publish a rate of return guideline every five years.

Draft recommendation 17: Require an initial capital base valuation for light regulation pipelines

That the NGR be amended such that:

- for those light regulation pipelines without an initial capital base, the regulator must calculate an initial capital base within six calendar months of the commencement of the amendments
- a light regulation pipeline service provider must comply with a request from the regulator for information required to calculate the initial capital base within 20 business days of the request
- an initial capital base determination will be carried out in accordance with the relevant provisions in rule 77 of the NGR
- the dispute resolution body, in a dispute regarding a light regulation pipeline, will apply the relevant initial capital base determination
- the roll forward of an existing capital base valuation for subsequent dispute resolution proceedings will be carried out in accordance with rule 77 of the NGR.

Draft recommendation 18: Enable the addition of existing extensions and expansions to the opening capital base

To amend the NGR to apply the capital base methodologies to:

- calculate the initial capital base that is associated with existing extensions and expansions
- include the existing extensions and expansions in the capital base of the pipeline.

6.4 Depreciation

6.4.1 Current framework

A depreciation schedule lists assets by asset class, assigns an asset life to each asset class, and outlines how each asset class will be depreciated. Rule 89 of the NGR sets out that a depreciation schedule should be designed such that:

- reference tariffs vary over time, in a way that promotes efficient growth in the market for reference services
- each asset or group of assets is depreciated over the economic life of that asset or group of assets
- an asset is depreciated only once
- the service provider's reasonable needs for cash flow meet financing, non-capital and other costs.

This rule is currently applied by the regulator with limited discretion.²³⁰

²³⁰ See Chapter 5 for draft recommendations on regulatory discretion.

6.4.2 Commission analysis

Overall stakeholder views are that the depreciation criteria set out in rule 89 are appropriate. Neither the AER nor ACCC made any comment concerning the criteria. Two main comments were made by other stakeholders.

Firstly, Hydro Tasmania highlighted the changing and dynamic nature of current gas markets.²³¹ It was concerned that under the current regime, reference tariffs may not fall as demand declines.

As noted by Hydro Tasmania, adjusting the depreciation schedule is a potential way for tariffs to respond to market changes. Indeed, the AER has recognised this:

“Further, we recognise the development of disruptive technologies in the Australian energy sector may create some non-systematic risk to the cash flows of energy network businesses. We consider these can be more appropriately compensated through regulated cashflows (such as accelerated depreciation of assets)²³²”

This suggests that views on economic depreciation are aligned. The current provisions of the NGR on depreciation are flexible enough to allow for adjustments to depreciation schedules to be made to reflect market changes as previously recognised by the AER. No changes to the NGR are necessary to enable this approach.

Secondly, DBP and AGN argued that rule 89 should be clarified to require the depreciation schedule to be set to deliver sufficient cash flow to maintain the credit rating of the benchmark service provider that is assumed in setting the cost of debt. DBP and AGN referred to this as financeability.²³³

The current criteria in rule 89 already include consideration of financing costs, although without the specific requirement that the assumed credit rating of the benchmark service provider is to be maintained. Nevertheless, the Commission considers that the current wording in rule 89 is consistent with the views expressed by DBP and AGN. The current rule states that the depreciation schedule should be designed, among other things, to allow for the service provider’s reasonable needs for cash flow to meet financing, non-capital and other costs.

Accordingly, the Commission is recommending no change to the depreciation criteria at this time.

As set out in Chapter 5 of this draft report, the Commission recommends removing the limited regulatory discretion framework created by rule 40 of the NGR. As a result, limited discretion will no longer apply to the depreciation criteria in rule 89.

²³¹ Hydro Tasmania, submission to the issues paper, pp. 2-3.

²³² AER, *SA Power Networks preliminary decision – Attachment 3: Rate of return*, April 2015, p. 376.

²³³ DBP and AGN, submission to the issues paper, p. 16.

6.5 Cost allocation

6.5.1 Current framework

Rule 93 of the NGR includes provisions that require the allocation of total revenue across reference services and other services to reflect the allocation of costs directly attributable to reference services and other costs across reference services and other pipeline services that are not reference services:

- cost directly attributable to providing reference services are allocated to those reference services, and the costs directly attributable to providing non-reference services are allocated to those non-reference services
- other costs are allocated between reference services and non-reference services on a basis that is determined or approved by the regulator, in line with the revenue and pricing principles.

6.5.2 Commission analysis

In order to calculate efficient costs, all costs will need to be allocated between covered and uncovered parts of a pipeline. If this does not occur, then a reference tariff will potentially not reflect the efficient costs of providing the reference service and could include costs associated with providing services utilising uncovered parts of the pipeline. As a result, users may pay more than the efficient cost of providing the service that they use.

While rule 93 of the NGR provides for the allocation of 'total revenue' across reference services and other services, it does not specify that there is an allocation of costs between covered and uncovered parts of a pipeline. This is because 'total revenue' calculated by the building block approach under rule 76 of the NGR applies only to the covered assets.

The recommendations contained in Chapter 3 in relation to the coverage of expansions are expected to reduce the importance of the issue in relation to allocation between covered and uncovered parts of a pipeline generated from the existence of uncovered expansions. However, there may still be uncovered extensions of covered pipelines that require cost allocation to be applied across covered and uncovered assets.

This raises practical difficulties for service providers and regulators in determining and assessing costs. Given the implications on reference tariffs for pipeline users, the Commission recommends that both rules 79 and 91 be amended to clarify that proposed forecast capital and operating expenditures refer to costs after an allocation of costs between the covered and uncovered parts of a pipeline has occurred.

To support this change, the NGR should also be amended so that the service provider details the basis for the total costs and the cost allocation method that it has used, so that the regulator can assess its reasonableness and make an informed decision on the proposal.

6.5.3 Draft recommendation

Draft recommendation 19: Require allocation of expenditure between covered and uncovered parts of a pipeline

To amend the NGR in order to:

- require an access arrangement revision proposal to include proposed forecast capital and operating expenditures that refer to costs after an allocation of expenditure between the covered and uncovered parts of a covered pipeline
- require a service provider to provide to the regulator details of the basis and methodology used to calculate the proposed forecast capital expenditure and operating expenditure and the allocation of the expenditure
- clarify the regulator's discretion in assessing the total expenditure and cost allocation.

6.6 Rebateable services

Rule 93 permits the regulator to allocate costs of rebateable services to reference services as long as the regulator is satisfied that the service provider will later apply an appropriate portion of the revenue generated from the sale of rebateable services to provide price rebates (or refunds) to the users of reference services. Rule 93(4) defines rebateable services as non-reference services for which:

- the markets are substantially different from markets for reference services
- demand, or the revenue to be generated from the service, is substantially uncertain.

6.6.1 Commission analysis

An issue with the current framework is that reference services do not relate to a sufficient range of relevant services provided by full regulation pipelines. This has increased the ability of service providers to set monopoly prices. The Commission expects the result of draft recommendations in Chapter 4 would be to broaden the set of reference services.

The rebateable service provisions are intended to deal with services that utilise covered assets, but whose demand is difficult to forecast accurately at the beginning of an access arrangement period.

The AER noted that:

“it is important that a pipeline operator has incentives under the regulatory regime to innovate and provide a variety of services. It is equally as important to ensure the pipeline operator does not exercise unlimited market power with respect to these types of service²³⁴”

The AER's concern with the current rebateable service provisions is that the requirement for the services to be in a market substantially different from the markets for reference services restricts the ability to appropriately identify rebateable services.

²³⁴ AER, submission to the issues paper, p. 16.

In 2011, the AER sought a rule change to remove the requirement for a rebateable service to be in a substantially different market from a reference service. At the time, the AEMC did not consider that the potential benefits of making such a change to the rebateable services definition outweighed the costs.²³⁵

Rule 93 also allows for the allocation of costs associated with rebateable services to reference services. The rule provides for an ex-post re-allocation of these costs through a refund to users of reference services. However, the rule does not provide any guidance on how this could be practically implemented, particularly as it specifies price rebates or refunds be provided to the 'users of reference services' rather than simply that the rebate is to be applied to reference tariffs. This is a problem because in practice there may be few, if any, users of the reference service, as the reference service operates as a benchmark under the framework and users may have negotiated to receive a slightly different service. Moreover, the term "users of the reference service" is not defined.

The intent of the current rebateable service provisions is to restrict the ability of service providers to monopoly price so that new services using covered assets are not cross subsidised by the reference tariffs. However, the ambiguity and insufficient guidance in the rule impacts on achieving this policy intent.

The rebate is similar in some ways to other adjustments to reference tariffs that take place through the tariff variation mechanism under rule 97 of the NGR. As the tariff variation mechanism is a process that is understood and applied by service providers and regulators, it is recommended that rebates from rebateable services occur through this existing mechanism. The Commission considers that this approach would be achievable in practice and consistent with the overall objective of allocating costs appropriately between services. The application of a rebate to a reference service will decrease the reference tariff. Accordingly, the reference tariff will more appropriately reflect the efficient cost of providing the reference service.

This solution is similar to the outcome achieved in the recent Roma to Brisbane Pipeline final decision where the AER has accepted an adjustment for rebateable services through a tariff amendment rather than direct rebates to users.²³⁶

As noted above, another issue with rebateable services has been the requirement for rebateable service to be in a different market to the market for reference services. This has been a difficult aspect for regulators. It is complex to define a market, and ascertain that it is different from another market (in this case, the market for the reference services). The key determinant as to whether a service should be a rebateable service is whether it is possible to forecast the demand of the service upfront. The Commission

²³⁵ The analysis undertaken by the AEMC looked at the Victorian DTS and contract carriage pipelines. The analysis focused on the service at issue in the AER's request, which was the DTS AMDQ cc (authorised maximum daily quantity credit certificates). The AEMC identified that the effect of the approved DTS access arrangement (specifically the annual tariff variation mechanism) was to rebate part of the benefits accruing to APA from the AMDQ cc to users of the reference services in the following year. The analysis of contract carriage pipelines focussed on intra-day-nominations in contract carriage pipelines and the potential impact on most favoured nation clauses in existing contracts. AEMC, Rule determination: National Gas Amendment (reference service and rebateable service definition) 2012, 1 November 2012, pp. iii, 30 and 56.

²³⁶ AER, *Final Decision, Roma to Brisbane Gas Pipeline access arrangement 2017-2022, Overview*, November 2017.

does not consider the current requirement of being in different markets should be a key aspect of determining whether a service should be a rebateable service.

Accordingly, it is recommended that the separate market requirement for rebateable services be removed from rule 93 of the NGR. The removal of the requirement to define a market for a service in this rule is consistent with the Commission's recommendation to remove the market definition concept from the reference service test in the NGR as discussed in Chapter 4.

6.6.2 Draft recommendation

Draft recommendation 20: Amend definition of rebateable services and rebate methodology

To amend the NGR to:

- add a requirement that if an access arrangement includes rebateable services then it must also allow for the rebate of revenues from the rebateable services in the reference tariff variation mechanism
- remove the requirement that rebateable services must be in a different market to reference services.

7 Negotiation and information

Summary of findings and draft recommendations

Up to date capacity and usage information is required by prospective users in order to decide whether to seek access and in negotiations for access. Bulletin Board pipeline service providers are required to publicly disclose up to date capacity and usage information. However, the up to date disclosure obligations on other full and light regulation pipeline service providers are limited, meaning that prospective users may be insufficiently informed in their access negotiations.

To address the consequences of this, the Commission's draft recommendations are that:

- all full and light regulation transmission pipeline service providers disclose the same capacity and usage information that they would if they were Bulletin Board pipeline service providers
- all full and light regulation distribution pipeline service providers publish the same set of capacity and usage information as non-scheme pipeline service providers.

For light regulation pipelines, service providers are required to publish very little financial and offer information, making it difficult for prospective users to form a view on the reasonableness or otherwise of offers put before them. To address this issue, the Commission recommends that light regulation pipeline service providers publish the same set of financial and offer information as non-scheme pipeline service providers.

Other draft recommendations include:

- minor improvements to the rule allowing prospective users to seek information from service providers through the regulator
- having KPIs set directly by the regulator, rather than going through the access arrangement process
- renaming the Scheme Register and updating its required contents to include additional non-scheme pipeline information.

The NGL and NGR provide a negotiate-arbitrate regime for third party access to natural gas pipelines. Effective access negotiations are underpinned by information on the availability and cost of sought access services.

This chapter discusses information provision requirements in the NGL and NGR for access negotiations on full regulation and light regulation pipelines. For prospective users, removing information asymmetries should facilitate negotiation of access at the lowest price that is commensurate with efficient levels of capital and operating investment. Where a negotiated outcome is not achieved, the availability of an appropriate level of information will assist parties to decide whether to initiate a dispute and if so will allow prospective users to put forward their case. Chapter 8 discusses arbitration, and covers information provision requirements for dispute resolution.

In the gas pipeline negotiate-arbitrate regime for full and light regulation pipelines, information is required for the following purposes:

- by the regulator, in order to:
 - approve or amend access arrangements
 - monitor and report on compliance
 - monitor and report on financial and operational performance
 - benchmark service providers
- by users and prospective users, to:
 - determine whether spare capacity exists or will exist (for example, through an expansion)
 - understand how tariffs are determined.

This chapter discusses:

- information available to the regulator (section 7.1)
- pipeline capacity and usage information available to prospective users (section 7.2)
- pipeline financial and offer information available to prospective users (section 7.3)
- key performance indicators (section 7.4)
- the Scheme Register (section 7.5).

7.1 Information available to the regulator

7.1.1 Current framework

Functions and powers of the regulator

Section 27 of the NGL states that the regulator has the following functions and powers:

- (a) to monitor compliance by persons (including AEMO) with the NGL, the National Gas Regulations and the NGR, including compliance with an applicable access arrangement,²³⁷ an access determination and a ring fencing decision; and
- (b) to investigate breaches or possible breaches of provisions of the NGL, the National Gas Regulations and the NGR, including offences against this Law; and
- (c) to institute and conduct proceedings in relation to breaches of provisions of the NGL, the National Gas Regulations and the NGR, including offences against this Law; and
- (d) to institute and conduct appeals from decisions in proceedings referred to in paragraph (c); and
- (e) AER economic regulatory functions or powers; and
- (f) to prepare and publish reports on the financial and operational performance of service providers in providing pipeline services by means of covered pipelines;²³⁸ and
- (g) to approve compliance programs of service providers relating to compliance by service providers with the NGL or the NGR; and
- (h) any other functions and powers conferred on it under this Law or the Rules.²³⁹

Access arrangement information

For full regulation pipelines, the regulator receives access arrangement proposals for approval. The pipeline information initially provided by pipeline service providers through the access arrangement proposals and the accompanying access arrangement information is relatively comprehensive. The information includes a description of the pipeline, reference services and tariffs, terms and conditions, capacity trading requirements and extension/expansion requirements.²⁴⁰

Access arrangement information submitted with the access arrangement proposal is defined as information that is reasonably necessary for users and prospective users:

- to understand the background to the access arrangement or the access arrangement proposal

²³⁷ Section 2 of the NGL defines an access arrangement as an arrangement setting out terms and conditions about access to pipeline services provided or to be provided by means of a pipeline.

²³⁸ Covered pipelines include full regulation and light regulation pipelines.

²³⁹ The regulator also has a number of other functions and powers relating to markets and enforcement that are outside of the scope of this review.

²⁴⁰ Rule 48 of the NGR.

- to understand the basis and derivation of the various elements of the access arrangement or the access arrangement proposal.²⁴¹

In addition, the access arrangement information must contain a comprehensive suite of information on the building block components underpinning proposed reference service tariffs and revenues.²⁴²

The regulator may require further submissions or revisions to the submitted access arrangement information if, in the regulator's opinion, the access arrangement information is deficient in its comprehensiveness or in any other respect.²⁴³

A service provider may choose to submit a limited access arrangement proposal for a light regulation pipeline. A limited access arrangement contains less information than a full access arrangement and in particular is not required to contain pricing information.²⁴⁴ As a result, the building block information and approach under Part 9 of the NGR does not apply to a limited access arrangement.²⁴⁵ To date no limited access arrangement proposals have been submitted.

Regulatory information notices and orders

For full regulation and light regulation pipelines, the regulator can serve regulatory information notices (RINs) and make regulatory information orders (RIOs). RINs are information notices issued to specific pipeline service providers.²⁴⁶ RIOs are general information orders applying to a specified class of pipeline service providers.²⁴⁷

A regulator can serve RINs or make RIOs if it considers the information is reasonably necessary for the performance or exercise of its functions or powers.²⁴⁸ RINs and RIOs allow the regulator to obtain the information that it reasonably requires in order to assess and potentially approve an access arrangement proposal.

RINs and RIOs can also be used by the regulator to assist in undertaking its other functions in relation to both full and light regulation pipelines. RINs and RIOs can only be issued to scheme pipeline service providers or their related providers.²⁴⁹

Regulator's general information gathering powers

The regulator also has a general information gathering power to serve a notice that requires a person (capable of doing so) to provide information or produce a document that the regulator requires for the performance or exercise of a function conferred on it under the NGL or the NGR.²⁵⁰

241 Rule 42(1) of the NGR.

242 Part 9, Divisions 2 and 3 of the NGR.

243 Rule 43(3) of the NGR.

244 Rule 45 of the NGR.

245 Rule 70 of the NGR.

246 Section 46 of the NGL.

247 Section 45 of the NGL.

248 Section 48 of the NGL.

249 Sections 27, 43, 45 and 46 of the NGL.

250 Section 42(1) of the NGL.

The threshold test for using this general information gathering power is more onerous than that for RINs and RIOs. The regulator must “require” the information rather than “consider it reasonably necessary” for the exercise of its functions or powers.

However, this general power is not limited in application to full and light regulation pipelines. It applies to any person capable of providing information. This power may be useful in obtaining information on non-scheme components of a pipeline such as cost allocations to uncovered extensions, or for compliance matters regarding non-scheme pipelines.

Dispute resolution

Where the regulator is acting as a dispute resolution body it may also summon a person to appear before it and to produce such documents (if any) as are referred to in the summons.²⁵¹ Dispute resolution is covered in Chapter 8 of this report.

7.1.2 Commission analysis

The AER expressed some concern about its ability to gather information on light regulation pipelines. The AER suggested that regulators be provided with greater information gathering powers under Part 11 of the NGR in relation to scheme pipelines subject to light regulation. The AER also considered that it should have discretion to collect information that it considers necessary to enable users to make proper decisions around seeking access and for effective negotiation for pipeline services. The AER considered that with broader information gathering powers it could consider increasing annual reporting requirements for covered pipelines.²⁵²

The ACCC has observed that the AER has some existing information gathering powers that may be able to be used more widely.²⁵³

Notwithstanding the AER's comments, the regulators' information gathering powers (as described in section 7.1.1) appear to be comprehensive and fit for purpose. The ability of the regulators to issue RINs and RIOs, as well as the general information gathering power, appear to provide the regulators with the necessary powers to access the information that they need in order to carry out their functions, including their function "to prepare and publish reports on the financial and operational performance of service providers in providing pipeline services by means of covered pipelines".²⁵⁴ The provisions in the NGL appear sufficient to provide the regulators with the ability to gather all of the information they require, and to allow information disclosure where appropriate.

One limitation is that the regulator's ability to issue RINs and RIOs does not extend to non-scheme pipelines, including information the regulator may want to consider regarding uncovered extensions of scheme pipelines. For these pipelines the regulator has to rely on its general information gathering power. As described above, the threshold test for obtaining information under this general power is more onerous. No

251 Section 201(2) of the NGL.

252 AER, submission to the issues paper, pp. 22-23.

253 ACCC, submission to the issues paper, p. 10.

254 Section 27(1)(f) of the NGL

submissions were received recommending that RINs and RIOs be extended to cover non-scheme pipelines.

On balance, the Commission has concluded that no change need be made to the regulator's information gathering powers in relation to full and light regulation pipelines.

7.2 Pipeline capacity and usage information available to prospective users

7.2.1 Current framework

Published capacity and usage information - full and light regulation pipelines

Full and light regulation pipeline service providers for all transmission pipelines and some distribution pipelines, as determined by the regulator,²⁵⁵ are required to establish and maintain a public register of spare capacity for their trunk or main pipeline or pipelines. The information on the register must include:²⁵⁶

- information about the spare capacity that the service provider reasonably believes exists for the haulage of natural gas between defined receipt and delivery points
- information about spare capacity that the service provider reasonably believes will exist for the haulage of natural gas between defined receipt and delivery points, including information about planned developable capacity and expected additions to spare capacity
- information (which must be as specific as the circumstances reasonably allow) about when the spare capacity is, or will become, available
- information notified to the service provider by a user about unutilised contracted capacity including:
 - (i) the quantity and type of the unutilised contracted capacity and when it will be available
 - (ii) proposed terms and conditions (which may include the price) for the sale of the unutilised contracted capacity.

For full regulation pipelines an access arrangement must also be in place. An access arrangement contains, among other things, capacity trading requirements.²⁵⁷ Access arrangement information, which must be submitted with an access arrangement proposal,²⁵⁸ must also include usage of the pipeline over the earlier access arrangement period, showing minimum, maximum and average demand, along with customer or user numbers. To the extent it is practicable, a forecast of pipeline capacity and

²⁵⁵ Under Rule 111(2) of the NGR, for a distribution pipeline, the regulator must have regard to whether it is technically feasible and commercially reasonable for the service provider to maintain a register of spare capacity.

²⁵⁶ Rule 111(4) of the NGR.

²⁵⁷ Rule 48 of the NGR.

²⁵⁸ Rule 43(1) of the NGR.

utilisation over the access arrangement period and the basis on which the forecast has been derived must also be provided.²⁵⁹

Some pipeline information is also contained within the Scheme Register. All pipelines that are, or have been, subject to any form of regulation or exemption from regulation under the NGL or the old scheme (that is, the code) must be included on the Scheme Register, which the AEMC maintains.²⁶⁰ When the description of a scheme pipeline is affected by an extension or capacity expansion, the service provider must give the AEMC a revised description of the pipeline, incorporating the extension or expansion, for inclusion in the register.²⁶¹

Unpublished capacity and usage information - full and light regulation pipelines

A full or light regulation pipeline service provider must, on request and free of charge, inform a prospective user whether it can provide a requested service and if so, the terms and conditions on which it is prepared to provide the service. Users may be required to meet costs if further investigations are required. The service provider must provide reasons if it cannot provide the requested service.²⁶²

Full and light regulation pipeline users must, on request and within 10 business days, disclose unutilised contracted capacity and whether it is, or is likely to become available.²⁶³

A prospective user may request, through the regulator, the pipeline service provider to provide (free of charge) specified information that the prospective user reasonably requires in order to decide whether to seek access and, if so, how to go about applying for access.²⁶⁴

Capacity and usage information - Bulletin Board pipelines

Transmission pipelines that have an impact on the broader market are Bulletin Board pipelines and have an obligation to provide information to AEMO. AEMO must publish this information on its Bulletin Board, subject to certain aggregation, confidentiality and timing requirements.²⁶⁵ Most transmission pipelines are Bulletin Board pipelines.²⁶⁶ From September 2018 Bulletin Board pipelines that are lateral gathering pipelines may also be exempt from information disclosure obligations, and

²⁵⁹ Rules 72(1)(a)(iii) and 72(d) of the NGR.

²⁶⁰ See section 7.5 for further discussion on the Scheme Register.

²⁶¹ Rule 134 of the NGR.

²⁶² Rule 112 of the NGR. Chapter 8 puts forward draft recommendations to amend this rule.

²⁶³ Rule 110 of the NGR.

²⁶⁴ Rule 107 of the NGR.

²⁶⁵ Part 18, Division 2 of the NGR and Part 18, Division 7 of the National Gas Amendment (Improvements to Natural Gas Bulletin Board) Rule 2017 No.3.

²⁶⁶ From September 2018 exceptions will be pipelines that are below the reporting threshold of 10TJ/day and remote pipelines. See the National Gas Amendment (Improvements to Natural Gas Bulletin Board) Rule 2017 No.3, rules 141, 144 and 151.

some participants may be exempt from providing information if the information is provided to AEMO by another person.²⁶⁷

The information that Bulletin Board pipelines service providers must provide to AEMO includes:²⁶⁸

- nameplate rating information
- detailed facility information
- information about shippers
- secondary trade data
- capacity outlooks
- 12 month outlook of uncontracted primary capacity
- linepack/capacity adequacy indicator
- nominated and forecast delivery information
- actual pipeline gas receipt and delivery information.

The above information disclosures are underpinned by more detailed requirements within the rules and also in the Bulletin Board Procedures.

A Bulletin Board pipeline may notify other Bulletin Board users that it has spare capacity available for purchase or capacity requirements.²⁶⁹

Capacity and usage information - non-scheme pipelines

Non-scheme pipeline service providers must, unless exempted,²⁷⁰ publish the following information, defined together as being "service and access information".²⁷¹

- pipeline information for a transmission pipeline:
 - the pipeline's nameplate rating
 - details of all receipt and delivery points and key facilities to which those points connect
 - a schematic map showing the location of each receipt or delivery point and other key facilities
- pipeline information for a distribution pipeline:
 - the quantity of natural gas that can be transported through each gate station on the distribution pipeline in any 24 hour period

²⁶⁷ National Gas Amendment (Improvements to Natural Gas Bulletin Board) Rule 2017 No.3, Rules 164(1) and 164(2).

²⁶⁸ Part 18, Division 5 of the NGR and Part 18, Division 5 of the National Gas Amendment (Improvements to Natural Gas Bulletin Board) Rule 2017 No. 3. West Australian Bulletin Board pipelines are subject to similar requirements as set out in Part 3, Division 2 of Western Australia's *Gas Services Information Rules*.

²⁶⁹ Rules 176 and 177 of the NGR and Part 18, Division 6 of the National Gas Amendment (Improvements to Natural Gas Bulletin Board) Rule 2017 No. 3.

²⁷⁰ Rule 585 of the NGR.

²⁷¹ Rule 553 of the NGR.

- the details of all points on the pipeline where the service provider takes delivery of natural gas
- a schematic map of the pipeline that shows the location on the pipeline of the points on the pipeline where the service provider takes delivery of natural gas and the geographic limits of the areas served by the pipeline
- pipeline information (for a transmission or a distribution pipeline):
 - any technical or physical characteristics that may affect access or price
 - policies that may affect access or pricing including queuing, changes to receipt and delivery points and metering and measurement
- pipeline service information including a list of services available on the pipeline and for each pipeline service:
 - a description of the service and locational limitations on availability
 - the priority ranking of the service in relation to other services, including in the event of curtailment
- service usage information for each month including:
 - the quantity of gas injected into the pipeline
 - the quantity of gas withdrawn from the pipeline
 - the quantity of gas scheduled for injection
 - the quantity of gas scheduled for withdrawal
 - for scheduled quantities, the quantities attributable to each service
- service availability information including:
 - the firm capacity outlook (and the amount available and projected for sale) each month in the following 36 month period
 - information on any matters that may affect the capacity of the pipeline for each month in the following 12-month period.

The service availability information that service providers must publish for non-scheme pipelines is similar in nature to the information that service providers for full and light regulation pipelines are required to publish in their public register of spare capacity, as described earlier in this section 7.2.1. However, for full and light regulation pipelines outlook periods are not specified.

The service and usage information is also updated every month.²⁷² Conversely, the similar access arrangement information for full regulation pipelines is updated only when a new access arrangement proposal is submitted.²⁷³

Where the information is also required to be provided to AEMO for publication on the Bulletin Board, the non-scheme pipeline service provider may instead make the

²⁷² Rule 552(2) of the NGR.

²⁷³ Rules 72(1)(a)(iii)(A) and 72(1)(d) of the NGR.

information available by providing a publicly available link on its website to the part of the Bulletin Board where the information is located.²⁷⁴

7.2.2 Commission analysis

Publishing information

Users, consumer representatives, the AER and the ACCC supported extending the information disclosure requirements under Part 23 for non-scheme pipelines to full and light regulation scheme pipelines.²⁷⁵ While submissions on this issue were not detailed and benefits were not quantified, users considered that the existing level of disclosure for scheme pipelines was inadequate, particularly for light regulation pipelines, and that the information disclosure requirements for non-scheme pipelines struck a better balance between the cost and benefit of regulation. Some users and the ACCC also suggested that having information provided on an inconsistent basis between scheme and non-scheme pipelines diminishes the ability to make comparisons between pipeline services on different pipelines and from different service providers. Users did not generally differentiate between capacity, usage, financial and offer information.²⁷⁶

Pipeline service providers considered that the existing arrangements should remain largely as they are, noting that:²⁷⁷

- a significant amount of information is already available on full regulation pipelines
- more information reporting for light regulation pipelines would unnecessarily increase the cost of regulation, which had been considered by the NCC when making its light regulation determination.

One pipeline service provider considered that the requirements to report spare capacity and usage information may no longer be required for Bulletin Board pipelines given the similar information that is disclosed under the Bulletin Board regime.²⁷⁸

The capacity and usage information published by service providers for Bulletin Board pipelines described in Part 18 of the NGR,²⁷⁹ and for non-scheme pipelines described in rules 552 and 553 of the NGR, is more comprehensive and prescriptive than the information published for those full and light regulation pipelines that are not Bulletin Board pipelines. Further, the information is updated regularly. While some additional information on capacity and usage of full regulation pipelines is published through the access arrangement process, this information is updated less frequently.

²⁷⁴ Rule 552(3)(b) of the NGR.

²⁷⁵ Submissions to the issues paper: EnergyAustralia, p. 2; Hydro Tasmania, pp.1-2; AGL, p. 2; EUAA, p. 9; MEU, pp.12, 23 and 26-27; AER, pp. 21-22; ACCC, pp. 10-11.

²⁷⁶ Submissions to the issues paper: Hydro Tasmania, pp. 1-2; EUAA, p. 9; ACCC, pp. 10-11.

²⁷⁷ Submissions to the issues paper: ENA, p. 3; AusNet Services, p. 1; DBP and AGN, pp. 1, 9-10; APGA, pp. 6, 9; APA Group, covering letter and pp. 29-31; Jemena, p. 1.

²⁷⁸ DBP and AGN, submission to the issues paper, p. 21.

²⁷⁹ West Australian Bulletin Board pipelines are subject to similar requirements as set out in Part 3, Division 2 of Western Australia's *Gas Services Information Rules*

Prospective users require access to sufficient up to date capacity and usage information for them to form a view on available capacity in order to facilitate their access, regardless of whether pipelines are full regulation, light regulation or non-scheme. Except in the case of Bulletin Board pipelines and the irregular update of access arrangement information on full regulation pipelines the information disclosure requirements for capacity and usage on full and light regulation pipelines are minimal.

As noted above, support for more comprehensive information disclosure for both full and light regulation pipelines was universal within the submissions received from users, consumer representatives, the AER and the ACCC. While submissions from pipeline service providers suggested that costs may outweigh benefits, users do not appear to believe that the additional costs that may pass through to them would outweigh the benefits of more comprehensive information disclosure. On balance, the Commission considers that the long term savings and benefits to users from more comprehensive information disclosure is likely to exceed the additional efficient costs that a service provider may incur.

There is significant overlap between the information required to be disclosed under Part 23 of the NGR relating to non-scheme pipelines and under Part 18 of the NGR relating to Bulletin Board pipelines. Both parts require comprehensive usage and forecasting disclosure. The Bulletin Board disclosures are arguably more comprehensive, particularly in regard to contract and trading data, although under Part 23 capacity projections are provided for 36 months rather than 12 months.

Most full and light regulation transmission pipelines are Bulletin Board pipelines. Requiring all full and light regulation transmission pipelines to disclose capacity and usage information as if they were Bulletin Board pipelines would appear to provide similar benefits to disclosure of the capacity and usage information by non-scheme pipelines under Part 23 of the NGR, but at a lower overall cost. This outcome could potentially be achieved by either changing the Bulletin Board exemptions so that exemptions are not available for full and light regulation transmission pipelines, or by requiring all full and light regulation transmission pipelines that are not Bulletin Board pipelines to publish the same set of information on their websites. It should be noted that Part 23 already allows pipeline service providers to simply provide a link to the Bulletin Board where information required by Part 23 of the NGR is available from the Bulletin Board website.²⁸⁰

Bulletin Board pipelines are defined to include only transmission pipelines. Bulletin Board pipeline information disclosure requirements are not tailored for distribution pipelines. They include receipt and delivery points, gate stations, production and storage facilities and trading information that is not relevant. Further, the benefit achieved by not requiring existing Bulletin Board pipelines to prepare a second set of information is not available on distribution pipelines, as no distribution pipelines are Bulletin Board pipelines.

Conversely, the relevant capacity and usage disclosure requirements in Part 23 of the NGR, set out above, have been tailored to suit distribution pipelines. As a result, Part 23

²⁸⁰ Rule 552(3)(b) of the NGR.

provides a more appropriate set of and usage information that is supported by prospective users and known to pipeline service providers.

The Commission considers that adopting Bulletin Board disclosure requirements for transmission pipelines and rule 553 of Part 23 of the NGR disclosure requirements for distribution pipelines delivers a proportionate and least cost approach to the disclosure of capacity and usage information. This conclusion is reflected in the Commission's draft recommendations.

Additional information

As discussed in section 7.2.1 above, rule 107(2) of the NGR allows a prospective user, through the regulator, to require a pipeline service provider to provide specified information that the prospective user reasonably needs in order to decide whether to seek access and how to go about applying for access. The rule appears to be unused and, on that basis, it could be considered unnecessary to retain it in the NGR. Conversely, the AER considered that users should be able to obtain the information directly, without involving the AER as an intermediary.²⁸¹

The Commission considers that this rule appears to have little detriment and provides some benefit. The fact that the rule may not have been used could simply reflect the fact that prospective users have been able to obtain the information that they require directly from pipeline service providers, with the knowledge that if the information is not provided the prospective user can go through the regulator. The existence of this right should act as an incentive for service providers to provide the information prior to regulatory involvement. Further, the regulator's involvement in the process mitigates the risk that trivial or irrelevant information will be requested.

There are however some improvements that could be made to rule 107(2). The rule states that the regulator may require the service provider to provide, at the request of a prospective user, specified information, but gives no guidance on whether or not it should do so. The rule is also unclear about the level of discretion that the regulator has, and in particular whether the regulator can amend the user's request or pass it on in part rather than in full. These ambiguities should be resolved. The regulator should not simply be a mailbox. The regulator should have discretion to require the production of all or some of the information requested by the prospective user, subject to being satisfied that the information is reasonably required by the prospective user, that the information is not already available to them and that the pipeline service provider has been given a reasonable opportunity to provide the information before being compelled to do so.

Accordingly, the Commission considers that changes to the NGR should be made to this effect.

²⁸¹ AER, submission to the issues paper, p. 22.

7.2.3 Draft recommendations

Draft recommendation 21: Require transmission pipeline service providers to disclose Bulletin Board information

To require all full and light regulation transmission pipeline service providers to disclose the same capacity and usage information that would be disclosed if they were Bulletin Board pipelines.

Draft recommendation 22: Require distribution pipeline service providers to disclose capacity and usage information

That full and light regulation distribution pipeline service providers publish the same set of capacity and usage information as non-scheme distribution pipeline service providers.

Draft recommendation 23: Clarify the role of the regulator in passing on information requests to service providers

To improve rule 107(2) of the NGR to make it clear that the regulator may decline to issue a notice to the scheme pipeline service provider for all or part of the prospective user's requested information if, in the regulator's reasonable opinion:

- the prospective user has not previously requested the information from the pipeline service provider
- the information is otherwise already available to the prospective user
- the pipeline service provider has not had sufficient time to provide the information requested to the prospective user, or
- the information is not reasonably required by the prospective user in order to decide whether to seek access to a service provided by the service provider, or to apply for access.

7.3 Pipeline financial and offer information available to prospective users

7.3.1 Current framework

Financial and offer information - full regulation pipelines

Negotiation of tariff and non-tariff terms and conditions for scheme pipelines under full regulation is informed by the applicable access arrangement. An access arrangement substantially reduces the work that a user or prospective user needs to undertake to determine appropriate tariff and non-tariff terms and conditions for access. It also provides a higher degree of certainty about the outcome of any arbitration regarding tariff or non-tariff terms and conditions. Further, while circumstances may change during the period that a full access arrangement is in force, the reference tariff and non-tariff terms and conditions remain as set at the time of the determination, subject only to adjustments made in accordance with the approved access arrangement.²⁸² The reference tariff and non-tariff terms and conditions therefore remain known, regardless of externalities or other changes that may impact the pipeline.

²⁸² Rules 97(5) and 92(1) of the NGR.

The financial information submitted with a full access arrangement proposal is comprehensive. Part 9 of the NGR sets out, among other things, the building block approach to revenue determination and prescribes in detail the information that must be provided in support of each building block component. It also sets out requirements for allocating revenue between reference services and other services, and for designing reference tariffs. The AER is required to publish an access arrangement proposal and access arrangement information, subject to confidentiality considerations.²⁸³

As noted previously, in addition to access arrangements, the regulators' functions and powers include "to prepare and publish reports on the financial and operational performance of service providers in providing pipeline services by means of covered pipelines".²⁸⁴ Such reports, if published, would also be available to prospective users.

Separately to published information, a pipeline service provider must, on request, fix and notify a tariff to a prospective user where a tariff for a particular service is not published.²⁸⁵ It should be possible for prospective users to form a view on whether or not this is an appropriate tariff for a non-reference service from the reference tariff and from the comprehensive access arrangement information provided to the regulator. The information required by prospective users is the information that allows them to estimate the difference between the cost of the reference service and the cost of the service that they require from the pipeline, as a proportion of total revenue.

This is very different to the situation for light regulation pipelines and for non-scheme pipelines. In these cases, contracts are negotiated or arbitrated in the absence of a regulator approved access arrangement and the associated access arrangement information, including cost information and reference service tariffs.

Financial and offer information - light regulation pipelines

The published financial information available to prospective users of light regulation pipelines is minimal by comparison with full regulation pipelines. Part 9 of the NGR does not apply to light regulation pipelines,²⁸⁶ so there is no obligation to publish information on revenues, costs and information underpinning the allocation of costs to particular tariffs.

Light regulation pipeline service providers are required to publish:²⁸⁷

- prices on offer for light regulation services
- other non-tariff terms and conditions

As with full regulation pipelines a pipeline service provider must, on request, fix and notify a tariff to a prospective user where a tariff for a particular service is not published.²⁸⁸

²⁸³ AER, *Access arrangement guideline*, March 2009, pp. 33-35.

²⁸⁴ Section 27(1)(f) of the NGL.

²⁸⁵ Rule 108 of the NGR.

²⁸⁶ Rule 70 of the NGR.

²⁸⁷ Rule 36(1) of the NGR.

²⁸⁸ Rule 108 of the NGR.

The service provider is also required to report at least annually to the regulator on access negotiations and the AER may, from time to time, publish an assessment of such information reported to it by service providers.²⁸⁹

Light regulation pipeline service providers can choose to submit a limited access arrangement to the regulator for approval.²⁹⁰ However, no service providers have done so to date.

As with full regulation pipelines, the regulators' functions and powers include the preparation and publication of reports on the financial and operational performance of service providers and such reports, if published, would be available to prospective users.

Financial and offer information - non-scheme pipelines

A service provider for a non-scheme pipeline must publish the following information:²⁹¹

- standing terms:
 - standard terms and conditions
 - standing price for the service
 - other relevant pricing and charging information, for example charging structure, minimum charges, other additional charges such as imbalance or overrun charges
- certified financial information about each pipeline in accordance with the financial reporting guidelines, including:²⁹²
 - financial statements
 - asset values
 - depreciation allowances
 - cost allocations
 - financial performance metrics
 - weighted average price.

The AER's financial reporting guideline prescribes:²⁹³

- the form and content of the financial information required to be published
- the methodology, principles and inputs used to calculate the financial information
- the form and content of the weighted average price information to be published
- the manner in which the above information must be certified by an independent auditor.

289 Rule 37 of the NGR.

290 Section 116 of the NGL.

291 Rules 554 – 556 of the NGR.

292 Rule 557 of the NGR.

293 AER, *Financial reporting guidelines for non-scheme pipelines*, December 2017, p.1.

7.3.2 Commission analysis

As noted in section 7.2.2, stakeholder comments regarding financial and offer information were not generally differentiated from responses on capacity and usage information.

As with capacity and usage information, users, consumer representatives, the AER and the ACCC supported extending the Part 23 information disclosure requirements for non-scheme pipelines to all or light regulation scheme pipelines. Users considered that the existing level of information disclosure for scheme pipelines was inadequate.²⁹⁴

However, service providers and their representatives considered that the existing arrangements should remain largely as is, pointing to the significant amount of information already available on full regulation pipelines. Service providers also suggested that more information reporting for light regulation pipelines would unnecessarily increase the cost of regulation, which had been considered by the NCC when making its light regulation determination.²⁹⁵

Full regulation pipelines

The process for negotiating access to full regulation pipelines is fundamentally different to other pipelines. For a reference service, the tariff and non-tariff terms are as set out in the access arrangement. For a non-reference service, the outcome is informed by the reference tariff and non-tariff terms and conditions, adjusted to take account of the increases or decreases in costs in comparison to the reference service tariff, which is set at the time that the access arrangement is put in place and which remains in accordance with the access arrangement for the duration of the access arrangement period.

Significant information is available to the regulator and to prospective users in the access arrangement proposal and accompanying access arrangement information. In this case, the pipeline service providers' claim that significant information is already available appears well founded. This, coupled with the availability of reference tariff and non-tariff terms, minimises the risk that prospective users will be unable to take an informed view about whether the tariff and non-tariff terms and conditions that they are being offered are reasonable.

Chapter 4 covers the Commission's draft recommendations in relation to the approach to determining reference services. The Commission considers that its draft recommendations would increase the number of reference services on full regulation pipelines. This would improve the information available to users.

For users that are negotiating tariff and non-tariff terms and conditions on full regulation pipelines, the information disclosure regime appears fit for purpose. For these reasons, the Commission has concluded that no change to this framework is required at this time.

²⁹⁴ Submissions to the issues paper: EnergyAustralia, p. 2; Hydro Tasmania submission, p. 2; EUAA, p. 9; MEU, p. 26; AER pp. 21-22; ACCC, pp. 10-11.

²⁹⁵ Submissions to the issues paper: ENA, p. 3; AusNet, p.1; DBP and AGN, p. 1 and pp. 9-10; APGA, p. 6 and p. 9; APA, covering letter and pp. 29-31; Jemena, p. 1.

Light regulation pipelines

Light regulation pipeline service providers are currently required to publish minimal financial and offer information. As observed by many stakeholders, they are obliged to publish much less information than non-scheme pipeline service providers. It is difficult to see how a prospective user of a light regulation pipeline could draw any conclusions about whether tariff and non-tariff terms being offered are reasonable given the limited information available to them.

As with capacity and usage information there appears to be no basis for this distinction. Given the very limited information that light regulation pipelines are required to disclose and the submissions received, the information available to prospective users of light regulation pipelines does not generally appear to be sufficient for them to negotiate on an informed basis.

Users, consumer representatives, the AER and the ACCC favour extending the information disclosure requirements for non-scheme pipelines to light regulation pipelines. Users favour this approach notwithstanding the risk that some additional costs of regulation may flow through to them. Where there is upstream and downstream competition, some or all of the benefits of improved access negotiations may flow through to consumers.

In order to provide greater support to users negotiating for services it is appropriate to extend the information publication requirements for non-scheme pipelines to light regulation pipelines. This would provide a more appropriately comprehensive set of information for users and prospective users attempting to negotiate access to services on these pipelines.

On balance, the Commission considers that the long term savings and benefits to pipeline users and gas consumers from more comprehensive information disclosure on light regulation pipelines is likely to exceed the additional efficient costs that service providers will incur and potentially pass through in their tariffs. The benefits of the proposed level of disclosure are at least proportionate to the costs. Accordingly, the Commission has concluded that light regulation pipeline service providers should publish the same type of information as non-scheme pipeline service providers. Specifically, these service providers should publish that information relating to standing terms, financial information and weighted average price.²⁹⁶

It is worth noting that, as with non-scheme pipelines,²⁹⁷ in settling an access dispute, a dispute resolution body is not bound by the published financial information. However, the comprehensive underlying data will provide significant useful information for both negotiations and arbitrations.²⁹⁸

²⁹⁶ Rules 554, 555 and 556 of the NGR.

²⁹⁷ Rule 555(2) of the NGR

²⁹⁸ Chapter 8 discusses dispute resolution information in more detail.

7.3.3 Draft recommendation

Draft recommendation 24: Introduce a financial and offer information disclosure regime for light regulation pipelines

That light regulation pipeline service providers publish the same set of financial and offer information as non-scheme pipeline service providers.

7.4 Key performance indicators

7.4.1 Current framework

The NGR provide that access arrangement information must include key performance indicators (KPIs) for the pipeline.²⁹⁹ In the case of full access arrangements, the NGR state that the KPIs are “to be used by the service provider to support expenditure to be incurred over the access arrangement period”.³⁰⁰ No further guidance is given on the purpose or choice of KPIs. This has led to a divergent set of KPIs being adopted across pipeline service providers.

7.4.2 Commission analysis

Stakeholders raised a number of issues regarding key performance indicators. User and consumer representatives considered KPIs to be of limited value in their current form. Some recommended that the regulators collect performance data through RINs. Other stakeholders similarly suggested that regulators could use RINs to collect annual benchmarking data, as done with electricity networks.³⁰¹

These stakeholders believed that a more prescriptive approach would facilitate obtaining performance information that is comprehensive and consistent across pipelines. They considered that this would be more useful for users and regulators.

Pipeline service providers had divergent views. DBP considered that their single KPI of annual operating expenditure/energy delivered provided limited value to a shipper or prospective shipper and noted that there was already a mechanism for KPIs to be captured and tracked by the use of RINs.³⁰²

However AusNet thought that the KPI reporting framework was fit for purpose, providing flexibility and allowing customisation based on customer feedback and consultation in the access arrangement revision process. AusNet discussed their new total factor productivity KPI and pointed to the ability of users to track the performance of their other KPIs over time. However, AusNet recognised the benefit of reporting a consistent set of KPIs over time and stated that “on balance, we think an approach that allows the network to present a suite of KPIs, developed through its gas access arrangement review process and engagement with customers and other stakeholders, provides for the most adaptive and flexible approach”.³⁰³

²⁹⁹ Rules 45(2)(b), 72(1)(f) and 129(2)(b) of the NGR.

³⁰⁰ Rule 72(1)(f) of the NGR.

³⁰¹ Submissions to the issues paper: PIAC, pp. 19-20; EUAA, pp. 7-8; MEU, p. 24.

³⁰² DBP and AGN, submission to the issues paper, p. 22.

³⁰³ AusNet Services, submission to the issues paper, p. 4.

KPIs appear to have three potential purposes, being to provide:

- benchmarking and performance information for users, as an input into their negotiation and arbitration
- information for the regulator to use for monitoring and revenue or price regulation, including through benchmarking
- linkages to incentives in the regulatory framework.

As noted in the interim report, Ofgem uses a number of performance metrics to gauge the health of, and risk posed by, gas pipeline assets.³⁰⁴ Asset health information may be useful in assessing the efficiency of past expenditure and the reasonableness of proposed expenditure. It may also provide users and prospective users with insights into physical delivery risks.

Benchmarking is one of the key tools available to regulators in determining whether costs are efficient.³⁰⁵ Meaningful benchmarking would be difficult in the absence of consistent data across pipelines.

Regulators may also implement incentive mechanisms in order to encourage efficiency in the provision of services.³⁰⁶ Effective implementation of an incentive mechanism would rely on measured outcomes.

Consistency across pipelines and over time along with comprehensiveness seem critical to KPI usefulness. This is best achieved by the regulator setting out, following relevant consultation, the information that is to be collected, reported and published.

Measures of performance information and outcomes could be explicitly defined in the NGR. However, this may constrain their usefulness as any adaptations needed over time to accommodate user needs, data availability, increasing regulatory sophistication and pipeline structure and service evolution would require a rule change process.

In comparison, RINs and RIOs are better suited to defining and collecting performance information and outcomes on scheme pipelines. These instruments are also more readily adaptable over time compared to the NGR.³⁰⁷

As noted previously, a regulator can issue RINs or RIOs if the regulator “considers it reasonably necessary for the performance or exercise of its functions or powers”.³⁰⁸ The regulator’s functions and powers include:

- economic regulatory functions or powers

³⁰⁴ AEMC, *Review into the scope of economic regulation applied to covered pipelines: interim report*, 31 October 2017, p. 58.

³⁰⁵ Rules 79(1)(a) and 91(1) require that new capital expenditure and operating expenditure respectively “must be such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services.”

³⁰⁶ Rule 98 of the NGR.

³⁰⁷ There is of course also nothing preventing service providers consulting with users and providing any additional information they consider relevant.

³⁰⁸ Section 48 of the NGL.

- preparation and publication of reports on the financial and operational performance of service providers in providing pipeline services by means of covered pipelines.³⁰⁹

Financial and operational performance information appears to be within the scope of these functions and powers. The Commission considers that the information regime provides support for these functions. It notes that the regulator is required to undertake public consultation before making a RIO³¹⁰ and that consultation with the service provider is required before serving a RIN.³¹¹

On this basis, the Commission considers that RINs and RIOs can be successfully used to establish performance monitoring for gas pipelines.

7.4.3 Draft recommendation

Draft recommendation 25: Remove the requirement to provide KPIs as part of the access arrangement

That the requirements in the NGR on service providers to include KPIs in an access arrangement be removed. Regulators should instead set and collect KPIs through RINs and RIOs.

7.5 Scheme Register

7.5.1 Current framework

The AEMC maintains a public Scheme Register in accordance with the requirements of Part 15 of the NGR.³¹² The Scheme Register is a register of all pipelines that are, or have been, subject to any form of regulation or exemption from regulation under the NGL and the NGR, or the old scheme.³¹³

The Scheme Register is yet to be updated for pipelines that are captured solely as a result of them being regulated under Part 23 of the NGR. There has been difficulty in obtaining information from some of the service providers for non-scheme pipelines. The GMRG team also noted similar difficulties encountered during its work. The GMRG suggested that the Scheme Register requirements be updated to better accommodate non-scheme pipelines.

The Scheme Register includes, for each pipeline, a description of the pipeline and the pipeline's classification and regulatory history under the NGL and the code. The Scheme Register is also required to include the text of various decisions relating to pipelines that are currently or were formerly covered, or that are or were subject to

³⁰⁹ Section 27(1) of the NGL.

³¹⁰ Section 50 of the NGL.

³¹¹ Section 52 of the NGL.

³¹² <http://www.aemc.gov.au/Energy-Rules/National-gas-rules/Gas-scheme-register>.

³¹³ Rule 133(2) and rule 3 of the NGR. An old scheme transmission or distribution pipeline is defined in s. 2 of the NGL as a transmission or distribution pipeline that was, at any time before the repeal of the old access law, a transmission or distribution pipeline as defined in that law and a covered pipeline as defined in the code.

greenfields pipeline incentives.³¹⁴ The AEMC provides access to the Scheme Register through its website, through a text based menu and also through an interactive pipeline map.

7.5.2 Commission analysis

The first key issue is whether the Scheme Register should continue to cover non scheme pipelines captured solely under Part 23 of the NGR. The Commission understands that users find it useful to have information on all pipelines available to them through the Scheme Register. Indeed, the Commission understands that the AER and the GMRG had some difficulty in developing a full authoritative list of non-scheme pipelines as many of these pipelines did not require inclusion on the Scheme Register before the commencement of Part 23 of the NGR.

Secondly, if pipelines captured solely under Part 23 of the NGR continue to be included in the Scheme Register, then what additional information should be provided about those pipelines?

Pipeline service providers are obliged to provide the AEMC with a revised description of the pipeline when there is an extension or expansion. However, they were not required to provide the AEMC with an initial description of the pipeline. Service providers are best placed to describe their pipelines and should therefore be required to provide an initial description to the AEMC for publication, as required under rule 133(3) of the NGR. For non-scheme pipelines the description could be drawn from the pipeline information that pipeline service providers are already required to publish under rule 553(2) of the NGR. This would minimise duplication of effort on behalf of the pipeline service providers.

The list of decisions and determinations included in the Scheme Register pursuant to rule 133(4) could also be extended to cover publicly available information about access determinations under Division 4 of Part 23 of the NGR, and to cover exemption decisions made under Division 6 of Part 23 of the NGR.

Under Part 23 the scheme administrator (either the AER or the ERA) is already required to publish information about access determinations on its website.³¹⁵ The information includes:

- some limited information about pipeline and the arbitration process
- whether the prospective user has given notice that it wishes to enter into an access contract in accordance with the final access determination
- if the asset value has been determined, then:
 - the determined asset value
 - the valuation methodology
 - the assets to which the valuation applies.

³¹⁴ Rule 133(4) of the NGR.

³¹⁵ Rules 581 and 582(2)(e) of the NGR.

The scheme administrator is also required to establish, publish and maintain a register of exemptions and exemption revocations.³¹⁶ The AEMC can draw this information from the scheme administrator's website.

Thirdly, the AEMC is currently required to make the Scheme Register available for inspection at the AEMC's public offices during business hours. The obligation appears to provide no benefit and the cost of maintaining the facility is hard to justify. In the period since the commencement of the NGR, there has been no access to this service. Conversely, the AEMC is aware that its online portal has been used extensively.³¹⁷

Finally, the name "Scheme Register" no longer reflects the register's content. The register now captures both scheme and non-scheme pipelines and its name should reflect this.

The Commission has decided to recommend improvements to the Scheme Register in order to provide a central repository of key regulatory information for pipelines, to minimise search costs for users and service providers, and to provide a useful resource for regulators and policy makers.

7.5.3 Draft recommendation

Draft recommendation 26: Improve the Scheme Register

That the NGR be amended such that:

- service providers for non-scheme pipelines be required to provide the AEMC with a description of the pipeline upon commencement of the relevant rule. Subsequently, both scheme and non-scheme pipeline service providers should be required to provide a description of the pipeline for inclusion in the register whenever a new pipeline is built or when it is affected by an extension or expansion
- the Scheme Register's contents be expanded to include published information about access determinations made under Division 4 of Part 23 of the NGR and exemption decisions made under Division 6 of Part 23 of the NGR
- the name Scheme Register be changed to Pipeline Register
- the current requirement for the Scheme Register to be made available for inspection at the AEMC's public offices during business hours be removed from the NGR.

³¹⁶ Rule 585(7) of the NGR.

³¹⁷ Between 1 July 2017 and 31 December 2017 the AEMC's Scheme Register web pages and sub-pages had 10,784 page views. This number does however count each and every page opened, including by the same internet user in the same session. It also counts each time the same internet user opens the same page.

8 Arbitration

Summary of findings and draft recommendations

The economic regulation framework for natural gas pipelines under the NGL and NGR is a negotiate-arbitrate regime. An efficient and effective dispute resolution framework is integral in providing a credible threat to stakeholders to engage in successful access negotiations.

The Commission's findings and recommendations in relation to arbitration on scheme pipelines can be summarised as follows:

- set out a more detailed process for parties to negotiate access to scheme pipelines, such that failure to agree within the negotiation timeframes would trigger the dispute resolution process
- maintain the identity of the dispute resolution body as currently set out in the NGL to minimise cost, achieve consistency of outcomes and enhance accountability for determinations
- clarify and expand the role of the dispute resolution expert
- introduce a reference framework for the dispute resolution body under the NGL and NGR, in order to clarify the basis of any arbitration outcomes under the framework
- set out a fast-tracked dispute resolution process based on a set of factors assessed by the dispute resolution body
- require that the dispute resolution body publish a notice outlining parties to the dispute and subject of the dispute, arbitration determination and any relevant financial calculations, information provided to the dispute resolution body during the course of the dispute - subject to confidentiality provisions
- enable parties to request that the dispute resolution body join them to an existing dispute, and include the criteria for the dispute resolution body to accept or reject such a request, and a process for parties to join an existing dispute.

This chapter discusses the current framework for the resolution of access disputes on scheme pipelines under Chapter 6 of the NGL and Part 12 of the NGR.

The economic regulation framework for pipelines under the NGL and NGR is a negotiate-arbitrate regime. As such, an efficient and effective dispute resolution framework is integral in providing a credible threat to stakeholders to engage in successful access negotiations.

To date, there have not been any disputes under the dispute resolution framework for scheme pipelines.³¹⁸ This outcome could be explained by one or more of the following:

- for access term negotiations on full regulation pipelines, the access arrangement has been effective as a fall-back option
- the dispute resolution framework for scheme pipelines has provided a credible threat to service providers to engage in meaningful access negotiations
- the dispute resolution framework for scheme pipelines has been perceived as ineffective.

This review has approached the economic regulation framework for scheme pipelines under the NGL and the NGR in its entirety. The Commission has put forward draft recommendations that are consistent with an incentive-based regime. For dispute resolution, the Commission has preserved the balance between:

- the role of arbitration as a backstop and a credible threat for service providers to engage in meaningful negotiations with users and prospective users, and for full regulation pipeline service providers to propose fair access arrangements to the regulators
- addressing stakeholder perceptions that the arbitration process is ineffective and inefficient.

The chapter discusses key issues that have been raised by stakeholders, and draws on other third party access regimes. These include the access regimes that apply to:

- National Broadband Network (NBN)
- Australian Rail Track Corporation (ARTC)
- New South Wales rail
- electricity networks
- non-scheme natural gas pipelines.

Finally, the chapter lays out a set of draft recommendations for the NGL and NGR to address the key issues.

³¹⁸ The draft report uses “dispute resolution framework for scheme pipelines” to refer to disputes under Chapter 6 of the NGL (including Part 12 of the NGR).

8.1 Current framework

Section 2 of the NGL defines the dispute resolution body for scheme pipelines as the AER.³¹⁹

Chapter 6 of the NGL sets out the dispute resolution process for scheme pipelines as follows:³²⁰

- the prospective user or service provider notifies the dispute resolution body of an access dispute
- the dispute resolution body informs the other party of the access dispute
- the dispute resolution body can terminate the dispute, or otherwise, must make a determination on access in writing with clearly stated reasons³²¹
- the dispute resolution body may require the parties to mediate, conciliate or engage in another alternative dispute resolution process
- the dispute resolution body must, in making an access determination, give effect to the access arrangement that applies to the services of the access dispute pipeline
- each party bears its own costs in a dispute hearing.

This chapter focuses on the following aspects of the arbitration regime as contained in the NGL:

- section 181 defines the trigger for the dispute resolution process
- section 186 provides grounds for a dispute resolution body to terminate an access dispute
- section 189 provides that a full access arrangement apply in a dispute
- section 195 sets out that parties to an access dispute for which an access determination is made, must comply with the access determination
- section 199(1)(e) grants the dispute resolution body the right to refer any matter to an independent expert
- section 198(2) states that the dispute resolution body can set timeframes for the dispute resolution process
- section 206(3)(d) allows the dispute resolution body to consider the nature and complexity of a dispute
- section 200 sets out the powers of the dispute resolution body in relation to disclosure of specified information, and s.205 addresses the confidentiality of material presented in a dispute

³¹⁹ Under the *National Gas Access (WA) Act 2009* (NGL (WA)), the Western Australian Energy Disputes Arbitrator (EDA) is the dispute resolution body for Western Australian scheme pipelines. Section 9 of Schedule 1 to the NGL (WA).

³²⁰ Sections 181 - 207 of the NGL.

³²¹ Under s. 186 of the NGL, the dispute resolution body may terminate an access dispute in accordance with specified circumstances.

- sections 209 and 210 outline how a dispute resolution body can hold joint dispute resolution hearings.

Part 12 of the NGR sets out additional requirements for the resolution of certain access disputes between a scheme pipeline service provider and user or prospective user conducted under Chapter 6 of the NGL.

Part 12 of the NGR details particular provisions for the arbitration process in a limited number of specific instances:

- If an access dispute arises as a consequence of a refusal of access on safety grounds.³²²
- If an access dispute raises the question of an expansion or funding of an expansion, or an extension.³²³

Part 12 of the NGR does not contain specific provisions on arbitration processes in regard to other instances where a dispute may arise.

The NGL provides that the procedural parts and review provisions of the commercial arbitration act for each jurisdiction apply to rule disputes under the NGR in that jurisdiction.³²⁴ However, it is the Commission's view that this does not apply to disputes under the dispute resolution framework for scheme pipelines.³²⁵ Reviews of access determinations under the dispute resolution framework of Chapter 6 of the NGL and Part 12 of the NGR are through the ADJR Act.

Key differences between current arbitration framework for scheme pipelines and current arbitration framework for non-scheme pipelines

Chapter 6A of the NGL outlines the dispute resolution process for non-scheme pipelines.³²⁶ Part 23 of the NGR includes information disclosure requirements, and sets out the negotiation and arbitration processes for access to non-scheme pipelines.³²⁷

The objective of Part 23 is to 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 reflect the outcomes of a workably competitive market.

To support this, Part 23 creates a positive obligation to negotiate in good faith from the moment access is sought. In addition, provisions under this part provide detailed processes for access requests and negotiations prior to dispute resolution.

Table 8.1 summarises the key differences between the current arbitration frameworks for scheme and non-scheme pipelines.³²⁸

³²² Rule 115 of the NGR.

³²³ Rules 117 - 119 of the NGR.

³²⁴ Rule disputes are disputes the resolution of which is provided for under the NGR. Refer to s. 2 and Part 5A of Chapter 8 of the NGL.

³²⁵ See section 8.2 for further discussion on this aspect of the framework.

³²⁶ Refer to Appendix B for a full description of the main features of Chapter 6A and Part 23.

³²⁷ Non-scheme pipelines include uncovered pipelines, which include greenfields pipelines that have been provided with an exemption from coverage. Refer to section 3.1 of this report.

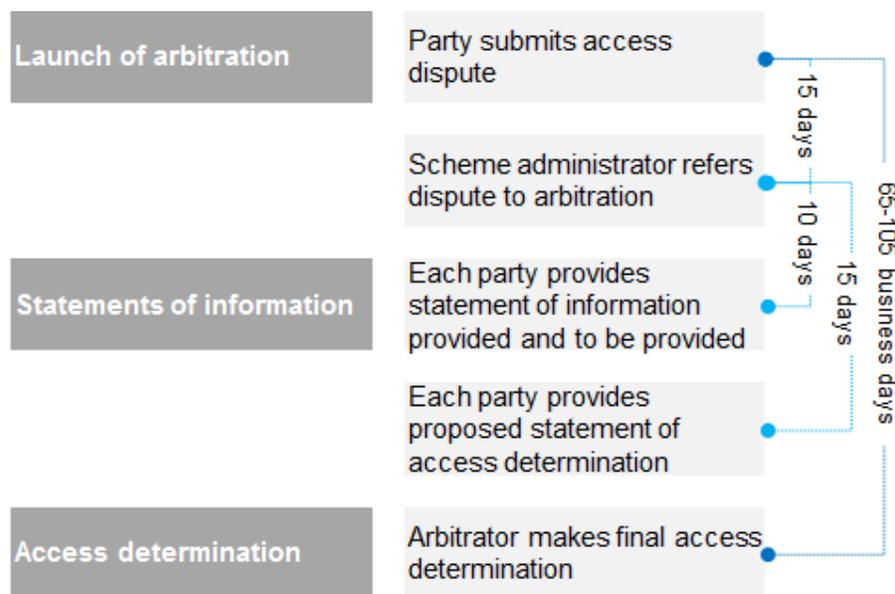
Table 8.1 Key differences between scheme and non-scheme pipeline dispute resolution frameworks

	Current scheme pipeline dispute resolution framework	Non-scheme pipeline dispute resolution framework
Trigger for the dispute resolution process	Dispute resolution is triggered if a prospective user or user is unable to agree with a service provider about one or more aspects of access to a pipeline service provided or to be provided by means of a scheme pipeline. Dispute resolution body may terminate an access dispute if it considers that the party who notified the access dispute had, but did not avail itself of, an opportunity to engage in negotiations in good faith with the other party.	Dispute resolution is triggered if a prospective user or user and a service provider cannot agree about one or more aspects of access to a pipeline service after a request has been made in accordance with the rules. Arbitrator may determine not to proceed with an arbitration if it considers that the party who notified the access dispute did not negotiate in good faith.
Dispute resolution body	AER for states and territories other than Western Australia, Energy Disputes Arbitrator for Western Australia.	In consultation with disputing parties, the scheme administrator (AER, ERA for Western Australia) appoints arbitrator from pool of commercial arbitrators that is set up and maintained by scheme administrator.
Timeframes for the dispute resolution process	Not specified.	Up to 65 business days or up to 105 business days upon agreement of parties - periods for provision of information by parties or for experts to consider matters are discounted.
Transparency	Not specified.	After the arbitration has concluded, scheme administrator (AER/ERA) publishes pipeline and services that were subject of the arbitration, parties to the arbitration (upon the consent of the prospective user), name of the arbitrator, duration of arbitration proceedings, whether the prospective user has wished to enter into an access contract in accordance with the final access determination, and asset valuation method and values (where applicable).
Joint dispute resolution proceedings	Dispute resolution body may hold joint dispute hearings.	Scheme administrator may join a party to a dispute if it requires it to do something.
Reference framework for the dispute resolution body	Full access arrangement is reference framework for dispute resolution on tariff and non-tariff terms and conditions on a full regulation pipeline and limited access arrangement for a light regulation pipeline (where it exists). Not specified for other instances.	Reference framework covers objective, a set of pricing principles (cost reflective prices and reasonable cost allocation), operational and technical requirements and business interests of the parties.

328 The table provides a high level summary of differences. It is not an exhaustive list of all features of the frameworks. Refer to ss. 23, 181, 186, 200, 209 and 216H of the NGL and rules 546, 569 and 581 of the NGR.

The access regime for non-scheme pipelines prescribes timeframes for the arbitration process. Figure 8.1 summarises the key steps and associated timeframes.

Figure 8.1 Overview of arbitration process under Part 23 of the NGR



8.2 Commission analysis

Based on submissions to the issues paper, in addition to discussions with key stakeholders, the Commission has identified key issues in the arbitration framework for scheme pipelines.³²⁹ These issues impact the effectiveness and efficiency of the dispute resolution process, and the credibility of the threat of arbitration on scheme pipelines.

An efficient and effective arbitration process acts as a credible threat to parties to engage in access negotiations that result in tariff and non-tariff terms and conditions that are acceptable to both parties. This constrains the market power of service providers, and even any countervailing market power of users and prospective users. The Commission considers this to be in line with improving the long term outcomes of pipeline users and natural gas consumers.

The key issues are:

- link between dispute resolution framework under the NGL and state commercial arbitration legislation
- trigger for the dispute resolution process
- dispute resolution body and role of dispute resolution expert
- reference framework for the dispute resolution body
- timeframes for the dispute resolution process

³²⁹ Submissions to the issues paper: EDA, pp.1-2; ACCC, p.9; AGL, p.4; Chemistry Australia, p. 5. Chapter 4 discusses reference services and Chapter 6 discusses capital base valuations, both are relevant for this chapter.

- transparency
- joint dispute resolution hearings.

The Commission has only considered law and rule changes to make improvements to the dispute resolution framework for scheme pipelines. The regulators can issue arbitration guidelines under their own initiative. The AER stated that it could amend its guidelines to minimise uncertainty around the timeframes and methodologies that would be used in an arbitration process.³³⁰ The Commission supports this approach, in addition to the draft recommended NGL and NGR amendments.

Trigger for the dispute resolution process

The Commission has identified the trigger for the dispute resolution process as a key issue. Section 181 of the NGL defines the trigger for arbitration as the inability of parties to agree. However, a trigger such as the inability to agree may raise some ambiguity. While it may be easy to establish that the parties have not agreed, it is another matter to prove that they are unable to agree. An ambiguous trigger for dispute resolution may mean that even where parties are disputing access, it would be difficult to establish a dispute and start the dispute resolution process. This extends the timeframe for negotiations and reduces the credibility of the threat of arbitration, as it minimises the likelihood that dispute resolution would be triggered. This lessens the constraint on market power and increases the probability of inefficient consumer outcomes.

It would be more appropriate to enable a dispute to be triggered if parties have not agreed within a prescribed timeframe. The NGL gives the dispute resolution body the right to terminate an arbitration if it considers that the party that notified the dispute had, but did not avail itself of, an opportunity to engage in negotiations in good faith with the other party prior to notifying the dispute resolution body of a dispute. Guidance on the process for negotiation and agreement between the parties would allow the dispute resolution body to make such a decision.

In addition, the NGR do not prescribe a negotiation process for access on scheme pipelines. They only specify procedural requirements for requesting access and providing or denying access to scheme pipelines.³³¹ The NGR provide a timeframe of 20 business days for the service provider to respond to an access request. The dispute resolution body has no express power to order the other party or parties to negotiate. If the service provider does not engage in negotiations, then to achieve engagement, the user or prospective user may have no option but to incur the cost of commencing arbitration and locking itself into an arbitration process. However, the dispute resolution body may require the parties to mediate before arbitration.³³²

In comparison, the negotiation framework under the National Broadband Network (NBN) special access undertaking and the instruments incorporated into it provides that any dispute (in relation to the agreement, including access) must first be referred for negotiation or resolution between the parties within 10 business days (or such other

³³⁰ AER, submission to the issues paper, pp. 23-24.

³³¹ Rule 112 of the NGR.

³³² Section 185 of the NGL.

time as agreed). Only if negotiation fails in that time period can the dispute be referred to dispute resolution.³³³

Similarly, the Australian Rail Track Corporation (ARTC) access undertaking provides a detailed negotiation process for obtaining access. The process includes further negotiation to resolve the dispute prior to referring it to mediation or arbitration as summarised in Box 8.2.

Box 8.2 Access negotiation under ARTC access undertaking

The process for negotiating access with ARTC is:³³⁴

- upon receiving an access application, the ARTC will acknowledge receipt within five business days
- ARTC will use reasonable efforts to provide an indicative access proposal to the access applicant within 30 business days after the acknowledgement
- applicant may refer the matter to the arbitrator for determination 30 business days following the acknowledgment if the applicant considers that ARTC is not making reasonable progress in the preparation of the proposal
- if the applicant intends to progress its access application under the negotiation process on the basis of the arrangements outlined in the indicative access proposal, the applicant will notify ARTC of its intention to do so within 30 business days of receiving the proposal
- alternatively, the applicant has 30 business days to notify ARTC of any concerns with the proposal that would make it inappropriate to continue with the negotiation process
- ARTC will respond to the applicant's concerns within 30 business days
- within 30 business days of the applicant's receipt of ARTC's response, the applicant will notify ARTC that it is satisfied with the response and intends to proceed with negotiations, or that the applicant is commencing the dispute resolution process
- if the applicant progresses to negotiations, the negotiation period ceases upon any of the following events:
 - when an access agreement is reached between the parties
 - on notification by the applicant that it no longer wishes to proceed
 - the expiration of a three month period
 - negotiations are not progressing in good faith
 - where the application no longer satisfies the prudential requirements of the undertaking.

³³³ *Wholesale Broadband Agreement*, cl. G2, 1(b).

³³⁴ *ARTC Access Undertaking*, cl. 3.7-3.10

In light of the concerns raised about the scheme pipeline arbitration framework and the arrangements in place for other regimes such as the NBN and ARTC, the Commission has concluded that the dispute resolution framework for scheme pipelines should set out a more detailed negotiation process. Such a process would guide access negotiations and create a meaningful and positive trigger for the commencement of the dispute resolution process under the dispute resolution framework for scheme pipelines. This would enhance the effectiveness of dispute resolution process as a credible threat for parties to engage in successful negotiations.

Dispute resolution body and role of dispute resolution expert

Another significant issue raised by stakeholders is the identity of the dispute resolution body, and whether it should be:³³⁵

- the AER or Energy Disputes Arbitrator for Western Australia, as under the current framework
- a commercial arbitrator, as under Chapter 6A of the NGL and Part 23 of the NGR.

When this issue was considered in designing the code, the regulator was given the role of dispute resolution body.³³⁶ In doing so, both the regulator and a commercial arbitrator were considered to satisfy the criteria of independence, industry knowledge and legislation knowledge. However, only the regulator was considered to possess adequate knowledge of any applicable access arrangement and relevant precedents. Moreover, the regulator was considered better placed to take into account issues of public interest, and to enforce arbitration outcomes. In addition, the regulator was considered to have a broad and ongoing accountability as opposed to a commercial arbitrator. The Commission considers that these points apply equally to both the AER and the Energy Disputes Arbitrator for Western Australia. Even though it is not the regulator, the Energy Disputes Arbitrator provides a single point of decision making and accountability, in addition to consideration of public interest and knowledge of precedents.

Some stakeholders have commented in favour of retaining the current identity of the dispute resolution body because it would, in their view:³³⁷

- contribute to lower arbitration costs
- provide consistency in arbitration determinations and accountability for any precedent arbitration proceedings.

The NGL allows for the assignment of independent experts to the dispute resolution body. Section 199(1)(e) of the NGL states that the dispute resolution body may refer any

³³⁵ This issue was raised by participants at the AEMC stakeholder workshop on 14 December 2017.

³³⁶ Note that "regulator" referred to state and territory based regulators, in addition to a national regulator for transmission pipelines. The Gas Market Reform Task Force, *Information paper to accompany the exposure draft of the national third party access code for natural gas pipeline systems*, 8 August 1996.

³³⁷ For example, the EUAA made this comment at the AEMC stakeholder workshop on 14 December 2017.

matter to an independent expert and accept the expert's report as evidence. Part 12 of the NGR sets out provisions for the appointment of a safety expert.³³⁸

While Part 12 of the NGR does not limit the operation of the NGL, the Commission considers that providing additional guidance on the dispute resolution expert would clarify the expert's role for the benefit of service providers and users.

On balance, the Commission considers that maintaining the current identity of the dispute resolution body minimises costs, achieves consistency of outcomes and enhances accountability for determinations. This is consistent with the long term interests of pipeline users and gas consumers.

However, the Commission recognises that the role of the dispute resolution expert in the current framework could benefit from additional guidance. The potential role of the dispute resolution expert in the NGR should be clarified and broadened in line with the NGL. In addition to a safety expert, the NGR could refer to experts in arbitration, energy or the gas industry. This will guide the dispute resolution body in appointing any relevant expert to provide technical assistance. This would complement the dispute resolution body's resources where needed due to the complexity of the subject of the dispute or time constraints. In turn, this would enhance the efficiency of dispute resolution as an effective backstop to ensure successful negotiations.

Reference framework for the dispute resolution body

Section 322 of the NGL states that the NGL does not prevent a service provider from entering into an agreement with a user or a prospective user about access to a pipeline service provided by means of a scheme pipeline that is different from an applicable access arrangement that applies to that pipeline service. However, s. 189 of the NGL stipulates that in making an access determination, a dispute resolution body must give effect to an applicable access arrangement.³³⁹ This provision applies to both limited access arrangements for light regulation pipelines and to full access arrangements for full regulation pipelines.³⁴⁰ Therefore, an applicable access arrangement provides a reference for the decisions of the dispute resolution body under the NGL.³⁴¹

However, neither the NGL nor the NGR lay out an overarching reference framework for the dispute resolution body that would apply in cases where there is no applicable access arrangement or the access arrangement is less relevant (for example, the dispute is not around access terms or conditions). The Commission considers that this makes the basis of the decisions of the dispute resolution body unclear in these circumstances. This may increase the uncertainty of arbitration outcomes, which reduces the credibility of the threat of arbitration.

³³⁸ Rules 115 and 116 of the NGR.

³³⁹ Subject to s. 135 of the NGL, under which the service provider is required to comply with the queuing requirements of an applicable access arrangement.

³⁴⁰ See definition of 'applicable access arrangement' in s. 2 of the NGL.

³⁴¹ The Commission also considers that s. 189 may be expanded so that the access arrangement applies to provide access as soon as a dispute is triggered, and this is discussed further below.

While the Commission expects that the revenue and pricing principles would guide arbitrations on full and light regulation pipelines, this is not specified in the NGL or NGR.

However, the NGR do set out general principles that guide the resolution of market disputes under Part 15C, which are to:³⁴²

- be guided by the national gas objective
- take account of the skills required to resolve the dispute
- observe the rules of natural justice
- be simple, quick and inexpensive
- preserve or enhance the relationship between parties to the dispute
- place emphasis on conflict avoidance
- encourage resolution of disputes without formal legal representation or reliance on legal procedures.

The NER also set out a similar set of general principles that are used to guide the dispute resolution process.³⁴³

Similarly, the ARTC access undertaking lays out general principles for the arbitrator to take into account, which include:³⁴⁴

- principles, methodologies and provisions in the undertaking
- objectives and principles of Part IIIA of the Competition and Consumer Act
- ARTC's legitimate business interests and investment in the network
- costs of providing access
- operational and technical requirements
- economically efficient operation.

For light regulation pipelines, and because there is no full access arrangement, the Commission considers that the dispute resolution body requires clear guidance for tariff disputes in relation to the following:

- calculation of an initial capital base, in case the light regulation pipeline does not have an initial capital base determination
- how to roll forward the capital base
- application of the building block methodology.

Chapter 6 of this draft report recommends amendments to the NGR so that rule 77 applies to the calculation of the initial capital base and the rolling forward of the capital base for light regulation pipelines. Chapter 6 also recommends that the regulators determine an initial capital bases for all light regulation pipelines.

³⁴² Rule 135FA of the NGR.

³⁴³ Clause 8.2.1(e) of the NER.

³⁴⁴ *ARTC Access Undertaking*, cl.3.12.4(b)(vi).

The Commission considers that the introduction of a reference framework for the dispute resolution body to make access determinations under the dispute resolution framework for scheme pipelines would achieve the following:

- guide the drafting of the access determination
- clarify to stakeholders the bases of arbitration outcomes
- in the event that the dispute resolution body's decision is subject to judicial review,³⁴⁵ clarify the grounds for review of an access determination.

Therefore, the Commission recommends that the dispute resolution framework for scheme pipelines lay out a clear reference framework for decisions made by the dispute resolution body. The framework should refer to applicable access arrangements, regulatory determinations, revenue and pricing principles, in addition to general principles in line with the examples noted above. This would enhance the predictability of arbitration outcomes and the threat of arbitration in encouraging successful negotiations.

Timeframe for the dispute resolution process

The timeframe for the dispute resolution process has been repeatedly raised by stakeholders as a concern.³⁴⁶ Although there have not been any arbitrations lodged under the dispute resolution framework for scheme pipelines to date, stakeholders perceive the arbitration process as slow. This may deter parties from triggering dispute resolution, and reduce its credibility as a threat for stakeholders to engage in successful negotiations.

Chapter 6 of the NGL does not specify any timeframes for the arbitration process although it does require the dispute resolution body to act as speedily as a proper consideration of the dispute allows.³⁴⁷ Part 12 of the NGR is silent on timeframes. This provides considerable discretion to the dispute resolution body to determine timeframes for each dispute.

Like the NGL, the National Electricity Law (NEL), and the Competition and Consumer Act that applies to ARTC access undertakings, both state that the dispute resolution body must act as speedily as proper consideration of the dispute allows.³⁴⁸

While not overly detailed, the code prescribed an overall timeframe for the arbitration process, and assigned deadlines to particular steps in the process:³⁴⁹

“6.11 The Arbitrator must provide a final decision under section 6.7 within three months of requiring parties to make submissions under section 6.4. The Arbitrator must also ensure that there is a period of at least 14 days:

³⁴⁵ Refer to section 8.1.

³⁴⁶ AGL, submission to the issues paper, p. 4.

³⁴⁷ Section 198(1)(b) of the NGL.

³⁴⁸ Competition and Consumer Act, s. 44ZF(1)(b) and National Electricity Law, s. 139(b).

³⁴⁹ Sections 6.11 and 6.12 of the code.

- (a) between requiring parties to make submissions under section 6.4 and the last day for such submissions specified by the Arbitrator; and
- (b) between providing a draft decision to the parties under section 6.9(b) and the last day for submissions on the draft decision specified by the Arbitrator.

In all other respects the timing for the taking of each of the steps set out in section 6.9 is a matter for the Arbitrator to determine.

6.12 The Arbitrator may increase the period of three months specified in section 6.11 by periods of up to one month on one or more occasions provided it provides the parties (and each person who has made a written submission to the Arbitrator) with a notice of the decision to increase the period.”

Timeframes for arbitration on a scheme pipeline will vary depending on the nature of the pipeline and the dispute. It would therefore be appropriate for the dispute resolution body to have the flexibility to set timeframes to resolve a dispute based on its complexity. This will allow the dispute resolution body to provide a measured timeframe to the disputed matter that successfully balances the speed of the resolution of the dispute with the accuracy of the outcome. This enhances the effectiveness of the dispute resolution mechanism as a constraint to market power.

The factors that could influence the length of the arbitration process on a scheme pipeline include:

- subject of the dispute, for example, such that a disputed non-tariff term or condition may be expected to take the least time and a disputed expansion the most
- scope of the dispute, such that traditional forward haul services may be expected to be resolved faster than other types of pipeline services
- whether the pipeline is full regulation or light regulation, as a full access arrangement on a full regulation pipeline is expected to facilitate and expedite the arbitration process.³⁵⁰

The Commission considers that the factors listed above could be appropriate to take into account in setting a timeframe for a dispute resolution process. Therefore, the Commission recommends the introduction of a fast-tracked dispute resolution under circumstances in which it is suitable based on an assessment of a set of appropriate factors. The fast-tracked arbitration option is intended to address the perception that arbitration is slow, without compromising the arbitration outcome.

As discussed in the previous sub-section 'Reference framework for the dispute resolution body', s. 189 of the NGL stipulates that an access determination must give effect to an applicable access arrangement. The Commission considers that the framework should include incentives for parties to the dispute to resolve it efficiently.

³⁵⁰ For a full regulation pipeline, the usefulness of the identified reference services would play a key role. This is covered in Chapter 4.

One such incentive for the service provider could be the amendment of this provision such that it sets out an express obligation on the service provider to offer any spare capacity to the disputing user or prospective user under the reference terms and conditions from when the dispute notice is filed until the access determination is published. The Commission considers that this may enhance the usefulness of the access arrangement in providing an incentive for parties to the dispute to reach an efficient resolution. Moreover, this may maximise the incentives on both parties to negotiate effectively around the access arrangement as the triggering of a dispute would directly give effect to the full access arrangement. Finally, the Commission considers that this may reduce the likelihood of any spare capacity no longer being available to the disputing user or prospective user after the dispute has been resolved.

Transparency

The level of transparency of the arbitration process has also been identified as a key issue. The current dispute resolution framework for scheme pipelines does not clearly lay out which information in relation to a dispute should be published. Enhanced transparency in dispute resolution increases accountability of all the parties involved, and enhances the precedence of dispute resolution proceedings and outcomes. Moreover, increased transparency enables the joining of related disputes. The Commission considers these to be important features of the scheme pipeline arbitration framework.

However, some information should not be published. The main considerations for limiting the publication of information would be:

- commercial sensitivity of information disclosed in an arbitration process
- protection of pre-existing contractual rights.

Nevertheless, such considerations do not prevent the publication of some information, such as:

- notice of dispute (for example, dispute on tariffs for forward haul on pipeline z between party x and party y)
- arbitration outcome
- initial capital base determination (if applicable)
- rolled forward capital base determination (if applicable).

In relation to the publication of the notice of dispute and arbitration outcome, there would be a need to balance:

- interests of the party that raised the dispute in keeping the dispute (and outcome) confidential, so as not to deter parties from bringing matters to dispute or reaching favourable outcomes
- potential incentives and disincentives that arise for both parties from the knowledge that a decision will be published
- precedent value of an arbitration determination.

The Commission notes that under the NER, the dispute resolution panel is required to provide its determination to the AER for publication.³⁵¹ The New South Wales rail access undertaking also provides for the publication of arbitration outcomes.³⁵²

Commercial sensitivity and protection of pre-existing contractual rights would be relevant to other information provided in the course of dispute resolution. Nevertheless, the publication of relevant dispute information enhances the transparency of the process for all stakeholders, and facilitates the joining of other parties to disputes.

The Commission considers that the process that the regulator follows to classify as confidential information that is obtained through other processes under s. 329 of the NGL should also apply in the consideration of which dispute resolution information should be published.

Joint dispute resolution hearings

The publication of the notice of dispute is relevant to the ability to hold joint dispute resolution proceedings. Under Chapter 6 of the NGL, the dispute resolution body may add a party to the dispute if it is of the opinion that the resolution of that dispute may involve requiring that party to do something. The dispute resolution body may also add to the dispute a person who applies to be joined and who has a sufficient interest in the matter. In addition, joint hearings may be held if there are two or more disputes at a particular time and there are common matters in dispute.³⁵³

The Commission has identified two deficiencies in the current joint dispute resolution framework in Chapter 6 of the NGL. First, it does not set out a process for other parties to join a dispute. Second, in the absence of a procedure for publishing the existence of a dispute, potential parties to the dispute have no formal means of becoming aware of its existence. Parties may opt to join an existing dispute if they are unsuccessfully negotiating similar matters. Enabling this would enhance the credibility of dispute resolution as a threat not only to the existing parties but also to other negotiations.

Therefore, the Commission considers that the existence of a dispute should be published and that the framework should set out a process for parties to join a dispute. This enables interested parties to join existing disputes. This could be particularly relevant for disputes that are raised by multiple retailers or major industrial users in relation to transport tariffs on light regulation distribution pipelines that do not have limited access arrangements.

³⁵¹ Clause 8.2.10 of the NER.

³⁵² *New South Wales Rail Access Undertaking*, cl. 6.4.

³⁵³ Section 209(1) of the NGL.

Link between dispute resolution framework under the NGL and state commercial arbitration legislation

The Commission has explored the reference in the NGL to state commercial arbitration legislation. Sections 270B and 270C of the NGL provide two additions to the rights and obligations of parties under the NGL and NGR:

- Section 270B incorporates procedural parts of the relevant commercial arbitration acts into the hearing of a 'rule dispute' and decisions or determinations of a 'dispute resolution panel'.
- Section 270C creates a right of appeal on questions of law against a decision or determination of a dispute resolution panel or a decision that is classified as an appealable decision.

These provisions of the NGL provide that the relevant state commercial arbitration acts only apply to the hearing of a 'rule dispute' and decisions or determinations of a 'dispute resolution panel', as those terms are defined in the NGL.

A 'rule dispute' is defined in the NGL as "a dispute for the resolution of which provision is made in the Rules".³⁵⁴ A 'dispute resolution panel' is defined as "a person or panel of persons appointed under the Rules to hear and determine a rule dispute". Accordingly, the relevant sections only become operative if the NGR provide for the resolution of the dispute. If the only place in which the legislative scheme provides for the resolution of the dispute is the NGL, then the appeal mechanism is not available.

Part 12 of the NGR currently provides for two specific situations, namely the binding effect of an independent expert safety report and the proper method of treatment of past capital contributions. As such, it is Chapter 6 of the NGL where provision is made for the resolution of disputes and not Part 12 of the NGR. On this basis, it is the Commission's view that Part 12 of the NGR does not provide for the "resolution" of a dispute, and therefore, that ss. 270A-270C of the NGL do not apply to disputes under the dispute resolution framework for scheme pipelines.³⁵⁵

In the Commission's view, the position is less clear in relation to the application of ss. 270A - 270C of the NGL (and therefore, the incorporation of the procedural parts and review provisions of the commercial arbitration act for each state) to disputes under the dispute resolution framework for non-scheme pipelines.³⁵⁶

The NGL defines the dispute resolution body as the AER, and the NGL(WA) defines the dispute resolution body as the Energy Disputes Arbitrator of Western Australia. Given that in both cases the dispute resolution body is not a commercial arbitrator, the Commission considers that it is appropriate that access determinations under the dispute resolution framework for scheme pipelines should not be appealable under the

³⁵⁴ See definition of 'rule dispute' in s. 2 of the NGL.

³⁵⁵ The Commission considers that those provisions apply to Part 15C of the NGR, which operates as an "omnibus" dispute resolution mechanism. Part 15C also expressly excludes 'access disputes' from its operation. This dispute resolution mechanism appears to fall within the definition of 'rule dispute' under the law, triggering the application of ss. 270A - 270C of the NGL.

³⁵⁶ The draft report uses "dispute resolution framework for non-scheme pipelines" to refer to the dispute resolution framework under Chapter 6A of the NGL (including Part 23 of the NGR).

state commercial arbitration regimes. This is consistent with the Commission's view of the application of ss. 270A - 270C of the NGL.

The Commission recommends that in order to resolve any potential uncertainty concerning the application of the commercial arbitration acts to disputes under the dispute resolution framework for scheme pipelines and the dispute resolution framework for non-scheme pipelines, the NGL should be amended so that it is clear that ss. 270A - 270C (and therefore the relevant parts of the commercial arbitration acts) do not apply to disputes under both frameworks. The Commission will also consider any potential inconsistency between provisions in the commercial arbitration acts and any proposed law or rule changes in its final recommendations so as to enable the full application of its approved recommendations to the dispute resolution framework in the NGL and NGR.

Table 8.2 summarises the key differences between the draft recommended framework for dispute resolution on scheme pipelines and the arbitration framework for non-scheme pipelines.

Table 8.2 Key differences between scheme pipeline dispute resolution framework under draft recommendations and non-scheme pipeline dispute resolution framework

	Scheme pipeline dispute resolution framework under draft recommendations	Non-scheme pipeline dispute resolution framework
Trigger for the dispute resolution process	Dispute resolution is triggered if a prospective user does not agree with the service provider's response in the negotiation timeframe. Dispute resolution body may terminate an access dispute if it considers that the notifying party had, but did not avail itself of, an opportunity to engage in negotiations in good faith.	Dispute resolution is triggered if a prospective user or user and a service provider cannot agree about one or more aspects of access to a pipeline service after a request has been made in accordance with the rules. Arbitrator may determine not to proceed with an arbitration if it considers that the party who notified the access dispute did not negotiate in good faith.
Dispute resolution body	AER for states and territories other than Western Australia, Energy Disputes Arbitrator for Western Australia.	In consultation with disputing parties, the scheme administrator (AER, and ERA for Western Australia) appoints arbitrator from pool of commercial arbitrators that is set up and maintained by scheme administrator.
Timeframes for the dispute resolution process	50 business days for fast-tracked dispute resolution.	Up to 65 business days or up to 105 business days upon agreement of parties - periods for provision of information by parties or for experts to consider matters are discounted.
Transparency	Dispute resolution body publishes a notice outlining parties to the dispute, and subject of the dispute, arbitration determination and relevant financial calculations (if applicable), information provided to the dispute resolution body during the course of the dispute.	After the arbitration has concluded, scheme administrator (AER/ERA) publishes pipeline and services that were subject of the arbitration, parties to the arbitration (upon the consent of the prospective user), name of the arbitrator, duration of arbitration proceedings, whether the prospective user has wished to enter into an access contract in accordance with the final access determination, and asset valuation method and values (where applicable).
Joint dispute resolution proceedings	Dispute resolution body may hold joint dispute hearings. Parties may also apply to join existing disputes.	Scheme administrator may join a party to a dispute if it requires it to do something.
Reference framework for the dispute resolution body	Reference framework covers the NGO, revenue and pricing principles, full access arrangement and limited access arrangement where applicable, and a set of guiding principles for the dispute resolution body.	Reference framework covers objective, a set of pricing principles (cost reflective prices and reasonable cost allocation), operational and technical requirements and business interests of the parties

8.3 Draft recommendations

Draft recommendation 27: Amend trigger for dispute resolution process

To expand the negotiation process in the NGR to set out the steps that are to be followed by each party, and assign timeframes for each step. These steps include:

- upon receiving an access request from a prospective user, the pipeline service provider will acknowledge receipt within five business days
- the pipeline service provider will investigate whether access can be provided, and inform the prospective user with evidence if it cannot within 10 business days of receiving the access request
- if the pipeline service provider can provide access, then it will provide the prospective user with an access proposal within 20 business days of receiving the access request
- if the prospective user wishes to seek access based on the access proposal, it must notify the service provider within 15 business days of receiving the access proposal
- if the prospective user wishes to request modifications to the access proposal, it must notify the service provider within 15 business days of receiving the access proposal and the service provider should respond within 15 business days of receiving the access proposal
- if the prospective user does not agree with the service provider's response, then it may trigger dispute resolution.

The Commission's draft recommendation is to redefine the trigger for the dispute resolution process as failure of the parties to agree within the negotiation timeframes (45 business days) in the NGL and NGR. The dispute resolution body will be able to terminate an access dispute if it considers that the notifying party had, but did not avail itself of, an opportunity to engage in negotiations in good faith.

Draft recommendation 28: Clarify the role of the dispute resolution expert

To clarify the role of the dispute resolution expert. The dispute resolution framework for scheme pipelines should provide additional guidance on the role of the dispute resolution expert in providing advice on dispute resolution, energy industry, gas industry and matters relevant to the particular dispute. The framework should also set out the process for appointing the dispute resolution expert and using the evidence or reports that the expert provides.

Draft recommendation 29: Establish a reference framework for the dispute resolution body

That the dispute resolution framework for scheme pipelines include a decision framework for dispute resolution on scheme pipelines that access determinations would be made in reference to. This framework would be in line with that under Part 15C of the NGR and include the following:

- national gas objective
- revenue and pricing principles
- access arrangements for full and light regulation pipelines
- regulatory determinations for full regulation and light regulation pipelines
- building block approach to calculate total revenue for light regulation pipelines (where applicable)
- other criteria such as efficiency of process, and preservation of relationship between the parties.

Draft recommendation 30: Introduce a fast-tracked dispute resolution process

That the dispute resolution framework for scheme pipelines set out that a dispute can be resolved under a fast-tracked dispute resolution process if it meets a set of factors that are assessed by the dispute resolution body.

The Commission's draft recommendation is for the fast-tracked dispute resolution process to resolve a dispute within 50 business days. The dispute resolution framework for scheme pipelines would set out the steps and timeframes for the fast-tracked dispute resolution process.

Draft recommendation 31: Publish dispute resolution commencement, outcome and other information

That the dispute resolution framework for scheme pipelines require the dispute resolution body to publish, as soon as practicable:

- a notice outlining parties to the dispute, and subject of the dispute
- the arbitration determination and relevant financial calculations (if applicable, for example the capital base valuation)
- the information provided to the dispute resolution body during the course of the dispute.

The above should be subject to the publication requirements should be subject to the confidentiality provisions under s. 329 of the NGL.

Draft recommendation 32: Enable joint dispute resolution hearings

That Part 7 of Chapter 6 of the NGL be amended to enable parties to request that the dispute resolution body join them to an existing dispute. The NGL should also include the criteria for the dispute resolution body to accept or reject such a request, in addition to the process for parties to request to be joined to an existing dispute.

Draft recommendation 33: Clarify the definition of rule disputes under the NGL

To clarify in the NGL that the term 'rule dispute' does not include a dispute under the dispute resolution framework for scheme pipelines or the dispute resolution framework for non-scheme pipelines. Therefore, the jurisdictional commercial arbitration acts do not apply to disputes under the dispute resolution framework for scheme pipelines or the dispute resolution framework for non-scheme pipelines.

Abbreviations

ACCC	Australian Competition & Consumer Commission
ADJR Act	<i>Administrative Decisions (Judicial Review) Act 1977</i>
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AGN	Australian Gas Networks
APA	APA Group
APGA	Australian Pipeline and Gas Association
ARTC	Australian Rail Track Corporation
ATCO	ATCO Gas Australia
CCA Act	<i>Competition and Consumer Act 2010</i>
COAG	Council of Australian Governments
Code	National third party access code for natural gas pipeline systems
Commission	See AEMC
DBP	Dampier to Bunbury Pipeline
DTS	Victorian Declared Transmission System
DWGM	Declared Wholesale Gas Market
EDA	Western Australian Energy Disputes Arbitrator
ENA	Energy Networks Australia
ERA	Economic Regulation Authority of Western Australia
EUAA	Energy Users' Association of Australia
GGP	Goldfields Gas Pipeline
GMRG	Gas Market Reform Group
GSH	gas supply hub
GTA	gas transport agreement
IPART	Independent Pricing and Regulatory Tribunal of New South Wales
JGN	Jemena Gas Networks

KPI	key performance indicator
MCE	Ministerial Council on Energy
MDQ	Maximum Daily Quantity
MEU	Major Energy Users
NBN	National Broadband Network
NCC	National Competition Council
NEL	National Electricity Law
NEM	national electricity market
NEO	national electricity objective
NER	National Electricity Rules
NGL	National Gas Law
NGO	national gas objective
NGR	National Gas Rules
PIAC	Public Interest Advocacy Centre
PTRM	post tax revenue model
QGC	Queensland Gas Consortium
RAB	Regulated asset base
RBP	Roma Brisbane Pipeline
Report	interim report
Review	Review into the scope of economic regulation applied to covered pipelines
RFM	roll forward model
RIN	regulatory information notice
RIO	regulatory information order
STTM	short term trading market

A Summary of other issues raised in submissions

Table A.1 sets out the issues raised in submissions to the issues paper that have not otherwise been addressed in this draft report.

Table A.1 Submissions to the issues paper

Stakeholder	Issue	AEMC response
Framework for pipeline regulation		
Central Petroleum letter, p. 1.	The efficiency of the gas market and its competitiveness are distorted by natural gas transmission pipelines which are clear natural infrastructure monopolies yet operate without any effective economic regulation.	The application of economic regulation to scheme pipelines is the focus of this review and the draft recommendations go to improving the outcomes from this.
AGL, p. 2; EnergyAustralia, p. 2; EUAA, p. 2; MEU, p. 16.	Light regulation framework is irrelevant given new access regime for non-scheme pipelines and should be removed and replaced with Part 23. It does not effectively constrain monopoly price setting.	The Commission has recommended that light regulation be retained and improved. See Chapters 3, 6, 7 and 8.
Hydro Tasmania, p. 2.	The AEMC will need to ensure that pipelines are not able to 'forum shop' for regimes.	Service providers cannot 'forum shop' at their discretion as certain criteria must be satisfied and a regulatory decision made to enable the form of regulation applied to a pipeline to be changed.
MEU, pp. 6-7.	A pipeline with contracts under competitive tender should be subject to regulation when the contracts expire.	The competitive tender process remains in the regime. These pipelines will now be subject to Part 23 following the expiration of the competitive tender access arrangement.
PIAC, p. 5.	The application of the form of regulation factors to distribution pipelines has been problematic, as electricity has been considered a direct substitute for gas.	It is the NCC's responsibility to determine the appropriate form of regulation (between light and full regulation) taking into account the various criteria described in Chapter 3. The Commission considers that these criteria are appropriate. See section 3.4.1.

Stakeholder	Issue	AEMC response
PIAC, p. 4; AER, p. 7.	Explore if the negotiate-arbitrate regulatory framework would suffice to promote the long-term interests of consumers at the distribution pipeline level.	The Commission has considered the applicability of the negotiate-arbitrate regime to distribution pipelines. See Chapter 3.
MEU, p. 6.	The AEMC should consider whether all transmission pipelines should operate under the market carriage approached (currently used for the Victorian DTS) rather than the contract carriage system used outside the DTS.	The Commission has previously concluded that contract carriage remains appropriate outside the Victorian DTS.
Reference services		
nil		
Access arrangements		
PIAC, pp. 12.	The AER has not appropriately engaged consumers and consumer groups in the access arrangement process.	The Commission's draft recommendation to introduce a separate reference service process and make other process changes is expected to allow the regulator to better consult and engage with stakeholders and incorporate feedback.
DBP and AGN, p. 16.	Fast-tracked decision making approach to reduce the time and resources directed to access arrangement reviews where appropriate.	The Commission's draft recommendations aim to enhance the efficiency of the process without compromising stakeholder engagement.
Determining efficient costs		
PIAC, p. 13.	The management of redundant assets should not have the effect of passing the risk associated with speculative investments to pipeline users and consumers.	The Commission also considers that the redundant asset provisions under rules 85 and 86 provide incentives for service providers to spend efficient capital expenditure.
PIAC, p. 16.	There is no reflection in tariffs as a result of savings in other areas of the market, such as interest rate decreases. As the pipeline industry becomes increasingly privatised	The Commission has not addressed issues in relation to the allowed rate of return, as that is subject to another process.

Stakeholder	Issue	AEMC response
	(including substantial foreign holdings), assumptions about the 'benchmark efficient entity' are no longer relevant. The AER has recently initiated two extensive review programs around the treatment of inflation and rate of return assessments.	
PIAC, p. 27; EUAA, pp. 2, 6.	Consideration should be given to introducing electricity networks' regulatory investment test for transmission (RIT-T) and regulatory investment test for distribution (RIT-D) to gas pipelines.	The Commission does not consider that there is a persuasive case for introducing a RIT process in the NGR.
Jemena, pp. 2-3.	The AEMC should consider increasing flexibility in setting the discount rate for new connection capital under rule 119M(2)(a) Chapter 12A.	The Commission has not examined issues that are only relevant to Part 12A in the draft report.
EnergyAustralia, p. 1.	While the allowed rate of return is transparent, it is nevertheless too high.	The Commission has not addressed issues in relation to the allowed rate of return, as that is subject to another review process by the AER on a binding rate of return guideline.
APGA, p. 5.	The pricing principles in Part 23 provide for a different approach to tariff setting (cost of providing the service, including a commercial rate of return) compared to the revenue and pricing principles for scheme pipelines (service provider is allowed to recover efficient costs, with incentives to lower the costs below the efficient cost).	The Commission has not examined issues that are only relevant to Chapter 6A or Part 23 in the draft report.
Information and negotiation		
APGA, p. 4.	The 10TJ/day exemption threshold under Part 23 (NGR 585) is appropriate for transmission pipelines but means that distribution networks are subject to Part 23 information obligations for little benefit for consumers.	The Commission has only examined issues that are relevant to scheme pipelines in the draft report.

Stakeholder	Issue	AEMC response
ENA, pp.10-11.	Existing uncovered small regional pipelines should not face increased regulatory compliance costs where there is no customer benefit.	The Commission has only examined issues that are relevant to scheme pipelines in the draft report.
Arbitration		
ACCC, pp. 10-11.	The ACCC considers the arbitration framework should be consistent across all pipelines and suggests that the process set out in Part 23 (Division 4) be adopted for covered pipelines.	The Commission has addressed the issues raised in relation to arbitration on scheme pipelines and informed some of its findings by discussions with the GMRG.
Other issues		
Power and Water NT, pp. 3-4, 6.	NTPWC is concerned that the day ahead capacity auction that could provide capacity at potentially near zero cost.	The Commission has not examined secondary market issues in this review.
AGL, p. 3.	In relation to transmission pipelines, which are mostly uncovered, the ability to trade capacity between third parties is limited, with the service providers inserting themselves in the transactions. In addition, responses to requests can be slow. These restrictions prohibit the development of gas as a tradeable commodity.	The Commission has not examined secondary market issues in this review.
PIAC, pp. 4, 9, 13.	Consider any limitations brought about by the absence of a single national energy objective for gas regulation as well as other energy frameworks.	The role of the NGO is not part of this review.
Jemena, pp. 2-3; DBP and AGN, pp. 5-8; ENA, pp. 5-6.	The definition of natural gas in the NGL may be restrictive in that it may exclude various other gases (or mixtures of gases) that might appropriately fall under the economic regulation regime.	The Commission recognises the importance of this question, but considers this review of economic regulation is not the most appropriate process to give it due consideration. See AEMC interim report.

Stakeholder	Issue	AEMC response
Power and Water NT, pp. 4-5.	The AEMC should consider the interests of foundation users of pipelines by requiring service providers to pass through to foundation users the benefits equivalent to those afforded to users of regulated services (most favoured nation clauses).	Outside of access arrangements, parties are able to reach agreement on terms and conditions that best suit their circumstances, subject to the requirements of law, including competition law. See AEMC interim report.

B Background

This review is related to a number of other reviews and reforms. In particular:

- AEMC's East coast wholesale gas market and pipeline frameworks review
- AEMC's Review of the Victorian declared wholesale gas market
- ACCC's Inquiry into the east coast gas market
- Dr Michael Vertigan's Examination of the current test for the regulation of gas pipelines
- Chapter 6A of the NGL, to establish an arbitration framework for non-scheme pipelines as recommended by Dr Vertigan and developed by the GMRG
- Part 23 of the NGR, to set out the access regime for non-scheme pipelines as recommended by Dr Vertigan and developed by the GMRG.

A summary of each is set out below.

B.1 East coast wholesale gas market and pipeline frameworks review

On 20 February 2015, the COAG Energy Council issued terms of reference for the east coast wholesale gas market and pipeline frameworks review to the AEMC. The purpose of the review was to support the COAG Energy Council's objective to establish a liquid wholesale gas market that:³⁵⁷

- provides market signals for investment and supply
- facilitates responses to market signals through a supportive investment and regulatory environment
- focuses trade at a point that best serves the needs of participants
- establishes an efficient reference price
- connects consumers and trading markets to infrastructure that enables trade between locations and arbitrage of trading opportunities.

In undertaking this review, the AEMC was requested to consider:

- improving effective risk management in Australian gas markets
- enhancing transparency and price discovery in facilitated gas markets, and reducing barriers to entry
- signals and incentives for efficient access to and use of pipeline capacity.

The AEMC published its stage 1 final report on 23 July 2015, which found that:³⁵⁸

- likelihood for the short term trading market (STTM) hubs to deliver efficient reference prices is questionable
- some aspects of the pipeline arrangements used outside of Victoria impede the efficiency with which capacity rights are reallocated and used

³⁵⁷ COAG Energy Council, Communique 11 December 2014, item 5.

³⁵⁸ AEMC, *East coast wholesale gas market and pipeline frameworks review, stage 1 final report*, 23 July 2015.

- information sources on the eastern Australian gas market are fragmented and somewhat under-developed by international standards.

The report recommended short term initiatives for immediate implementation, and a scope of work for more substantial recommendations to be developed in stage 2 of the review.

The AEMC published its stage 2 final report on 23 May 2016.³⁵⁹ This report addressed the issues identified in the stage 1 final report through a recommended package of reforms, including:

- development of two primary trading hubs, one each in Queensland and Victoria
- simplification of the current STTM hubs to balancing mechanisms
- introduction of day ahead capacity auctions
- standardisation of primary and secondary contractual terms for pipeline and hub services
- creation of pipeline capacity trading platforms
- improved information, including publication of information on all secondary trades
- improvements to the Natural Gas Services Bulletin Board
- governance and implementation proposals, including establishing a dedicated gas reform group (now the Gas Market Reform Group or GMRG) to develop the required package of changes.

B.2 Review of the Victorian declared wholesale gas market

The AEMC undertook a review of the Victorian declared wholesale gas market (DWGM review). The DWGM review was pursuant to terms of reference issued by the Victorian Government on 4 March 2015.³⁶⁰ Some of the issues explored as part of the DWGM review are relevant to this review, particularly in relation to incentives to invest in expanding the Victorian Declared Transmission System (DTS).

B.3 Inquiry into the east coast gas market

On 9 April 2015 the Commonwealth Minister for Small Business and Assistant Treasurer directed the ACCC to hold an inquiry into the “competitiveness of wholesale gas prices and the structure of the upstream, processing, transportation, storage and marketing segments of the gas industry”.³⁶¹

The ACCC used its information gathering powers under Part VIIA of the *Competition and Consumer Act 2010 (Cth)* to investigate the claims of industrial users and suppliers.

The scope of the inquiry, as set out in the Minister’s direction, required the ACCC to take into consideration:

³⁵⁹ AEMC, *East coast wholesale gas market and pipeline frameworks review, stage 2 final report*, 23 May 2016.

³⁶⁰ AEMC, *Review of the Victorian declared wholesale market, final report*, 14 October 2016.

³⁶¹ ACCC, *Inquiry into the east coast gas market*, April 2016, Appendix 2.

- availability and competitiveness of offers to supply gas and the competitiveness and transparency of gas prices
- restrictions on market structures for gas production, gas processing and gas transportation
- significance of barriers to entry into the upstream production sector
- existence of, or potential for, anti-competitive behaviour on purchasers of gas
- transaction costs, information transparency including gas supply contractual terms, and other factors influencing the competitiveness of the markets.

The scope excluded competition in gas retail markets.

The ACCC provided its report to the Minister on 13 April 2016, which set out the ACCC's inquiry findings, including:³⁶²

- evidence that a large number of pipeline operators have been engaging in monopoly pricing that has given rise to higher delivered gas prices and is having an adverse effect on the economic efficiency of the east coast gas market and upstream and downstream markets
- evidence that the ability and incentive of existing pipeline operators to engage in this behaviour is not being effectively constrained by competition from other pipelines, competition from alternative energy sources, the risk of stranding, the countervailing power of shippers, regulation or the threat of regulation
- that the current gas access regime is not imposing an effective constraint on the behaviour of a number of unregulated pipelines because
 - the current test for regulation under the NGL (the coverage criteria) is not designed to address the market failure that has been observed, that is, monopoly pricing that results in economic inefficiencies with little or no effect on the level of competition in dependent markets
 - other gaps in the regulatory framework are also allowing pipelines that are subject to regulation to engage in monopoly pricing
 - information asymmetries are limiting the ability of shippers to identify any exercise of market power and to negotiate effectively with pipeline operators.

The report recommended that the COAG Energy Council should replace the coverage test with a test that would be triggered if the relevant minister, having regard to the National Competition Council's (NCC) recommendation, is satisfied that: (a) the pipeline in question has substantial market power; (b) it is likely that the pipeline will continue to have substantial market power in the medium term; and (c) coverage will or is likely to contribute to the achievement of the NGO. The ACCC recommended that this issue be further considered by the AEMC.³⁶³

³⁶² ACCC, *Inquiry into the east coast gas market*, April 2016, p. 18.

³⁶³ ACCC, *Inquiry into the east coast gas market*, April 2016, p. 11.

The ACCC also recommended that the COAG Energy Council ask the AEMC to review Parts 8 to 12 of the NGR, and make recommendations on any amendments that may be required to address the concern that pipelines subject to full regulation may still be able to exercise market power to the detriment of consumers and economic efficiency.³⁶⁴

The Australian Government subsequently directed the ACCC to hold an inquiry into the supply of and demand for wholesale gas in Australia over three years. Interim reports are required to be provided to the Treasurer at least every six months during the course of the inquiry with a final report to be provided by 30 April 2020.³⁶⁵ To date, the ACCC has published interim reports on 25 September 2017 and 13 December 2017. The third interim report is anticipated to be released in March 2018.

B.4 Examination of the current test for the regulation of gas pipelines

On 19 August 2016, the COAG Energy Council released its gas market reform package in response to the AEMC east coast gas review and the ACCC inquiry.³⁶⁶ The COAG Energy Council accepted the AEMC's recommendation to form a dedicated gas reform group.

In addition, Dr Michael Vertigan was tasked to examine the coverage test for the regulation of gas pipelines and provide recommendations on any future action including potentially replacing the test. The COAG Energy Council was concerned that, based on the ACCC findings, "the current test does not appear to be working, and a new test may be needed to put downward pressure on transport prices."³⁶⁷

Dr Vertigan stated:³⁶⁸

"The initial presumption and widespread expectation of the industry was that the focus of the examination would be on the appropriateness of the existing regulatory test and whether, and how, it should be changed. However, submissions and consultations have highlighted that the principal problem is that parties negotiating for pipeline services have unequal levels of bargaining power and information. Consequently, the examination has focussed on the most effective and least onerous ways to address these factors"

Dr Vertigan published his report on the examination of the current test for the regulation of gas pipelines on 14 December 2016. The report noted the following issues as identified by various stakeholders:

- pipeline owners have market power, which is exercised during negotiations of gas transport agreements
- increasing the extent of regulation of the pipeline industry is not supported and considered ineffective in addressing customer concerns

³⁶⁴ ACCC, *Inquiry into the east coast gas market*, April 2016, p. 20.

³⁶⁵ Treasurer, *Inquiry for improving the transparency of gas supply in Australia*, terms of reference, 19 April 2017.

³⁶⁶ COAG Energy Council, Meeting communique, 19 August 2016.

³⁶⁷ COAG Energy Council, Meeting communique, 19 August 2016, p. 1.

³⁶⁸ Dr Vertigan, *Examination of the current test for the regulation of gas pipelines*, 14 December 2016, p. 12.

- pipeline operators have a superior negotiating position, and information asymmetry exists with pipeline customers
- the absence of adequate publicly available information on prices and terms, as well as the methodology used to determine these and the costs incurred by pipeline operators, have made it difficult for small shippers to assess what a reasonable offering would be
- gas transport prices are higher than would be the case in a fully competitive or fully regulated environment
- total return on a gas pipeline business is double that of the average regulated electricity network operator³⁶⁹
- in some instances, the exercise of market power is resulting in inefficient outcomes that do not promote the NGO or facilitate the achievement of the COAG Energy Council's Vision for the establishment of a liquid wholesale gas market that provides market signals for investment and supply.³⁷⁰

Recommendation 4 of the report was that the coverage test not be changed at this stage.³⁷¹ The report recommended a regime of enhanced information disclosure coupled with binding arbitration, which would be available to all open access gas pipelines (not just covered pipelines). The report's recommendations included:³⁷²

- that the GMRG be tasked with developing a detailed design of the disclosure and transparency requirements and of the arbitration framework
- that the coverage test be reviewed within five years of the arbitration framework being operational.

Dr Vertigan also noted that "if the arbitration framework is to operate in the way it is envisaged then there may be no need to retain the light regulation option."³⁷³

B.5 Chapter 6A of the NGL

At its meeting on 14 December 2016, the COAG Energy Council asked the GMRG chair, Dr Vertigan, to bring forward the recommendations contained in his examination report to allow commencement on 1 May 2017, subject to the passage of amendments to relevant laws. On 17 February 2017, following public consultation, the COAG Energy

³⁶⁹ The examination report commissioned an analysis of total shareholder return to a pipeline operator through JP Morgan's Equity Research Team. The analysis examined returns over a ten-year period, and compared them directly with aggregated returns to regulated electricity asset owners and with the ASX 200.

³⁷⁰ Dr Vertigan, *Examination of the current test for the regulation of gas pipelines*, 14 December 2016, pp. 10-11.

³⁷¹ Dr Vertigan, *Examination of the current test for the regulation of gas pipelines*, 14 December 2016, p. 16. Dr Vertigan did note that many stakeholders did not consider that the test constrained the behaviour of pipeline service providers (p. 12).

³⁷² Dr Vertigan, *Examination of the current test for the regulation of gas pipelines*, 14 December 2016, pp. 13-17.

³⁷³ Dr Vertigan, *Examination of the current test for the regulation of gas pipelines*, 14 December 2016, pp. 15-16.

Council agreed to changes to the NGL to establish a framework for information provision and arbitration for non-scheme pipelines.³⁷⁴ The National Gas (South Australia) (Pipelines Access - Arbitration) Amendment Act passed both houses of the South Australian parliament.³⁷⁵

The consequent Chapter 6A of the NGL outlines a dispute resolution process for non-scheme pipelines³⁷⁶ that has a number of similarities to the dispute resolution process for scheme pipelines that is set out in Chapter 6 of the NGL. It contains provisions that allow the NGR to exclude a pipeline, part of a pipeline or a pipeline service from the arbitration framework.³⁷⁷ Some existing contractual rights of users are protected.³⁷⁸ Chapter 6A provides for the NGR to set out information disclosure and collection requirements, and provides for the scheme administrator to be the AER.³⁷⁹ The negotiate-arbitrate process set out in Chapter 6A is as follows:³⁸⁰

- the parties must negotiate in good faith for access to pipeline services
- an access dispute can be triggered if negotiations break down
- the AER must refer an access dispute to arbitration
- the AER selects the arbitrator if the parties are unable to agree
- the arbitrator must make a determination, in accordance with the NGR
- costs will be borne equally between the parties, or as otherwise stated in the NGR
- a determination can be varied by agreement or in accordance with the NGR.

B.6 Part 23 of the NGR

On 21 March 2017, the GMRG published its Gas pipeline information disclosure and arbitration framework implementation options paper that set out five options for each of: information disclosure requirements; arbitration mechanisms; and arbitration principles as well as the GMRG's preferred options. The GMRG's preferred options were:³⁸¹

- information disclosure: base level information that shippers require when considering whether to seek access to a pipeline, in addition to financial statements

³⁷⁴ National Gas (South Australia) (Pipelines Access - Arbitration) Amendment Act 2017.

³⁷⁵ The bill passed the South Australian Legislative Council on 20 June 2017. The relevant bill was passed through the Western Australian parliament in December 2017 and became operational on 23 December 2017.

³⁷⁶ A non-scheme pipeline is a pipeline that is not a 'covered pipeline' or an 'international pipeline' under the NGL and NGR.

³⁷⁷ Chapter 6A of the NGL, s. 216C.

³⁷⁸ Chapter 6A of the NGL, s. 216N.

³⁷⁹ Chapter 6A of the NGL, s. 216A. The ERA became the WA scheme administrator on 23 December 2017.

³⁸⁰ Chapter 6A of the NGL, ss. 216G-216V.

³⁸¹ GMRG, *Gas pipeline information disclosure and arbitration framework implementation options paper*, March 2017, p. xi.

- arbitration: conventional arbitration that provides additional procedural protections and partial transparency
- pricing and other principles: pricing principles based on cost of service provision, supplemented by other principles.

On 5 June 2017, the GMRG published its final design recommendations on the information disclosure and arbitration framework.

GMRG developed its final initial rules to implement its design recommendation which were agreed by the COAG Energy Council in July 2017. On the 1st August 2017 these rules were made by the South Australian Minister for Mineral Resources and Energy and became Part 23 of the NGR³⁸². The objective of Part 23 is:³⁸³

“The objective of this Part is to facilitate access to pipeline services on non-scheme pipelines on reasonable terms, which, for the purposes of this Part, 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.”

The elements of Part 23 of the NGR are described in sections B.6.1 to B.6.3 below.

B.6.1 Information disclosure

Part 23 of the NGR requires non-scheme pipeline service providers to publish on their website information that would be useful for shippers to negotiate access.³⁸⁴ In December 2017, the AER published guidelines for information provision that provide detailed guidance to supplement the rules.³⁸⁵

Under the financial reporting guidelines, non-scheme pipeline service providers subject to financial reporting under Part 23 are required to report the following:³⁸⁶

- pipeline service and access information
- individual pipeline financial statements including revenues and costs, assets and details of how the accounts have been prepared
- asset valuation – calculated using the recovered capital methodology that takes into account previous returns the pipeline specified in Part 23
- weighted average prices for pipeline services.

B.6.2 Arbitration regime

Part 23 sets out an arbitration regime with the following key features:

- The arbitrator is a commercial arbitrator and is selected from a pool.³⁸⁷

³⁸² Clause 294 of the Bill provides for the South Australian Minister to make the initial rules.

³⁸³ Rule 546 of the NGR.

³⁸⁴ Rules 552-557 of the NGR.

³⁸⁵ AER, *Financial reporting guideline for non-scheme pipelines*, December 2017. The ERA will also develop and publish guidelines.

³⁸⁶ AER, *Financial reporting guideline for non-scheme pipelines explanatory statement*, December 2017, pp. 2-3.

- Arbitration can be used to settle disputes in relation to all aspects of access to all types of pipeline services offered (excluding, for example, disputes that require an extension to a pipeline).³⁸⁸
- Arbitration uses the information exchanged by parties in negotiations. The arbitrator has the discretion to conduct hearings and request further information if required.³⁸⁹
- The regulator, as scheme administrator of the arbitration regime, may provide administrative support to the arbitrator and potential disputants, including through the provision of a non-binding arbitration guide that outlines the process for the determination of access disputes under the NGL and NGR.³⁹⁰

B.6.3 Arbitration principles

Part 23 stipulates that the arbitrator must take the following in to account:³⁹¹

- pricing principles, which state that the price for access should reflect the cost of providing the service, including a commercial rate of return commensurate with the prevailing market conditions and reflecting the risks faced by the service provider.
- access should be available on reasonable terms
- operational and technical requirements necessary for the safe and reliable operation of the facility.

Part 23 stipulates that the arbitrator may take the following into account:

- legitimate business interests of the service provider
- interests of all persons who have rights to use the pipeline
- value to the service provider of extensions and expansions of the pipeline whose cost is borne by someone else
- value to the service provider of interconnections to the facility whose cost is borne by someone else.

Where access is for a pipeline service that when used affects the capacity of the non-scheme pipeline available for other pipeline services, and that is priced at a premium or discount from firm haulage, then the arbitrator should take into account the opportunity cost and/or benefit of providing the service relative to the firm service (taking into account effects on cost and/or capacity) and provide a reasonable contribution to joint and common costs.

387 Rule 549(1) of the NGR.

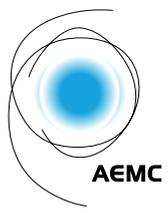
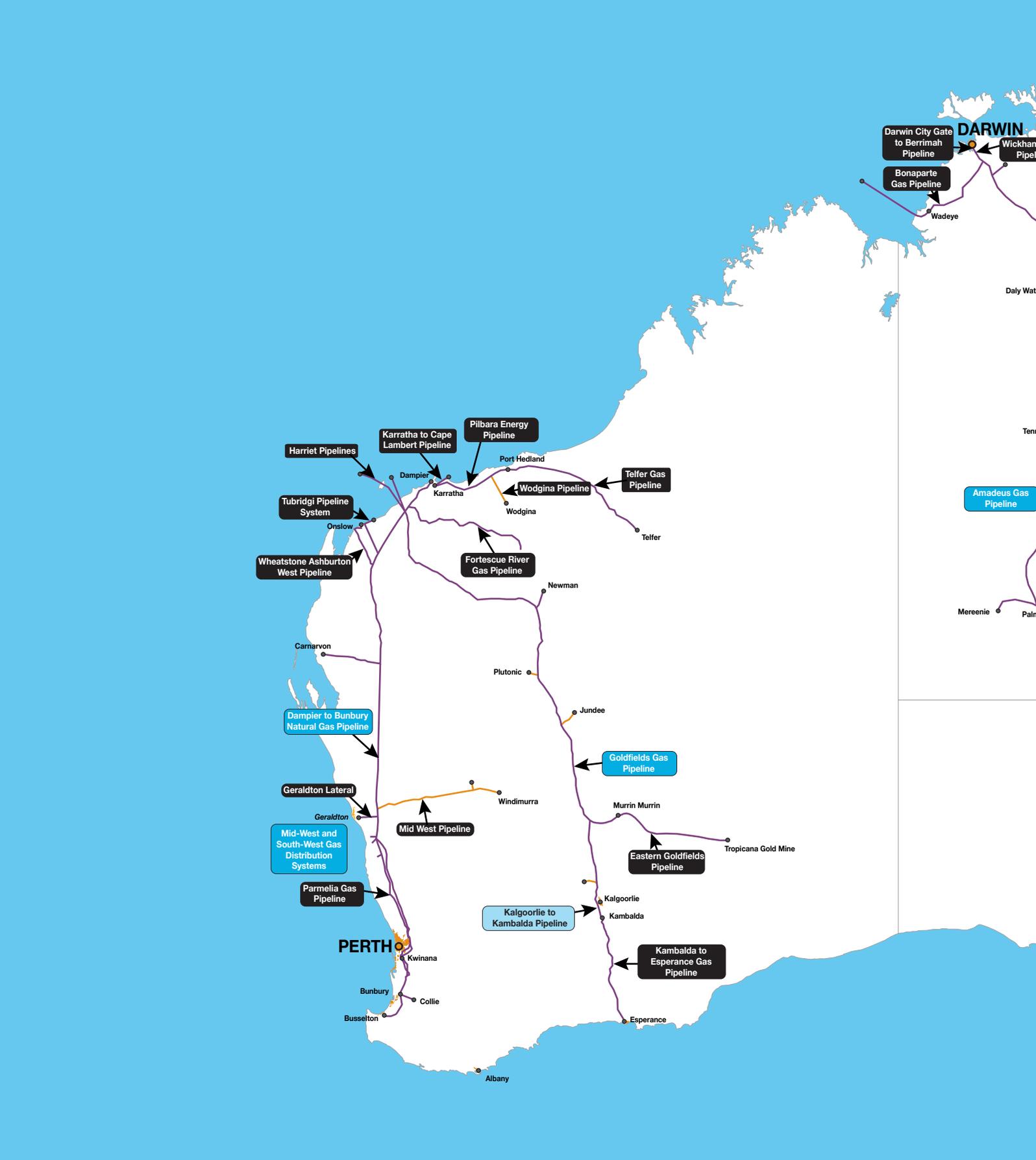
388 Rule 563 of the NGR.

389 Rule 574 of the NGR.

390 Rule 582 of the NGR.

391 Rule 569 of the NGR.

C Map of transmission and distribution pipelines in Australia



The information contained in this document, including the pipeline names and locations, has been prepared by the Australian Energy Market Commission (AEMC) as general guidance and for information purposes only. The information is based on publicly available sources, and has not been independently verified by the AEMC, and therefore, may not be complete, accurate or up to date.

D Terms of reference

Mr John Pierce
Chair
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Dear Mr  Pierce

You would be aware that the Australian Competition and Consumer Commission (ACCC) East Coast Gas Inquiry report released in April 2016 made a suite of recommendations including:

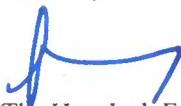
The COAG Energy Council should ask the AEMC to review Parts 8-12 of the NGR and to make any amendments that may be required to address the concern that pipelines subject to full regulation may still be able to exercise market power to the detriment of consumers and economic efficiency. In carrying out this review, the AEMC should also consider whether any changes can be made to the dispute resolution mechanism in the NGL and NGR to make it more accessible to shippers, so that it provides a more effective constraint on the behaviour of pipeline operators.

Energy Ministers released a consolidated response to both the AEMC Review and the ACCC Inquiry in August 2016 committing to implement a comprehensive package of reforms. In particular, the Energy Council agreed to task the AEMC to review parts 8-12 of the NGR in line with the ACCC's recommendations.

Accordingly, I am writing to you in my capacity as Chair of the Energy Council, requesting the AEMC to undertake a review into the scope of economic regulation applied to covered pipelines, as per the attached Terms of Reference. I request that the review commence no later than May 2017 and a draft report be released by February 2018, with publication of a final report by June 2018.

I encourage you to collaborate with the Gas Market Reform Group to ensure that the review considers the concurrent work on the development of the gas pipeline information disclosure and arbitration framework and the transportation capacity trading reforms.

Sincerely



The Hon Josh Frydenberg MP
Chair
COAG Energy Council
May 2017

Encl.

TERMS OF REFERENCE

Australian Energy Market Commission

Review into the scope of economic regulation applied to covered pipelines

Background

- Under the National Gas Law (NGL), natural gas pipelines may be subject to different levels of economic regulation: Light regulation: a negotiate-arbitrate model that focusses on commercial negotiation and information disclosure, supported by a dispute resolution process.
- Full regulation: the Australian Energy Regulator (AER) approves a full access arrangement for the pipeline, which sets out the terms and conditions (including prices) for 'reference services', which under the National Gas Rules (NGR) are services that are sought by a significant part of the market. The negotiate-arbitrate model and dispute resolution framework also apply to reference and non-reference services offered by way of pipelines subject to full regulation.

The National Competition Council (NCC) may make a recommendation whether or not a pipeline should be "covered" (i.e. subject to full economic regulation) and the relevant Minister makes a decision on this recommendation.

The NCC may determine that a pipeline should be subject to full or light regulation. In forming a view as to whether a pipeline should be subject to full or light regulation, the NCC has regard to (amongst other things) the 'form of regulation factors' set out in the NGL, which are indicators of the extent of market power a pipeline service provider can exercise.

Parts 8-12 of the NGR govern the economic regulation of pipelines subject to full and light regulation:

- Part 8 sets out the requirements for pipelines subject to full regulation to provide access arrangements (and pipelines subject to light regulation to provide limited access arrangements).
- Part 9 applies to full access arrangements and sets out how prices and revenue are determined (i.e. the building block approach).
- Part 10 includes other provisions relating to access arrangements, such as extension and expansion requirements.

- Part 11 provides that the applicable access arrangement and other information must be made available to prospective pipeline users and sets out the process for parties to seek access to pipeline services.
- Part 12 sets out certain requirements for the resolution of access disputes (the process for dealing with access disputes is additionally set out in Chapter 6 of the NGL).

In April 2016, the Australian Competition & Consumer Commission (ACCC) provided the Australian Government with its report on its inquiry into the east coast gas market.¹ The ACCC's inquiry examined the competitiveness of wholesale gas prices and the structure of the upstream, processing, transportation, storage and marketing segments of the east coast gas industry.

The ACCC's report included a number of recommendations to the Council of Australian Governments (COAG) Energy Council (the Council) to address issues it had identified that related to the exercise of market power by gas transmission pipeline service providers, to the detriment of consumers and economic efficiency.

Of particular relevance to these terms of reference, the ACCC raised concerns that:

1. even if a pipeline is fully regulated, the service provider of that pipeline may still be able to exercise market power to the detriment of consumers and economic efficiency; and
2. the dispute resolution framework may not be providing an effective constraint on the behaviour of pipeline service providers.

Specifically, the ACCC identified the following potential issues with the current economic regulatory framework:

1. Reference services: the current definition of 'reference service' is that the service is sought by a 'significant part of the market'. As a result, some non-contestable services are not subject to regulated terms and conditions (including prices). The ACCC suggested that pipeline owners may be able to exercise market power on these services to the detriment of consumers and economic efficiency.
2. Pipeline expansions: when a pipeline that is subject to full regulation is expanded (for example, through the addition of a compressor), the additional capacity is not necessarily included within the definition of the covered pipeline and consequently not subject to economic regulation. Again, the ACCC noted that pipeline owners may,

¹ ACCC, *Inquiry into the east coast gas market*, April 2016

as a result, be able to exercise market power on these services provided by the expansion to the detriment of consumers and economic efficiency.

3. Information and dispute resolution: there may be barriers that are preventing participants from using the access dispute resolution provisions in the NGR. As a result, the ACCC commented that the threat of arbitration was unlikely to be a constraint on the behaviour of pipeline service providers.

While the ACCC identified the above potential issues with Parts 8-12 of the NGR in its report, it was not the focus of the ACCC inquiry to carry out a comprehensive assessment of Parts 8-12 of the NGR. Therefore there may be other related issues with Parts 8-12 that were not identified by the ACCC.

Energy Ministers released a consolidated response to both the AEMC Review and the ACCC Inquiry in August 2016 committing to implement a package of comprehensive reforms that address the priority areas of gas supply, market operation, gas transportation and market transparency. In particular, the Energy Council agreed to task the AEMC to review parts 8-12 of the NGR in line with the ACCC's recommendations.

In December 2016, the Council agreed to the development of an Arbitration Framework designed to address the negotiation imbalance between pipeline customers and operators by providing for binding arbitration where commercial negotiations fail.

Purpose

The AEMC is requested to make recommendations on any amendments it considers necessary to Parts 8-12 of the NGR to address concerns that pipelines subject to full regulation are able to exercise market power to the detriment of economic efficiency and the long term interests of consumers.

The AEMC should also consider whether the access dispute resolution mechanism set out in the NGL and NGR should be amended to provide a more effective constraint on the exercise of market power by pipeline service providers, including making dispute resolution more accessible to shippers.

The AEMC should examine the issues identified by the ACCC in its inquiry in relation to Parts 8-12 of the NGR, as well as any other related issues identified by the AEMC, including through stakeholder consultation.

The AEMC is requested to work closely with the GMRG to ensure consistency with all future gas market reform measures and avoid duplication of efforts, particularly in relation to the development of a framework for binding arbitration.

In carrying out this review, the AEMC should have regard to the National Gas Objective, the form of regulation factors and also consider the Council's Vision for Australia's future gas market.

Scope

The review is to focus on transmission pipelines. However, the review will need to consider the implications of any recommendations on distribution pipelines. For example, if the definition of a 'reference service' is changed to address an issue related to transmission pipelines, the AEMC should consider the impacts on, and suitability of that change for, distribution pipelines.

Once a decision has been made that a service is a reference service, the 'building block' approach in Part 9 of the NGR is used to determine regulated prices and revenue. The appropriateness or otherwise of using the building block methodology to determine regulated prices and revenue in respect of reference services are outside the scope of this review. However, it may be necessary for the AEMC to consider consequential changes to the building block methodology in Part 9 as a result of recommendations related to other chapters. For example, if changes are made to the pipeline capacity expansion provisions, the AEMC should consider any implications for the 'new capital expenditure criteria' in Part 9.

Consultation, timeframes and deliverables

The AEMC should carry out the review through a consultative process with jurisdictions, industry members, consumer groups and energy market bodies.

The AEMC is to publish an issues paper in the first half of 2017 and draft report for consultation in early 2018, with a final report and recommendations provided to the Council by June 2018.

Milestone	Timeframe
Terms of reference received	May 2017
Issues paper for consultation	June 2017
Draft report for consultation	February 2018
Final report to COAG Energy Council	June 2018

5 May 2017