1. Introduction

1.1 Context

The Council of Australian Governments (COAG) Energy Council requested the Australian Energy Market Commission (AEMC) review the economic regulatory framework that currently applies to covered transmission and distribution natural gas pipelines.

For a negotiate-arbitrate framework to successfully constrain market power, all of the individual elements of the regime need to function. Through consultation, the AEMC has identified elements of the regime to investigate further. As set out in the AEMC’s interim report,¹ these are:

- the forms of regulation that should be applied to pipelines (including expansions and extensions of pipelines), and the tests that determine which form of regulation should apply
- the appropriateness of the reference service definition
- the efficiency of the access arrangement process
- the determination of the efficient costs of providing the reference service(s)
- the role of information disclosure requirements in negotiations between service providers and prospective users
- credibility of the threat of arbitration, and efficiency of arbitration process and outcomes.

In considering the potential solutions to the issues identified by stakeholders, the AEMC will consider the ability of the potential solution to promote the national gas objective. More specifically, the AEMC will consider the following questions, among others:

- do the rules provide for an efficient and effective regulatory framework that is consistent with the NGO?
- do the rules support efficient investment in gas transmission and distribution pipelines?

¹ AEMC, Review into scope of economic regulation applied to covered pipelines, Interim report, 31 October 2017.
• how do the requirements under the rules affect the efficient operation and use of gas transmission and distribution pipelines?
• do the rules provide appropriate incentives to service providers to provide access to pipeline services for upstream and downstream users?
• do the requirements under the rules influence the tariff and non-tariff terms and conditions of access to pipeline services for the long term interests of gas consumers?

1.2 This document and the stakeholder meeting

This document has been prepared to aid in the discussion of a selection of issues and potential solutions at the stakeholder meeting on Thursday 14 December 2017. It does not represent any decision made by the AEMC. Nor does it indicate that the AEMC’s draft report will be confined to these particular matters only. It has been intentionally kept high-level and brief, and does not contain detailed analysis or reasons for the potential solutions.

This discussion paper has been distributed prior to the stakeholder meeting to allow attendees to prepare specific feedback for the meeting.

The role of this stakeholder meeting is to assist the AEMC project team in its consideration of the issues relating to the regulation of covered pipelines. It is not required to form a consensus on issues or solutions.

The AEMC expects a high level of engagement and participation from attendees. The stakeholder meeting has been intentionally established as a small group to maximise interaction. The AEMC project team will be informed by the contributions made by attendees and will convey relevant information to the AEMC Commissioners for their consideration.

1.3 Next steps

The AEMC project team will continue to work on the development of potential solutions to these and others issues relating to the regulation of gas pipelines. Draft recommendations on addressing the issues will be set out in the draft report. This is scheduled to be published in February 2018. Stakeholders will be invited to respond to the draft report.
2. Framework for pipeline regulation

2.1 Determining the form of regulation

Key issues

The figure below provides an overview of the current forms of regulation and the tests that determine which form is applied or whether no regulation should apply since 1 August 2017.

The introduction of the access regime for non-scheme pipelines (Part 23 of the NGR) addresses a problem identified by both the ACCC\(^2\) and Dr Vertigan\(^3\) 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.

However, there are number of questions to now consider.

Firstly, the original purpose of the coverage determination was to determine whether a pipeline is regulated, but it now rarely has that effect and instead its main effect is to determine which form of regulation applies. The decision will direct a pipeline to either light or full regulation under Parts 8 to 12 of the NGR on the one hand, or regulation under Part 23 on the other.

It is unclear whether the current wording of the test is suitable for assessing what form of regulation should apply. In the opinion of the project team, the test focusses on the question of whether there is a market failure in the form of a denial of access, but does not consider monopoly pricing issues. If the key purpose of the test is now to

\(^2\) ACCC, *Inquiry into the east coast gas market*, April 2016, Chapter 4, p. 102.
\(^3\) Dr M Vertigan, *Examination of the current test for the regulation of gas pipelines, report*, 14 December 2016, pp. 9-11, 14.
determine the appropriate form of regulation, the extent of the risk of monopoly pricing appears to be an important matter that should be considered in making that decision.

Secondly, the exemption framework within Part 23 of the NGR has led to a greater number of forms or categories of regulation for pipelines and diversity of decision makers. This may have increased the complexity of the regime.

Thirdly, and relatedly, light regulation applied by Parts 8 to 12 of the NGR and regulation that applies under Part 23 are substantially the same in overall concept. That is, they are both centred on information provision to support negotiation with the support of arbitration. However, there are substantial differences in their individual designs. In addition, regulation under Part 23 of the NGR may be considered by some stakeholders to be “stronger” in some respects than light regulation (and arguably full regulation). This is despite the fact that, in order to be regulated under Parts 8-12, a market failure has been determined to exist through a coverage determination process in relation to that pipeline.

Potential solutions

In considering these issues, the project team has considered whether two changes to the framework could be made:

- change the test for whether regulation should apply to a pipeline so that it recognises both market failures (monopoly pricing and denial of access) and considers whether either exists
- simplify the tests for determining which form of regulation should apply so that the appropriate form of regulation applies to a particular pipeline given the extent of market failure (and hence the benefits of addressing the market failure) and the relative cost of different forms of regulation.

These changes are illustrated below.

These changes would address a number of the issues raised:
• Decisions about whether to regulate or not would be made based on the identification of a market failure.

• Decisions about what form of regulation should apply would be made on the basis of the extent of the market failure and the relative cost of regulation. Complications arising due to the exemption framework may be reduced.

• The governance of the framework could return to that prior to the introduction of Part 23: the relevant minister would make decisions regarding whether regulation should apply, while NCC would determine which form of regulation should apply.

Not all of the identified issues are addressed through these changes such as those illustrated above. The project team is also considering:

• the appropriateness of retaining the existing number of forms of regulation or whether consolidation or simplification in this regard is required (see below)

• the “strength” of each form of regulation and whether adjustments could be made.

Questions for discussion

• Do you agree with the characterisation of the issues in the current framework? How material do you think these issues are in practice?

• Would the changes to the framework illustrated address the issues?

• Are there any shortcomings of the proposed framework? How might these be addressed?

2.2 Light regulation pipelines

Key issues

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.

In particular, Part 23 is governed by the objective set out in rule 546 of the NGR:

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.

In addition, Part 23 is more prescriptive than Parts 8-12 for light regulation, in relation to:

• information that a pipeline service provider is required to publish

• arbitration procedures.
This can be illustrated by the following table.

<table>
<thead>
<tr>
<th>Light regulation</th>
<th>Access regime for non-scheme pipelines (Part 23)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information disclosure</strong></td>
<td>Non-prescriptive information disclosure provisions</td>
</tr>
<tr>
<td><strong>Arbitration</strong></td>
<td>AER is dispute resolution body and can appoint an external expert in relation to safety issues</td>
</tr>
<tr>
<td></td>
<td>Pricing and revenue principles refer to efficient costs</td>
</tr>
<tr>
<td></td>
<td>Asset valuation method is not prescribed</td>
</tr>
<tr>
<td></td>
<td>Arbitration hearing may be public, joint hearings may be held, confidentiality of material must be claimed, and parties to a dispute must comply with the arbitrator's access determination</td>
</tr>
</tbody>
</table>

This raises the following questions:

- Are both forms of regulation required or appropriate? If not:
  - should one of them be removed, and if so, which one?
  - should they be amalgamated?

- If both forms are appropriate, is there a case for greater alignment of the two regimes? That is, taking the “best bits” of either regime and applying it to the other, while retaining some differences.

Stakeholders tend to agree with the view that there are similarities between the regimes. Some have provided views in answer to the above questions.

**Potential solutions**

In relation to information provision, a number of stakeholders consider that the information required to be published by light regulation pipeline service providers is insufficient in terms of assisting users negotiate services on the relevant pipeline. The project team proposes adopting the Part 23 information requirements for light regulation pipelines that will assist users of light regulation pipelines.

In relation to the dispute resolution framework for light regulation pipelines, the project team proposes adopting some relevant provisions from Part 23 to improve the framework for the covered pipelines. However, in this regard it should be noted that not all provisions in Part 23 would be appropriate. This is because light regulation pipelines are ‘covered’ pipelines. In this context, the project team proposes maintaining a strong role for the regulator in arbitration. The project team also proposes maintaining efficient costs as the basis for pricing decisions and for greater public reporting on the arbitrators’ decisions.
Questions for discussion

- See section 6 of this discussion paper in relation to information provision questions.
- See section 7 of this discussion paper in relation to questions regarding arbitration.

2.3 Coverage of pipeline expansions and extensions

Key issues

The discretion interpreted from rule 104 of the NGR has led to inconsistent treatment of capacity and assets that are linked to extensions and expansions across contract carriage transmission pipelines.

In some cases, part of a pipeline’s capacity or length is excluded from being part of the covered pipeline and the access arrangement (for a full regulation pipeline). Where this occurs:

- the service provider may have market power to monopoly price the uncovered capacity
- the reference tariff may include costs associated with the uncovered capacity
- regulation is more costly and complex
  - the cost to regulators of assessing efficient costs on a pipeline with uncovered capacity are higher as having covered and uncovered capacity makes the task 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 portion of the pipeline will be subject to Part 23.

Expansions to existing covered pipelines face the same market landscape as the pipeline itself:

- The service provider will have the same degree of market power over the expansion as it has over the original pipeline capacity.
- The original pipeline and expansions to it will benefit from the same barriers to entry, the same lack of competitors and the same potential countervailing power of its customers.

The situation is more complex for extensions. In this case, the pipeline and the extension may have different degrees of market power, different risks reflecting the different end customers, different vertical integration issues and potentially different competitors.
Potential solutions

a. Cover all expansions to covered pipelines

The project team proposes that this new arrangement be brought in over time. That is, not to undo current access arrangements but that at the next time that an access arrangement is revised:

- all future expansions would be covered and included in the access arrangement
- existing expansions that are not covered would be covered, and be included in the access arrangement.

This can be illustrated by the figure below, with changes to the existing arrangements highlighted in blue.

<table>
<thead>
<tr>
<th>Form of regulation</th>
<th>Existing expansion</th>
<th>New expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expansion included in Part 8-12 access regime</td>
<td>Expansion excluded from Part 8-12 access regime</td>
</tr>
<tr>
<td>Full regulation</td>
<td>Remain within access arrangement</td>
<td>Include in access arrangement at next review</td>
</tr>
<tr>
<td>Light regulation with limited access arrangement</td>
<td>Remain within access arrangement</td>
<td>Include in access arrangement at next review</td>
</tr>
<tr>
<td>Light regulation without access arrangement</td>
<td>Remain regulated</td>
<td>NA (under NGL all expansions must be included as part of the pipeline)</td>
</tr>
<tr>
<td>Part 23 access regime</td>
<td>Applies to uncovered pipelines, expansions and extensions</td>
<td></td>
</tr>
</tbody>
</table>

b. Assess each extension

Under this option, as above, the project team proposes that extensions that are currently covered and included in an access arrangement remain as such. For extensions that are not currently covered, and for future extensions, the project team proposes that two options be available:

- the service provider can propose to include the existing extension as part of the covered pipeline. If this is the case, the valuation of that existing extension would be calculated in the same way as a pipeline’s capital base is initially valued
- if an extension is not included in the covered pipeline, then a third party can submit an application for the extension to go through the coverage tests (potentially amended, as discussed above) as provided under the current NGR.

This can be illustrated by the figure below.
<table>
<thead>
<tr>
<th>Form of regulation</th>
<th>Existing extension</th>
<th>New extension</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extension included in Part 8-12 access regime</td>
<td>Extension excluded from Part 8-12 access regime</td>
</tr>
<tr>
<td></td>
<td>Remain within access arrangement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(a) Allow service provider to propose to include extension in covered pipeline</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) If extension not included, third party can apply through coverage tests to have the extension covered</td>
<td></td>
</tr>
<tr>
<td>Light regulation with limited access arrangement</td>
<td>Remain within access arrangement</td>
<td>NA</td>
</tr>
<tr>
<td>Light regulation without access arrangement</td>
<td>Remain regulated</td>
<td>Regulated</td>
</tr>
<tr>
<td>Part 23 access regime</td>
<td>Applies to uncovered pipelines, expansions and extensions</td>
<td></td>
</tr>
</tbody>
</table>

**Questions for discussion**

- Do you agree with the characterisation of the issues in the regulatory approach to expansions and extensions?
- Would the potential solutions address the issues?
- Are there any alternative solutions?
- Do you believe the proposed transitional arrangements are practical?
3. Determining reference services

3.1 Key issues

Definitions of pipeline service and reference service

First, different levels of specificity of pipeline services in an access arrangement may equally satisfy the requirements of the NGR. It is unclear how to best describe a pipeline service in an access arrangement. That is, 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’.

Second, there is 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 and it is also unclear on what is required to appropriately describe a reference service.

Process for determining reference services

Currently, the determination of reference services is done concurrently with all other elements of the access arrangement within the revision process. This is process is required to be completed within 13 months. Stakeholder feedback indicates that there is insufficient time to consider, consult on and determine the appropriate reference services or suite of services for the pipeline.

3.2 Potential solutions

Definitions of pipeline service and reference service

The project team proposes that amendments be made to the definition of a pipeline service in section 2 of the NGL and to rule 48 of the NGR to address the concerns identified. The project team proposes that the amendments require that:

- a pipeline service be stated or identified in terms of parameters such as type, location and priority (that is, firmness of service)
- the service provider of a covered pipeline provide, as part of an access arrangement proposal, a list of available and potential pipeline services.

In regard to improving the clarity of what reference services are, the project team proposes that a number of amendments be made to the NGL and NGR in order to:

- clarify the definition of reference service in the NGL
- amend the NGR to require that the regulator approve one or more pipeline services to be reference services, having regard to criteria such as:
  - historical and forecast demand for the service
set out the parameters that must be included in a statement of a reference service, which can include:

- setting out more precisely what the ‘statement of reference service’ required by rule 101 of the NGR should contain
- 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.

**Process for determining reference services**

In addition to the above suggested amendments to definitions, the project team also proposes changing the process and timing to determine reference services for an access arrangement. The project team proposes one of two options for changing the process:

- the introduction of an upfront mechanism to specifically identify and determine the reference service (or suite of reference services), or
- an extension of time in the current access arrangement process.

On the first, an example of a specific reference service determination process is:

1. Submission of a list of pipeline services and proposed reference services by the service provider to the regulator
2. Consultation on the pipeline services and proposed reference services by the regulator
3. Decision by the regulator on the reference services that are to be included in the access arrangement proposal.

For the second option, the project team proposes amending the access arrangement timeframes to make a draft decision and for service providers to respond to a draft decision. This is likely to require subsequent changes to the access arrangement process (such as the absolute time limit of 13 months).

**3.3 Questions for discussion**

**Definitions of pipeline service and reference service**

- Do you agree with the policy intent of reference services?
- Will the suggested changes to the definitions better meet the policy intent? What other consequential issues might arise?
Process for determining reference services

If an *upfront process* to determine reference services is introduced:

- What would be an appropriate timeframe to complete the upfront process? When should it start? When should it be completed (in order that service providers have sufficient time to prepare the access arrangement proposal based on the decision on reference services)?
- What would be the impact on service providers, users, prospective users and end customers?
- Would the additional engagement with the regulator on the upfront process increase the regulatory burden on service providers?

If the *current process were to be extended*:

- What would be an appropriate time extension to the access arrangement process?
- What would be the regulatory impact of the additional time on service providers? Is it essentially the same information, prepared and provided to the regulator earlier?
- What other changes to the overall access arrangement process might be required as a result?

In addition, if either of these processes were included in the NGR:

- Should the regulator have discretion to decide which access arrangement proposals include the new process (either a pre-process or an extension to the current process)? Alternatively, should the new process be applied to all pipelines at the time of the next access arrangement review?
- If the regulator has such discretion, what if any criteria should apply to a decision to employ the new process? For example, the use of defined events such as a change to reference service, direction flows, new extensions or expansions.
- Should service providers or pipeline users be able to request that the regulator consider using the new process for an upcoming access arrangement process?
- Should the regulator be able to require service providers to provide evidence (such as contracts) of all pipeline services offered on the pipeline?
4. **Access arrangements: other issues**

4.1 **Consistent financial models**

**Key issues**

Currently, service providers use a range of different financial models to generate the total revenue requirements, from which reference tariffs are derived. This has led to the following concerns:

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

In contrast to the NGR, under the NER, the AER is required to prepare and publish a post-tax revenue model (PTRM) and roll forward model (RFM) that must be used by service providers.

**Potential solution**

The project team proposes that the NGR require full regulation pipeline service providers to use standardised, regulator developed financial models. These models would be periodically updated through a consultative process.

**Questions for discussion**

- What are the advantages and disadvantages of mandating the use of regulator developed models (including impacts on service providers and regulators)?

- What timeframe might be required to build and consult on new models? (Note that the NER clause 6.4.1 required the PTRM model to be developed and published within six months of the commencement of the clause. Also, the model must be prepared and published in accordance with the consultation procedures set out in the NER).

- How often would the models need to be reviewed and updated? (Note that the NER clause 6.4.1 provides that the AER may from time to time and in accordance with the consultation procedures amend or replace the PTRM model.)
4.2 Regulatory discretion

Key issues

Rule 40 of the NGR sets out an explicit regulatory discretion framework which includes:

- No discretion: This applies to the access arrangement review date and revision commencement date (rule 50(2)).

- Limited discretion: The regulator’s discretion is limited in relation to:
  - conforming capital expenditure (rule 79)
  - depreciation schedule (rule 89)
  - operating expenditure (rule 91)
  - setting of tariff classes for distribution pipelines (rule 94)
  - setting of reference tariffs for transmission pipelines (rule 95).

- Full discretion: This applies to most elements of an access arrangement.

Some stakeholders are of the view that the framework restricts the regulator’s ability to make decisions on access arrangements that best meet the NGO and revenue and pricing principles. Other stakeholders are concerned that the framework is ineffective as regulators interpret and apply their discretion liberally.

Outside the NGR framework, the regulator’s discretion is constrained by administrative law requirements for making valid decisions. In addition, the NGL provides an overarching constraint by requiring the regulator to perform or exercise a function in a manner that will or is likely to contribute to the achievement of the NGO. Provisions of the NGR also include detailed factors, criteria and principles that create a constraint on how the regulator makes decisions.

Potential solution

The project team proposes amending the NGR to remove the regulatory discretion framework under rule 40. In doing so, the team will also review the rules in which the regulator’s discretion is currently limited to determine if consequential changes are required to provide appropriate decision making guidance.

Questions for discussion

- Should the regulatory discretion framework provided by rule 40 of the NGR be removed?

- If the discretion framework were to be removed from the NGR, are consequential changes required to provide decision making guidance in
4.3 Revision period

Key issues

The time currently available for responding to and consulting on the regulator’s draft decision on a full access arrangement (revision period) is “at least 15 business days.” There is a view that this time period is insufficient to clarify, respond and make appropriate changes to the access arrangement.

Potential solution

The project team proposes amending the revision period to “at least 30 business days” to provide service providers with sufficient time to appropriately respond to the draft decision.

4.3 Non-tariff terms and conditions

Key issues

There is 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.

Further, some stakeholders are concerned that the regulators have given limited attention to the construction of the non-tariff terms and conditions contained within access arrangements.

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. However, there is no corresponding link made to:

- the assessment of terms and conditions for appropriate risk allocation (in rule 100)
- the criteria for the regulator to assess a tariff variation mechanism (in rule 97) (noting that a mechanism could operate to shift the demand risk away from the service provider to users).

Potential solution

The project team proposes amending the NGR (rules 100 and 97) to link consideration of the allowed rate of return to the assessment of non-tariff terms and conditions and the approval of a reference tariff variation mechanism.

In addition, the project team proposes changing the overall process (to either extend and/or insert an upfront process), to provide the regulator and stakeholders with
sufficient time to carefully consider the non-tariff terms and conditions of an access arrangement.

**4.4 Interval of delay**

**Key issues**

There is ambiguity in relation to the process for equalising revenue when there is an interval (interval of delay) between an access arrangement’s revision commencement date and the actual date of commencement of the revised access arrangement. This ambiguity arises from the definition of the access arrangement period and the application of the interval of delay provisions in the NGR.

**Potential solution**

The project team proposes amending the NGR in order to clarify:

- that the process for equalising revenue during an interval of delay will 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.
5. Determining efficient costs

5.1 Capital base

Key issues

In outlining how to calculate asset bases, Part 9 of the NGR refers to ‘depreciation’ and Part 23 uses ‘return of capital’ (which is more consistent with the code). Although not definitive, the different use of language in Parts 9 and 23 suggests that Part 23 could take account of previous returns in calculating the capital base for arbitration but Part 9 would not in calculating the initial capital base. This difference in language could have a significant impact on asset valuations and as a result on reference tariffs.

This is best illustrated with a simple example. The table below shows an asset which becomes regulated in year six of its life. It is assumed that the cost of the pipeline extension is $60 million, it has an asset life of 30 years and the Weighted Average Cost of Capital (WACC) is assumed at six per cent. A simplified standard allowed return based on the building block approach is calculated by adding a return in the asset base to depreciation (assumed straight line over the thirty-year asset life and operating costs). The allowed return is calculated at $9.6 million in year one, and falling to $9.1 million in year five. However, the asset has not been regulated and its actual revenue is assumed at $12 million each year. Thus, there is an ‘excess’ return (that is, revenue above the calculated allowed revenue) of $2.4 million in year one that rises to $2.9 million in year five. The table illustrates three different options in calculating an opening regulatory asset base in year six:

- Assuming straight line depreciation and no adjustment is made for the “excess returns” gives an asset base of $50 million.

- Assuming that all the excess returns have in fact created accelerated depreciation in years 1-5 gives an opening asset base of $37 million (that is, it adjusts for the $13 million in “excess profits”).

- An alternative approach assumes that 50 per cent of the “excess” is accelerated depreciation gives an opening asset value of $43 million.
Example calculation of an initial capital base

<table>
<thead>
<tr>
<th>Cost of Pipeline/Expansion ($m)</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>WACC</td>
<td>6%</td>
</tr>
<tr>
<td>Asset Life</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Asset base</td>
<td>60.0</td>
<td>58.0</td>
<td>56.0</td>
<td>54.0</td>
<td>52.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Depreciation</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Closing Asset Base</td>
<td>58.0</td>
<td>56.0</td>
<td>54.0</td>
<td>52.0</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Return</td>
<td>3.6</td>
<td>3.5</td>
<td>3.4</td>
<td>3.2</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>Depn</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Opex</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Allowed Revenue</td>
<td>9.6</td>
<td>9.5</td>
<td>9.4</td>
<td>9.2</td>
<td>9.1</td>
<td></td>
</tr>
<tr>
<td>Actual Revenue</td>
<td>12.0</td>
<td>12.0</td>
<td>12.0</td>
<td>12.0</td>
<td>12.0</td>
<td>12.0</td>
</tr>
<tr>
<td>Difference &quot;Excess&quot;</td>
<td>2.4</td>
<td>2.5</td>
<td>2.6</td>
<td>2.8</td>
<td>2.9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opening Asset Base Year 6</th>
<th>$mn</th>
</tr>
</thead>
<tbody>
<tr>
<td>All &quot;excess&quot; used as depreciation</td>
<td>37</td>
</tr>
<tr>
<td>50% of &quot;excess&quot; used for depreciation</td>
<td>43</td>
</tr>
<tr>
<td>Straight Line Depreciation only (no adjustment for excess)</td>
<td>50</td>
</tr>
</tbody>
</table>

The potential solution to the expansion and extension issues noted in this paper will likely mean that a number of assets will need to be rolled into the capital base of full regulation pipelines. However, the NGR currently limits the adjustment of the capital base to the inclusion of ‘new’ capital expenditure for the current access arrangement period.

Potential solutions

The project team proposes the following:

- Amending the language in the NGR (rule 77) that sets out the process for calculating an initial capital base to be consistent with the code and Part 23 by using ‘return of capital’ rather than ‘depreciation’.

- Amending the NGR to allow the next opening capital base for a full regulation pipeline to also include previously uncovered expansions to the pipeline.

- Amending the NGR to allow the next opening capital base for a full regulation pipeline to also include previously uncovered extensions that the service provider now seeks to be included in the access arrangement with the valuation determined consistent with the initial capital base methodology.

Questions for discussion

- Do you agree with the characterisation of the key issues for capital base?
- Would the potential solutions address these issues?
• Are there any practical barriers to implementing the potential solutions?

• Do you have any alternative solutions to the issues identified?

5.2 Cost allocation

Key issues

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 services provided by covered and uncovered parts of a pipeline. This is because the meaning given to ‘total revenue’ calculated under rule 76 of the NGR is determined by the building block approach which applies to the covered asset.

If other potential solutions in relation to expansions and extensions are adopted then this will reduce the importance of this issue as ‘uncovered’ expansions will not exist in the future. However, there may still be ‘uncovered’ extensions of covered pipelines.

Potential solutions

In regard to cost allocation, the project team proposes:

• Amending the NGR (rules 79 and 91) to clarify that proposed capital expenditure and proposed operating expenditure refer to costs after an allocation of expenditure between the covered and uncovered assets of a covered pipeline has occurred.

• Amending the NGR (rules 79 and 91) to require a service provider to provide to the regulator the basis for its capital and operating expenditure cost allocation methodologies for approval.

Questions for discussion

• Do you agree with the characterisation of the key issues in relation to cost allocation?

• Would the potential solutions address these issues?

• Are there any practical barriers to implementing the potential solutions?

• Do you have any alternative solutions to the issues identified?

5.3 Rebateable services

Key issues

Rule 93 of the NGR allows for the allocation of costs associated with rebateable services to reference services and the 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 mechanism could be practically implemented, particularly as it specifies ‘users of reference services’ rather than simply that the rebate is to be on reference tariffs. This
may be a problem because in practice there may be few, if any, users of the reference service, if users have negotiated to receive slightly different services.

In addition, the requirement for the services to be in a market substantially different from the markets for reference services is difficult to demonstrate and restricts the ability to appropriately define rebateable services.

**Potential solutions**

The project team proposes:

- Amending the rebateable service rule (rule 93) to require that the rebate from any rebateable service occurs through the reference tariff variation mechanism.

- Amending the NGR relating to the reference tariff mechanism (rule 97) to include rebates from any reference services as relevant.

- Removing from the requirement in rule 93 that rebateable services must be in a substantially different market from reference services.

**Questions for discussion**

- Do you agree with the characterisation of the key issues regarding rebateable services?

- Would the potential solutions address these issues?

- Are there any practical barriers to implementing the potential solutions?

- Do you have any alternative solutions to the issues identified?

### 5.4 Speculative capital investment

**Key issues**

There is a lack of clarity in the speculative capital expenditure account rule (rule 84) 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 implicit in the reference tariff. Thus the return could be above or below the return implicit in the reference tariff as determined by the regulator.

In considering what the appropriate rate of return should be for a speculative investment:

- There is a need to balance encouraging efficient speculative capital expenditure while deterring the service provider from taking inefficient risk that creates additional costs for users.

- The appropriate rate for the return will likely be specific to the particular investment and its level of risk, some discretion on deciding upon the return relevant to a project is needed
**Potential solutions**

The project team proposes amending rule 84 of the NGR to clarify that the rate of return under rule 84(2) be, 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 speculative nature of the particular investment.

**Questions for discussion**

- Do you agree with the characterisation of the key issues regarding speculative investment?
- Would the potential solutions address these issues?
- Are there any practical barriers to implementing the potential solutions?
- Do you have any alternative solutions to the issues identified?
6. Negotiation and information

6.1 Spare capacity information

Key issues

The spare capacity information published differs greatly between full regulation, light regulation and non-scheme pipelines. An issue for this review is whether this difference is appropriate.

For light and full regulation pipelines, service providers are required to publish a public register of spare capacity.\(^4\) Full regulation pipelines are also required to publish additional information about the services being offered, including extension and expansion requirements, as part of their access arrangement.\(^5\)

For non-scheme pipelines, service providers must disclose comprehensive information about past and projected usage and capacity.\(^6\)

Bulletin Board pipelines are also required to disclose capacity and usage information which significantly overlaps information that service providers are required to disclose under Part 23 of the NGR for non-scheme pipelines.

Potential solutions

To address the differences in reporting requirements for spare capacity, the project team proposes:

- requiring all service providers to publish the capacity and usage information as currently published by non-scheme pipeline service providers
- exempting Bulletin Board pipeline service providers (including non-scheme service providers) from providing capacity information that is the same or very similar to the information that they already provide under the Bulletin Board arrangements.

Questions for discussion

In the context of the long term interests of consumers, if the requirements regarding the publication of capacity information is amended:

- How material are the additional costs that might flow through to users?
- How material are the benefits to users and will these outweigh any additional costs that may be incurred by making this change?

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\(^4\) Rule 111 of the NGR.
\(^5\) Rule 48 of the NGR.
\(^6\) Rules 552 and 553 of the NGR.
6.2 Financial and offer information

Key issues

a. Full regulation pipelines

The process for negotiating price, terms and conditions for access to full regulation pipelines is fundamentally different to other pipelines. For a reference service, the outcome is as set out in the access arrangement. For non-reference services the outcome is informed by the access arrangement, adjusted to take account of the differences in costs and terms and conditions associated with the service that is being requested.

Significant information is available to the regulator and users in the access arrangement proposal and access arrangement information. The regulator can also obtain additional relevant information it requires for the exercise of its functions through RINs and RIOs.

The issue is whether these information arrangements are appropriate for full regulation pipelines even though they are different to what is applied to pipelines subject to other forms of regulation.

b. Light regulation pipelines

Light regulation pipeline service providers publish limited financial information, and much less information than non-scheme pipeline service providers. There appears to be little rationale for this.

In making or revoking a light regulation determination, the NCC will have considered whether the cost of full regulation outweighs the benefits. Such considerations include the cost of developing a full access arrangement, ongoing requirements and the cost of information provision.

Potential solutions

For users who are negotiating prices, and terms and conditions for a service, the information published for full regulation pipelines seems fit for purpose. On this basis, the project team suggests that no material change is required to financial and offer information disclosure on full regulation pipelines.

However, the information required by a user in order to negotiate access to pipelines is arguably greater for light regulation pipelines because there is no access arrangement in place. Accordingly, information asymmetry is likely to have a greater impact on the user. Therefore, the project team proposes extending the information publication requirements for non-scheme pipelines to light regulation pipelines, in order to provide greater support to users negotiating for services.

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7 Section 122 of the NGL.
Questions for discussion

- Is there any material and required financial and offer information that is currently required for non-scheme pipelines that is not relevant for light regulation pipelines?

- Is there any other financial and offer information that should be included in the information provisions requirements because it will aid contract negotiations on light regulation pipelines?

- How material are the additional costs from the change to reporting requirements that might flow through to users?

- How material are the benefits to users and will these outweigh any additional costs that may be incurred by making the suggested change for light regulation pipelines?
7. Arbitration

7.1 Key issues

In response to the AEMC’s consultation on this review, stakeholders have raised the following issues in relation to the arbitration framework:

- The threat of arbitration does not appear to be an effective constraint on service providers from charging monopoly prices.

- The costs and resources that are associated with access disputes, in addition to the uncertainty of the process and outcome, act as a disincentive for users to enter into arbitration.

- Part 12 of the NGR appears to be focussed on safety and capacity expansions only, to the exclusion of other causes of disputes. There would be benefit in amending Part 12 to clearly identify the instances that trigger arbitration.

- The arbitration regime under Part 23 should be made available for all pipelines.

Expanding on the question of the arbitration process for scheme pipelines, it appears that it does not:

- include a timeframe limitation on decision delivery

- set out public disclosure requirements

- provide clarity on the criteria that an arbitrator would apply.

On this last point, the NGL refers to the access arrangement process, which results in the setting out of tariff and non-tariff terms and conditions for reference services on full regulation pipelines. However, there is uncertainty on the pricing of non-reference services on full regulation pipelines and in relation to all services on light regulation pipelines.

7.2 Potential solutions

The project team is reviewing the arbitration regime for covered pipelines under Chapter 6 of the NGL and Part 12 of the NGR, with a view to making it fit for purpose as a credible threat for users to engage in pipeline access negotiations.

The project team proposes the following options:

- Alignment of aspects of Part 12 of the NGR with the arbitration regime of Part 23. The project team note that the arbitration regime in Part 23 of the NGR was intended to be a form of ‘commercial’ arbitration for non-scheme pipelines rather than be like the ‘regulatory’ arbitration that applies to apply to scheme pipelines. The project team is liaising with the Gas Market Reform Group (GMRG) in this regard.

- Making amendments to the NGR to improve guidance on the arbitration process and timing, and public disclosure requirements.
• Amending the NGL and NGR to clarify the criteria or principles to be used by the arbitrator in making a decision.

• Considering the appropriate body to be the dispute resolution body for scheme pipelines, and the use of experts in an arbitration process.

7.3 Questions for discussion

• What are the goals or the outcomes that the dispute resolution framework should achieve, for example:
  o Credible threat of arbitration
  o Enhanced negotiation process to avoid going to arbitration
  o Improved certainty and predictability of arbitration outcomes.

• What are the key characteristics of an ideal dispute resolution framework?

• Are there features of other existing dispute frameworks that could be applicable to scheme pipelines? For example, NGR Part 23, NER Chapter 8, or Gas Code.

• For arbitration outcomes, do you consider that an arbitrator’s decision should be appealable and under what circumstances?

• How important is it that information regarding the existence of a dispute be made public, as well as the outcome of the arbitration? What and when should information be disclosed?

• Should the arbitrator be required to consider the revenue and pricing principles and the NGO? What other criteria should guide the arbitrator in making decisions?

• What are the factors to consider in deciding which body should be the dispute resolution body?