# Standardisation Related Reforms and the Capacity Trading Platform

## Consultation Paper

September 2017

GMRG
Gas Market Reform Group

# Submissions

Stakeholders are encouraged to make submissions in response to this Consultation Paper by **5pm (AEST) 4 October 2017**.

Electronic submissions are preferred and can be sent via e-mail addressed to the Gas Market Reform Group (GMRG) at enquiries@gmrg.coagenergycouncil.gov.au

Stakeholders who wish to provide hard copies by post may do so by addressing their submissions to:

Gas Market Reform Group
c/o Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

The GMRG has a strong preference for public submissions to generate full and frank debate. All stakeholder submissions will be published on the GMRG's website at http://gmrg.coagenergycouncil.gov.au/ unless stakeholders have clearly indicated that a submission should remain confidential, either in whole or in part.

Please note that this paper is intended to examine the options associated with the development of standard terms and other measures to reduce the barriers to secondary trading of pipeline and stand-alone compression service capacity. It is intended for consultation and does not reflect the final views of the GMRG.

For further information about this Consultation Paper or making a submission, please contact the GMRG via email at enquiries@gmrg.coagenergycouncil.gov.au

# Contents

# Abbreviations

| Term | Definition |
|---|---|
| AA | Access Arrangement |
| ACCC | Australian Competition and Consumer Commission |
| ADP | Amadeus to Darwin Pipeline |
| AEMC | Australian Energy Market Commission |
| AEMO | Australian Energy Market Operator |
| AER | Australian Energy Regulator |
| AEST | Australian Eastern Standard Time |
| BB | Natural Gas Services Bulletin Board |
| CGP | Carpentaria Gas Pipeline |
| COAG | Council of Australian Governments |
| CTA | Capacity Trading Agreement |
| DTS | Declared Transmission System |
| DWGM | Declared Wholesale Gas Market |
| *East Coast Review* | AEMC's *Eastern Australian Wholesale Gas Market and Pipelines Framework Review* (May 2016) |
| EGP | Eastern Gas Pipeline |
| Energy Council | COAG Energy Council |
| ERA | Economic Regulation Authority (WA) |
| ETS | Trayport Exchange Trading System |
| FTP | File Transfer Protocol |
| GMRG | Gas Market Reform Group |
| GSH | Gas Supply Hub |
| GTA | Gas Transportation Agreement |
| HPTP | High Pressure Trade Point) |
| JWS | Johnson, Winter & Slattery |
| LPTP | Low Pressure Trade Point) |
| MAPS | Moomba to Adelaide Pipeline System |
| MCF | Moomba Compression Facility |
| MDQ | Maximum Daily Quantity |
| MHQ | Maximum Hourly Quantity |
| MOS | Market Operator Service |
| MSP | Moomba to Sydney Pipeline |
| MSV | Market Schedule Variation |
| NER | National Electricity Rules |
| NGL | National Gas Law |
| NGO | National Gas Objective |
| NGP | Northern Gas Pipeline |

| Term | Definition |
|---|---|
| NGR | National Gas Rules |
| RBP | Roma to Brisbane Pipeline |
| SCO | Senior Committee of Officials |
| SIP | STTM Interface Protocol |
| SRA | Settlement Residue Auction |
| STTM | Short Term Trading Market |
| SWQP | South West Queensland Pipeline |
| TGP | Tasmanian Gas Pipeline |
| Transportation services | This term is used to jointly refer to pipeline and compression services |
| Vision | COAG Energy Council's *Australian Gas Market Vision* (December 2014) |

# 1. Introduction

The Gas Market Reform Group (GMRG) was established by the COAG Energy Council (Energy Council) in the latter half of 2016 to lead the design, development and implementation of a range of reforms set out in the Gas Market Reform Package, including a package of capacity trading reforms.[1]

The capacity trading reform package was recommended by the Australian Energy Market Commission (AEMC) as part of its *Eastern Australian Wholesale Gas Market and Pipelines Framework Review (East Coast Review)* (see Appendix A for further detail) and endorsed by the Energy Council at its August 2016 meeting. The reforms, which relate to transmission pipeline and compression services (jointly referred to as 'transportation services') include the development of:

- a capacity trading platform(s) that shippers can use to trade secondary capacity ahead of the nomination cut-off time and provides for exchange-based trading of commonly traded products and a listing service for other more bespoke products;
- a day-ahead auction of contracted but un-nominated capacity, which would be conducted shortly after nomination cut-off and subject to a reserve price of zero (with compressor fuel provided in-kind by shippers);
- standards for key contract terms in primary, secondary and operational transportation agreements to make capacity products more fungible and, in so doing, facilitate a greater level of secondary capacity trading; and
- a reporting framework for secondary capacity trades that provides for the publication of the price and other related information on secondary trades.

Together these reforms are expected to foster the development of a more liquid secondary capacity market by:[2]

- using market based processes to allocate capacity on a non-discriminatory basis to those that value it most;
- improving the incentive shippers have to trade capacity and posing a constraint on the ability of pipeline operators to sell secondary capacity at prices in excess of what would be expected in a workably competitive market;
- reducing the search and transaction costs associated with secondary capacity trades; and
- reducing information asymmetries and aiding the price discovery process.

Greater liquidity in this market is expected to facilitate increased trade in gas and support the development of a more robust reference price for gas. This, in turn, is expected to enable market participants to make more informed decisions about their use of gas and investments in exploration, production, pipelines and storage facilities.[3] The package of reforms is therefore expected to promote the National Gas Objective (NGO) and the Energy Council's Vision for the Australian Gas Market (*Vision*) (see Box 1.1).

1 COAG Energy Council, Bulletin Two: Gas Market Reform Package, August 2016.

2 AEMC, Stage 2 Final Report: East Coast Review, 23 May 2016, pp. 69 and 73.

3 ibid, p. viii.

**Box 1.1: National Gas Objective and Vision for the Australian Gas Market**

### National Gas Objective

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

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

### Energy Council's Vision for the Australian Gas Market[4]

The Energy Council's *Vision* is for:

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

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

**Stream 1: Encouraging competitive gas supply:**

(a) Improvements to the regulatory and investment environment so that gas supply is able to respond flexibly to changes in market conditions.

(b) A "social licence" for onshore natural gas development achieved through inclusion, consultation, improving the availability and accessibility of factual information relating to resources projects, and rigorous science to ensure that communities concerns are addressed.

**Stream 2: Enhancing transparency and price discovery:**

(a) Provision of accurate and transparent market making information on pipeline and large storage facilities operations and capacity, upstream resources, and the actions of producers, export facilities, large consumers and traders.

(b) Increased flexibility and opportunity for trade in pipeline capacity.

(c) A competitive retail market that will provide customers with greater choice and large users with enhanced options for self-supply and shipment.

**Stream 3: Improving risk management:**

(a) Liquid and competitive wholesale spot and forward markets for gas that provide tools for participants to price and hedge risk.

(b) Access to regional demand markets through more harmonised pipeline capacity contracting arrangements which are flexible, comparable, transparent on price, and non-discriminatory in terms of shippers' rights, in order to accommodate evolving market structures.

(c) Harmonised market interfaces that enable participants to readily trade between locations and find opportunities for arbitrage and trade.

(d) Identified development pathways to improve interconnectivity between supply and demand centres, and existing facilitated gas markets, which enable the enhanced trading of gas.

**Stream 4: Removing unnecessary regulatory barriers:**

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

The outcomes that are most relevant to the capacity trading related reforms are Streams 2(b), 3(b), 3(c) and 3(d).

## 1.1 Progression of the capacity trading reform package

To progress the capacity trading reforms outlined above, the GMRG has established:

- a number of project teams to carry out the detailed design and development work, with the teams consisting of a mix of members drawn from industry, consumer groups, market bodies and other industries (see Appendix B for a list of members); and
- an Advisory Panel to provide strategic perspective and advice to the GMRG on key issues, which is made up of senior representatives from all segments of the gas supply chain as well as Energy Consumers Australia (see Appendix B for a list of members).

Importantly, neither the project teams nor the Advisory Panel have any decision-making power. Their role is to inform the GMRG's consideration of the design options, which will be consulted upon more broadly with other stakeholders before Dr Michael Vertigan AC, as Chair of the GMRG, makes his final recommendations to the Senior Committee of Officials (SCO)[5] and the Energy Council. The GMRG has nevertheless benefited from, and greatly appreciates, the effort and resources that project team members and the Advisory Panel have put into considering the design options and providing their advice to the GMRG. The GMRG also greatly appreciates the support that AEMO, the AEMC and the AER have provided through this process and the assistance that AEMO has provided on key elements of the reform package.

Work on the design of the capacity trading reforms commenced in early 2017 and was initially expected to be completed during 2018, allowing the recommendations to be considered by the Energy Council at the end of 2018 and for the reforms to be implemented by 2021. However, in response to a request from the Hon. Josh Frydenberg MP, Minister for the Environment and Energy, the GMRG examined the opportunities to accelerate this work and agreed to make its recommendations on the capacity trading reforms by the end of 2017.

This accelerated timetable is expected to enable the capacity trading platform and day-ahead auction to become operational in 2018-19, subject to the passage of amendments to the National Gas Law (NGL), National Gas Rules (NGR) and subordinate instruments.

The GMRG's recommendations on the organisation(s) that should operate and administer the capacity trading platform(s) and day-ahead auction were presented to the Energy Council in July. In short, the GMRG recommended the development of a single capacity trading platform that will form part of the Gas Supply Hub (GSH) trading exchange and a centralised auction platform, both of which would be operated by the Australian Energy Market Operator (AEMO). These recommendations were endorsed by the Energy Council at its 14 July 2017 meeting.[6] The design of the capacity trading platform and day-ahead auction has therefore proceeded on this basis.

In keeping with the accelerated timetable outlined above, the GMRG intends to make its final recommendations on the following matters to SCO and the Energy Council in November 2017:

4 COAG Energy Council, Australian Gas Market Vision, December 2014.

5 SCO comprises senior officials from State, Territory and Commonwealth governments.

6 COAG Energy Council, 12th Energy Council Meeting Communique, 14 July 2017.

- the standardised contractual arrangements that will be required to underpin the capacity trading platform and day-ahead auction and a range of other measures that could be put in place to reduce the barriers to secondary capacity trading and participation in the day-ahead auction; and
- the design of the capacity trading platform, including the standardised products that will be available on the exchange and the operational, financial contractual and governance arrangements required to underpin the capacity trading platform.

To this end, the GMRG has prepared the following consultation paper, which focuses on the standardisation related reforms and the design of the capacity trading platform. A separate consultation paper on the day-ahead auction and reporting framework for secondary capacity trades will be released in late October.

Further detail on the consultation process is provided below. Before moving on though, it is worth noting that the Energy Council's decision to implement the capacity trading reforms was made in response to a review of the east coast gas market. It is unclear therefore whether the Energy Council intended the reforms to extend to the Northern Territory (which is expected to become connected to the east coast market in late 2018) and/or Western Australia. While the GMRG is of the view that there would be merit in implementing the reforms in these jurisdictions and has involved industry participants from these jurisdictions in the project teams, a formal decision on this issue will need to be made by the responsible government and likely the Energy Council.

## 1.2 Consultation process and next steps

This consultation paper comprises two parts:

- **Part A: Standardisation related reforms** –This part of the consultation paper focuses on:
  - the standardised contractual arrangements that will underpin the capacity trading platform and day-ahead auction and the associated governance arrangements;
  - the options for achieving greater receipt and delivery point flexibility; and
  - other measures that could be put in place to reduce the barriers to secondary capacity trading.

  The development of this part of the consultation paper has been informed by the work carried out by the Standardisation project team and advice from the GMRG's legal advisor, Johnson, Winter & Slattery (JWS).
- **Part B: Capacity trading platform** – This part of the consultation paper has been prepared with the assistance of AEMO and focuses on:
  - the end-to-end design of the capacity trading platform and the standardised products that will be available on the exchange;
  - the arrangements required to adequately manage and allocate risks associated with secondary trading; and
  - the operational, financial, contractual and governance arrangements required to underpin the capacity trading platform.

The development of this part of the consultation paper has been informed by work carried out by AEMO, the Capacity Trading Platform project team and JWS.

The GMRG is seeking written feedback on this consultation paper by **5pm (AEST)** on **4 October 2017**. To assist stakeholders in responding to this consultation paper, Parts A and B include a number of questions that the GMRG would like to obtain further feedback on and provide an indication of the GMRG's preliminary views on various issues. The inclusion of the GMRG's preliminary views is designed to facilitate consultation and should not be interpreted as concluded positions of the GMRG.

A template has been prepared for stakeholders to use to provide their feedback on the questions posed in this paper and any other issues that they would like to provide feedback on (see Attachment 2). The GMRG strongly encourages stakeholders to use this template, so that it can have due regard to the views expressed by stakeholders on each issue. Stakeholders should not feel obliged to answer each question, but rather address those issues of particular interest or concern.

In addition to providing a written submission, stakeholders will have an opportunity to attend a public forum, which will be held in Sydney on **14 September 2017**. Stakeholders are encouraged to express their interest in attending this forum by emailing enquiries@gmrg.coagenergycouncil.gov.au.

The feedback received through this consultation process will inform the GMRG's final recommendations on the final design of the standardisation related reforms and the capacity trading platform, which are expected to be provided to the Energy Council in November 2017 for its consideration and approval.

If these recommendations are accepted by the Energy Council, then work will commence on drafting the changes that will be required to the NGL, the NGR and other subordinate instruments to give effect to these reforms. At this stage, it is expected that work on drafting these changes will commence in December 2017 and that consultation will be carried out with stakeholders in February 2018.

## 1.3 Structure of this paper

The remainder of this consultation paper is structured as follows:

- Chapter 2 provides further detail on the capacity trading reform package, how trade is expected to occur under the reform package and the assessment framework the GMRG intends to use when developing its final recommendations;
- Part A focuses on the standardisation related reforms, which is discussed in detail in:
  - Chapter 3, which focuses on the contract standardisation reforms;
  - Chapter 4, which focuses on the receipt and delivery point flexibility reforms; and
  - Chapter 5, which outlines other measures that could be implemented to reduce the barriers to secondary capacity trading and participation in the day-ahead auction;
- Part B focuses on the capacity trading platform reforms, which is discussed in detail in:
  - Chapter 6, which provides an overview of the GSH, which the capacity trading platform will form part of;

- Chapter 7-10, which focuses on key elements of the exchange component of the capacity trading platform, including the capacity products to be sold on the GSH, the delivery, settlement and credit risk management processes and the options for dealing with delivery risk;
- Chapter 11, which focuses on the key elements of the listing service; and
- Chapter 12, which outlines the changes to the governance arrangements that are likely to be required to implement the capacity trading platform;

- Appendix A provides a summary of the AEMC's capacity trading reform recommendations;
- Appendix B sets out the members of the project teams and Advisory Panel; and
- Appendix C provides an overview of the transportation services offered by pipelines.

Separate attachments have also been prepared, with:

- Attachment 1 containing a copy of the proposed Operational GTA Code (this includes the standard terms and requirements for the facility specific terms); and
- Attachment 2 containing a template that the GMRG encourages stakeholders to use to provide their feedback.

# 2. Capacity Trading Reform Package

The capacity trading reform package was recommended by the AEMC in the *East Coast Review* and endorsed by the Energy Council at its 14 August 2016 meeting. The objective of this reform package is, as noted in Chapter 1, to improve the efficiency with which transportation capacity is allocated and utilised on contract carriage transmission pipelines and to foster the development of a more liquid market for secondary capacity.[7] The remainder of this chapter provides further detail on:

- the key elements of the capacity trading reform package;
- how capacity can be procured under the new capacity trading framework;
- the scope and objectives of the standardisation reforms; and
- the assessment framework the GMRG intends to use when considering any design options and developing its final recommendations on the standardisation reforms.

## 2.1 Key elements of the reform package

The capacity trading reform package (see Figure 2.1) that the Energy Council has agreed to implement provides for the introduction of:

- **A capacity trading platform** that shippers can use to trade secondary transportation capacity prior to the nomination cut-off time on gas day D-1 (i.e. the day before the gas is due to be transported), which will consist of both:
  - an anonymous exchange mechanism that shippers can use to buy or sell commonly traded transportation products, such as firm forward haul services, stand-alone compression services and pipeline storage (park) services (see Appendix C for more detail on these services); and
  - a listing service that shippers can use to buy or sell more bespoke products.

  The trading platform, which will be operated and administered by AEMO and form part of the GSH trading exchange, is intended to reduce the search and transaction costs that shippers may otherwise face when trying to trade secondary capacity.

- **A day-ahead auction of contracted but un-nominated transportation capacity** that will be conducted on designated pipelines shortly after nomination cut-off on gas day D-1 and subject to a reserve price of zero (with compressor fuel provided in-kind by shippers). The objective of the day-ahead auction is, as the AEMC noted, to:[8]
  - encourage capacity holders to sell any spare capacity they may have on the trading platform prior to the nomination cut-off time by allowing the service provider to retain the auction proceeds; and
  - pose a constraint on the ability of service providers to sell day-ahead capacity at prices in excess of what would prevail in a workably competitive market by adopting a zero reserve price and allowing the market to determine the value.

  The day-ahead auction will be operated and administered by AEMO.

The reform package also provides for the implementation of:

- a range of standardisation related reforms, which are intended to facilitate a greater level of secondary capacity trading; and
- a reporting framework for secondary capacity trades, which is intended to reduce information asymmetries and aid the price discovery process.

[7] AEMC, Stage 2 Final Report: East Coast Review, 23 May 2016, pp. 67, 73 and 83.

[8] ibid, p. 83.

**Figure 2.1: Capacity trading reform package**

## Operator of Capacity Trading Platform and Day-Ahead Auction: AEMO

### Capacity Trading Platform

Trading platform to form part of GSH Exchange and allow shippers to procure gas and secondary transportation services across pipelines through one platform.

**Key outcomes required by the AEMC:** The trading platform is to enable shippers to trade secondary capacity prior to nomination cut-off through:

- an exchange that will allow shippers to trade standardised firm pipeline and compression services across pipelines on an anonymous basis
- a listing service – the listing service will allow shippers to trade more bespoke products

Shippers to retain revenue generated from capacity sales.

### Day-Ahead Auction

Centralised auction platform that will provide for the release of contracted but un-nominated transportation capacity on designated pipelines through one platform.

**Key outcomes required by the AEMC:** The auction is to enable shippers to procure contracted but un-nominated transportation capacity on a day-ahead basis after nomination cut-off and is to:

- be conducted shortly after nomination cut-off time
- have a zero reserve price, with compressor fuel provided in kind
- accommodate nominations or renominations after the auction is conducted.

Pipelines to retain the revenue generated through the auction once costs accounted for

### Standardisation reforms

**Key outcomes required by the AEMC:**

- Capacity purchased through the trading exchange and auction to be given effect through an operational transfer. Bare transfers allowed for other secondary sales but seller must offer the buyer the option to use an operational transfer.
- Standardisation of key operational, prudential and other contract provisions in primary, secondary capacity and operational transportation agreements. Where possible and appropriate the standards should apply across the east coast.
- Shippers to be provided greater flexibility to change receipt and delivery points to increase the pool of prospective buyers and sellers of capacity (e.g. by developing zones that cover multiple receipt and delivery points) (preferred outcome).

### Reporting

**Key outcomes required by the AEMC:**

- Publication of information on all secondary trades of transportation capacity shortly after the time the transaction is entered into.

The capacity trading reforms will, in effect, result in the implementation of a new access regime for secondary capacity, which will impose new obligations on service providers (i.e. pipeline operators and the operators of compressors) as well as primary and secondary shippers. To give effect to these new obligations and the reform package more generally, amendments will need to be made to the NGL, NGR, the regulations made under the NGL and the GSH Exchange Agreement and a number of new subordinate instruments will need to be developed. The functions and powers of AEMO, the Australian Energy Regulator (AER) and the AEMC will also need to be expanded. Subject to the passage of amendments to the NGL, the NGR and subordinate instruments, the capacity trading reforms are expected to be implemented in 2018-19.

## 2.2 How secondary capacity can be procured under the new framework

Once the reform package is implemented, shippers that want to buy or sell secondary capacity will be able to have recourse to either:[9]

- **the exchange component of the GSH** – the exchange will be used to facilitate the trade of standardised transportation products (e.g. day-ahead, daily, weekly, monthly and quarterly firm forward haul, compression and park products) through either screen trading or the pre-matched trade service; [10] or
- **the listing service component of the GSH** – the listing service will be used to facilitate the trade of more bespoke transportation products through bilateral (off-market) trades.

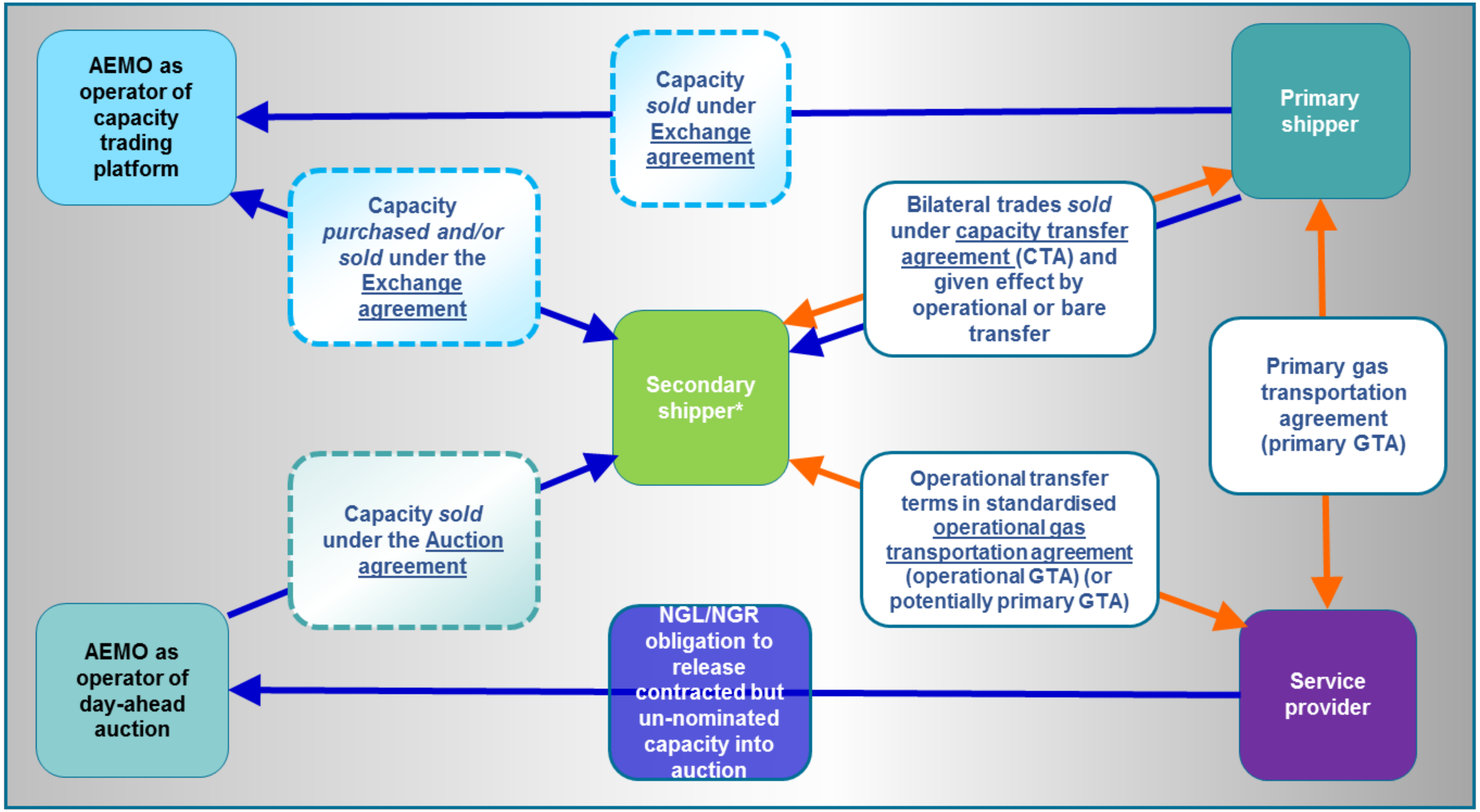
Shippers may also be able to procure day-ahead standardised capacity products through the auction on those pipelines and other facilities that will be subject to the auction.

Before utilising the capacity trading platform exchange or the day-ahead auction, shippers will need to enter into agreements with AEMO. Secondary shippers will also need to enter into a number of other contractual arrangements to utilise the capacity procured through the GSH or the auction. Figure 2.2 provides an overview of the contractual architecture that will underpin the reforms, while Table 2.1 provides more detail on the arrangements shippers will need to have in place.

9 Shippers will also be able to have recourse to other means to identify potential counterparties and enter into bilateral trades.

10 The pre-matched service allows participants to register off-market trades in listed products to the exchange for settlement.

**Figure 2.2: Contractual architecture underpinning the capacity trading platform and auction**




Notes: * A secondary shipper may also be a primary shipper.

Denotes flows of capacity
Denotes bilateral contractual obligations
Denotes multilateral contractual obligations

## Table 2.1: Arrangements shippers will require to access capacity trading measures

| | |
|---|---|
| **Participation in the GSH capacity trading platform** | |
| **Membership and contractual obligations** | Primary and secondary shippers that want to use the GSH will need to become members of the GSH exchange and be registered as trading participants.<br>Shippers can become a trading participant by executing a Membership Agreement with AEMO and then registering as a trading participant. Through the Membership Agreement, shippers will become a party to the Exchange Agreement.<br>The Exchange Agreement is a multilateral agreement that sets out the terms of participation in the GSH and the terms governing transaction entered into through the exchange. The body of this agreement contains the trading, delivery, prudential and settlement obligations, while the product specifications are set out in schedules. |
| **Participation in the day-ahead auction** | |
| **Membership and contractual obligations** | While the participation arrangements for the day-ahead auction have not yet been finalised, they are expected to operate in a similar manner to the GSH.<br>Specifically, it is envisaged that shippers that want to purchase capacity through the day-ahead auction will execute an Auction Agreement with AEMO. The Auction Agreement will set out the terms of participation in the auction and the terms governing purchases of capacity through the auction, including the prudential and settlement obligations. |
| **Use of secondary capacity procured through the trading platform or auction** | |
| **Operational transfers** | If a shipper procures capacity through the exchange or day-ahead auction, the trade will need to be given effect through an operational transfer. Secondary shippers will also have the option to utilise an operational transfer if they enter into a bilateral trade through the listing service or other means. A secondary shipper will therefore need to have entered into an operational GTA with the relevant service provider, or otherwise agreed with the service provider to include an operational transfer mechanism into its primary GTA.<br>Operational GTAs, which are sometimes referred to as 'zero MDQ' contracts, operate like a master agreement between the service provider and secondary shipper, with the operational capacity (measured on a Maximum Daily Quantity (MDQ) basis) set at zero until the shipper purchases capacity. The operational GTA set out the terms on which the secondary shipper can utilise the service provider's assets if it procures secondary capacity via an operational transfer, including the operational, prudential and other terms governing the relationship between the service provider and secondary shipper. If capacity is purchased then the MDQ in the shipper's operational GTA will be increased for the duration of the trade and it will be entitled to make nominations directly to the service provider and liable to pay the service provider for any specified charges (i.e. imbalance or overrun charges) set out in the operational GTA. The primary shipper, on the other hand, will remain liable to pay the service provider for the capacity sold to the secondary shipper. |
| **Allocation agreements** | If a secondary shipper procures capacity through the exchange or day-ahead auction and wants to use a multi-user receipt or delivery point, it will need to become a party to the allocation agreement at that point(s). This agreement sets out the rules the allocation agent is required to use to allocate gas metered as having been supplied between shippers. |
| **Other services and arrangements** | In some cases, a secondary shipper that procures capacity through the exchange or day-ahead auction may also require:<br>▪ access to other transportation related services that are not available on the exchange or through the auction (for example, in some locations a shipper will require redirection services and compression services) and will need to enter into arrangements with the relevant service provider for the provision of that service; and<br>▪ access to a receipt or delivery point that is controlled by a third party and will need to enter into arrangements with that party to ensure they can utilise those points. |

As Figure 2.2 and Table 2.1 highlight, operational transfers (see Box 2.1 for more detail on operational transfers) are expected to play a key role under the reform package and will be given effect through an operational GTA.[11] In contrast to the Capacity Trading

[11] The service provider can also offer an operational GTA-style service under a primary GTA, allowing a primary shipper to roll capacity bought in the secondary market into the primary GTA.

Agreement (CTA), Exchange Agreement and Auction Agreement, which set out the service and financial aspects of the trade, operational GTAs set out the terms on which the secondary shipper can use the service provider's assets if it procures secondary capacity.

It is worth noting in this context that while the term 'transfer' in operational transfer implies that capacity is being transferred from one shipper to another, this will not occur in relation to the day-ahead auction. In the day-ahead auction, any contracted but un-nominated capacity sold through the auction will be allocated to the auction winners, but there will not be a corresponding reduction in the capacity holdings of primary shippers that have contracted but un-nominated capacity.

**Box 2.1: Capacity transfer mechanisms**

Transfers of capacity can be given effect through either:

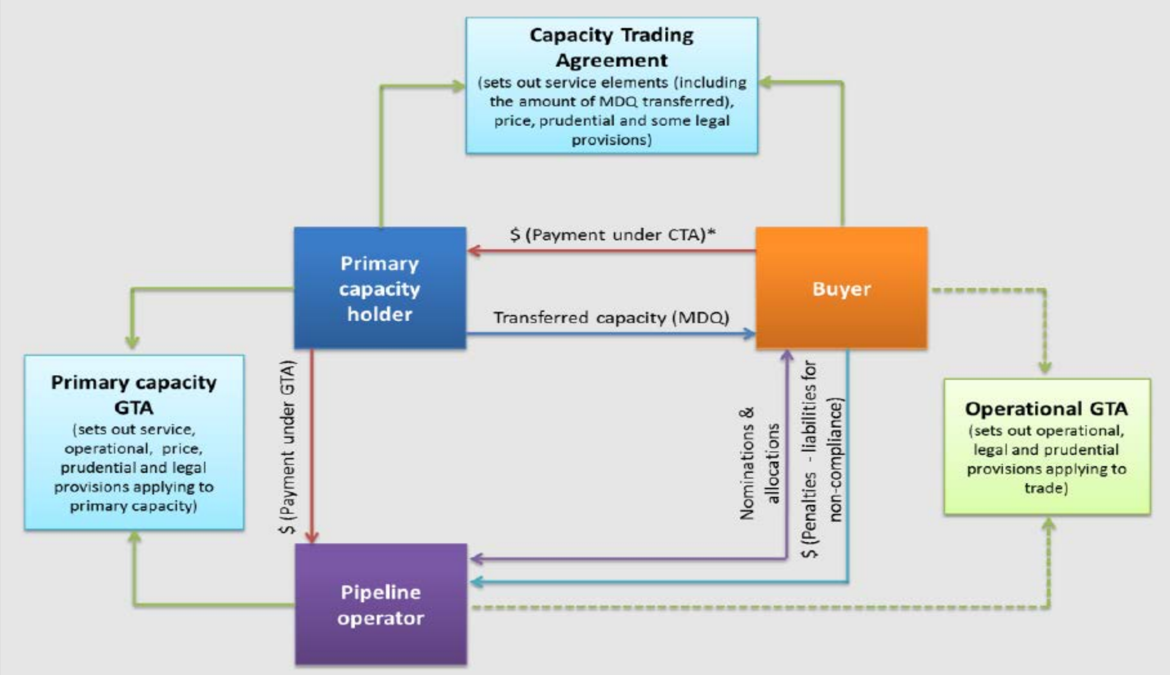
- **an operational transfer** - under an operational transfer, the service related elements, price, prudential and other legal provisions relating to the sale of capacity are set out in the secondary CTA, Exchange or Auction agreements entered into by the shippers, while the operational terms are set out in the operational GTA entered into by the service provider and secondary shipper; or
- **a bare transfer** - under a bare transfer all the terms and conditions applying to the trade are set out in the CTA entered into by the primary and secondary shipper.

Under both types of transfers, the primary shipper's capacity rights (or part thereof) are temporarily transferred to the secondary shipper and the obligation to pay the service provider remains with the primary shipper. The key difference between these two forms of transfer mechanisms is that under the:

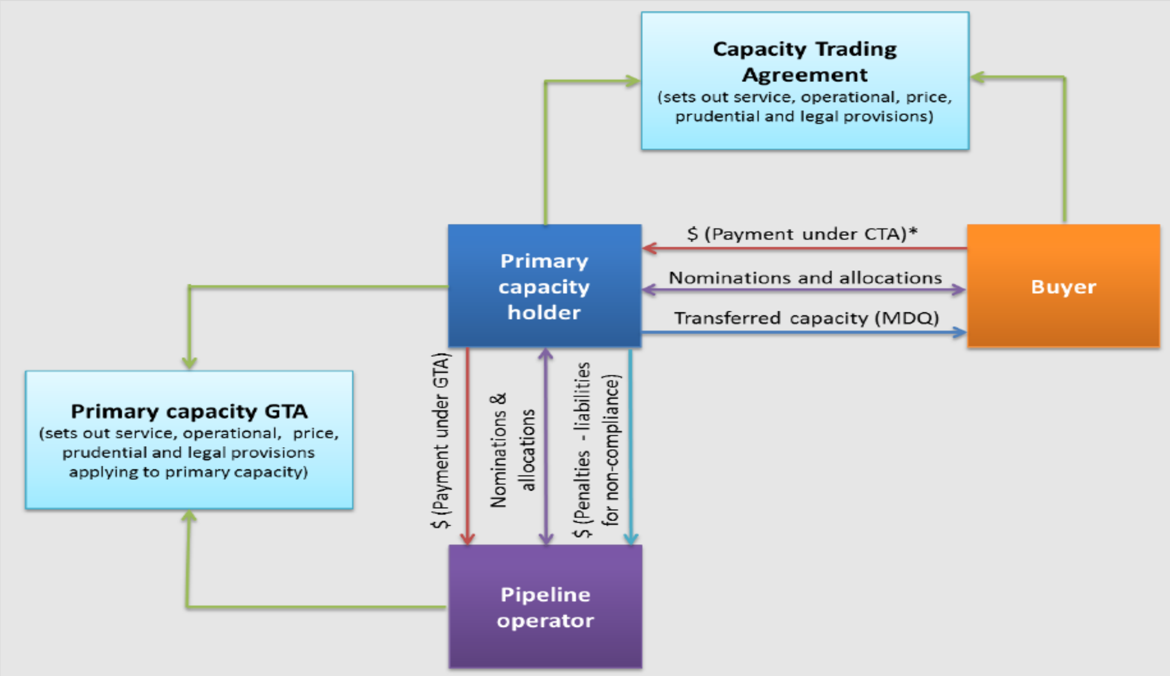
- bare transfer, the primary shipper is responsible for making nominations on behalf of the buyer of the secondary capacity and complying with the operational and legal obligations imposed by the service provider under its primary GTA for the capacity that it has sold; and
- operational transfer, the secondary shipper is responsible for making nominations directly to the service provider and complying with the operational and legal obligations in the operational GTA it has entered into with the service provider in relation to the capacity that has been purchased.

Operational transfers can therefore result in lower administrative and monitoring costs for the primary shipper and enhance commercial confidentiality for the secondary shipper.

## Operational Transfer




## Bare Transfer




Source: AEMC, Stage 2 Final Report: *East Coast Review*, 23 May 2016, pp. 99-100 and Pipeline Access Discussion Paper, 3 March 2016, pp. 18-19.

## 2.3 Assessment framework for the reform package

There are a number of different ways in which the standardisation related reforms could be designed and implemented. When assessing these options and developing its final recommendations for the SCO and the Energy Council, the GMRG intends to use the rule making test that the AEMC is required to consider when exercising its rule making functions.[12] This test states that:[13]

- the AEMC may only make a rule if it is satisfied it will, or is likely to, contribute to the achievement of the NGO; and
- the AEMC may give such weight to any aspect of the NGO as it considers appropriate, having regard to any relevant Council statement of policy principles.

In keeping with this test, the GMRG will have regard to the NGO (see Box 1.1).

As the AEMC has previously observed, quantifying the costs, benefits and efficiency improvements associated with these types of reforms can be difficult.[14] The GMRG's assessment of whether the proposed design of the reforms will, or is likely to, contribute to the NGO, will therefore be carried out qualitatively having regard to whether the reforms are consistent with:

- the AEMC's required and preferred outcomes for the capacity trading reforms (Appendix A) and will facilitate more trade in secondary capacity by making capacity products more fungible, reducing search and transaction costs, removing unnecessary impediments to trade across pipelines and increasing the pool of buyers and sellers;
- the broader objectives of the capacity trading reform package, which were described by the AEMC as being to improve the efficiency with which transportation capacity is allocated and utilised and foster the development of a more liquid market for secondary capacity;[15] and
- the Energy Council's Vision of the direction gas market development should take to meet the NGO and the outcomes the Energy Council agreed to pursue in the next phase of gas market reform (see Box 1.1).[16]

The GMRG's assessment will also be guided by the following principles that the AEMC usually employs when applying the NGO:[17]

- Competition and market signals will generally lead to better outcomes than centralised planning and regulation, as competing energy businesses have an incentive to meet consumers' needs efficiently.
- Where it is required, regulation should be targeted, fit-for-purpose, provide incentives that imitate the outcomes of a workably competitive market, and involve regulatory costs proportionate to the materiality of the issue.
- Risk allocation and the accountability for investment decisions should rest with those parties best placed to manage them.

12 Section 291 of the NGL.

13 See section 291 of the NGL.

14 AEMC, Stage 2 Final Report: Information Provision, May 2016, p. 4.

15 AEMC, Stage 2 Final Report: East Coast Review, 23 May 2016, pp. 67-69.

16 COAG Energy Council, Australian Gas Market Vision, December 2014.

17 AEMC, Stage 2 Final Report: East Coast Review, 23 May 2016, pp. 128-129.

- Market and regulatory frameworks should be flexible and provide firms with a clear and consistent set of rules that allow them to independently develop strategies and adjust to changes in the market. These frameworks should also be resilient to changing supply and demand conditions, and patterns of flow, over the longer term.

Given the nature of the reforms, the GMRG will also consider the extent to which the proposed reforms:

- provide secondary shippers with access to secondary capacity on reasonable terms (i.e. at prices and on other terms and conditions that, so far as practical, reflect the outcomes of a workably competitive market);
- appropriately reflect the legitimate business interests of service providers and other parties that have rights to use the transportation services, including primary and secondary capacity holders;
- are operationally feasible and recognise the operational and technical requirements necessary for the safe and reliable operation of the assets used in the provision of transportation services;
- facilitate the efficient operation and use of the capacity trading platform and day-ahead auction; and
- more generally promote efficient investment in, and efficient operation and use of, natural gas services.

When evaluating the design of the capacity trading platform, the GMRG will also have regard to the attributes that the Capacity Trading Platform and Day-Ahead Auction project teams thought the capacity trading platform would need to emulate if it was to become the 'platforms of choice' for market participant. These attributes are set out the table below.

**Table 2.2: 'Platform of Choice' evaluation criteria**

| Evaluation criteria | |
|---|---|
| **Operation of the platform:** | Operated by independent (i.e. a party that has no commercial interests in the outcome of the trades) and experienced operator |
| | Operated in a predictable and reliable manner |
| | Operation of platform underpinned by a robust governance framework |
| | Transparency in costs and operation of platform |
| **Trading Platform-features:** | Provides for low transaction costs and quick and effective execution of trades |
| | Readily integrated with service providers' nominations and scheduling processes |
| **Co-ordination benefits:** | Shippers can readily co-ordinate trades across pipelines |
| | Shippers can readily co-ordinate trades through the capacity trading platform and the day-ahead auction |
| | Shippers can readily co-ordinate trades with other gas services on the GSH |
| **Scale and scope benefits and adaptability:** | Capable of capturing scale and scope benefits |
| | Future proof, scalable and adaptable |

# Part A: Standardisation Reforms

In the *East Coast Review*, the AEMC noted that the contracts underpinning primary and secondary capacity trades on contract carriage pipelines have historically been quite bespoke, with a range of terms and conditions customised to meet the requirements of the contracting parties. While the AEMC recognised there may be value in having customised service provisions, it recommended that the operational, prudential and other provisions governing the relationship between contracting parties and their contractual obligations in primary, secondary and operational transportation agreements be standardised. The AEMC also recommended that all trades conducted through the exchange or auction be given effect through an operational transfer and that shippers be provided with greater flexibility to change their receipt and delivery points. [18]

Together, the AEMC expected these reforms to facilitate a greater level of secondary capacity trading by:[19]

- making capacity products more fungible;
- reducing search and transaction costs (i.e. by making it easier for shippers to value and compare offers and reducing the number of provisions to be negotiated);
- removing any unnecessary impediments to trade across pipelines; and
- increasing the pool of prospective buyers and sellers of secondary capacity by aggregating receipt and delivery points and, in so doing, increasing market liquidity.

Table A.1 provides further detail on the scope of the standardisation related reforms, which were categorised by the AEMC as either:

- **required outcomes** – these recommendations were described by the AEMC as outcomes that must be progressed by the GMRG and are necessary to the implementation of the reforms; or
- **preferred outcomes** – these recommendations were described by the AEMC as outcomes that should be pursued by the GMRG unless it is clear there are greater benefits in alternative approaches.

**Table A.1: AEMC's Recommendations: Standardisation related reforms**

| Required Outcomes |
|---|
| ▪ Trades carried out through the capacity trading platform to be given effect through an operational transfer. Bare transfers will be allowed but the seller will be required to offer the buyer the option to use an operational transfer.<br>▪ Standardisation of key primary and secondary capacity contractual terms for pipeline and hub (compression) services. Where possible and appropriate the standards should apply across the eastern Australian gas market.<br>▪ Standards to be developed are for key operational, prudential and other contractual provisions in primary GTAs, secondary CTAs and operational GTAs, and provisions in contracts used for exchange based trading on the capacity trading platform.<br>▪ Counterparties to existing contracts should not be materially disadvantaged through the standardisation process. |
| **Preferred outcomes** |
| ▪ Shippers provided greater flexibility to change their receipt and delivery points. |

Source: AEMC, Stage 2 Final Report: *East Coast Review*, 23 May 2016, p. 17.

18 AEMC, Stage 2 Final Report: East Coast Review, 23 May 2016, pp. 87-92.

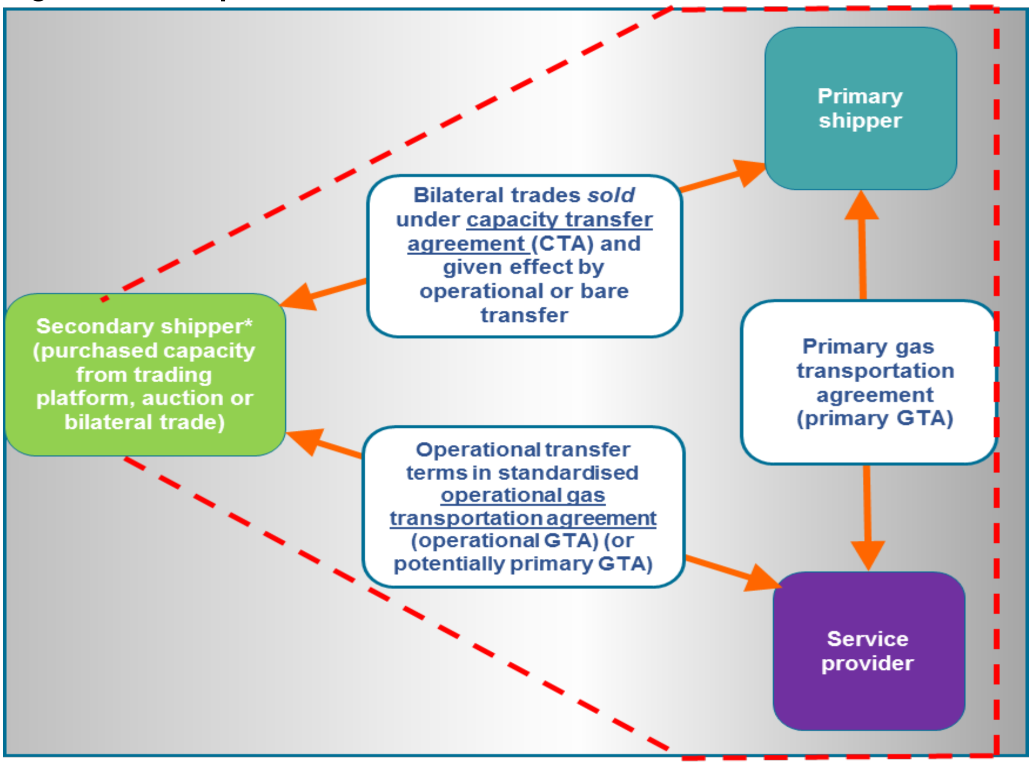
19 ibid, p. 87.

In addition to the measures outlined in the table above, the AEMC recommended that:

- products sold through the **capacity trading exchange** and the terms on which these products are sold (i.e. under the Exchange Agreement) also be standardised; and
- products sold through the **day-ahead auction** and the terms on which these products are sold (i.e. under the Auction Agreement) also be standardised.

Work on the first of these recommendations has been carried out by the Capacity Trading Platform and is discussed in further detail in Part B, while work on the second recommendation is being carried out by the Day-Ahead Auction project teams and will be consulted on in October. The scope of the Standardisation work stream is limited therefore to primary GTAs, CTAs and operational GTAs as highlighted by the red dotted area in Figure A.1.

**Figure A.1: Scope of contract standardisation reforms**




Notes: * A secondary shipper may also be a primary shipper.
Denotes focus of standardisation reforms
Denotes bilateral contractual obligations

The remainder of this part of the consultation paper is structured as follows:

- Chapter 3 focuses on the contract standardisation reforms;
- Chapter 4 focuses on the receipt and delivery point flexibility reforms; and
- Chapter 5 outlines other measures that could be implemented to reduce the barriers to secondary capacity trading and participation in the day-ahead auction.

# 3. Standardisation of Contracts

To facilitate a greater level of trade in secondary capacity, the AEMC recommended that capacity trades conducted through the exchange and auction be given effect through an operational transfer and that key terms and conditions in primary, secondary and operational transportation agreements be standardised.[20]

These recommendations have been considered in some detail by the Standardisation project team. In doing so, the project team considered:

- the types of contracts that should be standardised;
- the level of standardisation that could be achieved and the form that the standardised provisions could take;
- whether the standardised terms should be voluntary or mandatory and if parties would be able to negotiate particular terms;
- how the incremental costs that service providers incur providing operational transfer services will be recovered; and
- the governance arrangements that could apply to the standardised terms.

Further detail on the position the Standardisation project team reached on each of these issues and the GMRG's preliminary views is provided in the remainder of this chapter, which commences with an overview of the AEMC's recommendations. As noted in Chapter 1, the inclusion of the GMRG's preliminary view in this consultation paper is intended to facilitate consultation and elicit feedback from stakeholders. It should not therefore be interpreted as a concluded position of the GMRG.

## 3.1 AEMC recommendations

In the *East Coast Review*, the AEMC recommended that:

- operational transfers be used to give effect to capacity purchased through the capacity trading exchange and the day-ahead auction; and
- bare transfers be allowed in cases where capacity is purchased through bilateral trades, subject to the caveat that the sellers of secondary capacity must offer the buyer the option of using an operational transfer.

In making this recommendation, the AEMC noted that operational transfers will:[21]

- provide secondary shippers greater anonymity in terms of nominations and its use of the pipeline, which may encourage more trade; and
- alleviate primary shippers of the costs that it would otherwise incur in administering the trade and monitoring the secondary shipper's compliance with various obligations, which should encourage more primary shippers to sell any spare capacity they have.

Further detail on operational and bare transfers can be found in Box 2.1.

The AEMC also recommended that the operational, prudential and other contractual provisions governing the relationship between the contracting parties and their contractual

[20] AEMC, Stage 2 Final Report: East Coast Review, 23 May 2016, pp. 85-86.

[21] AEMC, Pipeline Capacity Discussion Paper, 3 March 2016, p.20.

obligations in primary GTAs, operational GTAs and secondary capacity agreements be standardised (see Box 3.2 for more detail on contract terms). However, in response to feedback provided by a number of stakeholders in the *East Coast Review*, the AEMC noted that it may be appropriate to prioritise the standardisation of operational GTAs and secondary capacity agreements (i.e. CTAs, the Exchange Agreement and Auction Agreement).

Elaborating further on this recommendation, the AEMC noted that, with the exception of the exchange based capacity trading and auction products, it did not expect the service related provisions in transportation contracts to be standardised. It did, however, think there would be value in making capacity more fungible and reducing search and transaction costs by standardising the operational, prudential and other contract provisions.[22] At a minimum, the AEMC expected common standards to be developed for prudential and other contract provisions governing the relationships between contracting parties and their contractual obligations, and many of the operational provisions. It did, however, acknowledge that it may be more difficult to develop common standards for more technical provisions, such as imbalance and overrun allowances, because these can depend on the physical characteristics and operating conditions of the pipeline.[23]

**Box 3.1: Contract terms**

A capacity holder's right to access pipeline or compression capacity will usually be defined by reference to the service related elements, which include:

- the type of service that the capacity is to be used for (e.g. transportation services (forward haul, backhaul or bi-directional), stand-alone compression services or storage services);
- the firmness of the seller's obligation to provide the service (e.g. firm, as available or interruptible) and the priority in scheduling and curtailment;
- the receipt and delivery points (or zones) that services are provided between and any technical restrictions at those points (e.g. operating pressures); and
- the maximum capacity the shipper can nominate to be supplied at receipt and delivery points, which is usually measured on a daily and hourly basis and renomination rights.

The contracts will also contain:

- operational terms and conditions, such as
  - (a) start of gas day and nomination cut-off times;
  - (b) gas specification, gas quality and metering provisions;
  - (c) service definition and the priority accorded to firm, as available and interruptible services in the scheduling and curtailment processes;
  - (d) nomination, scheduling, curtailment and allocation procedures;
  - (e) imbalance and overrun tolerance levels and charges;
  - (f) the process for making changes to receipt and delivery points; and
  - (g) provisions relating to transfers, assignments and novations of capacity;
- prudential requirements; and
- other contract provisions governing the relationships and contractual obligations between parties, such as warranties, representations, possession, responsibility, title, control, liability and indemnities, default, force majeure, confidentiality and dispute resolution.

Source: AEMC, Pipeline Access Discussion Paper, 3 March 2016, p. 12.

[22] AEMC, Stage 2 Final Report: East Coast Review, 23 May 2016, pp. 85-86.

[23] ibid, p. 89.

Some of the other matters that the AEMC recommended the GMRG consider in this context include whether:[24]

- a single standard can be developed for each term and condition, or if a range of standards may be more appropriate in some circumstances;
- a credit support mechanism should be developed to manage the risk to one counterparty when the other counterparty has low credit worthiness because this would no longer be managed through bespoke prudential requirements;
- the adoption of the standardised terms should be compulsory, or if shippers and pipelines should be able to negotiate around any provisions; and
- changes to the functions and powers of the AEMC, AER or AEMO and/or the NGL, the NGR or subordinate instruments would be required to give effect to the standardised terms and what, if any, governance arrangements would need to be implemented to enable the standards to be amended over time.

## 3.2 Contracts to be standardised

### Background

One of the first issues the Standardisation project team considered was whether it was necessary to standardise both primary GTAs and operational GTAs to make capacity more fungible and reduce search and transaction costs.

In short, the Standardisation project team was of the view that if operational transfers are to become the primary means by which capacity trades are given effect, then it may be sufficient to standardise operational GTAs because any capacity released by the primary shipper would be subject to the terms in the operational GTA rather than the primary GTA. The project team decided therefore to prioritise the standardisation of the operational GTA and to only consider amending primary GTAs where it was necessary to give effect to operational GTAs or to facilitate secondary trading.

The position the project team reached on this issue is consistent with the feedback that other stakeholders provided during the *East Coast Review*. It is also consistent with the following observation that the AEMC made in one of its initial discussion papers: [25]

> *"For trades that are given effect through an operational transfer there may be less of a need to align the primary capacity holder's GTA and the CTA because the Operational GTA will set out the operational and many of the other contractual provisions that apply to the trade ... That is not to say that some degree of standardisation would not be required in the CTAs and Operational GTAs, in order to facilitate a more liquid secondary capacity trading market. It is just that the terms and conditions in the Operational GTA do not necessarily need to align with the primary capacity holder's GTA."*

The project team also observed that while standardisation of primary GTAs was not required to achieve the AEMC's objectives, the standards developed for the operational, prudential and other legal provisions in the operational GTA could drive standardisation of primary GTAs over time.

In relation to CTAs, the project team noted that AEMO has already developed a standardised CTA for bilateral trades that are given effect through a bare transfer[26] and

[24] ibid, p. 90.

[25] AEMC, Pipeline Capacity Discussion Paper, 3 March 2016, p.20.

[26] See https://www.aemo.com.au/Gas/Gas-Supply-Hubs/Market-operations

that there would be little value in carrying out any more work to standardise these types of contracts because:

- secondary shippers would always have the option to use an operational transfer so any standardised CTA would only need to set out the details of the capacity being sold and the financial terms of the sale between the primary shipper and the secondary shipper, which would be trade specific; and
- if the secondary shipper decided to proceed with a bare transfer, the terms in the CTA would in most cases need to mirror those in the primary shipper's GTA to minimise its risk exposure.

### GMRG's preliminary view and questions for stakeholders

Having regard to the objectives of the standardisation reforms and the feedback provided by the Standardisation project team and stakeholders in the *East Coast Review*, the GMRG broadly agrees with the position the project team has reached on this issue. The GMRG's preliminary view is therefore that:

- Priority should be given to developing a standardised operational GTA given that all trades conducted through the exchange and day-ahead auction will need to be given effect through an operational transfer and secondary shippers will need to be offered the option of using an operational transfer.
- There is likely to be little value in standardising primary GTAs if operational transfers become the primary means by which trades are conducted, but some changes to primary GTAs will be necessary to:
  - accommodate secondary trading and/or facilitate the operation of the trading platform and/or auction;[27] and
  - remove other impediments to trade (see section 5.4).
- There is likely to be little value in carrying out any more work on developing a standardised CTA that uses a bare transfer mechanism, but standardised terms will be available for trades conducted through the capacity trading platform and the day-ahead auction and for bilateral trades that use the operational transfer mechanism.

The GMRG welcomes feedback on this preliminary view and the questions in Box 3.2.

**Box 3.2: Questions on contracts to be standardised**

1. Given the objective of the standardisation reforms is to facilitate more secondary capacity trading and the majority of trade is expected to be conducted using operational transfers, do you think it is sufficient to standardise terms for operational GTAs, or do you think primary GTAs also need to be standardised?
2. Do you think there is any value in carrying out more work to standardise the CTA for bilateral trades that are given effect through a bare transfer? If so, what amendments do you think need to be made to the contract that AEMO has developed?

[27] Changes to primary GTAs may, for example, be required to:
- allow the primary shipper's capacity to be transferred to another shipper via an operational transfer;
- introduce the concepts of contract and operational MDQ and allow the primary shipper's operational MDQ to be adjusted when a trade occurs;
- recognise that if capacity is traded through an operational GTA the primary shipper will remain liable to pay the tariff for the contract MDQ but the liability to pay any imbalance or overrun charges on the transferred capacity and all the other obligations and liabilities set out in the operational GTA will move to the secondary shipper;
- the harmonisation of gas day start times and nomination cut-off times when it occurs;
- the adoption of zones and primary/secondary receipt and delivery point concepts. and
- amend service priorities.

## 3.3 Standardisation of the operational GTA

In keeping with the priorities outlined above, the Standardisation project team has worked with the GMRG and its legal advisor, JWS, to develop the key elements of the standardised operational GTA that will establish the contractual terms between secondary shippers and service providers for capacity procured through the capacity trading platform, day-ahead auction or bilaterally if an operational transfer is used. The key elements of the operational GTA include:

- **standard terms** that apply to all service providers of transportation assets that are providing third party access; and
- **facility specific terms**, which may differ across service providers or facilities (e.g. pipeline or compression assets).

Provision has been made for facility specific terms to be included in the operational GTA because there are provisions that are not practicable to standardise due to differences in:

- the operational characteristics of the facility (for example, hourly limitations, pressure, temperature and metering requirements); and
- the contractual arrangements of the facility (for example, differences in the prioritisation principles that apply to scheduling and curtailment).[28]

As the success of the capacity trading platform and day-ahead auction is critically dependent on the operational GTA, any discretion service providers have in relation to the facility specific terms will need to be subject to some form of regulatory oversight. The GMRG proposes that, while service providers will have some discretion in relation to the facility specific terms, they will need to comply with a number of principles that will be set out in the NGR (see section 3.5.3 for more detail).

Further detail on the delineation between the standard terms and facility specific terms can be found in Table 3.1, which provides a high-level overview of the draft standard terms and facility specific requirements that have been developed in consultation with the Standardisation project team and JWS (see Attachment 1 for more detail). The draft terms and requirements have been developed having regard to the NGO, the Vision, the objectives of the capacity trading reforms and the other principles set out in section 2.3.

Before examining Table 3.1, it is worth noting that while most of the terms in the operational GTA will apply equally to capacity transferred as a result of exchange based trades, bilateral trades and the day-ahead auction, some additional provisions may need to be included to deal with the day-ahead auction product (for example, to specify the firmness of the product and the priority of the auction product). These additional provisions will be separately consulted upon once work on the design of the day-ahead auction is complete. Some additional provisions may also be required to deal with stand-alone compression products sold through the exchange, as outlined in section 3.3.5

It is also worth noting that one of the difficulties experienced in developing the operational GTA is the uncertain and diverse nature of how secondary shippers may utilise the contract (for example, some users may use it on an ad-hoc basis for short-term trading, while others may use it more frequently over a longer duration). This uncertainty can complicate considerations of how best to manage and allocate risks and how to ensure the standard terms do not act as a barrier to secondary trading.

[28] In this case, if the operational GTA had different prioritisation principles to those set out in primary GTAs and if there was a curtailment event the service provider may have inconsistent contractual obligations to primary shippers from those to secondary shippers and be in breach of its contracts.

**Table 3.1: Overview of the standard terms and facility specific terms**

| Section | | Explanation |
|---|---|---|
| **Standard Terms** | | |
| 1. | Definitions | Clause 1.1 sets out definitions used in the standard terms.<br>Clause 1.2 sets out standard form interpretation rules. |
| 2. | Services | Clause 2 describes the three services that must be provided by service providers, being firm service, park service (see below) and compression service (where acquired by the secondary shipper with the Firm Service). Service providers may also, at their discretion, elect to provide other services (e.g. other primary transportation and ancillary services, such as redirection, in-pipe trade and authorised overrun services) to the secondary shipper (the terms of which will be described in their facility specific terms).<br>A service provider is only required to provide a park service where they make a park service available to primary shippers (this follows inevitably as if a park service is not provided to primary shippers on a pipeline then there is no park service for secondary shippers to acquire from the primary shipper). |
| 3. | Service Standards | Clause 3 requires the service provider to provide services with due care and skill and in accordance with all applicable laws. |
| 4. | Nominations and scheduling | Clause 4 sets out the procedures under which the secondary shipper nominates for its services and sets out when the service provider is obliged to accept nominations.<br>The service provider is required to accept nominations where they comply with the operational GTA and provided the service provider is not prevented by circumstances (not caused by the service provider's failure to act as a reasonable and prudent operator) from accepting the nomination.<br>While the service provider may reject a nomination if the service provider cannot transport the nominated quantities due to circumstances caused by the service provider's failure to act as a reasonable and prudent operator, the service provider will be in breach of contract for rejecting the nomination.<br>Where the service provider cannot accept the nominations of all shippers then available capacity will be allocated in accordance with priority principles set out in the facility specific terms.<br>Scheduling (being the process by which the secondary shipper is notified of the quantity of gas which it is required to supply into the pipeline on a day and of which it may take delivery on a day) will be undertaken in accordance with the facility specific terms.<br>Clause 4.3 sets out renomination rights. Subject to a number of qualifications the service provider has a reasonable endeavours obligation to accept renominations.<br>Clause 4.4 requires the service provider, to the extent the information is available, to notify the secondary shipper upon the expiry of each day of the quantities of gas supplied by and delivered to the secondary shipper on that day. |

| Section | | Explanation |
|---|---|---|
| 5 | System Use Gas | System use gas is gas required by the service provider to operate the pipeline. It includes compressor fuel, gas heater fuel, unaccounted for gas and gas required to replenish the pipeline's linepack (though some pipelines deal with linepack gas separately from other quantities of System Use Gas).<br><br>Service providers require the users of their pipelines to provide system use gas, though the procedures for determining the quantities required to be supplied differ between pipelines. Given this, it is proposed the provisions for supply of System Use Gas will be dealt with in the facility specific terms. However, the standard terms limit the quantities of System Use Gas which the service provider may require the secondary shipper to provide to those required by a reasonable and prudent operator for the safe and efficient operation of the pipeline. |
| 6 | Hourly limitations | Pipelines often have hourly limits on the quantities of gas which may be supplied into or taken from the pipeline. This is particularly common in the case of pipelines servicing gas fired power stations where the operational integrity of the pipeline may be threatened if excessive gas is taken from the pipeline in an hour. Clause 6 refers back to the facility specific terms and requires the secondary shipper to comply with any hourly limitations in those terms and to pay the charges set out in those terms for exceeding any hourly limitations. The facility specific terms do not require the service provider to permit any minimum hourly limit but given the value of hourly flexibility the GMRG is considering whether it should specify a minimum hourly limit that should be allowed – for example 110% of MDQ÷24. Also under consideration is whether exchange products should be traded with both daily and hourly entitlements so that shippers' hourly entitlement will be determined by reference to what they purchase. This would provide the most efficient means to allocate hourly entitlements to where they are most valued. |
| 7 | Curtailment | Clause 7 sets out the service provider's rights to curtail services and the means by which the service provider may give effect to curtailments.<br><br>The clause sets out rights to curtail by reference to general factors affecting the service and rights to curtail because the secondary shipper has failed to comply with the terms of the operational GTA. |
| 8 | Park account | Clause 8 sets out the mechanics of how the balance of the park account is calculated. The clause is only relevant to the provision of the park service. |
| 9 | Maintenance | Clause 7 allows the service provider to curtail services to undertake both planned and unplanned maintenance.<br><br>Clause 9 sets out the means by which the secondary shipper is notified of planned maintenance and unplanned maintenance and their impact on pipeline capacity. |

| Section | | Explanation |
|---|---|---|
| 10 | Gas Quality | The operational integrity of a pipeline, as well as facilities downstream of a pipeline, may be adversely affected if gas that is outside the quality specifications for the pipeline is supplied into the pipeline.<br><br>Clause 10 obliges the secondary shipper to ensure that gas it supplies into the pipeline complies with the gas specification for the pipeline and sets out the obligations of each party if off-specification gas is or may be supplied by the secondary shipper.<br><br>The clause sets out a mechanism for each party to notify the other if it becomes aware of off-specification gas and for the service provider to decide whether it will accept that gas. The service provider has no obligation to accept off-specification gas. Where off-specification gas is delivered into the pipeline without the service provider's consent, the service provider may take such action as it considers, as a reasonable and prudent operator, is required to prevent the entry of that gas into the pipeline. Further the clause obliges the service provider to use its reasonable endeavours to take all technically feasible steps to minimise the impact of such gas on the pipeline.<br><br>Clause 10.5 obliges the secondary shipper to indemnify the service provider against the losses the service provider suffers due to supply of off-specification gas, excluding losses the service provider would have avoided had the service provider acted as a reasonable and prudent operator. An unresolved issue is whether this indemnity should extend to the service provider's loss of profits.<br><br>Where the secondary shipper supplies off-specification gas in a common stream with other shippers then the secondary shipper is only liable for a pro-rata proportion of the service provider's losses.<br><br>The service provider is only liable for delivering off-specification gas at a delivery point where the service provider agreed to accept off-specification gas into the pipeline from another shipper or where the service provider could, as a reasonable and prudent operator, have avoided delivering off-specification gas to the secondary shipper. This means that where Shipper A delivers off-specification gas into the pipeline and this causes the service provider to deliver off-specification gas to Shipper B then the service provider is only liable to Shipper B if the service provider either (i) agreed to accept the off-specification gas from Shipper A or (ii) could as a reasonable and prudent operator have avoided delivering off-specification gas to Shipper B. An alternative approach would be to make the service provider liable to Shipper B for delivering off-specification gas to Shipper B and then leave the service provider to recoup from Shipper A any liability the service provider incurs to Shipper B.<br><br>See section 3.3.1 for further discussion regarding the liability regime for off-specification gas. |
| 11 | Pressure and Temperature | Clause 11 requires gas to be supplied and delivered at the pressure and temperature set out in the facility specific terms. It also provides any odorisation of gas will be undertaken in accordance with the facility specific terms. |

| Section | | Explanation |
|---|---|---|
| 12 | Imbalance | Clause 12 regulates imbalance which is the situation where the sum of the secondary shipper's receipts over time differ from its deliveries. While imbalance is inevitable too great an imbalance may affect the operational integrity of a pipeline and a service provider's ability to provide services to other shippers. It is therefore necessary to regulate the extent of the secondary shipper's imbalance.<br><br>This clause provides for the setting of an imbalance allowance and imbalance charge in accordance with the facility specific terms. The imbalance charge will be payable where the secondary shipper's imbalance exceeds the imbalance allowance.<br><br>The clause also sets out the circumstances in which the service provider may curtail the secondary shipper due to the secondary shipper's imbalance exceeding the imbalance allowance (or such lower level set out in the facility specific terms) or otherwise require the secondary shipper to adjust its receipts or deliveries to address the imbalance.<br><br>Secondary shippers will be permitted to trade imbalances so as to assist control their imbalance allowance and exposure to imbalance charges. For example, a shipper with a positive imbalance of 3 TJ could trade with a shipper with a negative imbalance of 3 TJ with the result that after the trade neither shipper will have an imbalance.<br><br>A potential risk to the integrity of pipelines posed by secondary trading is that at the end of its trade a shipper still has an imbalance (particularly a negative imbalance) despite the shipper no longer having any contracted Firm MDQ to support that imbalance. Secondary shippers will be required to clear any residual imbalance within 24 hours of them ceasing to have Firm MDQ otherwise a charge will be payable until such time as the imbalance is cleared. This clause also allows the service provider (at the secondary shipper's cost) to take steps to address the imbalance including buying gas (to clear a negative imbalance) or selling gas (to clear a positive imbalance). |
| 13 | Unauthorised overrun | An overrun arises where a secondary shipper supplies or takes gas on a day in excess of its scheduled quantities. An overrun is a threat to the integrity of a pipeline and may prevent other shippers receiving their services on a day. Clause 13 prohibits the secondary shipper taking overrun gas without the service provider's consent and requires the secondary shipper to pay an unauthorised overrun charge set out in the facility specific terms if it does take delivery of such unauthorised overrun gas. |

| Section | | Explanation |
|---|---|---|
| 14 | Use of delivery points and receipt points | A difficulty in the creation of a liquid secondary market is ensuring access by shippers to receipt and delivery points. Where receipt or delivery points have allocation procedures then it will be necessary for a shipper to accede to those procedures before it can start using the point (see section 5.1). This poses a potential barrier to entry for a shipper if existing shippers do not co-operate to facilitate this.<br><br>Clause 14.1 provides that the secondary shipper may not commence using a receipt point or delivery point until it has obtained any necessary consent from existing users of the point and acceded to any allocation procedures (but only to the extent the service provider is prohibited by its existing haulage agreements from allowing the secondary shipper to access the point unless consent has been obtained/allocation procedures acceded to). The service provider must co-operate to assist the secondary shipper obtain such consent and accede to such procedures.<br><br>Clause 14.2 sets out the mechanism for allocation of capacity at receipt points/delivery points. Priority is given to existing users where the service provider must give such priority to avoid breaching its contractual obligations. Otherwise priority is allocated in accordance with the priority principles set out in the facility specific terms.<br><br>It is common for new receipt points or delivery points to be constructed for a specific shipper that requests the service provider to construct the point and funds the service provider doing so. In return, the service provider agrees that if new shippers commence using the point they must pay a fee (rebated to the original shipper who funded the construction) as a contribution to the construction costs. Clause 14.3 recognises this and requires the secondary shipper to pay such fee where the service provider is obliged by existing contractual arrangements to collect such fees.<br><br>Capacity sold through the exchange and day-ahead auction will be sold by reference to zones (see section 4.2) and secondary shippers will be allowed to supply gas to receipt points falling within the receipt point zone to which the product relates and take gas at the delivery points within the delivery point zone to which the product relates. Where the secondary shipper has acquired its capacity through the exchange then its right to use a receipt point or delivery point will rank behind primary shippers with firm rights at the point.<br><br>This limit does not apply where the secondary shipper has acquired its Firm Service MDQ by way of a bilateral trade from a primary shipper with existing reserved capacity at a receipt point or a delivery point. In such case the secondary shipper steps into the shoes of that primary shipper. However even in the case of capacity acquired by way of a bilateral trade the service provider may give priority to other users of a receipt point or delivery point if the service provider is contractually obliged to do so. This reflects the reality that pipeline owners may have existing commitments to shippers who have funded the construction of receipt points or delivery points to give them priority to capacity (an arrangement which is very common in the pipeline industry).<br><br>Clause 14.4 sets out a procedure by which the secondary shipper can request the service provider to allow it to supply gas or take gas outside of the zone to which its purchased product relates. |

| Section | | Explanation |
|---|---|---|
| 15 | Metering and apportionment | Where more than one person uses a receipt point or delivery point then quantities are to be apportioned between those persons in accordance with such methodology as they have agreed (provided it is acceptable to the service provider acting reasonably). In the absence of agreement, the service provider will determine a reasonable apportionment procedure.<br><br>It is proposed metering be largely dealt with by facility specific terms, however clause 15.2 provides the secondary shipper with rights to be present at, and request, metering tests. |
| 16 | Title, risk, responsibility and co-ordination | Clause 16 sets out relatively standard provisions relating to title and responsibility for gas and co-ordination of operations. |
| 17 | Liability | Clause 17 sets out a proposed liability regime.<br><br>In the case of the secondary shipper there are currently no proposed limits on liability with the exception that, other than in the case of the secondary shipper's wilful misconduct (and potentially liability for the supply of off-specification gas), the secondary shipper is not liable for the service provider's loss of profits or revenue.<br><br>In the case of the service provider, except in the case of wilful misconduct, the clause proposes the service provider's liability be capped at a monetary amount and that the service provider is not liable for the secondary shipper's consequential losses.<br><br>Clause 17 is a preliminary position and comments are sought as to the form of an appropriate liability regime. Liability is discussed in more detail in the following sub-sections.<br><br>See section 3.3.2 for further discussion regarding the liability regime. |
| 18 | Force Majeure | Clause 18 is a standard form force majeure clause. |
| 19 | Charges and Payments | Clause 19 deals with payments and invoicing.<br><br>While the secondary shipper will not pay the fixed charges in respect of the Firm MDQ and Park MDQ they acquire (this will continue to be paid by the primary shipper from whom the capacity was acquired), various other charges may be payable by the secondary shipper including imbalance, daily overrun, hourly overrun and contribution to receipt point/delivery point costs. |
| 20 | GST | Clause 20 is a standard form GST clause. |

| Section | | Explanation |
|---|---|---|
| 21 | Credit | The purpose of clause 21 is to ensure the secondary shipper is appropriately insured and has sufficient credit. This is necessary not just to protect the service provider but also other shippers and ultimate consumers. The integrity of a pipeline system will be threatened if persons commence using the pipeline who cannot stand behind their contractual obligations.<br>Clause 21.1 requires the secondary shipper to have in place appropriate third party public and products liability insurance. This is principally to provide support in respect of the secondary shipper's obligations which, if breached, may cause damage to the pipeline. In particular the supply into the pipeline of off-specification gas.<br>Clause 21.2 deals with the circumstances in which the service provider may require credit support from the secondary shipper and, where credit support has been provided, the circumstances in which it may be called upon.<br>See section 3.3.3 for further discussion regarding credit support. |
| 22 | Suspension and termination | Clause 22 sets out the circumstances in which the service provider may suspend services due to the secondary shipper having done something wrongful (for example, failing to ensure the required insurance is in place or payment default) and deals with the circumstances in which either party may terminate the operational GTA. |
| 23 | Dispute resolution | Clause 23 deals with dispute resolution. Financial and technical disputes will be referred to an expert for determination. Other disputes may be referred to court proceedings. |
| 24 | Assignment/Novation | Clause 24.1 allows the secondary shipper to use its rights to haul gas on behalf of others (that is a bare transfer). Otherwise the secondary shipper may not transfer its rights and obligations under the contract. Such a right is seen as unnecessary as if another person wishes to utilise secondary capacity rights they can enter into their own Operational GTA and purchase capacity from the service provider.<br>The service provider may novate the operational GTA to persons who acquire the pipeline from the service provider.<br>There is no change in control restriction. |
| 25 | Representations and warranties | Clause 25 is a standard representations and warranties clause. |
| 26 | Confidentiality | Clause 26 is a standard confidentiality clause. |
| 27 | Notices | Clause 27 is a standard notices clause. |
| 28 | Miscellaneous | Clause 28 deals with governing law and also obliges each party to do all that is reasonably necessary to give effect to the Operational GTA. |

| Section | | Explanation |
|---|---|---|
| **Facility Specific Terms** | | |
| 3 | Other Services | The facility specific terms allow the service provider, at its absolute discretion, to offer additional transportation or ancillary (e.g. redirection, in -pipe trading and authorised overrun) services. However, the service provider may not pressure the secondary shipper to acquire any such additional services (**Other Services**). The service provider is largely at liberty to design the terms for Other Services provided they are reasonable and do not derogate from the standard terms. |
| 4 | Scheduling | Scheduling is the mechanism by which the service provider notifies the secondary shipper of the quantities of gas it is required and permitted to supply and take delivery of on a day. It is recognised that scheduling practice needs to be consistent with how the service provider schedules under its existing contractual arrangements since service providers will schedule in a common manner across their shipper base. |
| 5 | Priority Principles | The priority principles are used to determine how capacity is allocated in the event of shortfalls. These mechanisms will need to be consistent with existing contractual arrangements as otherwise the service provider will have inconsistent obligations to different categories of shippers.<br><br>Secondary shippers acquiring Firm Service products should be given the same priority as other holders of Firm Service products. The exception is foundation shippers where the service provider may be contractually obliged, in consideration of the risks foundation shippers originally took, to give those shippers priority in the event of a curtailment. |
| 6 | System Use Gas | System Use Gas procedures may differ between pipelines. For example, some pipelines may determine the quantities of gas shippers must supply based on their receipt quantities and others may use their delivery quantities. Some may break system use gas down into component parts – compressor fuel, heater fuel, linepack and other system use gas and have different procedures for the supply of each type of gas. Some, but not all, pipelines will have a mechanism for returning system use gas to shippers.<br><br>For the above reasons, it is considered that system use gas procedures need to be dealt with on a pipeline by pipeline basis. |
| 7 | Hourly Limitations | Hourly limits and hourly charging practices differ between pipelines. For example, some pipelines levy charges only for exceeding delivery point hourly entitlements and others levy charges on both receipt and delivery points.<br><br>For this reason, it is considered hourly limitations need to be dealt with as a specific term. |

| Section | | Explanation |
|---|---|---|
| 8 | Pressure and Temperature | Pressure and temperature requirements differ between pipelines and are therefore dealt with as a specific term.<br><br>To provide the secondary shippers with greater certainty the facility specific terms require the service provider to nominate actual values for pressure and temperature requirements rather than allowing the service provider to define pressures and temperatures as whatever the service provider nominates from time to time.<br><br>That said service providers will be able to amend their facility specific terms from time to time, which may result in a change in pressure and temperature requirements. However, this power is constrained by the requirement to be consistent with the arrangements prevailing under primary shipper haulage agreements. |
| 9 | Charges | Service providers invariably have a number of charges in addition to the primary charge for reservation of capacity. Many of these charges exist to discourage behaviour that will jeopardise pipeline integrity and the ability to provide services to other shippers. These charges include imbalance charges and unauthorised overrun charges.<br><br>While it is conceivable that legislation could be passed requiring standardisation of these charges across pipelines, the approach that has been taken is to continue to allow pipelines to set charges appropriate to their individual arrangements provided those charges comply with the general principles regulating the facility specific terms that will be set out in the NGR.<br><br>Clause 9 sets out the procedure for determining the quantum of these charges. The imbalance charges and unauthorised overrun charges are to be consistent with any AA and, otherwise, consistent with practice under the pipeline's primary shipper GTAs.<br><br>It is also recognised that service providers will incur additional costs in administering the operational GTAs. Provision has therefore been made for service providers to levy an Administration Charge to cover these incremental costs provided the charge is reasonable (see section 3.6 for more detail).<br><br>Individual pipelines often have additional specific charges. It is considered that these should also be payable by secondary shippers otherwise they will have an unfair advantage against primary shippers (and also service providers may be unfairly disadvantaged). A higher threshold has been set as a precondition to imposition of these additional specific charges – they must represent practice under the majority of the service provider's contracts rather than common practice.<br><br>However, it has been determined that secondary shippers should not be required to pay a charge for varying their nominations or scheduled quantities or a charge where their take differs from, but is not in excess of, their scheduled quantity. It is considered that such charges, particularly in the case of shippers using capacity on a short-term basis, would form too great a barrier to entry.<br><br>In the case of Other Services (that is additional services that service providers elect to provide), service providers are free to set charges at such level as they wish provided the charges are reasonable. |

| Section | | Explanation |
|---|---|---|
| 10 | Imbalance | As imbalance charges and tolerances currently differ between pipelines, it is considered that imbalance has to be dealt with as a facility specific term.<br><br>Clause 10 allows the service provider to set the imbalance allowance (which must not be zero) and imbalance charge. It also allows the service provider to set a level of imbalance below the imbalance allowance as a trigger for curtailments but only where the secondary shipper's imbalance being at that lower level is a threat to the operational integrity of the pipeline. For example, a pipeline may have an imbalance allowance of 8% and shippers may have to pay charges if their imbalance is greater than this level. However, the service provider may need to curtail at a 6% imbalance level if there is an adverse impact on the pipeline. |
| 11 | Odorisation | Pipelines can either require, or provide, for the gas transported in them to be odorised. As practice differs between pipelines the matter is dealt with as a facility specific term. Where the service provider undertakes odorisation, the service provider may levy a charge if this is consistent with practice under primary GTAs. |
| 12 | Metering Principles | Currently service providers do not use uniform measurement principles and consequently metering is dealt with as a facility specific term. The service provider is to be responsible for metering equipment the service provider owns or controls. While the metering principles may make the secondary shipper responsible to ensure other metering equipment (i.e. not owned or controlled by the service provider) meets prescribed measurement standards, the secondary shipper cannot be required to make any modifications to existing metering equipment used by the pipeline. Therefore if, for example, existing metering at a receipt point is provided by a gas producer, the service provider cannot require the secondary shipper to make any modifications to that equipment. |
| 13 | Operational Communications | Various service providers use their own electronic systems for nominations and scheduling and other reporting. Clause 13 allows the facility specific terms to incorporate procedures regulating use of these systems. |
| 14 | Compression Services | In the case of certain pipelines, a compression service is coupled with a Firm Service so as to enable the delivery of gas (particularly into a second pipeline). It is contemplated that Firm Service Products will be traded both with and without a Compression Service attached. Where a Compression Service is acquired with the Firm Service Product, the terms upon which it is supplied will be set out in the facility specific terms.<br><br>There is also a second form of compression service which may be offered in the market. This is a service offered by a facility owner who operates a compressor and provides the distinct service of compressing gas (independent of any transportation component). It is proposed that separate principles and terms will regulate the provision of these stand-alone compression services, though they will be based on the same concepts as the terms that govern transportation services. |
| 15 | Receipt and Delivery Points | The facility specific terms will need to set out each receipt point and delivery point of the pipeline and key details in relation to these points. These will include the capacity of the points, any third-party consents required before they can be used and details of existing allocation agreements. |

While feedback is sought on all aspects of the standard terms and facility specific requirements, consultation to date has indicated that the following areas raise the most complex, and competing, policy considerations:

- the liability provisions relating to off-specification gas;
- the general liability provisions;
- the credit support requirements; and
- curtailment processes.

Feedback is therefore particularly sought in respect of these areas.

Further detail on these provisions is provided below.

### 3.3.1 Off-specification gas provisions

The liability for off-specification gas has been dealt with separately from other forms of liability in the standard terms because the supply of off-specification gas is seen as the event most likely to cause major physical damage to a pipeline and other shippers' facilities. A distinction has been drawn in the standard terms between the secondary shipper's and the service provider's liability for off-specification gas. Further detail on these provisions is provided below.

#### *3.3.1.1 Secondary shipper's liability*

If a service provider agrees to accept off-specification gas then, as the standard terms are currently drafted, the secondary shipper will not be liable for the supply of that gas. The liability regime is therefore only relevant where the secondary shipper supplies:

- off-specification gas that the service provider has not agreed to accept; or
- off-specification gas that is of a specification different to the specification the service provider has agreed to accept (i.e. the service provider agreed to accept off-specification gas but the secondary shipper has supplied gas outside of the parameters the service provider agreed to accept).

Under the regime that is currently set out in the standard terms, the secondary shipper will be liable for all loss the service provider suffers, other than the loss the service provider would have avoided had it acted as a reasonable and prudent operator. The regime also states that where gas is supplied in a common stream, the secondary shipper is only liable for a pro-rata portion of the service provider's losses.

Some of the other regimes that were discussed in the Standardisation project team include:

- making the secondary shipper liable for the service provider's losses up to a monetary cap; or
- making the secondary shipper liable for the service provider's direct losses but not liable for losses that might be considered consequential – in particular loss of profits.

In this respect, it is worth noting that in the 2012-17 AA for the Roma Brisbane Pipeline (RBP) that was approved by the AER, there is no exclusion of consequential loss liability

where the shipper supplies off-specification gas. There is also no exclusion of liability under the AA for the Dampier to Bunbury Pipeline (DBP) that was approved by the ERA. In contrast to these AAs, the AA for the Amadeus to Darwin Pipeline, which was approved by the AER in 2016, states that the shipper is not, except in limited circumstances, liable for consequential losses, which exclusion appears to have the effect the shipper is not liable for consequential loss caused by the supply of off-specification gas. [29]

This issue was debated at length by the Standardisation project team. On one side of the debate were service provider representatives who stated that secondary shippers should be liable for all the loss the service provider suffers due to the supply of off-specification gas (except to the extent the service provider acting reasonably could have avoided that loss) because the service provider does not control the quality of gas delivered into the pipeline. On the other side of the debate were shippers, who noted that service providers tend to limit their liability to shippers for consequential losses, so their liability should also be limited to some degree.

Service provider representatives also claimed that shippers can back-to-back any liability that they have to service providers with their gas supplier. However, the GMRG understands that in practice this does not occur because shippers tend to have very little bargaining power in negotiations with gas producers. So shippers generally find themselves caught between service providers who require uncapped indemnities and producers who are willing to take only a limited degree of liability, and certainly no liability beyond direct losses.

Given the differences in views expressed on this issue, the GMRG is seeking other stakeholder views on the liability secondary shippers should have for off-specification gas and the draft off-specification gas liability provisions set out in Attachment 1. Some specific questions on this issue are set out in Box 3.3.

#### *3.3.1.2 Service provider's liability*

The draft standard terms apply the same liability regime to the delivery of off-specification gas by the service provider as to other breaches by the service provider. That is, the service provider's liability will be capped. This is in contrast to the proposed position of the secondary shipper who, as noted above, will be required to provide an uncapped indemnity to the service provider. While the GMRG understands this may be common practice in primary GTAs, concerns were raised by some project team members about the difference in treatment of shipper and service provider liabilities for off-specification gas.

In addition to this limitation, the standard terms only make the service provider liable for off-specification gas it delivers to the extent the service provider accepted the gas into the pipeline or could not, acting as a reasonable and prudent operator, have avoided delivering such off-specification gas. Under this regime, if Shipper A supplies off-specification gas into the pipeline and this causes the service provider to deliver off-specification gas to Shipper B, the service provider is only liable to Shipper B if the service provider could, as a reasonable and prudent operator, avoid delivering the off-specification gas. Shipper B is therefore left to pursue Shipper A directly for any loss it suffers, though whether Shipper B would have a claim, and its nature, is unclear. An

[29] See clause 78 of the Standard Terms, though query its interaction with clause 45.

alternative approach would be to make the service provider liable to Shipper B, so Shipper B can claim against the service provider who could, in turn, claim against Shipper A.

The GMRG is interested in getting stakeholders' views on these two issues and has included some specific questions on these issues in Box 3.3.

### 3.3.2 General liability

Like the off-specification gas provisions, a distinction has been drawn in the standard terms between the secondary shipper's and the service provider's liability. Further detail on their respective liabilities is provided below.

#### *3.3.2.1 Secondary shipper's liability*

Under the current draft standard terms the secondary shipper is required to indemnify the service provider against any liability the service provider incurs to another shipper due to the secondary shipper's breach of contract. The rationale for this position is that the service provider should not be out of pocket because of liability it incurs due to the secondary shipper's breach of contract. Practically the exposure this indemnity creates for shippers may not be substantial given that service providers tend to limit their liability to shippers and often make clear they are not liable to one shipper for the act or omission of a second shipper.

A second indemnity applies where the secondary shipper transports gas for another party. In this case, the secondary shipper indemnifies the service provider against any claims by that other party to the extent this would cause the service provider to incur liability above the monetary limitations in the standard terms. The rationale for this indemnity is that if it is agreed there are to be limitations on the service provider's liability, then these should not be circumvented by claims in negligence against the service provider by a person with whom the service provider does not have a contract but who is benefiting from the services the service provider is providing to the secondary shipper. This indemnity should not pose a material risk for the secondary shipper as before agreeing to transport gas for another party, the secondary shipper can require the other party to agree not to sue the service provider in circumstances which trigger the indemnity.

The draft standard terms state that the secondary shipper is not liable for the service provider's loss of profits or revenue (subject to the terms of the off-specification gas indemnity and provided this limit does not apply where the secondary shipper has engaged in wilful misconduct). The secondary shipper will, however, be liable for other losses and there is no monetary cap on this liability. This is in direct contrast to the draft service provider liability provisions, which impose a monetary cap on the secondary shipper's liability.

The GMRG understands that the general practice under GTAs is for service providers to have more generous limits on their liability than those of shippers. This is often justified by service providers who claim that as infrastructure owners they earn a relatively limited return and should not therefore be exposed to significant liabilities. The GMRG is also aware that unequal liability regimes are not necessarily inconsistent with what is observed

in workably competitive markets.[30] It is important to note, however, that in these other industries, the service recipient usually only has an obligation to pay fees and does not have material obligations under its contract for other liabilities.

The different treatment of shipper and service provider liabilities was discussed at length by the Standardisation project team, but team members were unable to reach a common view. The GMRG is therefore interested in whether stakeholders think the difference in liability regimes is appropriate or if the lack of a monetary cap may act as a barrier to entry to secondary shippers. Some specific questions on this issue are set out in Box 3.3.

#### 3.3.2.2 Service provider's liability

The draft standard terms currently provide for a service provider's liability to be limited by reference to an annual cap on liability. The amount of this cap is to be specified in the standard terms and the GMRG is seeking stakeholders' views on whether there should be such a cap and, if so, at what level it should be set.

It is contemplated that the cap will not apply to liability for repairing or replacing property. In this case a separate per event cap is proposed. The reason for the different cap in this case is that liability for damaging property should be more readily insurable and therefore a higher liability cap in such cases seems appropriate. Also, no cap is proposed for causing personal injury/death again because such liability may be insured against.

The GMRG seeks feedback on whether these exceptions are appropriate, or whether the service provider's liability should be subject to a single cap or no caps at all. In this regard, it is worth noting that under the 2012-17 AA for the RBP that was approved by the AER, the service provider's liability is capped at 10% of contract value. The 2016-20 AA for the DBP, on the other hand, that was approved by the ERA has no monetary limits on liability.

In addition to having a monetary cap on liability the draft standard terms also state that, except in the case of wilful misconduct, the service provider will not be liable for consequential loss suffered by the secondary shipper. This is consistent with the terms of approved AAs and the GMRG's understanding of common practice in workably competitive markets. There is, however, as the Standardisation project team pointed out, no universally accepted definition of the term consequential loss. There was therefore some division amongst the project team about how consequential loss should be defined.

The proposed definition in clause 17.2(f) of the draft standard terms is based on definitions that the GMRG has observed in standard pipeline terms. The current drafting of this clause is set out below:

> *Consequential Loss means:*
>
> *(i) loss of profits or revenue;*

[30] The GMRG is aware of many industries with what would appear to be a workable level of competition where service providers take limited liability – for example road transportation, engineering services and the information technology industry.

*(ii) Shipper's liability to third parties (other than for losses arising from personal injury or death or damage caused to the property of those third parties);*

*(iii) incidental, special, remote or unforeseeable loss or damage;*

*(iv) loss of bargain, opportunity, production, business, contract, goodwill or anticipated savings, loss caused by business interruption or the cost of obtaining new financing or maintaining existing financing;*

*(v) costs or expenses incurred to prevent or reduce loss or damage which otherwise may be incurred or suffered by a third party; or*

*(vi) loss or damage of the nature set out above in paragraphs (iii) to (v) that is incurred or suffered by or to a third party.*

The GMRG understands from its discussions with the project team that while service providers may think this definition is appropriate, shippers may think it is too broad. For example, paragraph (v) of the definition would preclude the secondary shipper from recovering the costs of alternative gas or transportation acquired by the secondary shipper to replace gas the service provider fails to transport. Coupled with paragraph (iv) the exclusions are so broad it is difficult to pinpoint exactly what the service provider would be liable for. It is also worth noting that some of the concepts used in paragraph (iii) of the definition do not have a clear meaning – in particular "incidental loss". It is also unclear what is meant by the use in paragraph (iii) of "remote loss" given that the common law rules for measuring compensable loss would determine what is and is not too remote to be recoverable.

Given the diversity of views, the GMRG is interested in getting stakeholders' views on how the term 'consequential loss' should be defined and has set out some specific questions on this issue in Box 3.3.

### 3.3.3 Credit support requirements[31]

The operational GTA will, as the AEMC noted in its final recommendations, need to contain credit support arrangements to manage the risks to one counterparty when the other counterparty has low credit worthiness, because this risk will no longer be managed through bespoke prudential arrangements.

In developing the draft credit support arrangements, the GMRG has had regard to the following policy considerations, which are consistent with the principles in section 2.3:

- Service providers should be adequately protected (in a manner consistent with a workably competitive market) against the risk of contracting with parties with insufficient financial substance. The risks a service provider is exposed to are that:
  - (a) the secondary shipper fails to pay it any charges that are incurred under the operational GTA (e.g. for imbalance or overruns); or
  - (b) the secondary shipper incurs liability (for example, for supply of off-specification gas) but cannot meet that liability.

[31] Note that in addition to the credit support requirements set out in the operational GTA, users of the capacity trading platform and auction will also be subject to prudential requirements under the Exchange Agreement and Auction Agreement.

It is important to note that secondary shippers do not pay the primary charge which secures the service provider's revenue stream – that is the charges for reservation of capacity. This charge will continue to be paid by the primary shipper. So the risks in (a) are not as substantial as they may be in primary GTAs.

- The presence of shippers that have insufficient credit to back their contractual obligations poses a risk to the service provider and other shippers (for example, if a shipper damages the pipeline but cannot meet the repair cost this poses a risk for all users of the pipeline).
- Credit support is a material cost to new entrants and can act as a barrier to entry.
- The level of credit support required should be proportionate to the risks faced by the service provider and not act as a barrier to secondary trading.
- The credit support arrangements should be transparent and known to enable the secondary shipper to properly evaluate the operational GTA.

Taking into account these matters, the GMRG's preliminary view, reflecting the discussions of the Standardisation project team, is that where a shipper has a credit rating of Standard and Poor's BBB- (or has its obligations guaranteed by an entity with such a rating– e.g. a parent company guarantee) no credit support should be required. The shipper will, however, still be required to meet the insurance requirements set out in clause 21.1. In respect of the form of guarantee it is proposed this be required to be in a form acceptable to service provider acting reasonably. Stakeholders are asked to comment whether they consider this appropriate or whether the standard terms should attach a template form of guarantee or set out certain minimum requirements with which the guarantee must comply (for example set out the circumstances in which the guarantee must be released).

The Standardisation project team considered what credit support should be provided where a shipper does not meet these requirements and how the amount of credit support should be determined. The Standardisation project team identified bank guarantees and cash deposits as potential forms of credit support. In relation to the amount of credit support that should be provided, the Standardisation project team identified the following options:

- The level of credit support would be determined on a case by case basis by service providers (acting reasonably). While this option would enable credit support to be tailored to an individual shipper's circumstances, it would provide shippers with no certainty as to the level of credit support they would be required to provide. The other potential issue with this option is that service providers may be too conservative in determining the level of credit support, which could act as a barrier to entry.
- The level of credit support would be set by reference to the service provider's determination of the charges (imbalance, overrun, hourly overrun) a secondary shipper was likely to incur. Some project team members noted that this would be difficult to apply in practice given the nature of the charges and the difficulty of determining how often they would be incurred.
- The level of credit support would be a fixed amount specified in the standard terms (for example, $1 million). The issue with this option is that the amount may not be appropriate in all circumstances.

- The level of credit support would reflect the value of 60 days of charges payable for the MDQ. For example, if a shipper acquired 10TJ/day of traded capacity for 12 months then their credit support amount would be:

  10,000 * 60 * value of the MDQ on a per GJ basis.

  The value of MDQ would be determined using either the facility's reference tariff (in the case of a full regulation pipeline) or standing price (in the case of all other pipelines) for a firm service. So in the above example if MDQ were $1/GJ then the credit support required would be $600,000. Under this option, it would be up to the shipper to nominate its credit level and would notify the service provider of the maximum value of MDQ it will acquire. The credit support would then be set by reference to this amount. The shipper could change this level from time to time but would be prohibited from acquiring MDQ above the level nominated. So in the above example if the shipper nominated 10TJ/day as its credit support level, it would not be able to acquire more than 10TJ/day through the exchange or auction until it has increased its credit support level. In this example, if the shipper wanted to buy 15TJ/day for 6 months it would need to increase its credit support to $900,000 – at the end of the 6 months (in the absence of a further nomination) its credit support would drop back to $600,000 and its maximum trading entitlement to 10TJ/day.

Of the options listed, the latter option appears to be most consistent with the policy considerations outlined above, with one of the main advantages being that it is simple, transparent and clear. The disadvantage, however, is that because secondary shippers do not actually pay the reservation charges for MDQ, there is a lack of logic in linking their credit support level to the value of MDQ. It may be that the credit support should not be equal to 100% of the value of MDQ but some proportion of it that is equivalent to the proportion of the service provider's revenue that imbalance and overrun charges typically account for (e.g. 10%)

The GMRG is seeking feedback from stakeholders on this proposed credit support mechanism and has set out some specific questions on this issue in Box 3.3.

### 3.3.4 Curtailment

Service providers will usually have the right under a GTA to curtail a shipper for conditions caused by the shipper's breach of contract and for conditions that do not arise due to the fault of the shipper (for example, the need to undertake urgent maintenance). Before curtailing a shipper, however, service providers are usually required to issue the shipper with a curtailment notice.

One matter that was debated amongst the Standardisation project team is how long the secondary shipper should have to comply with such a notice. This is not surprising given there is natural tension between the service provider and the secondary shipper, with service providers wanting to implement curtailments as soon as reasonably practicable, while shippers may need time to take their facilities offline (particularly where the shipper is an end user of gas such as a manufacturing plant or power station).

The current draft of the standard terms provide:

- that where the need for a curtailment was caused by the secondary shipper's breach then the secondary shipper must be allowed at least one hour to comply with a curtailment notice, but the service provider may, acting as a reasonable and prudent operator, reduce this time period where required to preserve the operational integrity of the pipeline or avoid the service provider incurring liability to other shippers; and
- that otherwise the service provider must allow the secondary shipper as much time as the service provider is reasonably able (without adversely affecting the operational integrity of the facility or creating a risk of the service provider incurring liability to other shippers).

While the standard terms do not impose a charge for failure to comply with a curtailment notice, such a charge could be imposed through the facility specific term if doing so reflects the practice under the majority of the primary GTAs for the pipeline.

The GMRG is interested in hearing whether stakeholders think this regime is appropriate or whether, for example, there should be mandated minimum periods before the secondary shipper must comply with a curtailment notice, or other forms of regulation of the service provider's right to curtail. Some specific questions on this issue are set out in Box 3.3.

### 3.3.5 Compression services

In their current form, the draft standard terms and facility specific terms only apply to firm forward haul and park products, so some changes may be required to enable the operational GTA to apply to compression services (see Chapter 7). The GMRG would welcome stakeholders' views on this issue and, in particular, whether:

- the standard terms can be utilised for stand-alone compression services;
- the issues raised by stand-alone compression services are such that a separate set of standard terms should be developed; or
- compression services are so facility specific that each compressor operator should be required to develop its own compression specific terms subject to general guidelines as to how the terms should operate.

The GMRG understands that compression services raise a number of specific issues that may need to be considered in this context, including that:

- capacity may be more variable (than transportation capacity) and depends upon suction pressure of interconnecting pipelines;
- the compression pressure requested by a customer will impact the volume of gas it can supply and/or have delivered.

At the same time, a number of provisions in the standard terms seem readily applicable to any infrastructure service contract including clauses 1.2-1.5, 3, 7.1, 9 and 17-28.

### 3.3.6 Imbalance trading

The standard terms have been drafted to provide for an imbalance trade. The service provider may, if it elects, also offer an in-pipe trade service[32] as an “other” service. The GMRG is seeking feedback from stakeholders as to whether this approach is appropriate, or whether:

- the service provider should have the option of offering either (1) imbalance trading or (2) in-pipe trading; or
- the standard terms should make in-pipe trading the standard position rather than imbalance trades.

The GMRG is also interested in understanding what, if any changes, would need to be made to the standard terms if a decision is made to include in-pipe trading in the standard terms.

### 3.3.7 GMRG’s preliminary view and questions for stakeholders

The GMRG’s preliminary view on the form the standard terms should take and the nature and scope of the requirements for the facility specific terms can be found in Attachment 1. The GMRG welcomes feedback on these terms and requirements and the questions in Box 3.3.

**Box 3.3: Questions on standard terms and facility specific terms**

3. Do you think the standard terms and the proposed scope of the facility specific terms:
    - will achieve the stated objectives of facilitating more secondary capacity trading by making capacity products more fungible and reducing search and transaction costs? If not, please explain why.
    - are fit for purpose and embody the principles set out in section 2.3? If not, please explain why.
4. Do you think the balance between the standard terms and facility specific terms is appropriate, or do you think:
    - a greater level of standardisation is required? If so, please specify which provisions you think should be standardised.
    - a lower level of standardisation is required? If so, please specify which provisions you think should not be standardised.
5. Do you agree with the proposed approach to the secondary shipper’s liability for off-specification gas? If not:
    - Do you think there should be limits on the secondary shipper’s liability for off-specification gas? If so, what do you think the limits should be?
    - Do you think the secondary shipper should be liable for the service provider’s loss of profits caused by the secondary shipper supplying off-specification gas?

[32] More detail on APA’s in-pipe trade service can be found in its standard capacity trading terms: http://capacitytrading.apa.com.au/SGTA%20-%20APA%20Capacity%20Trading%20-%20APA%20web%20site%20version.pdf.

6. Do you agree with the proposed approach to the service provider’s liability for off-specification gas? If not:
   - Do you think the service provider should be liable to other shippers, or should other shippers be required to make a claim against the shipper responsible for delivering off-specification gas into the pipeline?
7. Do you agree with the proposed approach to the secondary shipper’s liability for breach of contract? If not:
   - Do you think the uncapped liability will act as a barrier to entry?
   - Do you think there should be monetary caps, or other forms of limits, on the secondary shipper’s liability? If so what should the caps and limits be?
8. Do you agree with the proposed approach to the service provider’s liability for breach of contract?
   - If so, what level do you think the monetary cap on liability (or other limits) should be set at and do you think the repair or replacement of property should be subject to a different cap?
   - How do you think the term ‘consequential loss’ should be defined?
9. Is it appropriate to have differing liability regimes for the service provider and secondary shipper?
10. Do you agree that if a shipper has a credit rating of BBB- and above it should not be required to provide credit support? If not, please explain why.
11. Do you think the amount of credit support should be a function of the value of the MDQ as outlined in section 3.3.3?
    - If not, please explain why and set out what other option you think should be used to determine the level of credit support.
    - If so, do you think the level of credit support should be based on 100% of the value of the MDQ or a lower percentage given that the secondary shipper won’t actually be paying the service provider for the capacity? If you think a lower percentage should be applied, please state what percentage should be applied and why you think it is appropriate.
12. Is the proposed approach to curtailment timeframes appropriate? Does the regime appropriately balance the interests of shippers and the need to preserve pipeline integrity and ensure that shippers have sufficient time to react to a curtailment?
13. Are the standard terms a suitable foundation for the provision of a stand-alone compression service or will such a service require a more tailored set of terms? What specific provisions do stakeholders consider are required for a workable stand-alone compression service?
14. Do you agree with the way in which imbalance trading and in-pipe trade services have been dealt with in the operational GTA? Or do you think:
    - the service provider should have the option of offering either (1) imbalance trading or (2) in-pipe trading?
    - the standard terms should make in-pipe trading the standard position rather than imbalance trades?

    If you think in-pipe trading should be reflected in the standard terms, what changes would need to be made to the standard terms.

15. Do you think the maintenance provisions are appropriate, or do you think the maintenance information that service providers are required to publish on the BB as part of the medium-term capacity outlook is sufficient?

## 3.4 Application of the standardised operational GTA

### Background

One of the questions that the AEMC suggested the GMRG consider when developing the standardised terms is whether all of the terms would be mandatory, or if shippers and service providers would have the option to negotiate some of the terms and conditions. This issue was discussed with the Standardisation project team and GMRG has identified the following matters arising from those discussions.

- It needs to be clear whether the negotiate/arbitrate framework in Part 23 of the NGR applies to the standardised terms. If it does, the service provider would be required to negotiate within that framework. If it does not, negotiation would be discretionary.
- Secondary shippers seeking an operational GTA on the standardised terms should not be required or expected to negotiate with service providers before the agreement is entered into.
- Negotiations will be needed for other services to be added to the operational GTA. However, it will not be mandatory for other services to be provided under the operational GTA and a different form of agreement could be used for those services.
- There may be value in allowing shippers that have a primary GTA to negotiate to include an operational transfer mechanism in their primary GTA, so that any purchases of secondary capacity could be added to this contract rather than a separate operational GTA.[33]
- Whether the use of non-standard operational GTAs or primary GTAs would affect the efficient operation of the capacity trading platform and day-ahead auction.
- Whether there should be any qualification or exceptions to the obligation to offer a standard form operational GTA.

### GMRG's preliminary view and questions for stakeholders

Taking into account the project team's views and the objectives of the standardisation and capacity trading reform package, the GMRG's preliminary view is that:

- It will be mandatory to offer the standardised operational GTA and service providers should not be allowed to require negotiation of any terms as a condition of offering the agreement.
- There will be some limited qualifications to the obligation to offer a standardised operational GTA. For example, a shipper may need to be a company incorporated in

[33] The main benefits of this option that were cited by these project team members were that it would: allow shippers to access the capacity on the operational, prudential and other contract terms set out in their primary GTA; minimise the number of contracts that secondary shippers and service providers have to manage, although it was noted that primary and secondary capacity would still need to be distinguished in the service provider's system; and limit the number of trading right numbers (TRN) that shippers using the Short Term Trading Market (STTM) have to manage.

Australia acting as principal. Financial competence will be dealt with through requirements to provide credit support but the GMRG's current view is that a technical competence qualification would not be appropriate or needed.

- The standard terms under the standardised operational GTA should be excluded from the negotiation and arbitration framework in Part 23 of the NGR, so shippers will not be able to request negotiation of the terms under Part 23 or submit an access dispute about those terms to arbitration.
- It should not be mandatory to offer Other Services on the terms of the operational GTA. Accordingly, negotiation about these services will be subject to the Part 23 negotiation and arbitration framework.
- The NGL/NGR should not prohibit service providers and shippers from agreeing arrangements for operational transfers or other services on terms negotiated between them. This will give service providers and shippers the discretion to, for example, include secondary capacity in their primary GTA. It would be for the parties to consider the risks and benefits in doing so.
- The capacity trading platform and auction should be designed, operated and developed on the assumption that standard form operational GTAs are used to deliver all trades. Individual requirements arising out of negotiated operational GTAs or the use of primary GTAs will be for the shipper and the service provider to manage. The capacity trading platform and auction will not seek to accommodate individual preferences beyond allowing service providers and shippers to nominate a contract against which trades are booked to be standard or non-standard. AEMO will not be required to look into the specific terms and conditions of the contract being used.

The GMRG is interested in obtaining further feedback on this approach and on the questions set out in Box 3.3.

**Box 3.4: Questions on the application of the standardised operational GTA**

16. What if any exceptions or qualifications should apply to the obligation for service providers that provide third party access to offer the standardised operational GTA?
17. Do you think the secondary shipper and service provider should be able to negotiate terms for operational transfers that are different to those in the standardised operational GTA, or do you think the terms should be compulsory for all operational transfers?
18. Do you think the secondary shipper should have the option to request the inclusion of any secondary capacity in its primary GTA, or do you have concerns with this option (e.g. do you think it will affect the nature of the product being sold)? If you think the option is reasonable, do you think it should be left to the service provider to decide whether to approve such a request?

## 3.5 Governance arrangements for the operational GTA

As noted in section 3.1, the AEMC recommended that the GMRG consider whether:

- any changes to the functions and powers of the AEMC, AER or AEMO and/or the NGL, the NGR or subordinate instruments, would be required to give effect to any of the standardisation related reforms; and

- any other governance arrangements would be required to enable standards to be amended over time.

The GMRG has worked with the Standardisation project team and JWS on these issues and is of the view that the governance arrangements for the standardised operational GTA will need to include: [34]

- arrangements for the development, publication and amendment of both elements of the standardised operational GTA (the standard terms and the requirements for the facility specific terms) the GMRG's preliminary view is that these would be published together as an "**Operational GTA Code**");
- provisions under which service providers publish an operational GTA (incorporating the standard terms in the Operational GTA Code and facility specific terms covering the matters listed in the requirements for facility specific terms in the Operational GTA Code and consistent with the NGR principles) and are required to offer to enter into the standardised operational GTA on request by a secondary shipper;
- high level principles in the NGR that service providers must comply with when determining their facility specific terms; and
- arrangements under which service providers and AEMO (as operator of the capacity trading platform and the day-ahead auction platform) exchange information relating to capacity trading platform trades and the day-ahead auction.

These issues are discussed in further detail below.

The governance framework for the capacity trading reform package as a whole will also need to cover governance of the capacity trading platform and day-ahead auction. Box 3.5 sets out an indicative governance framework for those two platforms.

[34] Governance arrangements for zones are discussed in section 4.2.3.

**Box 3.5: Indicative governance framework for capacity trading platform and auction**

**Capacity trading platform**

The capacity trading platform will be established as part of the gas trading exchange and so will fall under the existing governance framework, which operates as follows:

- The NGL defines AEMO's gas trading exchange functions (at section 91BRK) to include establishing and administering one or more gas trading exchanges and making and administering a gas trading Exchange Agreement for the purposes of the exchange. AEMO's gas trading exchange functions and the operation of the gas trading exchange are included as subjects for the NGR (section 74(1)(aaa)).
- Part 22 of the NGR contains rules applicable to the gas trading exchange. Matters covered in Part 22 include high level design parameters for the exchange, arrangements for the determination of charges for delivery failures, arrangements for becoming a member and AEMO's power to suspend a member, the subject matter for the Exchange Agreement and the market conduct rules. Part 22 can be amended by the AEMC through the usual rule change process. The AER monitors compliance and can investigate and enforce breaches under it general powers. It has a specific duty in Part 22 to monitor compliance with the market conduct rules.
- The Exchange Agreement made by AEMO as required by the NGR is a multilateral contract. It covers admission to the exchange, prudential requirements, operation of the exchange, product definition, delivery obligations and settlement. Some provisions (such as the settlement calculations) are set out in subsidiary documents. The Exchange Agreement can be amended by AEMO, following a procedure in the agreement. It is enforceable as a contract.

The introduction of capacity trading and the day-ahead auction will require AEMO and service providers to exchange information about capacity in accordance with a market timetable. It is proposed that these arrangements would be in new capacity transfer procedures made by AEMO.

**Day-ahead auction**

The governance arrangements for the day-ahead auction are being developed and will be the subject of a separate consultation. The GMRG's preliminary view is that they will include the following arrangements.

- The obligation of service providers to make capacity available to the day-ahead auction. This may include obligations in the NGL for service providers to register with AEMO (or be exempted by the AER), comply with the provisions in the NGR applicable to day-ahead auctions and comply with procedures to be made by AEMO under the NGL dealing with information exchange and timing.
- New functions and powers in the NGL for AEMO to administer the day-ahead auction, operate the day-ahead auction, make capacity transfer procedures dealing with information exchange and timing and make and administer an Auction Agreement (or procedures) governing participation in auctions and the auction process.
- The AER would be responsible for monitoring compliance, investigation of breaches and enforcement of the NGL, NGR and procedures.

### 3.5.1 Development, publication and amendment of Operational GTA Code

The first question that must be considered is whether the Operational GTA Code should be included in the NGR or should be a separate instrument. If it is a separate instrument, consideration will also need to be given to who should be responsible for publishing and amending the instrument over time and the change process that will apply.

In assessing these options, the GMRG has considered the following factors:

- **Alignment with other roles**: Determining the terms and conditions of an operational GTA through the Operational GTA Code would be a new role for the AEMC or any panel established by it and also for AEMO. The AER already has a role in approving the terms and conditions of access in AAs for full regulation pipelines. AEMO will run the capacity trading platform and day-ahead auction. The AEMC is responsible for market development through the NGR rule change process, which will include any provisions in the NGR applicable to the Operational GTA Code, the capacity trading platform and the day-ahead auction.
- **Allocation of roles**: The NGL and NGR framework separate the roles of the rule maker and market developer (AEMC), the regulator (AER) and market operator (AEMO) in order to, among other things, avoid potential conflicts of interest that might arise when roles are combined in one entity. Responsibility for amendments can be further allocated among a process administrator, the body responsible for recommending changes and the body responsible for approving changes. Table 3.2 sets out examples of the options that could be employed when these roles are allocated among different entities.
- **Nature of the instrument**: Operational GTAs complying with the Operational GTA Code and principles in the NGR will be mandatory for service providers to offer but optional for shippers to request (although it is assumed that shippers will generally seek to trade using these terms, since the day-ahead auction and the capacity trading platform will assume these terms apply to all trades).
- **Interaction with other mechanisms**: Changes to the Operational GTA Code may impact on the capacity trading platform and the day-ahead auction and conversely changes to those platforms may require changes to the standard terms instrument.
- **How the initial Operational GTA Code will be made**: There are a number of options for how the initial Operational GTA Code could be made, including requiring the market body that is responsible for approving changes to do so, or having the SA Minister make the initial Code in a similar manner to the way in which initial Rules under the NGL can be made for specified purposes.

**Table 3.2: Governance options for the Operational GTA Code**

| Option | Overview |
|---|---|
| AEMC | The initial Operational GTA Code would be made when the initial Rules are made and would be published by the AEMC.<br>The Operational GTA Code would be amended by the AEMC following the usual rule change process, as if the instrument formed part of the rules. |
| AEMC panel | The initial Operational GTA Code would be made when the initial rules are made and would be published by the AEMC.<br>The AEMC would be responsible for establishing a panel of experts to determine and recommend changes to the standard terms instrument. Change requests would be submitted to the panel via the AEMC. The panel would be required to consult on changes.<br>The AEMC would amend the Operational GTA Code on the recommendation of the panel, having regard to the NGO. |
| AEMO | The initial Operational GTA Code would be made when the initial rules are made and would be published by AEMO.<br>The Operational GTA Code would be subject to a change process aligned with the change process followed by AEMO for the Short Term Trading Market (STTM) / Declared Wholesale Gas Market (DWGM) procedures, which requires consideration to be given to the NGO. |
| AEMO panel | The initial Operational GTA Code would be made when the initial rules are made and would be published by AEMO.<br>AEMO would be responsible for establishing an industry representative panel to consider and recommend changes to the standard terms instrument. The panel would be modelled on the Settlement Residue Auction (SRA) panel under the National Electricity Rules (NER). AEMO would provide secretariat services to the panel and change requests would be submitted to the panel via AEMO.<br>AEMO could amend the Operational GTA Code on the recommendation of the panel but would not be required to do so. |
| AER | The initial Operational GTA Code would be made when the initial rules are made and would be published by the AER.<br>The instrument would be subject to change by the AER following public consultation. |
| AER panel | The initial Operational GTA Code would be made when the initial rules are made and would be published by the AER.<br>The AER would be responsible for establishing an industry panel to determine and recommend changes to the standard terms instrument. The panel would be modelled on the SRA panel under the NER. The AER could also undertake public consultation on behalf of the panel. The AER would provide secretariat services and change requests would be submitted to the panel via the AER.<br>The AER would amend the Operational GTA Code taking into account any recommendation of the panel. |
| AEMO panel/AER oversight hybrid model | The initial Operational GTA Code would be made when the initial rules are made and published by the AER.<br>AEMO would be responsible for establishing a formal panel to consider and recommend changes to the standard terms instrument. The panel would consist of industry representatives across the gas supply chain and be modelled on the SRA panel under the NER. AEMO would provide secretariat services to the panel and change requests would be submitted to the panel via AEMO. AEMO could undertake public consultation on behalf of the panel.<br>Changes recommended by the panel after being considered through the panel process would only take effect if approved by the AER. In deciding whether to approve the change, the AER would take into account any recommendation of the panel (but would not be bound by it). |

#### 3.5.1.1 Form of instrument

Having considered the principles outlined in section 2.4 and the feedback provided by the Standardisation project team, the GMRG's preliminary view is that the Operational GTA Code should be published as a separate instrument and not form part of the NGR. The principles governing facility specific terms as outlined in section 3.5.3 of this consultation paper should be in the NGR.

The way in which this Operational GTA Code would interact with other instruments is set out in Table 3.3.

**Table 3.3: Interaction of instruments**

| Instrument | Role |
|---|---|
| NGL | Would contain high level legal framework for standardised terms. |
| NGR | Would contain the detailed obligations to develop and offer standard terms, the principles for developing the facility specific terms and would define the mechanism for publishing and amending the Operational GTA Code.<br>The AER would have its usual enforcement role and would also be responsible for issuing any exemptions under the NGR. |
| Operational GTA instrument<br>(**Operational GTA Code**) | The instrument containing the standard terms and the requirements for the facility specific terms and the form of agreement allowing these to be incorporated in a binding contract. Provisionally called the "Operational GTA Code".<br>Does not form part of the NGR. |
| Service provider's standard offer for an operational GTA for each of its facilities | Published by the service provider on its website, incorporating the standard terms and facility specific terms developed by the service provider applying the principles in the NGR and the requirements for facility specific terms in the Operational GTA Code. |
| Operational GTA | Refers to the contractually binding agreement between a service provider and a secondary shipper formed when the shipper accepts the service provider's standard offer for an operational GTA. |
| Capacity transfer procedures | Procedures to be made and amended by AEMO, with compliance mandated by the NGL. Would deal with information exchange for trades on the exchange and day-ahead auctions. |

#### 3.5.1.2 Publication and amendment

The GMRG's preliminary view is that the initial Operational GTA Code should be made at the same time the initial Rules are made by the SA Minister. This can be dealt with in a transitional rule that specifies who makes the initial Code and when it must be made and requires the initial Code to be in the form determined by the SA Minister and agreed by the participating jurisdictions.

The GMRG's preliminary view is that after the initial Operational GTA Code is made, a hybrid governance model should be adopted under which:

- The AER would publish the Operational GTA Code.

- AEMO would establish an industry representative panel that would be responsible for considering and recommending changes to the Operational GTA Code.
- AEMO would provide secretariat services to this panel, including running consultation processes and requesting any specific input or analysis required from the AEMC.
- After the consultation process, the panel would recommend to the AER that a change be accepted, rejected or accepted in modified form.
- Changes recommended by the panel would only take effect if approved by the AER. In deciding whether to approve, the AER would take into account any recommendation of the panel (but would not be bound by it). The AER could also remit a matter to the panel for further consideration.

The main benefits of this hybrid model are that it will draw on industry expertise and provide independent oversight of changes through the involvement of the AER. In the GMRG's view, independent oversight is required given the mandatory nature of the Operational GTA Code. The GMRG's preliminary view is that the AER should provide that oversight because:

- it is consistent with the AER's current role in relation to approving the terms and conditions of access to covered pipelines;
- AEMO may not be regarded as sufficiently independent to provide that oversight since it is also the operator of the capacity trading platform and day-ahead auction; and
- this role may be perceived as a conflict of interest for the AEMC if it can also amend the principles that will be specified in the NGR (i.e. it would be both rule maker and regulator).

The other benefit of this model is that AEMO will be involved in the process and be able to coordinate the change process for the Operational GTA Code in parallel with any related changes to the capacity trading platform, day-ahead auction rules and related procedures.

The hybrid model provides for an industry panel to be formed to make recommendations. The NGR and NER contain different models for panels including formally constituted panels, such as the SRA panel, and informal arrangements such as those currently used for development of the Exchange. Other models suggested to the GMRG include the arrangements for amendments to the B2B Procedures under the NER.

The GMRG's preliminary view is that a formal industry panel should be established and the requirement to establish the panel and its membership should be specified in the NGR. As with other panels, the AER and the AEMC could be observers, if they considered it appropriate to do so. It would also be open to the panel or the AER to seek advice from the AEMC about any market development related issues if they considered it relevant to do so.

#### *3.5.1.3 Principles governing amendments*

Whichever change process is chosen, the NGR will need to specify the principles to be applied in making changes to the Operational GTA Code. The GMRG's preliminary view is that these would be based on the principles in section 2.3 and so would encompass

consideration of the NGO, the Vision, the objectives of the capacity trading reforms and the extent to which proposed amendments:

- promote access to secondary capacity on reasonable terms;
- reflect the legitimate business interests of service providers and other parties that have rights to use the transportation services;
- are operationally feasible and recognise the operational and technical requirements necessary for the safe and reliable operation of pipelines;
- facilitate the efficient operation and use of the capacity trading platform and day-ahead auction; and
- more generally promote efficient investment in, and efficient operation and use of, natural gas services.

#### *3.5.1.4 How changes take effect*

Three types of change need to be considered:[35]

- changes to the standard terms in the Operational GTA Code;
- changes to the requirements for facility specific terms in the Operational GTA Code, which would in turn require service providers to amend their facility specific terms; and
- changes to the facility specific terms required by the relevant service provider, for example, to reflect new operational arrangements on a pipeline.

In relation to the first of these, the GMRG's preliminary view is that once made, changes to the standard terms in the Operational GTA Code would automatically apply both to Operational GTAs already in place and new Operational GTAs, subject to any transitional arrangements put in place at the time the changes are made.

Where changes are made to the requirements for facility specific terms in the Operational GTA Code, the NGR would require service providers to be given a reasonable period to amend their facility specific terms. Once amended, the changes would automatically apply both to Operational GTAs already in place and new Operational GTAs, subject to any transitional arrangements.

The service provider would be permitted to amend its facility specific terms at any time (i.e. without a change to the Operational GTA Code) but this would be subject to the requirements for facility specific terms, the principles in the NGR governing the facility specific terms (see section 3.5.3) and reasonable transitional arrangements. The service provider would be permitted to apply those changes both to operational GTAs already in place and new operational GTAs.

#### *3.5.1.5 Questions for stakeholders*

The GMRG is interested in hearing stakeholders' views on the proposed governance arrangements for the Operational GTA Code and the questions set out in the box below.

[35] Changes to the principles in the NGR would be subject to the usual NGR change process managed by the AEMC.

**Box 3.6: Questions on the governance of Operational GTA Code**

19. Do you agree with GMRG's preliminary view on the governance model? If not, what model do you think should be used and why?
20. What principles do you think should be included in the NGR to guide any future amendments to the Operational GTA Code?
21. Do you think the AEMC should have a formal role in the change process, for example, to provide advice to the panel and/or the AER on the effect the proposed change may have on the broader market or gas market development more generally?
22. Do you agree with the way in which changes to the Operational GTA Code and the facility specific terms would take effect? If not, please explain why.

### 3.5.2 Obligation to publish and offer a standard operational GTA

As outlined in section 3.4, the GMRG's preliminary view is that:

- It should be mandatory to offer the standardised operational GTA (subject to the counterparty being a qualifying entity and any exemptions).
- The standard services under the standardised operational GTA should be excluded from the negotiation and arbitration framework in Part 23 of the NGR.
- It should not be mandatory to offer other services on the terms of the operational GTA.
- The NGL/NGR should not prohibit service providers and shippers from agreeing arrangements for operational transfers or other services on terms negotiated between them.
- The capacity trading platform and day-ahead auction should be designed, operated and developed on the assumption that standard form operational GTAs are used to deliver all trades.

To give effect to these arrangements, changes would need to be made to the NGL[36] and the NGR, to:

- require service providers that provide third party access to publish a standard form operational GTA on their website incorporating the standard terms and facility specific terms for each facility that comply with the high level principles in the NGR; and
- require service providers to offer to enter into a standard operational GTA on request by a shipper, for one or more facilities as selected by the shipper.[37]

If an operational GTA is entered into, the rights and obligations between the parties would be governed by usual principles of contract law and the operational GTA would be enforceable as a contract.

It is envisaged that under this proposed framework, the obligation to publish a standard form operational GTA on the service provider's website, to comply with the high level

[36] Changes to the NGL would be required to include the necessary definitions and extend the AEMC's rule making power to the new arrangements.

[37] The standard terms in the operational GTA are likely to state that services will not start until conditions are met, such as the provision of credit support.

principles in the NGR when making facility specific terms and to offer to enter into a standard operational GTA would be classified as civil penalty provisions in the regulations made under the NGL. Consistent with the role it plays in other markets, it is also envisaged that the AER would:

- be responsible for monitoring the service provider's compliance with the obligation to publish the standard operational GTA and that the facility specific terms are consistent with the Operational GTA Code and the principles applicable to the facility specific terms in the NGR; and
- have the power to exempt a pipeline (or other facility) from the regime because, for example, the pipeline (or other facility) does not offer third party access.

These functions and powers would also need to be reflected in the NGL and NGR.

The GMRG is interested in obtaining other stakeholders' views on this issue and the questions in the box below.

**Box 3.7: Questions on service provider obligations**

23. Do you agree that the obligation of service providers to publish and offer to enter into the standardised operational GTA should be classified as civil penalty provisions?
24. Do you think exemptions from the obligation to publish and offer to enter into the standardised operational GTA should be available if the asset in question is not providing third party access? If not, please explain why. Are there any other exemptions that you think should be available to service providers?
25. Do you think the AER should be able to monitor the compliance of a service provider's facility specific terms with the requirements in the Operational GTA Code and the principles in the NGR (for example, the imbalance provisions or the charges)? If not, please explain why.

### 3.5.3 Principles governing facility specific terms

The GMRG proposes that, while service providers will have some discretion in relation to the facility specific terms, they will need to comply with a number of principles that will be set out in the NGR and subject to AER oversight as regulator. Principles are required in the NGR because:

- service providers' interests in facilitating secondary capacity trades may not be closely aligned with the interests of shippers that want to trade capacity; and
- service providers will face no competition for the provision of operational transfer services.

The GMRG's preliminary view is that the principles should encompass:

- An overriding requirement that the facility specific terms adopted by the service provider be reasonable. This is to be assessed having regard to the terms that would be negotiated in a workably competitive market.
- A requirement that, where applicable, facility specific terms, must be consistent with the terms of an Access Arrangement (AA) for the pipeline or an AA for another transmission pipeline equivalent in nature to the pipeline and not impose obligations,

requirements or other limitations on the secondary shipper's rights that are more restrictive than those in the AA. The logic for this principle is that AAs have been reviewed by an independent regulator, the AER or the Economic Regulation Authority (ERA) in Western Australia.

- Provision for the reasonableness of a facility specific term to be assessed by reference to the terms on which the services are available to other primary and secondary shippers and industry practice. This would be qualified where pipelines have foundation shipper[38] contracts containing provisions that no longer represent current contracting practice on the pipeline.
- A requirement that, except where expressly permitted by the standard terms or where required to comply with a law or undertaking given to the Crown or a regulator, facility specific terms may not vary the standard terms.

**Box 3.8: Questions on principles governing facility specific principles**

26. Do you agree with the proposed principles for the facility specific terms, or do you think some modifications to these principles are required?
    - o Do you think AAs are an appropriate reference point for determining whether facility specific terms are reasonable, or do you think previous AA decisions may have resulted in terms that are not reasonable? In answering this question please provide examples of terms that have been approved by a regulator that you do not consider reasonable.
    - o To what extent do you think the terms in primary GTAs are an appropriate reference point for determining whether the facility specific terms are reasonable?
    - o To what extent do you think the terms in existing secondary shipper gas transportation agreements (whether in an operational GTA or incorporated in a primary GTA) are an appropriate reference point for determining whether the facility specific terms are reasonable?

### 3.5.4 Capacity transfer procedures

A key purpose of the standardisation process is to support the operation of the capacity trading platform and the day-ahead auction. For this to be effective, AEMO, as operator of those markets, will need to exchange information with service providers.

The GMRG's preliminary view on this issue is that AEMO should have the power to make and amend procedures that specify the form and timing of information to be exchanged for these two mechanisms (**capacity transfer procedures**) if it is satisfied the procedures are:

- consistent with the NGL and the NGR; and
- appropriate having regard to the NGO and any compliance costs that are likely to be incurred by market participants.

[38] Foundation shippers are those who funded the construction of a pipeline (or part thereof) either by direct contributions or by signing up as the original shippers to the pipeline. In consideration of this contribution and the risk they take, foundation shippers are often granted special rights and the GMRG's view is that these special rights should not be taken into account in determining what is common practice on a pipeline, at least where these rights are inconsistent with such practice.

Like other AEMO-made procedures, the NGL would require compliance with the capacity transfer procedures and allow the AER to take enforcement action in the event of non-compliance.

The GMRG considered whether the obligation to exchange information with AEMO and the obligation to comply with AEMO's timetable could be treated as contractual matters rather than dealt with as procedures. However, in the GMRG's view this is unlikely to be workable in practice and will provide an insufficient incentive for service providers to comply.

**Box 3.9: Questions on capacity transfer procedures**

27. Do you think AEMO should have the power to make capacity transfer procedures? If not, please explain why.
28. Is any guidance required in the NGR on the matters AEMO should consider when developing these procedures?

## 3.6 Cost recovery for provision of operational transfer services

### Background

The use of operational transfers and the broader capacity trading reform package will impose a number of incremental costs on service providers. Service providers will, for example, incur the following types of costs:

(1) **establishment costs –** this category of costs include the incremental costs that service providers will incur entering into operational GTAs with secondary shippers that want to use the capacity trading platform and/or day-ahead auction and setting the secondary shippers up in their systems;

(2) **capacity trading costs** – this category of costs includes the incremental:

  a. system and communication costs that service providers incur:

    - receiving information from AEMO about any trades conducted through the platform and providing AEMO with any confirmations it may require; and
    - automating their systems to deal with the information that needs to be provided to and received from AEMO; and

  b. trading related costs that service providers incur:

    - adjusting primary and secondary shippers' operational MDQ when trades occur; and
    - managing the secondary shipper's nominations, allocations and billing for overrun and imbalance charges;

(3) **day-ahead auction costs** – this category of costs includes the incremental:

  a operational, system and communication costs that service providers incur:

    - calculating the auction quantity and running additional schedules to deal with the later nominations from auction winners;

- o providing information to AEMO on the auction quantity and receiving information on the auction winners; and
- o automating their systems to deal with the information that needs to be provided to and received from AEMO; and

b auction related costs that service providers incur:

- o adjusting secondary shippers' operational MDQ when they purchase capacity through the auction; and
- o managing secondary shippers' nominations, allocations and billing for overrun and imbalance charges.

The GMRG understands that AEMO intends to use either the Natural Gas Services Bulletin Board (BB) or Short Term Trading Market (STTM) communications systems to relay information to service providers. These costs are not therefore expected to be significant. The establishment costs are also expected to be relatively low given there will be a standard operational GTA in place.

With the exception of the day-ahead auction costs listed in (3), which the AEMC thought service providers should recover from the auction proceeds, the AEMC did not specify:

- who should bear the establishment and capacity trading costs listed in (1) and (2);
- the cost recovery mechanism that should be used by service providers; or
- whether there should be any oversight of the costs recovered by service providers.

The options that the Standardisation project team considered and the views that they expressed on each option are summarised in Table 3.4.

**Table 3.4: Cost recovery options**

| Options considered | Summary of project team's view |
|---|---|
| **Who should bear the establishment and capacity trading platform costs?** | |
| The list of potential candidates that could be required to fund the establishment and capacity trading costs listed in (1) and (2) includes:<br>(a) secondary shippers only;<br>(b) secondary shippers and primary shippers that sell their capacity;<br>(c) secondary shippers and all primary shippers; or<br>(d) secondary shippers, all primary shippers and the service provider. | Of the four options, the Standardisation project team were indifferent between options (a) and (b), although it was noted by some team members that option (a) may be easier to implement (i.e. because changes to primary GTAs would not be required) and it may reduce the perceived impediments to primary shippers selling capacity. It was also noted in this context that even if the costs were recovered from primary shippers, they were likely to be reflected in the price charged by the primary shipper for secondary capacity, so the secondary shipper would still be liable for the costs. |

| Options considered | Summary of project team's view |
|---|---|
| **How should costs be recovered?** | |
| If a decision is made that shippers should fund the establishment and capacity trading costs listed in (1) and (2), then there are a number of different ways these costs could be recovered, including:<br>(i) recovering the costs through a fixed monthly administrative charge;<br>(ii) recovering the costs through a per transaction or per GJ of capacity basis; or<br>(iii) a combination of (i) and (ii) (e.g. establishment costs recovered through an administrative fee and trading costs through a $ per GJ charge). | Project team members were of the view that option (i) or option (iii) could be used, although it was noted that option (iii) may be more appropriate given the nature of the costs. |
| **Should there be any oversight of the costs recovered by service providers?** | |
| The options in this case include:<br>(1) providing service providers complete discretion;<br>(2) including a principle in the facility specific principles that requires these types of charges to reflect the cost of providing the service (including a commercial rate of return) and allowing the AER to review the charges in the same way it can review a service provider's compliance with other facility specific principles; or<br>(3) requiring the AER to conduct an ex-ante review of the charges to ensure they are prudent and efficient. | Project team members were of the view that if there was to be some level of oversight, then option (2) would be preferable to the other options and cost less to implement than option (3). |

### GMRG's preliminary view and questions for stakeholders

The GMRG's preliminary view on cost recovery is that service providers should have the opportunity to recover the incremental costs listed in (1) and (2) from secondary shippers through a combination of a monthly administrative and per GJ charge, subject to the caveat that the charges are cost reflective and, so far as practical, reflect the outcomes of a workably competitive market.

The pricing principle that would be employed in this context is similar to what has been adopted in Part 23 of the NGR, which in the GMRG's view is appropriate given that service providers will not face any competition for the provision of operational transfer services and may not have an incentive to minimise costs or encourage secondary trade. The GMRG does not, however, think it is necessary to require the AER to conduct an *ex-ante* review of the charges levied by service providers because the benefits of doing so are unlikely to outweigh the cost. Having said that, the GMRG does think there would be value in allowing the AER to conduct a compliance review of a service provider's charges if it has concerns about the level of these charges (or if genuine concerns are raised by an interested party), because the threat of such a review may impose additional discipline on service providers. This approach is, as outlined above, akin to the compliance monitoring approach the GMRG is proposing to use for other facility specific terms and is not intended to require the AER to approve the charges.

While the GMRG has formed a preliminary view on this issue, it is interested in hearing from other stakeholders on the cost recovery issues outlined above and has set out a number of specific questions that it would like to obtain further feedback on.

**Box 3.10: Questions on cost recovery**

29. Do you agree that service providers should be able to recover the incremental establishment and capacity trading costs from shippers?
    - o If not, please explain why.
    - o If so, do you think:
        - the costs should be recovered from secondary shippers and primary shippers that sell their capacity, or do you think they should only be recovered from:
            - (i) secondary shippers?
            - (ii) primary shippers?
            - (iii) secondary shippers and all primary shippers?
        - the costs should be recovered using a combination of a monthly administrative fee and a per trade (or per GJ) fee, or another mechanism?
30. Do you think the costs that service providers seek to recover from shippers should be subject to the same pricing principle that applies under Part 23 of the NGR, or do you think a more stringent pricing principle should be applied (e.g. the prudent service provider acting efficiently test in Part 9 of the NGR)?
31. Do you think the AER should be able to review the costs that service providers seek to recover?
    - o If not, please explain why.
    - o If so, do you think the proposal that the AER could initiate its own review if it was concerned about the level of charges (or if another interested party raised concerns) would work, or do you think another approach would be more effective?

# 4. Receipt and Delivery Point Flexibility

To maximise the pool of prospective buyers and sellers of secondary capacity and facilitate a greater level of trade, the AEMC recommended that shippers be accorded greater receipt and delivery point flexibility.[39]

This recommendation, which was classified by the AEMC as a preferred outcome, has been considered in some detail by the Standardisation project team. In doing so, the project team considered:

- the merits of introducing a zonal model for trades conducted through the exchange component of the capacity trading platform; and
- whether improvements could be made to the process service providers employ when considering whether to approve a shipper's request to change a receipt or delivery point.

Further detail on the position the Standardisation project team reached on these two issues and the GMRG's preliminary views is provided in the remainder of this chapter, which commences with an overview of the AEMC's recommendations.

## 4.1 AEMC recommendations

During the AEMC's *East Coast Review*, a number of stakeholders noted that the ability of primary capacity holders to trade capacity may be limited by restrictions on changes to receipt and delivery points. Elaborating on this further, the AEMC noted that:[40]

> *"Capacity rights on contract carriage pipelines tend to be defined on a point-to-point basis by reference to specific receipt and delivery points that primary capacity holders have firm access rights to. While most GTAs allow primary capacity holders to change their receipt and delivery points, they are usually required to obtain the pipeline operator's consent before doing so. This consent can usually be withheld for commercial or technical reasons. Some GTAs may also limit the number of changes that can be requested in a year, or otherwise limit the changes that can be made.*
>
> *Non-technical restrictions on changes to receipt and delivery points can impede secondary capacity trade because they limit the pool of potential sellers of secondary capacity."*

To overcome these impediments, the AEMC suggested that shippers be accorded greater flexibility to change their receipt and delivery points. In doing so, the AEMC noted that the following measures were likely to best achieve this objective:[41]

- developing zones that cover multiple receipt and delivery points and allowing changes to occur relatively easily within these zones and putting in place rules that clearly define how changes across zones will be dealt with;
- only allowing pipeline operators to reject changes to receipt and delivery points on technical and operational (e.g. if the transfer would affect delivery to another shipper with firm rights) grounds, as opposed to commercial grounds; and

[39] AEMC, Stage 2 Final Report: East Coast Review, 23 May 2016, pp. 91-92.

[40] ibid.

[41] ibid.

- requiring pipeline operators to respond to a request to change a receipt or delivery point within a specified time.

The AEMC acknowledged, however, that there may be other measures that could achieve a similar outcome more efficiently and noted that the GMRG should not limit its consideration to the above measures.

## 4.2 Zonal model

Transportation services on contract carriage transmission pipelines have traditionally been sold on a point-to-point basis between the receipt and delivery points specified in the shipper's GTA. While the point-to-point model works relatively well for primary sales of capacity, it may act as an impediment to secondary trade by limiting the number of buyers and sellers that can trade with each other (i.e. because few shippers are likely to have exactly the same receipt and delivery point requirements).[42]

To address this limitation with the point-to-point model, the Standardisation project team recommended that the zonal model be used for secondary capacity trades carried out through the exchange. In simple terms, the zonal model would involve the development of receipt and delivery point zones on each pipeline and the introduction of secondary firm rights at receipt and delivery points. This would entitle:

- primary shippers to sell their point-to-point capacity on a zone-to-zone basis; and
- secondary shippers to acquire capacity on a zone-to-zone basis and to have secondary firm rights at all the receipt and delivery points within each zone.[43]

Like the project team, the GMRG thinks there would be merit in using the zonal model for trades carried out through the exchange because it will enable more shippers to trade capacity and foster the development of a more liquid secondary capacity market, which will promote the NGO and the Council's Vision.

Further detail on the zonal model, the secondary firm rights concept and the governance arrangements that would be required to give effect to the zonal model is provided below.

### 4.2.1 Receipt and delivery point zones

To implement the zonal model, receipt and delivery point zones will need to be established on each of the pipelines that will be listed on the exchange. Some preliminary work carried out by APA, Epic, Jemena and SEAGas on receipt and delivery point zones suggests that the establishment of these zones is technically feasible, but the way in which zones are defined on each pipeline may differ as a result of differences in:

[42] The GMRG understands from the work carried out by the AEMC on this issue that the point-to-point nature of capacity rights may be more of an issue for industrial customers and gas fired generators because they have traditionally only sought to have gas transported from a receipt point to their facilities. Larger retailers, on the other hand, tend to enter into contracts that provide for the use of multiple delivery and receipt points. That said, larger retailers may be limited in their ability to add further delivery (or receipt) points to accommodate a capacity trade if they haven't already specified those points in their GTA. They may also be constrained in their ability to transfer the capacity that they have reserved for a particular delivery (receipt) point to another delivery (receipt) point even if the delivery (receipt) point they want to transfer the capacity to is already specified in their GTA.

[43] Prior to using a multi-user receipt or delivery point within a zone, the secondary shipper will need to become a party to the relevant allocation agreement and any other arrangements that may be in place at the point they wish to use.

- the capacity, pressure requirements, bi-directional capability, number and location of receipt and delivery points and other operating conditions across pipelines; and
- legacy commercial arrangements and customer requirements at particular points (for example, hourly flexibility or gas specification requirements).

Table 4.1 sets out the zonal definitions for the major transmission pipelines in the east coast that emerged from some preliminary analysis carried out by APA, Epic, Jemena and SEAGas, which was provided on a without prejudice basis. It is important to note that the zones appearing in this table are indicative only at this stage and that refinements may be required prior to the implementation of the zonal model. The GMRG is nevertheless interested in hearing stakeholders' views on the zones set out in this table and, in particular, whether stakeholders think the zones will maximise the pool of prospective buyers and sellers, while also:

- ensuring that capacity can be transferred between points within the zone on a one-for-one basis if there is physical capacity at the relevant point; and
- minimising the risk that secondary shippers will not be able to access capacity at a receipt or delivery point within the zone.

The GMRG is also interested in whether stakeholders think that:

- pipelines that are connected to another pipeline should be required to define a transit point delivery zone (i.e. a zone that just consists of the delivery points that enable gas to be transported into the next pipeline) to minimise the risk that gas cannot be transported between the two pipelines?[44] or
- pipelines connected to an STTM should be required to define an STTM delivery zone (i.e. a zone that just consists of the delivery points within the STTM) to minimise the risk that gas cannot be supplied into the STTM?[45]

In addition to these issues, the GMRG is also interested in hearing stakeholders' views on the principles that should guide the development of zones. Some of the principles that were discussed by the Standardisation project team are set out below:

- the bounds of the zones should maximise the pool of prospective buyers and sellers of capacity while also:
  - ensuring that capacity can be transferred between points within the zone on a one-for-one basis if there is physical capacity at the relevant point; and
  - minimising the risk that secondary shippers will not be able to access capacity at a receipt or delivery point within the zone;
- the bounds of the zones should be capable of coping with future operational changes to the pipeline to minimise changes to the zonal definition over time; and
- the specification of the receipt and delivery point zones should promote the NGO and the Energy Council's Vision and be consistent with the broader objectives of the capacity trading reform package (i.e. to improve the efficiency with which capacity is allocated and foster the development of a more liquid market for secondary capacity).

There may be an inherent tension between some of these principles, so some trade-offs may need to be made when defining the bounds of the zones.

[44] For example, should the delivery zone at the western end of the South West Queensland Pipeline (SWQP) only comprise the Moomba delivery point, or should it also include the Ballera delivery point?

[45] For example, should the delivery zone at the Sydney end of the MSP only include Wilton?

## Table 4.1: Indicative receipt and delivery point zones

| | Receipt point zones | Delivery point zones |
|---|---|---|
| Roma to Brisbane Pipeline (RBP) | Wallumbilla (Wallumbilla runs 1, 2, 3, 4 and 7) | Wallumbilla |
| | Darling Downs (Scotia, Woodroyd, Condamine, Windibri, Argyle and Kogan North) | Upstream of Brisbane STTM (Braemar, Dalby, Oakey, Toowoomba, Sandy Creek, Riverview, Redbank and Swanbank) |
| | | Brisbane STTM (excluding Redbank, Swanbank and Riverview) |
| South West Queensland Pipeline (SWQP) | Wallumbilla High Pressure (HP) zone (Wallumbilla Notional Pt HP and Fairview) | Moomba (Moomba Compression Facility exit) |
| | Wallumbilla Low Pressure (LP) zone (Wallumbilla Notional Point LP and entry points to the RBP, Spring Gully Pipeline (SGP), Darling Downs Pipeline (DDP), Berwyndale to Wallumbilla Pipeline (BWP) and Queensland Gas Pipeline (QGP) | Ballera and mid-line (Ballera, Tarbat, Roma and Cheepie) |
| | Wallumbilla HP zone (Wallumbilla Notional Pt High Pressure and Fairview) | Wallumbilla HP zone (Wallumbilla Notional Pt High Pressure and entry point to the RBP, QGP, BWP and Comet Ridge to Wallumbilla Pipeline) |
| | Moomba (Moomba Compression Facility and the entry point to the MSP) | Wallumbilla LP |
| Carpentaria Gas Pipeline (CGP) | Ballera | Mt Isa zone (Mt Isa Mine, Diamantina, Mica Creek, Phosphate Hill, Osborne, Cannington) |
| Moomba to Sydney Pipeline (MSP) | Moomba (MSP Inlet) | Sydney STTM, Boorowa, Yass, Goulburn, Marulan, Sally's corner, Moss Vale, Bowral, Bargo |
| | Culcairn (Culcairn North) | EGP to Wilton connection |
| | Wilton (EGP entry point) | Canberra |
| | | Culcairn (Culcairn South) |
| | | Moomba (Moomba gas plant, MAPS and SWQP) |
| | | Young, Cootamundra, Illabo, Wallendbeen, Wagga Wagga, Uranquinty, Holbrook, Henty |
| | | Griffith, Leeton, Murrami, Rockdale, Narrendera, Ganmain, Coolamon, Junee, Wallerawang, Bathurst, Milthorpe, Cowra, Orange, Blayney, Oberon, Lithgow |
| | | Tamworth |
| | | Dubbo, Parkes, Forbes, West Wyalong, Narromine |
| Eastern Gas Pipeline (EGP) | Longford (Longford and Orbost) | Sydney STTM (Horsley Park, Port Kembla, Albion Park and Wilton JGN) |
| | | Bomaderry and Tallawarra |
| | | Smithfield |
| | | EGP to Wilton connection |
| | | Bombala, Cooma, Hoskinstown, Nowra, Canberra |
| | | Bairnsdale |
| Moomba to Adelaide Pipeline System (MAPS) | Moomba (MAPS inlet) | Adelaide STTM (Metro Mainline) |
| | Looplike receipt | Moomba (notional and physical point) |
| | | Mainline rural (delivery points upstream of Wasleys compressor) |
| | | Whyalla lateral |
| | | Angaston lateral |
| | | Loopline (delivery points downstream of Wasleys compressor) |
| SEAGas | Brumby | All delivery points on the pipeline |

**Box 4.1: Questions on receipt and delivery point zones**

32. What, if any, refinements do you think could be made to the indicative zones set out in Table 4.1 to maximise the pool of prospective buyers and sellers, while also:
    - ensuring that capacity can be transferred between points within the zone on a one-for-one basis if there is physical capacity at the relevant point; and
    - minimising the risk that secondary shippers will not be able to access capacity at a receipt or delivery point within the zone?
33. Do you think that:
    - pipelines that are connected to another pipeline should be required to define a transit point delivery zone to minimise the risk that gas cannot be transported between the two pipelines?
    - pipelines connected to an STTM should be required to define an STTM delivery zone to minimise the risk that gas cannot be supplied into the STTM?

    Are there any other special cases that you think would require more careful consideration to be given to the bounds of the zones?
34. Do you agree with the principles that have been suggested by the Standardisation project team should guide the development of zones, or are there other principles you think should be considered?
35. Do you think these principles should be included in the NGR?

### 4.2.2 Prioritisation of rights at receipt and delivery points

The secondary firm rights concept proposed by the Standardisation project team is similar to the prioritisation of access concept that has been adopted in the United States [46] and is used on a number of east coast transmission pipelines where shippers have rights to all the receipt and/or delivery points on the pipeline. This concept is required under the zonal model, because:

- the capacity that is sold by the primary shipper may be released from a different receipt or delivery point in the zone to the receipt or delivery point the secondary shipper intends to use in that zone; and
- the capacity of individual receipt and delivery points within a zone will usually be lower than the zonal capacity.

To deal with these limitations of the zonal model, while also recognising the firm rights that primary shippers have to use receipt and delivery points, the secondary firm rights concept allows secondary shippers to use any receipt or delivery points within a zone subject to the following priority schedule:

- primary shippers with firm rights at a receipt or delivery point have the highest priority;
- shippers with secondary firm rights have the second highest priority and are treated equally if there is insufficient capacity at a point (i.e. they all receive a pro-rata allocation of capacity); and

[46] FERC, Order No. 636 – Restructuring of Pipeline Services, 8 April 1992 and FERC, Order No. 637 – Regulation of Short-Term Natural Gas Transportation Services, 9 February 2000.

- shippers with as available or interruptible rights at a receipt or delivery point have a lower priority than shippers with secondary firm rights.

One further priority issue that still needs to be considered is how a primary shipper's renomination rights will be treated relative to the secondary firm right. This is likely to depend on the firmness of the renomination right, but feedback on this issue is welcomed.

While the secondary firm right will rank ahead of as available and interruptible rights, there is a risk that if the secondary shipper nominates to use a receipt or delivery point that is fully utilised by primary shippers, it will not be able to use those points. The nature of this risk was discussed at some length by the Standardisation project team, which observed the following about the risks at receipt and delivery points:

- **Receipt points:**
  - The risk would be relatively low on pipelines that have a single receipt point, separate zones for each receipt point or can only be supplied by producers (i.e. because producers will only agree to supply gas if the receipt point is not expected to be fully utilised on a day).
  - The risk may be higher on pipelines that have multiple receipt points within a zone that can be supplied with gas from other pipelines (e.g. at the entry point to the RBP, which can be supplied from Wallumbilla runs 1, 2, 3, 4 and 7).
- **Delivery points:**
  - The risk would be very low at single user delivery points because the user would not agree to purchase secondary capacity (or purchase gas on a delivered basis from another party) if its delivery point was expected to be fully utilised on a day.[47]
  - The risk would be relatively low at other delivery points because the secondary shipper is unlikely to try and use a delivery point unless, in the case of a retailer, it has won a customer from another shipper, or in the case of an end-user, it has decided to reduce supply from elsewhere. The only potential caveats to this that the project team identified were that:
    - if there is a step increase in the demand for gas at a delivery point then some curtailment of secondary firm rights may be required if there is insufficient capacity; or
    - if a location is serviced by two pipelines and shippers can use either pipeline then some curtailment of secondary firm rights may be required if secondary shippers try to transport more gas on one pipeline than the available delivery point capacity.

While the risk in most cases is expected to be relatively low, there is still a possibility that curtailment will be required, which is why the project team advocated the use of the secondary firm concept. To enable secondary shippers to understand the nature of this risk and the likelihood that they will be interrupted, the project team recommended that information on the capacity of receipt and delivery points and historic flows to these points

[47] For example, EnergyAustralia would not agree to purchase secondary capacity to supply its Tallawarra Power Station if it knew that the delivery point capacity would already be fully utilised on that day.

be published on the BB. This information is not currently available on the BB, so a rule change would be required to give effect to this recommendation.[48]

In addition to having recourse to historic information, the project team noted that the risks associated with secondary firm rights could potentially be managed by implementing one of the following options:

- The buyer could be notified of the points the seller is releasing capacity from at the time of transaction (either immediately before the transaction – giving the buyer an opportunity to decline, or immediately after the transaction – providing the buyer with an understanding of which points they are more likely to have firm access). However, this approach was considered to devalue the zonal product, potentially reducing liquidity, and could be complex to implement.
- The buyer could have an opportunity to input preferred delivery and receipt points within the zone when they enter their bid on the capacity trading platform. The netting process of the platform could work to match buyers with sellers where possible. Again, this is considered too complex to implement at this stage, but could be revisited in the future if a need is identified.

As the preceding discussion highlights, there is a risk under the zonal model that shippers that procure zonal capacity through the exchange may not in some circumstances be able to utilise the capacity at the receipt or delivery point of their choice. This is an inherent risk in the zonal model that cannot be completely eradicated, but as the project team has pointed out, the risk will be relatively low in most cases. Similar to the project team, the GMRG thinks there would be value in having information on the capacity and utilisation of receipt and delivery points published on the BB so that shippers can evaluate the risk before they use the exchange to procure capacity. If, on the basis of this information, the secondary shipper considers the risk to be too great, then it would have the option of entering into a bilateral trade with a primary shipper that has capacity at the receipt and delivery points it requires access to.

The GMRG is interested in hearing stakeholders' views on the proposal to introduce the secondary firm construct and the risks that this could expose users of the exchange to. Some specific questions that the GMRG would like to get further feedback on are set out in the box below.

[48] Note that the AEMC is currently considering whether historic information on receipt and delivery point flows should be published on the BB and a final determination is expected to be made on 3 October 2017. The proposed rule change does not, however, provide for the publication of the capacity of individual receipt and delivery points, so a further rule change would be required.

AEMC, Draft Rule Determination: National Gas Amendment (Improvements to Natural Gas Bulletin Board) Rule 2017, 11 July 2017

**Box 4.2: Questions on secondary firm rights**

36. Do you agree with the project team's observations about the level of risk associated with secondary firm rights at receipt and delivery points? If not, please explain why.
37. Apart from defining the zones more narrowly or utilising the point-to-point model, do you think there are any other ways that the risk associated with the zonal model could be reduced?
38. If you are a potential user of the capacity trading platform would the risk discourage you from using the exchange, or do you think the risks are manageable?
39. How do you think renomination rights should be treated *vis-à-vis* secondary firm rights under the zonal model?

### 4.2.3 Governance arrangements for the zonal model

The success of the exchange will be critically dependent on the receipt and delivery point zones that are established on each pipeline. It is relevant therefore to consider the governance arrangements that will apply to the initial development of the zones and any changes that may be required in the future.[49]

Given the technical and broader market issues that will need to be considered when developing the zones, the GMRG's preliminary view is that:

- The initial set of zones should be developed by pipeline operators in conjunction with AEMO and the GMRG.
- Proposals for subsequent changes to zones could be made by the pipeline operator for technical reasons or by market participants and would be submitted to the industry panel referred to in section 3.5.1.2 for consideration and recommendation to the AER. The review process would require consideration of the need for transitional arrangements to deal with trades still on foot.

In the GMRG's view some form of oversight is required given changes to zonal definitions could adversely affect shippers that have trades on foot. The GMRG also thinks that other market participants should be able to propose changes to the zonal definition and be consulted if the pipeline operator proposes changes to the zones. The GMRG is, however, interested in hearing whether other stakeholders share this view or if they think that an alternative approach should be employed.

[49] Changes to the zonal definition may be required for a range of technical reasons (e.g. if new receipt or delivery points are constructed, there is a change in flows on the pipeline, pressure or other operational conditions change). They may also be required from a market development perspective (e.g. the risk of interruption within a zone is considered too great to encourage trade).

**Box 4.3: Questions on governance for the zonal model**

40. Do you agree with the proposed governance arrangements for the zonal model? If not, please explain why.
41. Do you think the rules should specify the principles a pipeline operator, Industry Panel and/or AER would be required to consider before making a change to the zonal definition?

## 4.3 Receipt and delivery point change process

### Background

The zonal model outlined above is expected to provide primary and secondary shippers greater flexibility to trade and use capacity within a zone. It will not, however, address some of the other concerns that the AEMC raised about the potential for non-technical restrictions on changes to receipt and delivery points and the time service providers can take to approve such changes to impede secondary capacity trading. It is relevant therefore to consider whether improvements can be made to the receipt and delivery point change process.

The GMRG understands from its discussions with the Standardisation project team that service providers usually have full discretion to determine whether to consent to the change and, when deciding whether to exercise that discretion, will usually consider:

- the technical feasibility of the change and what, if any, impact the change may have on other shippers' use of the facility, which may require modelling of forecast flows; and
- the commercial feasibility of the change, which will typically involve an assessment of whether the service provider's profitability will be adversely affected by the change (e.g. because the change results in the payment of a lower tariff, higher operating costs or less capacity being available).

The GMRG also understands that while some service providers provide shippers with a response within five business days, other service providers allow themselves 30 days (~22 business days) to respond to the request. Project team members also informed the GMRG that some service providers and/or primary GTAs:

- place a cap on the number of requests a shipper can make in a defined period; and/or
- charge shippers a fee to change their receipt or delivery point (or to provide access to new receipt or delivery points) and/or to carry out the investigative work required to determine whether the change is technically feasible.

The Standardisation project team identified a number of options to try and improve the process outlined above, including:

- providing greater clarity about the circumstances in which a service provider can withhold its consent to a request by:
  - o a primary shipper seeking to change the receipt or delivery points it can use;

- a secondary shipper seeking to change the receipt or delivery point zones it can use;

- requiring service providers to inform shippers of whether their request has been accepted, or if further work is required within a specified time;
- adopting rules that specify how changes within or across zones are treated; and
- removing any restrictions on the ability of shippers to request a change but, where appropriate, charging a fee for any costs the service provider reasonably incurs assessing the request.

The project team's views on these options are summarised in Table 4.2.

**Table 4.2: Receipt and delivery point change process**

| Issues | Summary of project team's view |
|---|---|
| Circumstances in which a request can be rejected | Service provider representatives in the project team noted that changes to receipt and delivery points can have technical and commercial implications and so it was appropriate to consider both of these factors when assessing a shipper's request and to be able to reject a request on this basis. Elaborating further on the commercial implications, service provider representatives stated they should be kept financially whole and added that this was consistent with the way rule 106 of the NGR has been applied to date and the approach used in other jurisdictions.[50]<br>Other project team members agreed that service providers should not be worse off as a result of the change and that it was relevant therefore to take into account commercial considerations. It was, however, suggested by some team members that the scope of the commercial considerations be more clearly defined to limit the discretion in this area. |
| Time taken to respond to requests | Project team members noted that if flow modelling or other investigative work is required then it may take the service provider longer to respond to the request than in other cases where this type of work is not required. Project team members were therefore of the view that it would not be possible to standardise the time service providers have to accept or reject the request. They did, however, think there may be value in requiring the service provider to inform the shipper within 5 business days of receiving the request whether:<br>▪ the request had been accepted or rejected; or<br>▪ if further investigative work is required to assess the request and the nature of any work and likely timing of a response. |
| Rules for changes within and across zones | Project team members in this case noted that:<br>o transfers of a primary shipper's capacity within a zone should occur on a one-for-one basis, subject to capacity being available at the relevant receipt or delivery point; and<br>o transfers of a primary or secondary shipper's capacity outside a zone could not be dealt with using a simple rule as has been done in New Zealand,[51] because the ability to move capacity across zone will depend on a range of technical issues (such as pressure or capacity differentials across zones) and may require flow modelling.<br>The project team also considered whether flow modelling could be completed up front (i.e. prior to requests for transfers) to reduce the time taken to assess transfers across zones, but concluded this would be too complex given the large number of potential changes that could be sought. |
| Limits on requests and charges | Some project team members noted that rather than limiting the number of requests a shipper can make, it would be better to charge shippers the incremental costs of carrying out any investigations that may be required. |

50 For example, in New Zealand the pipeline operator, First Gas, uses a formula to calculate the change in capacity arising as a result of a change in receipt or delivery point. The formula pro-rates the shipper's reserved capacity at the relevant point by the price differential between the two locations, to keep First Gas financially whole. See Vector Transmission Code, cl. 4.28.

51 ibid.

## GMRG's preliminary view and questions for stakeholders

The GMRG understands the concerns the AEMC has expressed about the potential for some aspects of the receipt and delivery point change process to act as an impediment to secondary trade. Similar concerns have been raised with the GMRG in bilateral discussions, with some stakeholders noting that service providers have a considerable degree of discretion in this area and may not have an incentive to consent to changes that facilitate trade.

Having said that, there do appear to be some genuine technical and commercial reasons why consent may need to be withheld. There also appear to be genuine technical reasons why changes in receipt or delivery points may take more than five business days if capacity is transferred to another zone. The GMRG has therefore sought to take these issues into account when developing its preliminary view on the improvements that could be made to the receipt and delivery point change process to reduce impediments to trade.

The improvements that the GMRG thinks could be made to this process will require a number of changes to be made to the NGR to:

1. Provide shippers and service providers with greater guidance on:
   - the rights primary shippers have to seek a change to their receipt or delivery points (or add a new point);
   - the rights secondary shippers have to seek a change to their receipt or delivery zones – note that under the zonal model, secondary shippers will have access to all points within a zone, so will not require consent to change a receipt or delivery point within a zone; and
   - the circumstances in which a service provider can withhold its consent,[52] which in the GMRG's view should only occur if:
     - the change is not technically feasible;
     - the change would adversely affect another shipper's access; and/or
     - the change results in the service provider receiving less revenue under its contract with the shipper[53] or incurring additional costs that the shipper is not prepared to pay for.
2. Specify the following timeframes for service providers to respond to a request to change a receipt or delivery point or zone:
   - For changes within a zone, service providers should inform shippers within five business days of receiving the request whether consent will be granted or not.
   - For changes across zones, service providers should inform shippers within five business days of receiving a request whether consent will be granted or not, or if

[52] Rule 106 of the NGR, which applies to full regulation pipelines, provides a good example of the form this guidance could take. In short, this rule states that a shipper may, with the service provider's consent, change receipt or delivery points and the consent must not be withheld unless the service provider has "reasonable grounds, based on technical or commercial considerations for doing so". The only potential problem with this provision is the phrase "commercial considerations" could be read more broadly than it is intended and accord service providers with a considerable degree of discretion, which is why the GMRG is suggesting changes to this element of the rule.

[53] Note that this could occur if the pipeline operator utilises distance based or zonal tariffs, but would not occur if the pipeline utilises postage stamp tariffs (i.e. because the shipper's charges would not change as a result of the move).

further investigations are required. If further investigations are required, then the service provider should be required to:

- inform the shipper of how long the investigations are expected to take and what, if any, charges the shipper will be liable to pay; and
- provide its final response to the shipper within 20 business days of receiving the request.

3. Override restrictions on the ability shippers have to seek receipt or delivery point changes that may be in primary GTAs.
4. Require any charges that service providers levy for receipt or delivery point changes (or the inclusion of new receipt or delivery points), or to investigate the technical feasibility of such a change to be cost reflective and, so far as reasonably practicable, reflect the outcomes of a workably competitive market.

In the GMRG's view, these changes appropriately balance the concerns raised by the AEMC and other stakeholders with the legitimate interests of service providers and other shippers that have rights to utilise the pipeline. This is, however, only a preliminary view and the GMRG is interested in hearing from stakeholders about the proposed changes to the NGR and the questions set out in the box below.

**Box 4.4: Questions on the receipt and delivery point change process**

42. Do you agree with the proposal to amend the NGR to provide shippers and service providers with greater guidance on the rights shippers have to seek a change; the circumstances in which a service provider can withhold its consent, the time service providers should have to respond and the level of any charges that can be recovered from shippers? If not, please explain why.
43. Do you agree that service providers should be able to withhold their consent if the change is not technically feasible or if the change would adversely affect other shippers' access to services?
44. Do you agree with the proposed limitation of commercial considerations (i.e. consent can be withheld if the service provider receives less revenue under its contract with the shipper or incurs additional costs and the shipper is not prepared to pay for any shortfall)? If not, please explain why.
45. Are there any other reasons why you think consent should be able to be withheld by a service provider?
46. Do you think the timeframe that has been proposed for service providers to respond to requests to transfer receipt or delivery points:
    - within a zone is appropriate (i.e. within five business days)? If not, please explain why.
    - across a zone is appropriate (i.e. within five business days for an initial response and up to 20 business days for a final response)? If not, please explain why.
47. Do you think provisions should be included in the NGR to override any contractual limitations on shippers seeking changes to receipt and delivery points?
48. Are there any other steps that you think could be taken to reduce the impediments to secondary trading currently posed by the receipt and delivery point change process?

# 5. Other Measures to Reduce Barriers to Trade

In addition to the measures outlined in chapters 3 and 4, there are a number of other measures that could be implemented to reduce the barriers to secondary capacity trading and participation in the day-ahead auction. These measures include:

- improving access to allocation agreements and receipt and delivery points;
- providing shippers with more options to deal with imbalances;
- harmonising gas day start times and nomination cut-off times across jurisdictions; and
- addressing other contractual impediments to trade in primary GTAs.

The remainder of this chapter provides further detail on these measures.

## 5.1 Allocation agreements and access to receipt/delivery points

Allocation agreements specify the rules that are to be used by the allocation agent[54] to allocate gas that is metered as having been supplied to a multi-user receipt or delivery point between shippers using these points (for example, allocating on a pro-rata basis using shipper nominations or scheduled quantities). The GMRG understands that the scope of the allocation agreements and the allocation rules specified therein can vary markedly across receipt and delivery points. The GMRG also understands that:

- Shippers wishing to transport gas to or from a multi-user receipt or delivery point must be a party to the allocation agreement to nominate gas at this point. If there is no agreement in place at a delivery point then pipeline operators can apply a default allocation rule. The default rule cannot, however, be applied at most receipt points because these points are controlled by the producers at that point.
- Contribution agreements may be used in conjunction with allocation agreements at points where shippers have invested in the construction of a receipt or delivery point and include a fee for use of the point. Access to these points may, depending on the arrangement that has been reached with the service provider, require the approval of the shipper(s) that funded the point, or may just require a contribution to the costs.
- Some allocation agreements provide for sub-allocation levels and accord the shipper responsibility for sub-allocating the gas to parties they have traded with.

In the *East Coast Review*, the AEMC noted that some changes to these agreements may be required to enable capacity to be traded and to facilitate greater receipt and delivery point flexibility.[55] These issues were discussed with the Standardisation project team, who informed the GMRG that allocation agreements may act as an impediment to capacity trading because:

- there is limited publicly available information on allocation agreements or the process a shipper needs to follow and who it needs to contact to become a party to an allocation agreement at a particular point;

[54] The allocation agent may, or may not be, the pipeline operator.

[55] AEMC, Stage 2 Final Report: East Coast Review, 23 May 2016, pp. 90-93.

- there are some allocation agreements that restrict the number of shippers that can become a party to the agreement, or otherwise limit access to a particular receipt or delivery point - it was noted that this tends to occur at:
  - locations where there is also a contribution agreement in place; and
  - receipt points controlled by producers, with some producers reportedly requiring shippers to have a Gas Supply Agreement with the producer to become a party to the allocation agreement; and
- differences in the allocation rules used at some points (e.g. at pipeline interconnection points) may result in differences in the volume of gas a shipper is allocated to have supplied into or taken from the pipeline and result in an imbalance.

The Standardisation project team discussed a number of measures to try and overcome these impediments, including:

- publishing information on how shippers can become a party to an allocation agreement at each point;
- options to reduce the administrative costs, time and complexities that may be associated with becoming a party to a number of allocation agreements, including:
  - deeming secondary shippers to be a party to any allocation agreement that may be in place at the receipt and delivery points they want to use;
  - including all the allocation agreements as schedules to the operational GTA; or
  - allowing AEMO to become a party to all the allocation agreements and to be responsible for sub-allocating gas to secondary shippers; and
- standardising the allocation rules in the allocation agreements.

While some consideration was given to the latter two options, the project team identified a number of specific issues with each option, which are summarised in Table 5.1. The project team also noted that allocation agreements can be complex with multiple levels of allocation and specific rules to accommodate legacy arrangements and concluded that little could be done to address the impediments posed by these arrangements.

**Table 5.1: Other options to reduce impediments posed by allocation arrangements**

| Options considered | Project team's view on the options |
|---|---|
| Deeming secondary shippers party to the agreements | Some project team members noted that deeming secondary shippers as a party to an allocation agreement could be disputed, which would affect the integrity of the operational GTA and secondary capacity market. |
| Adding allocation agreements as schedules to the operational GTA | The project team noted that before adding the allocation agreements to the operational GTA, service providers need to seek the agreement of the relevant parties, which they suggested could be a complex and costly undertaking for service providers and raise further change management issues. The project team also noted that there may be confidentiality concerns because allocation agreements are not generally made public, nor available to the service provider when they are not the allocation agent. |
| AEMO as sub-allocation agent | Project team members noted that having AEMO as a sub-allocation agent in all agreements would restrict the way parties manage their imbalance accounts, and would introduce an additional level of complexity in these agreements and introduce an additional administration cost. |
| Standardisation of allocation rules | A number of team members noted that standardising allocation rules could adversely affect parties operating under legacy arrangements and added that this could conflict with the AEMC's recommendation that counterparties to existing contracts should not be materially disadvantaged through the standardisation process. |

It was in this context that the Standardisation project team concluded that secondary shippers would need to sign up to the allocation agreements at all the points they intend to supply or deliver gas to. To aid this process, the project team suggested that information on the identity of the allocation agent at each point and their contact details be published on a website (e.g. on the BB). The Standardisation project team stopped short, however, of recommending the allocation agreements be made public, because they noted the agreements can contain confidential information.

The GMRG understands that the opaqueness surrounding allocation agreements could act as an impediment to trade and therefore agrees with the project team that information on the allocation agent and contact details at all of the relevant points should be published on the BB. While this may reduce some of the impediments posed by allocation agreements, the GMRG is concerned that:

- the requirement to sign up to a number of allocation agreements and to potentially incur administrative costs at all of these points may act as a financial impediment;
- differences in allocation rules where pipelines interconnect may act as an impediment to trade because they can expose shippers to significant costs and risks; and
- the control of some receipt and delivery points by shippers and the contribution agreements that have been implemented at some points may impede access.

On the information currently before the GMRG, it is difficult to know how significant these impediments are. Accordingly, the GMRG has not formed a preliminary view on this issue. The GMRG welcomes any feedback stakeholders may have on these issues and on the questions set out in the box below.

**Box 5.1: Questions on allocation agreements**

49. How significant an impediment to trade do you think allocation agreements are?
50. Are there any other impediments to trade posed by allocation agreements and/or contribution agreements that have not been identified in this consultation paper? If so, please explain what they are and how you think they could be addressed.
51. Do you think that deeming secondary shippers to be a party to the allocation agreement is a workable solution, or can you foresee issues with this solution?
52. Do you think that providing greater transparency about who to contact to become a party to an allocation arrangement will be sufficient to reduce the impediments to trade posed by allocation agreements, or do you think that other measures (including those outlined in Table 5.1) are required to facilitate access to these agreements?
53. What effect are differences in allocation rules at points where pipelines interconnect having on shippers at these locations? Is the effect material and do you think a common allocation rule should be adopted across the east coast?
54. Do you think there is any value in standardising allocation agreements?
55. Have you experienced any difficulties accessing receipt or delivery points that are controlled by a shipper? How prevalent an issue do you think this is and how do you think it could be addressed?
56. Can contribution agreements, or the charges levied under these agreements, act as a barrier to trade?

## 5.2 Management of imbalances

An imbalance can arise on a gas day if the volume of gas supplied by a shipper into the pipeline differs from the volume of gas delivered to the shipper on that day. To provide shippers with some flexibility to manage their imbalances while also encouraging shippers to minimise their imbalances, pipeline operators generally allow an imbalance to occur up to a specified threshold before imposing an imbalance charge on the difference between the imbalance and the imbalance allowance. If an imbalance does arise, a shipper will usually have a window of time to clear the imbalance, after which the pipeline operator may take steps to correct the imbalance[56] and recover the costs from the shipper. See Chapter 3 for how these have been proposed to be included in the draft operational GTA for secondary shippers.

The measures that shippers can currently use to clear an imbalance include:

1. physically supplying more or less gas into the pipeline when transporting gas on the next occasion;
2. trading the imbalance through a bilateral in-pipe trade on those pipelines where this service is offered;[57]and
3. engaging in a bilateral imbalance trade with another shipper on those pipelines where the shipper's GTA allows it to do so.

[56] For example, by reducing the shipper's receipts and/or deliveries of gas, or in some cases by buying or selling sufficient gas to clear the imbalance.

[57] This service is currently only offered by APA and Epic.

In their discussions on how imbalances should be treated in the operational GTA, the Standardisation project team noted that clearing an imbalance could be more difficult for secondary shippers that use capacity on an ad-hoc basis and act as a barrier to trade. This is because once their trade has ended secondary shippers would be unable to use option 1. Some project team members therefore proposed that the scope of the capacity trading platform be expanded to allow shippers to trade imbalances bilaterally through the listing service or through the exchange. The design of the capacity trading platform that is currently being consulted upon does not include this feature, but the GMRG does think there may be merit in expanding its scope to facilitate this type of trade. The GMRG is interested therefore in getting further feedback on this proposal.

**Box 5.2: Questions on imbalance clearing**

57. Do you think the capacity trading platform should facilitate the trade of imbalances?
    - o If so, do you think this should be done through the listing service or exchange?
    - o If not, please explain why.
58. Are there other options you think could be made available to shippers to facilitate the clearing of an imbalance (e.g. extending in-pipe trading services to other pipelines)?
59. Are there any other impediments to a shipper clearing an imbalance (for example, are there provisions in GTAs that prohibit shippers from trading imbalances)?

## 5.3 Gas day start times and nomination cut-off times

### Background

In February 2017, the AEMC decided to amend the rules to require the gas day start times in the facilitated markets (i.e. the STTM, the GSH and the DWGM) to move to 6 am (AEST) on 1 April 2021. The benefits of harmonisation that the AEMC cited in this context were that it would:[58]

- reduce the costs and complexities that market participants operating (or wishing to operate) across multiple facilitated markets currently face, including pipeline operators located at the interface of markets with different gas day start times; and
- increase the interoperability and interconnection between markets and, in so doing, promote participation and liquidity in these markets and trade between locations.

The AEMC also noted that while it was aware that some market participants were currently using contractual and operational arrangements to manage differences in gas day start times (e.g. through linepack and imbalance allowances), these arrangements were not costless and may not be available in all circumstances.[59]

[58] AEMC, Final rule determination: National Gas Amendment (Gas day harmonisation) Rule 2017, 16 February 2017, pp. 21-24.

[59] The AEMC cited the following example in its rule change to highlight how these differences are dealt with on the South West Queensland Pipeline (SWQP).

*"The western end of the APA pipeline is at Moomba which operates with a 6.30 am AEST gas day start time. The eastern end of the SWQP is at Wallumbilla where the GSH operates on a gas day that starts at 8.00 am AEST. Nevertheless, shippers using this pipeline are not required to enter into a two-day transportation contract, nor required to negotiate a pro-rating arrangement so that the gas flow matches either the Moomba or Wallumbilla gas day. Instead, SWQP shippers nominate their requirements for a 'gas day' and the linepack available on the pipeline allows APA to*

While the focus of the rule change was on the facilitated markets, the AEMC noted that employing the same gas day start time for the capacity trading reforms and harmonising pipeline schedules would be “desirable” because it would enable “seamless trading between regions” and “promote participation, competition and liquidity in these markets”.[60] A similar observation was made by the ACCC in the East Coast Gas Inquiry, with the ACCC noting that alignment of gas day start times and the nomination times employed by pipeline operators and other facilities would “reduce any potential barriers to trade and transaction costs.”[61]

The 1 April 2021 commencement date was adopted by the AEMC for this rule change because at the time it made the rule the capacity trading reform package was expected to be implemented in 2021.[62] Given a decision has subsequently been made to bring forward the implementation of the reforms to 2018/19, it is relevant to consider whether:

- the harmonisation of gas day start times in the facilitated markets should be brought forward;
- the application of the gas day start time harmonisation should extend to all pipelines, production facilities, compressor and storage facilities in the east coast; and
- the nomination cut-off times should also be harmonised across pipelines and other facilities that will be subject to the capacity trading reforms (e.g. compressors).

In doing so, it is important to understand the effect that differences in gas day start times and nomination cut-off times will have on:

- the timing of the close of trade for day-ahead products on the capacity trading platform; and
- the timing of the day-ahead auction.

These effects are highlighted in Table 5.2, with the top half of the table setting out *indicative* times for the close of trade on the capacity trading platform and the day-ahead auction under the current gas day start times and nomination cut-off times, while the bottom half shows what would occur if gas day start times and nomination times were harmonised.

The timings in this table are indicative only at this stage, because further consideration needs to be given to how much time service providers require to give effect to trades on the capacity trading platform and to determine the capacity that can be auctioned.

*operate it in a way that accommodates the difference in the gas days of the markets to which the pipeline is connected without any specific contractual requirements or any other action by the shippers.”*

AEMC, Final rule determination: National Gas Amendment (Gas day harmonisation) Rule 2017, 16 February 2017, p. 21.

60 AEMC, Final rule determination: National Gas Amendment (Gas day harmonisation) Rule 2017, 16 February 2017, p. 23.

61 ACCC, Inquiry into the east coast gas market, April 2016, p. 79.

62 AEMC, Final rule determination: National Gas Amendment (Gas day harmonisation) Rule 2017, 16 February 2017, p. i.

**Table 5.2: Gas day start times, nomination cut-off times and indicative timings for the day-ahead auction and close of trade on the trading platform (all times AEST)**

<table>
<tr><th rowspan="2"></th><th rowspan="2">Gas Day Start Time</th><th rowspan="2">Indicative Timing Capacity Trading Platform Close for Day-Ahead Products*</th><th rowspan="2">Pipeline Nomination Cut Off Time for Gas Day D+1**</th><th colspan="3">Indicative Timing for Day-Ahead Auction***</th></tr>
<tr><th>Auction Capacity Published</th><th>Auction Bids Due</th><th>Auction Completed</th></tr>
<tr><td colspan="7">Current Gas Day and Nomination Cut-Off Times</td></tr>
<tr><td>NSW/ACT</td><td>6:30 am</td><td rowspan="4">11:00 am</td><td>2 -2:30 pm</td><td rowspan="5">5:00 pm</td><td rowspan="5">5:30 pm</td><td rowspan="5">5:40 pm</td></tr>
<tr><td>SA</td><td>6:30 am</td><td>3:30 pm</td></tr>
<tr><td>Queensland</td><td>8:00 am</td><td>3-4:00 pm</td></tr>
<tr><td>Tasmania</td><td>6:30 am</td><td>1:30 pm</td></tr>
<tr><td>Northern Territory</td><td>8.30 am</td><td>n.a.</td><td>2-2:30 pm</td></tr>
<tr><td>Victoria</td><td>6:00 am</td><td>n.a.</td><td>n.a.</td><td>n.a.</td><td>n.a.</td><td>n.a.</td></tr>
<tr><td colspan="7">Harmonised Gas Day and Nomination Cut-Off Times</td></tr>
<tr><td>NSW/ACT</td><td rowspan="6">6:00 am</td><td rowspan="5">12:00 pm</td><td rowspan="5">3:00 pm</td><td rowspan="5">4:00 pm</td><td rowspan="5">4:30 pm</td><td rowspan="5">4:40 pm</td></tr>
<tr><td>SA</td></tr>
<tr><td>Queensland</td></tr>
<tr><td>Tasmania</td></tr>
<tr><td>Northern Territory</td></tr>
<tr><td>Victoria</td><td>n.a.</td><td>n.a.</td><td>n.a.</td><td>n.a.</td><td>n.a.</td></tr>
</table>

Notes:
* Trading assumed to end 2.5-3 hours before nomination cut-off time to allow pipeline operators to make MDQ transfers.
** Nomination cut-off times assumed to be offsets to gas day start times.
*** Capacity assumed to be published 1.5 hours after nomination cut-off time. Shippers are then assumed to have 30 minutes to make their bids in the auction. The auction is then assumed to be completed within 10 minutes of bids closing.

As the top half of Table 5.2 highlights, a lack of alignment of gas day start times and nomination cut-off times across the east coast will result in:

- the close of trade for day-ahead products on the capacity trading platform being set by reference to the earliest nomination cut-off time (currently 1.30 pm (AEST)), which means that trade will need to cease by 11 am (AEST); and
- the timing of the day-ahead auction being set by reference to the latest nomination cut-off time (currently 4 pm (AEST)), which means that the earliest the auction could be conducted is by 5.40 pm AEST.

If, on the other hand, gas day start times were harmonised and a common nomination cut-off time of, for example, 3 pm (AEST)[63] was adopted (see bottom half of Table 5.2) then:

- the trade of day-ahead products on the capacity trading platform could close at 12 pm (AEST), which would give shippers an additional hour to sell any spare day-ahead capacity they may have on the capacity trading platform; and
- the auction could be conducted one hour earlier at 4.40 pm (AEST), which would provide shippers that procure capacity through the auction with more time to co-ordinate their capacity, commodity and downstream arrangements for the next day.

63 The 3 pm timing is based on the latest nomination cut-off time that will exist once gas day harmonisation occurs.

In short, the harmonisation of gas day start times and nomination cut-off times will enable shippers to make greater use of the capacity trading platform and day-ahead auction. It will also:

- reduce the costs and complexities that market participants operating across multiple facilitated markets would otherwise face; and
- increase the interoperability and interconnection between markets and, in so doing, promote participation, competition and liquidity in these markets and trade between locations.

### Project teams' views

The issues associated with bringing forward the gas day start time harmonisation, extending the application of the harmonised gas day start times and adopting a common nomination cut-off time were discussed with the Standardisation, Capacity Trading Platform and Day-Ahead Auction project teams. The views expressed by these project teams can be summarised as follows:

- **Bringing forward gas day start time harmonisation for the facilitated markets** – Mixed views were expressed on this issue, with some project team members indicating there would be value in bringing the harmonisation forward to 2019 to remove impediments to capacity trading across jurisdictions. Other team members, on the other hand, indicated that the current timing should be maintained because the benefits of bringing forward harmonisation would be unlikely to outweigh the costs. These project team members added that any differences in gas day start times in the intervening period could be dealt with by using the contractual and operational arrangements that shippers and pipeline operators are currently using to overcome the impediments posed by this difference. One project team member also noted that if a decision was made to bring the harmonisation forward it could impose additional costs on other facilities that are directly affected by the harmonisation (e.g. the distribution networks in NSW, South Australia and Queensland).
- **Extending the application of gas day harmonisation beyond the markets** – A number of project team members pointed out that the AEMC's rule change only applies to the facilitated markets and noted that there would be value in extending the application of the harmonised gas day start time to the operators of all production, pipeline, compressor and storage facilities. These project team members also noted that mandating the change through the NGL and/or the NGR would be more cost effective than requiring facility operators to negotiate changes with all of their existing users and would also address the risk that some users refuse to allow the change.
- **Adopting a common nomination cut-off time** – Project team members had mixed views on this issue, with some indicating that there would be value in harmonising nomination times. Others, on the other hand, noted that differences in timing across jurisdictions can benefit shippers and service providers from a resourcing perspective. Those project team members that thought there was value in harmonising nomination cut-off times noted that it should occur when gas day harmonisation occurs and should be mandated through the NGL and/or NGR.

## GMRG's preliminary view and questions for stakeholders

Having regard to the feedback provided by project team members, the views expressed by the AEMC and the ACCC and the objectives of the reforms, the GMRG's preliminary view is that:

- A common gas day start time of 6 am (AEST) should be adopted across the east coast and the Northern Territory once it becomes connected via the Northern Gas Pipeline. The requirement to adopt this gas day start time should be mandated through the NGR to ensure it applies to the operators of all production, pipeline, compressor and storage facilities.
- A common nomination cut-off time of 3 pm (AEST) for pipelines and other facilities that will be subject to the capacity trading reforms should be mandated through the NGR.

The GMRG understands that to give effect to these changes, amendments to the NGL would be required to enable rules to be made about the gas day start times and nomination cut-off times employed by a range of facilities. The earliest this is likely to occur is mid-2018 given that an election is due to occur in South Australia in March 2018. If facility operators were then provided 12 months[64] to make the relevant changes to their meters and systems, then it is possible that harmonisation of gas days and nomination cut-off times could be achieved by 1 October 2019, which is after the trading platform and auction are expected to be in place.

There are, however, some risks to this 2019 timing, including that the broader application of the harmonised gas day start times and nomination cut-off times may take operators longer than 12 months to make the necessary changes. It is not clear therefore whether a commencement date of 1 October 2019 for gas day and nomination cut-off time harmonisation is feasible, or if it would be better to maintain the 1 April 2021 date.

Irrespective, of which commencement date is chosen, some transitional measures will be required to deal with the differences in gas day start times and nomination cut-off times until harmonisation can be achieved. The close of trade on the capacity trading platform will, for example, need to be set at an earlier time while the day-ahead auction will need to be concluded later. Provisions will also need to be included in the standardised operational GTA to require service providers operating at the interface of markets to accommodate the differences in gas days. These provisions have not yet been included in the operational GTA.

The GMRG is interested in hearing further from stakeholders on this issue and is seeking feedback in response to the questions set out in Box 5.3.

[64] In its final rule determination, the AEMC noted that a 12 month period should provide all affected stakeholders sufficient time to plan and execute the necessary changes to their businesses, including AEMO who would be required to conduct consultation processes to amend the relevant procedures and Exchange Agreement.

See AEMC, Final rule determination: National Gas Amendment (Gas day harmonisation) Rule 2017, 16 February 2017, p. 60.

**Box 5.3: Questions on harmonisation of gas day start times and nomination times**

60. Do you think there is value in bringing forward the harmonisation of gas day start times in the facilitated markets?
    - If not, why not?
    - If so, do you think it should be brought forward to 1 October 2019, or another time?
61. Should all facilities (i.e. production facilities, pipelines, compressors and storage facilities) in the east coast to be subject to a common gas day start time?
    - If not, why not?
    - If so, do you think that this should be given effect through a provision in the NGL and NGR, or is it a matter for the facilities to negotiate with users?
62. Do you think there is merit in harmonising nomination cut-off times across pipelines and other facilities that will be subject to the capacity trading reforms (e.g. compressors)?
    - If not, why not?
    - If so:
        - Do you think it should be harmonised to 3 pm (AEST) or another time?
        - Do you think that it should be given effect through a provision in the NGL and NGR, or is it a matter for the facilities to negotiate with users?
63. Are there any other costs or benefits associated with the harmonisation of gas day start times and nomination cut-off times that you think the GMRG should take into account?
64. Do you agree that provisions should be included in the standardised operational GTA to require service providers operating at the interface of markets to accommodate the differences in gas days? If so, how do you suggest that this obligation be drafted?

## 5.4 Contractual limitations on capacity trading in primary GTAs

The GMRG understands from discussions with a number of stakeholders and the feedback stakeholders provided in the *East Coast Review*[65] that there may be provisions in some primary GTAs that limit the ability of shippers to trade capacity, or otherwise discourage or impede trade.[66]

Some of the examples that stakeholders cited in this context include provisions that:

(a) prohibit the primary shipper from trading its capacity, or require it to obtain the service provider's consent before it can trade its capacity;

(b) prohibit the shipper from requesting a change to their receipt and delivery points, or limit the number of changes a shipper can request (see section 4.3); and

(c) impose fees on primary shippers that trade their capacity and/or change their receipt and delivery points that are in excess of the cost of providing such services.

[65] AEMC, Stage 2 Final Report: East Coast Review, 23 May 2016, p. 92.

[66] The term 'trade' is used in this context to refer to a *temporary* transfer of capacity that does not affect the primary shipper's rights against, and obligations to, the service provider.

The way in which the limitations posed by the provisions in (b) and (c) could be dealt is set out in sections 3.6 and 4.3.

On scheme (regulated) pipelines, the contractual limitations in (a) have been addressed through rule 105(2) in the NGR. This rule states that a user may, without the service provider's consent, transfer all or any of its contracted capacity to another party if its rights against, and obligations to, the service provider are unaffected by the transfer. This provision does not, however, currently extend to non-scheme pipelines.

One potential way this limitation could be overcome is to include an equivalent provision in the rules that would apply to non-scheme pipelines, although it may, as one project team member noted, need to be modified to recognise the right of a service provider to reject a transfer if the shipper's GTA has been suspended or terminated or the shipper has sold more capacity than the MDQ specified in its GTA. Adopting an equivalent provision in the NGR for non-scheme pipelines is likely to be simpler than re-opening primary GTAs to remove this type of limitation. The GMRG is, however, interested in hearing from stakeholders about these two options and if there are any other matters the GMRG should consider in this context.

**Box 5.4: Questions on contractual limitations**

65. Are there any other provisions in primary GTAs that may limit a shipper's ability to trade capacity? If so, please provide an overview of the provisions and the effect they have on a primary shipper's ability to trade.
66. How prevalent do you think these types of contractual limitations are?
67. Do you think the contractual limitations on capacity trading need to be addressed?
    - If so, should they be addressed through amendments to the NGR, or should the primary GTAs be re-opened?
    - If not, please explain why.

# Part B: Capacity Trading Platform

In the *East Coast Review,* the AEMC recognised that steps had been taken by some pipelines to facilitate more capacity trading but noted that the following factors were limiting the ability of shippers to access competitively priced secondary capacity:[67]

- a lack of information on the existence of prospective buyers and sellers of capacity, which the AEMC noted may be resulting in high search and transaction costs, particularly for short-term trades; and
- limited information on the market, which the AEMC noted may lead to additional transaction costs as parties try to determine the value of capacity.

To address these issues, the AEMC recommended the development of a capacity trading platform that would provide for both: [68]

- an anonymous exchange mechanism that shippers can use to buy or sell commonly traded transportation products; and
- a listing service that shippers can use to buy or sell more bespoke products.

The AEMC also suggested that the trading platform provide for as many services as possible to be traded through the exchange and that trades conducted outside the trading platform should be advertised ahead of time through the listing service.[69] While the AEMC expected the platform to principally be used by shippers, it noted the potential for service providers to also use the platform to sell any spare primary capacity they may hold.

Together, these reforms are expected to facilitate a greater level of secondary capacity trading by:[70]

- reducing search and transaction costs; and
- providing shippers with confidence that secondary trades are non-discriminatory (i.e. by requiring trades conducted through the exchange to be anonymous and requiring shippers to advertise products ahead of time on the listing service).

Table B.1 provides further detail on the AEMC's recommendations, which were classified as either required or preferred outcomes.

In the *East Coast Review,* the AEMC identified a number of organisations that could operate and administer the capacity trading platform, but did not reach a concluded position on this issue. It instead recommended that the GMRG consider the options in further detail.  The GMRG's recommendations on this issue were presented to the Energy Council in July 2017. In short, the GMRG recommended that AEMO be accorded responsibility for the operation and administration of a single capacity trading platform that would form part of the GSH trading exchange, which is currently used by participants in the east coast to trade gas and compression services at Wallumbilla. This recommendation was endorsed by the Energy Council at its 14 July 2017 meeting.[71]

---

67 AEMC, Stage 2 Final Report: *East Coast Review*, 23 May 2016, pp. 93-94.

68 ibid, p. 95.

69 ibid, p. 104.

70 ibid, p. 87.

71 COAG Energy Council, 12th Energy Council Meeting Communique, 14 July 2017.

**Table B.1: AEMC's Recommendations: Capacity trading platform reforms**

| Required Outcomes |
|---|
| ▪ Creation of capacity trading platform(s) which include electronic anonymous exchange based trading for commonly traded products in addition to a capacity listing service typical on current capacity trading platforms.<br>▪ Trades carried out through trading platform to be given effect through an operational transfer. |
| **Preferred outcomes** |
| ▪ Single capacity trading platform operating across the east coast.<br>▪ As many services as possible capable of being traded on the platform (e.g., transportation, hub (compression) and pipeline storage services), recognising the need to avoid unnecessary complexities.<br>▪ Trades conducted outside the capacity trading platform to be advertised ahead of time on the capacity trading platform listing service. |

Source: AEMC, Stage 2 Final Report: *East Coast Review*, 23 May 2016, p. 17.

Following the Energy Council's decision, the GMRG has worked closely with AEMO and the Capacity Trading Platform project team on the development of the end-to-end design of the capacity trading platform, which will comprise:

- **an exchange** that will be used to facilitate the trade of standardised transportation products (e.g. day-ahead, daily, weekly, monthly and quarterly firm forward haul, compression and park products) through either:
  - **the screen trade service** – this service allows participants to place anonymous offers to sell or bids to buy a specified quantity of capacity (measured using the MDQ metric) at a specified price, which are automatically matched by the exchange; or
  - **the pre-matched trade service** – this service allows participants to bring a bilateral trade in one of the GSH products to the exchange for settlement; or
- **a listing service** that will allow market participants to list more bespoke transportation products (including locational swaps) that can be traded on a bilateral basis.

While the design of the capacity trading platform will share many of the same operational, market, financial, contractual and governance features of the GSH, further consideration need to be given to:

- the transportation products that could be sold through the capacity trading platform;
- the delivery process that will give effect to trades conducted through the exchange;
- the arrangements to manage and allocate the risks associated with secondary trading through the capacity trading platform; and
- whether any changes need to be made to the NGL, NGR or other subordinate instruments to implement the capacity trading platform.

These issues are discussed in further detail in the remainder of this part of the consultation paper, which has been prepared with the assistance of AEMO.

# 6. Overview of the GSH

The GSH is a centralised trading, settlement and clearing facility that is operated by AEMO and can currently be used by market participants in the east coast to:

- trade gas and Wallumbilla hub (compression) services through the exchange; or
- advertise transportation products through the pipeline capacity listing service.

The remainder of this chapter provides a brief overview of the exchange and capacity listing service elements of the GSH, the steps that market participants have to take to be able to use the GSH and the governance framework that underpins the GSH. Further detail on the GSH can be found in the Gas Supply Hub Industry Guide that AEMO has published.[72]

## 6.1 Exchange

The exchange component of the GSH is operated using the Trayport Exchange Trading System (ETS), which is integrated with the market registration, settlement, prudential management and reporting systems that have been established for the GSH. The ETS includes:

- a screen trading service (see Figure 6.1), which allows participants to place anonymous bids and offers for standardised products, which are automatically matched by the exchange (see Box 6.1); or
- a pre-matched trade service, which allows participants to bring a bilateral trade in one of the GSH products to the exchange for settlement.

**Box 6.1: Exchange trading process**

Trades conducted through the exchange involve the following steps:

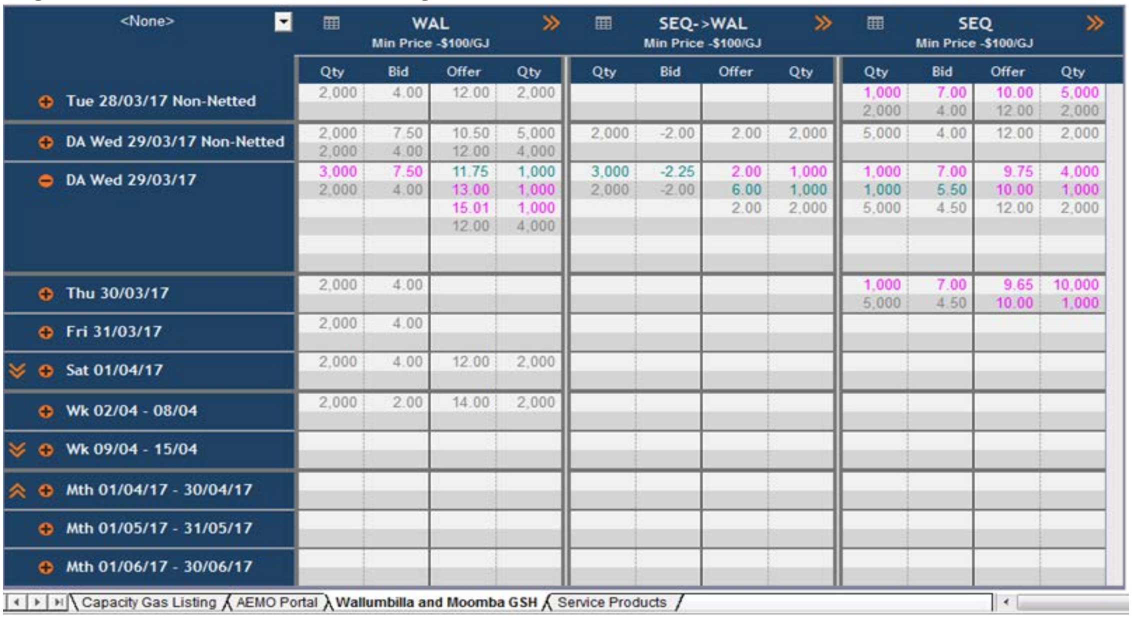
1. Trading Participants select the product they would like to trade and then complete the required information.
2. The order is validated by the trading systems.
3. Confirmation of order submission is provided on screen and through a market report.

The trading system validates orders on submission to ensure:

- the order contains all of the required order components in the correct format;
- the order quantity and price adheres to minimum, maximum and parcel size rules; and
- Trading Participants have adequate trading margin available to effect the transaction.

[72] See: https://www.aemo.com.au/Gas/Gas-Supply-Hubs/Market-operations

Figure 6.1: GSH screen trading screenshot



| <None> | WAL Min Price -$100/GJ | | | | SEQ->WAL Min Price -$100/GJ | | | | SEQ Min Price -$100/GJ | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Qty | Bid | Offer | Qty | Qty | Bid | Offer | Qty | Qty | Bid | Offer | Qty |
| Tue 28/03/17 Non-Netted | 2,000 | 4.00 | 12.00 | 2,000 | | | | | 1,000 | 7.00 | 10.00 | 5,000 |
| | | | | | | | | | 2,000 | 4.00 | 12.00 | 2,000 |
| DA Wed 29/03/17 Non-Netted | 2,000 | 7.50 | 10.50 | 5,000 | 2,000 | -2.00 | 2.00 | 2,000 | 5,000 | 4.00 | 12.00 | 2,000 |
| | 2,000 | 4.00 | 12.00 | 4,000 | | | | | | | | |
| DA Wed 29/03/17 | 3,000 | 7.50 | 11.75 | 1,000 | 3,000 | -2.25 | 2.00 | 1,000 | 1,000 | 7.00 | 9.75 | 4,000 |
| | 2,000 | 4.00 | 13.00 | 1,000 | 2,000 | -2.00 | 6.00 | 1,000 | 1,000 | 5.50 | 10.00 | 1,000 |
| | | | 15.01 | 1,000 | | | 2.00 | 2,000 | 5,000 | 4.50 | 12.00 | 2,000 |
| | | | 12.00 | 4,000 | | | | | | | | |
| Thu 30/03/17 | 2,000 | 4.00 | | | | | | | 1,000 | 7.00 | 9.65 | 10,000 |
| | | | | | | | | | 5,000 | 4.50 | 10.00 | 1,000 |
| Fri 31/03/17 | 2,000 | 4.00 | | | | | | | | | | |
| Sat 01/04/17 | 2,000 | 4.00 | 12.00 | 2,000 | | | | | | | | |
| Wk 02/04 - 08/04 | 2,000 | 2.00 | 14.00 | 2,000 | | | | | | | | |
| Wk 09/04 - 15/04 | | | | | | | | | | | | |
| Mth 01/04/17 - 30/04/17 | | | | | | | | | | | | |
| Mth 01/05/17 - 31/05/17 | | | | | | | | | | | | |
| Mth 01/06/17 - 30/06/17 | | | | | | | | | | | | |

Capacity Gas Listing | AEMO Portal | Wallumbilla and Moomba GSH | Service Products

The screen trading service operates on a continuous basis, with bids and offers matched on price throughout the trading day using the following rules:[73]

- orders are in the first instance matched based on price, with new offers matched against the highest price bid, and new bids matched against the lowest price offer; and
- where two or more orders share the same price and are capable of being executed, the order with the earlier submission time is matched first.

While the screen trading service provides participants a number of trading options, it does not currently enable participants to make an order to buy or sell conditional on other orders being matched as well. A buyer or seller may wish to do this if, for example, they want to transport gas from Wallumbilla to Adelaide, which requires the use of two pipelines. AEMO is currently discussing this functionality with Trayport and expect that conditional bidding could be implemented.

Trades carried out using the screen trading or pre-matched service are settled by AEMO, with settlement amounts calculated on a daily basis and statements issued to participants on a monthly basis. The prudential arrangements in the GSH require participants to post collateral to cover their potential settlement exposure. Prudential assessments are conducted each business day to determine whether sufficient collateral has been provided or if further collateral is required. Further detail on how the settlement and prudential arrangements are expected to be applied to capacity products is provided in Chapter 9.

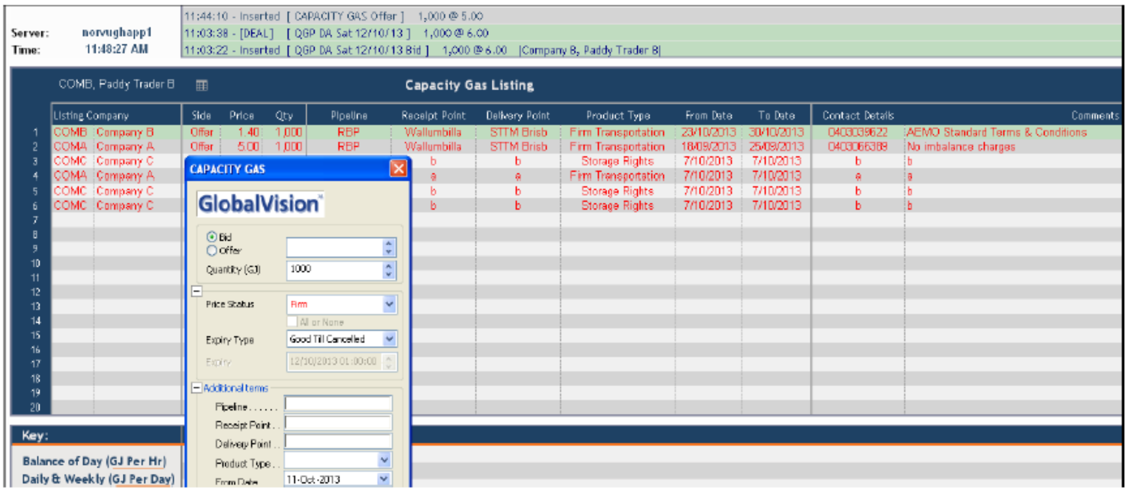
## 6.2 Capacity listing service

The capacity listing service is also operated using Trayport's ETS. The listing service enables participants to advertise an interest to buy or sell transportation, compression and storage services through a bilateral trade. When listing these services, participants must provide information on the service and capacity being offered or sought, the term of the trade, the receipt and delivery points between which the service can be provided and the

73 AEMO, Gas Supply Hub Industry Guide, October 2016, p. 39.

listing party's name and contact details. This information is then published on the GSH and the BB (see Figure 6.2). If another party decides that it wants to enter into a trade with the listing party, then it can contact the listing party directly and negotiate the terms of that trade bilaterally.[74]

**Figure 6.2: GSH listing service screenshot**




Source: AEMO, Gas Supply Hub Industry Guide, October 2016, p. 45.

## 6.3 Use of the GSH

To utilise the GSH, market participants must be registered as GSH members and agree to be bound by the Exchange Agreement, which sets out the terms of participation in the GSH and the terms governing transactions entered into through the exchange. They must also pay a fixed participation fee and depending on the membership class, a variable transaction fee.

There are three classes of GSH members:

- **Trading Participants** are members that have access to the trading system to the extent required to participate in exchange trading. Trading Participants are currently required to pay a fixed annual fee of $14,500 for a single licence and variable transaction fees of $0.01-$0.03/GJ depending on the tenor of the product purchased. AEMO is, however, considering whether to reduce the fixed fee to $12,000 p.a. and to offer a rebate if, within a billing period, variable transaction fees are $7,000 or more.[75]
- **Viewing Participants** are members that have access to the trading system to the extent required to view information about product trading. Viewing Participants are currently required to pay a fixed annual fee of $5,500 per licence, but AEMO is currently considering whether to reduce this to an annual fee of $3,600.[76]
- **Reallocation Participants** are members that have access to the Trading System to the extent required to participate in reallocations.[77] Reallocation Participants are currently required to pay a fixed annual fee of $9,000.

74 ibid, pp. 44-45.

75 AEMO, Impact and Implementation Report: GSH Exchange Agreement, 25 August 2017.

76 ibid

77 Reallocations are a transfer of a settlement amount from one party to another.

Market participants that want to trade transportation capacity products using the exchange will need to be registered as a Trading Participant, while participants that only want to use the listing service can just be registered as a Viewing Participant. If a market participant is an existing GSH Trading Participant, then it will not need to complete another registration to trade these products. If, however, a market participant is not already registered, it will need to register to become a Trading Participant and provide AEMO with organisational and financial information, pay the fixed participation fee (on a monthly basis) and post collateral with AEMO to be granted a financial trading limit on the exchange.[78] As outlined in Table 2.1, shippers wishing to procure capacity from the exchange will also need to enter into an operational GTA with the relevant service provider(s).[79]

The Exchange Agreement provides Trading Participants with two types of access to products: automatic or requested. Participants currently have access to all trading products on the GSH when they become a Trading Participant, but they can ask AEMO to limit their access to particular products.[80]

Under the terms of the Exchange Agreement, AEMO may restrict a participant from access to, or use of, the GSH in whole or part if a suspension event occurs. A suspension event includes:

- the failure of the participant to meet a margin call;
- AEMO having reasonable grounds to believe the participant is no longer eligible to trade in a product and the participant not providing sufficient evidence to verify its eligibility; or
- the Trading Participant's delivery variance quantity (i.e. the difference between the quantity it was obligated to deliver and the actual quantity it delivered) is greater than 25% of the delivery quantity on three or more occasions in a rolling six-month period without a reasonable explanation.

AEMO may also suspend a Trading Participant from trading at the request of the AER in connection with an investigation of breaches of the market conduct provisions in Part 22 of the NGR. Under the terms of the Exchange Agreement, the suspension can only be lifted if AEMO is satisfied that the reason for the suspension no longer applies, or the act giving rise to the suspension no longer warrants continued suspension. If a participant fails to respond to a default notice AEMO can suspend the participant's membership and close out any net long or net short transactions using the GSH Close Out and Offset Procedure (see Box 10.1).

The Exchange Agreement also allows AEMO to terminate a participant's membership if a default event occurs. A default event includes:

- the failure of the participant to pay an amount due;
- the participant breaches the market conduct rules in the NGR (see Box 6.2); or

[78] The registration process takes up to 15 business days from receiving a complete application and associated documents. All the information required to register in the GSH, including the GSH Member Registration Guide can be found on AEMO's website. See: https://www.aemo.com.au/Gas/Gas-Supply-Hubs/Participant-information/How-to-register

[79] The service provider can also offer an operational GTA-style service under a primary GTA, allowing a primary shipper to roll capacity bought in the secondary market into the primary GTA.

[80] For example, a participant may ask AEMO to restrict access to the South East Queensland (SEQ) product because it does not have agreements in place on the Roma to Brisbane Pipeline (RBP).

- the participant no longer meets the criteria for registration in the relevant category.

## 6.4 Current governance framework

The governance framework for the GSH is set out in the NGL, Part 22 of the NGR, the Exchange Agreement and a number of procedures. Table 6.1 provides an overview of the key elements of this framework, while Box 6.2 sets out the GSH market conduct rules, which are a key element of the GSH governance framework that is overseen by the AER.

**Table 6.1: Current GSH governance framework**

| Instrument | Description |
|---|---|
| NGL | AEMO operates the GSH as one of its statutory functions under section 91BRK of the NGL. This section of the NGL provides for AEMO to establish, operate and administer 'gas trading exchanges', which are defined as a facility through which persons may elect to buy and sell natural gas or related goods or services, including pipeline capacity.<br>This section of the NGL also allows AEMO to make and administer a gas trading Exchange Agreement for the purposes of the exchange. AEMO's gas trading exchange functions and the operation of the gas trading exchange are included as subjects for the NGR (section 74(1)(aaa)). |
| NGR | Part 22 of the NGR contains rules applicable to the GSH. Matters covered in Part 22 include:<br>▪ high level design parameters for the exchange;<br>▪ arrangements for the determination of charges for delivery failures;<br>▪ arrangements for becoming a member;<br>▪ AEMO's power to suspend a member;<br>▪ the subject matter for the exchange agreement; and<br>▪ the market conduct rules (see Box 6.2).<br>Part 22 can be amended by the AEMC through the usual rule change process.<br>The AER monitors compliance and can investigate and enforce breaches under its general powers. It also has a specific duty in Part 22 to monitor compliance with the market conduct rules. |
| Exchange Agreement | The Exchange Agreement that has been developed by AEMO in accordance with the NGR and NGL, is a multilateral contract. It covers admission to the exchange, prudential requirements, operation of the exchange, product definition, delivery obligations and settlement. Some provisions (such as the Settlements and Prudential Methodology) are set out in subsidiary documents.<br>The Exchange Agreement can be amended by AEMO over time to, for example, add new products, remove redundant products, or make refinements to existing products. Specifically, rule 540 allows any person to propose an amendment to the Exchange Agreement and states that AEMO can approve the amendment if it is satisfied: (a) the amendment is consistent with the NGL and the NGR; and (b) the amendment is appropriate having regard to the NGO and the compliance costs likely to be incurred by AEMO and participants. Before making a change, AEMO must consult with gas trading exchange members and any other persons AEMO thinks would be affected by the proposed amendment. |

| Instrument | Description |
|---|---|
| GSH Subsidiary Documents | AEMO has the power to make procedures in accordance with the Exchange Agreement. The procedures that AEMO has published to date include procedures on:<br>▪ reallocation (the Reallocation Procedure);<br>▪ the interface between systems (the Interface Protocol);<br>▪ exchange fees; and<br>▪ security deposits. |

**Box 6.2: Market Conduct Rules**

The market conduct rules are set out in rules 542-544 of Part 22 of the NGR.

Rule 542 states that a GSH member must, in relation to its activities in connection with the GSH or the products it trades on the GSH:

(a) comply with all applicable laws relevant to the performance of its obligations; and

(b) not act fraudulently, dishonestly or in bad faith; and

(c) not engage in any conduct with the intent of distorting or manipulating prices (including reported prices) or misleading any person.

Rule 543 sets out a number of specific conduct rules relating to the trade of products on the GSH and states that:

(1) A GSH member must not submit offers to buy or sell products on the GSH:

(a) if the member knows, or ought to know, that it will not be able to perform its obligations under a resulting transaction;

(b) with the intention of defaulting in its performance;

(c) with the intention of causing a transaction with itself; or

(d) with the intention of causing a transaction with an associate, in circumstances where the terms of that transaction may be varied on terms that would not reasonably be agreed with a separate unrelated party.

(2) A GSH member must not intentionally or recklessly default in the performance of its obligations under any transaction arising on the GSH.

(3) A GSH member must not manipulate or attempt to manipulate the price of products traded on the gas trading exchange.

Rule 544 sets out a number of specific conduct rules relating to the provision of information and states that:

(1) A GSH member must take all reasonable steps to ensure that all data and information given to AEMO or another member in accordance with the Exchange Agreement is correct.

(2) A GSH member must comply with its obligations under the Exchange Agreement to keep information confidential.

These rules are all classified as conduct and civil penalty provisions and compliance with the rules is overseen by the AER.

# 7. Capacity Products to be Sold on the GSH

In the *East Coast Review*, the AEMC noted that the capacity trading platform could be used to sell a range of services on a firm, as available or interruptible basis including:[81]

- transportation services, such as forward haul, backhaul or bi-directional services;
- pipeline storage services, such as park[82] or park and loan[83] services; and
- hub compression services.

While the AEMC was of the view that as many services as possible should be capable of being traded on the platform, it noted that in the initial stages of development there may be value in avoiding any unnecessary complexity by, for example, limiting the services to be sold to the most popular transportation routes at market start.[84] The AEMC also noted that to maximise the pool of potential buyers and sellers of secondary capacity via the exchange, some degree of product standardisation would be required.

These recommendations have been considered in some detail by the Capacity Trading Platform project team. In doing so, the project team considered the types of products that should be available on the exchange at market start, how the exchange traded products should be standardised and the charging parameters that should be used for these products.

Further detail on the position the Capacity Trading Platform project team reached on each of these issues and the GMRG's preliminary views is provided in the remainder of this chapter.

## 7.1 Initial set of products to be sold on the exchange

Transportation assets can, as the AEMC noted, be used to provide a variety of transportation, storage and compression services on a firm, as available and interruptible basis. Like the AEMC, the project team were of the view that the initial set of exchange traded products should seek to maximise the level of trade and value to the market. This view is reflected in Table 7.1, which contains a summary of the position the project team reached on the transportation, storage and compression services that should be available on the capacity trading platform at market start.

In short, the project team was of the view that the initial set of products should be limited to firm forward haul, park and compression services on the transportation assets connecting major supply and demand centres in the east coast.

81 AEMC, Stage 2 Final Report: *East Coast Review*, 23 May 2016, p. 101.

82 A park service allows a shipper to inject more gas into a pipeline than it takes out on a particular day, up to a specified level, without incurring imbalance charges. The additional gas supplied into the pipeline (positive imbalance) may be withdrawn by the shipper at a later point in time, although the total volume of gas withdrawn on a particular day must not exceed the capacity specified in the shipper's transportation contract.

83 A loan service allows a shipper to inject less gas than it takes on any given day (negative imbalance), up to a specified level, without incurring imbalance charges. Any additional gas taken by the shipper on a particular day (i.e., the loan) must be 'repaid' within the time specified in the contract.

84 AEMC, Stage 2 Final Report: *East Coast Review*, 23 May 2016, p. 97.

The GMRG agrees with this view and notes that while the list of products may appear somewhat limited, shippers will be able to use the listing service to advertise their interest to buy or sell capacity products that are not listed on the exchange through a bilateral trade. Once the exchange is operating, shippers will also be able to request an amendment to the Exchange Agreement to add new products to the exchange, remove redundant products or refine existing products (see Table 6.1 for more detail).

**Table 7.1: Project team's views on products to be listed on the exchange**

| Product | View |
|---|---|
| Transportation services (forward haul, bi-directional and backhaul) | The project team agreed that firm forward haul products should be included on the exchange and be available in both directions on bi-directional pipelines. Questions were, however, raised about the value of including as available or interruptible transportation services (including backhaul services) on the exchange, with project team members noting that:<br>▪ there was unlikely to be much demand for these services given the uncertainty surrounding deliverability; and<br>▪ primary shippers usually only pay for these services when they use them and so do not have as strong an incentive to sell these services as firm forward haul products where shippers usually have to pay for capacity irrespective of whether or not they use it. |
| Park, or park and loan services | The project team thought there would be value in including a firm park product on the exchange because it would:<br>▪ provide secondary shippers that have an existing transportation service with greater flexibility to manage variations in demand; and<br>▪ allow primary shippers that have to pay for this service irrespective of whether or not they use it, to recover some of the fixed costs for this service.<br>When asked if a park service could be sold on a separable basis, the project team stated that it could but noted the buyer would need its own transportation service to utilise the park service (i.e. because gas must be supplied into the pipeline and ultimately transported to the end location). In a similar manner to transportation services, the project team did not think there would be value in including an as available or interruptible park product.<br>The project team also considered whether a park and loan service could be traded on the exchange, but concluded that the risk associated with the loan component of this product may expose the service provider to too great a risk if the shipper did not 'repay' the gas it had taken at the end of the trade. |
| Compression services between interconnecting pipelines | The project team noted that AEMO has already introduced a compression product on the GSH, which is available in the Wallumbilla Hub. Mixed views were expressed by the project team about whether the list of compression products should be expanded, with some questioning the value of including this service on the exchange, while others noted that difficulties in getting access to these services could impede trading across the market.<br>The two scenarios that the project team discussed in this context were:<br>1. Compression services provided in a GSH (i.e. Wallumbilla and Moomba), which members noted could be sold on a stand-alone basis.<br>2. Stand-alone compression services offered in other locations where the compression service is required to address pressure differentials between interconnecting pipelines and the operator of the compression facility differs from the pipeline operator (e.g. the compressor Santos owns at Ballera, which is required to access the CGP and the compressor Lochard owns at Iona, which is used by some shippers in conjunction with storage services, to access the SEAGas Pipeline).<br>In the latter case, the project team thought that if compression was to be traded then the transportation product could be sold on a bundled basis through the exchange, although it was noted that the buyer would need to have operational GTAs in place with the service provider of both the pipeline and the compression facility to utilise both facilities.<br>Like transportation and park services, the project team thought that if compression services were to be included on the exchange, it should be sold on a firm basis only. |

In addition to the products outlined above, the project team also considered whether locational gas swaps should be developed as part of this process (see Box 7.1 for more detail on swaps). Mixed views were expressed on this issue, with some team members noting that there would be value in developing locational swaps for trade through the exchange. Others thought it went beyond the scope of the AEMC's recommendations. It was also noted in this context that:

- the delivery obligations are quite different under a locational gas swap than they are under a secondary capacity trade because swap counterparties have an obligation to deliver gas to the relevant location, while the seller of transportation capacity only has to release capacity to another shipper to use; and
- the contractual arrangements required to underpin the swap would be quite different from the operational GTA that has been developed for capacity trades, so further work would be required to develop these arrangements.

Given these issues, the project team agreed that the initial focus of the capacity trading platform should be on the capacity products listed above and consideration be given to the inclusion of locational swaps at a later date.

While the GMRG understands that gas swaps are becoming more prevalent in the market, the nature of this product is quite different from the capacity products that the AEMC recommended be developed as part of the capacity trading reform package. The GMRG therefore agrees with the position the project team reached on this issue and notes that the decision to focus on capacity products at this stage will not prevent parties from entering into locational gas swaps, or advertising swaps on the listing service. Nor will it prevent participants that think locational gas swaps should be added to the GSH from submitting a proposal to AEMO to include it as product in the future.

The GMRG is interested in hearing whether stakeholders agree with the position the project team reached on the initial list of products to be made available on the exchange, or whether they think other products should also be included, such as:

- backhaul services on those pipelines that are not operating on a bi-directional basis – while the project team raised some potential limitations with this product (see Table 7.1) the GMRG is interested in other stakeholders' views;
- an imbalance exchange traded product that parties could use to clear imbalances (see section 5.2); and/or
- other (non-pipeline) storage products (e.g. the Western Underground Storage Facility, the Dandenong LNG storage facility and other storage facilities providing third party access) – note that the inclusion of this type of product goes beyond the AEMC's recommendations but could be of some value to the market if users of these facilities are able to trade their capacity.

The box below contains some specific questions on these issues.

### Box 7.1: Locational gas swaps

A physical gas swap involves the exchange of gas at different locations. Swaps may be entered into for a variety of reasons, including to overcome pipeline constraints, production constraints and geographic demand-supply imbalances. They may also be used to reduce or avoid transportation costs. The location at which gas is swapped will depend on the parties' requirements but in general, the swap may occur at the point of production, a delivered location or a combination of the two.

The way in which a swap can work can be seen in the following example, which assumes that:

- Santos has 20 PJ p.a. of gas in the Gippsland Basin that it wants to supply to its LNG facility in Gladstone; and
- AGL has a 20 PJ p.a. gas supply contract in place with producers in the Bowen/Surat basins and takes delivery of that gas at Wallumbilla and then transports it to Sydney (via the SWQP and MSP) and Victoria (via the SWQP, MSP and the Declared Transmission System (DTS)).

The alternative locations at which this gas could be exchanged are as follows:

- Santos could take delivery of the gas at either Wallumbilla or Moomba and then transport the gas to Gladstone via the SWQP and the dedicated GLNG pipeline. If the gas is taken at Moomba then AGL would have to transport the gas under its transportation contract on the SWQP from Wallumbilla to Moomba; and
- AGL could take delivery of the gas in Sydney and/or Victoria. If the gas is supplied in Sydney, then Santos would require a GTA with either the EGP or the DTS and MSP to enable the gas to be delivered from the Gippsland Basin to Sydney. If the gas is supplied to Victoria then Santos could just deliver the gas into the DTS.

### Box 7.2: Questions on the initial set of exchange traded products

68. Do you agree with the project team's view that the initial set of products should be limited to firm forward haul, firm park and firm compression services on the transportation assets connecting major supply and demand centres in the east coast? If not, what products do you think should be excluded from or added to the list?
69. Do you think there would be value in the GMRG developing the following services ahead of market start, or do you think they could be developed after market start:
    - backhaul services on pipelines that are not bi-directional?
    - locational swaps?
    - an imbalance exchange traded product that parties could use to clear imbalances (see section 5.2)?
    - other (non-pipeline) storage products, such as those offered by Lochard's underground storage facility, APA's Dandenong LNG storage facility?
70. If you think locational swaps should be developed for market start:
    - Do you think they are a substitute for capacity products, or a separate product?
    - Do you think swaps could be used in place of backhaul services at market start?
    - What locational combinations do you think should be available?

## 7.2 Standardised products to be sold on the exchange

As the AEMC noted, before the firm forward haul, park and compression products can be listed on the exchange, they will need to undergo some degree of standardisation across the following service dimensions:

- contract path (i.e. the zones between which capacity will be transported);
- contract size (MDQ and Maximum Hourly Quantity (MHQ)); and
- contract tenor.

Table 7.2 provides a summary of the Capacity Trading Platform project team's views on how these service dimensions should be standardised. These views have informed the development of an initial set of standardised forward haul, park and compression products that can be traded on the exchange, the details of which are set out below.

**Table 7.2: Summary of views on standardised products**

<table>
<tr><th colspan="2"></th><th>Firm forward haul service</th><th>Firm compression service</th><th>Firm park service</th></tr>
<tr><td colspan="2">Contract paths or facility</td><td>The project team thought that standardised forward haul services should be available on all the major transmission pipelines in the east coast and the Northern Territory, once it is connected. The specific pipelines that were identified in this context include the RBP, QGP, SWQP, CGP, MSP, EGP, MAPS, SEAGas Pipeline, the Tasmanian Gas Pipeline (TGP), the NGP and Amadeus to Darwin Pipeline (ADP).</td><td>The project team thought that if standardised compression services are to be offered on the exchange then they should be available at Wallumbilla and Moomba to facilitate trade through the hub. Some project team members also noted that there may be value in having either a stand-alone or bundled compression-transportation service at other facility interconnection points, such as Ballera.</td><td>The project team thought that standardised park services should be available on all the pipelines that offer this as a firm service, which includes the RBP, SWQP, MSP, EGP, MAPS and TGP.</td></tr>
<tr><td rowspan="2">Contract size</td><td>MDQ</td><td colspan="3">A number of project team members noted that while the current minimum MDQ parcel size for the GSH is 1 TJ, there may be value in adopting a smaller contract size for capacity products. The two alternatives that the project team identified in this context were 100 GJ and 500 GJ. Of these two alternatives, the 500 GJ option was considered more appropriate although there was still some support for the 1 TJ option.<br>The project team also agreed that these products should have a reasonable endeavours renomination right, which is reflected in the draft standard terms (see Chapter 3).</td></tr>
<tr><td>MHQ</td><td colspan="2">The project team noted that it may not be possible to have a standardised MHQ factor of more than 1 (i.e. MDQ/24) because not all pipelines offer MHQ flexibility. This was confirmed in the GMRG's discussions with a number of service providers, with Epic, APA and Jemena advising that an MHQ factor of 1.1 would be possible on their respective pipelines, while TGP and SEAGas advised that they could only offer an MHQ factor of 1.</td><td>n.a.</td></tr>
</table>

| | Firm forward haul service | Firm compression service | Firm park service |
|---|---|---|---|
| **Contract tenor** | The project team agreed that the term of the standardised products should, with the exception of the balance of day product,[85] be aligned with the GSH products, which currently include:<br>▪ **a day-ahead product,** which is available at the start of trade on D-1 until close of trade for the day-ahead product on D-1.<br>▪ **a daily product (6 days),** which is available at the start of trade on D-7 until close of trade on D-2.<br>▪ **a weekly product (next 4 weeks)**, which is currently available from Sunday until Saturday with the trading window opening four weeks prior to gas day D and closes at the end of trade on D-2.<br>▪ **a monthly product (next 3 months),** which is currently available three months prior to the gas day until close of trade on D-2.<br>Some members of the project team also suggested that there may be value in developing a quarterly product that could be traded out to 12 months on a rolling basis. This proposal was not, however, endorsed by all of the project team, with some members noting that it will increase the risk in terms of forward exposure, which will increase from three months to 12 months. It was also noted that the collateral required for up to 12 months was likely to be substantial and was likely to discourage anyone from using this product. | | |

### 7.2.1 Standardised firm forward haul services

Table 7.3 sets out the GMRG's preliminary view on the standardised firm forward haul products that should be available for screen trading through the exchange at market start. As noted in section 4.2, the Standardisation project team has recommended the use of the zonal model for trades carried out through the exchange, which means that:

- primary shippers will be able to sell the point-to-point capacity they have specified in their primary GTAs on a zone-to-zone basis; and
- secondary shippers will be able to acquire capacity on a zone-to-zone basis and to have secondary firm rights at all the receipt and delivery points within each zone (note that while shippers are purchasing a zonal product they will be required to nominate to use specific receipt and delivery points).[86]

The contract paths appearing in this table have therefore been developed having regard to the preliminary work that APA, Epic, Jemena and SEAGas have carried out on receipt and delivery point zones.

As is currently the case for gas products, all screen-traded products will be available for pre-matched trades. Members of the Capacity Trading Platform project team noted that some additional pre-matched trade products may be required to enable primary shippers on smaller pipelines or laterals that may be subject to the day-ahead auction to trade their capacity relatively easily (for example, the Angaston and Whyalla laterals). Some other project team members suggested that the pre-matched service should be available between all zones on a pipeline, or between all points on a pipeline. There are, however,

[85] A balance-of-day product will not be possible to trade through the platform because of the operation of the day-ahead auction.

[86] Prior to using a multi-user receipt or delivery point within a zone, the secondary shipper will need to become a party to the relevant allocation agreement and any other arrangements that may be in place at the point they wish to use.

some regulatory limits on pre-matched products. The listing of these types of pre-matched products may therefore be limited by other regulatory requirements at market start.

**Table 7.3: Standardised firm forward haul products – screen traded products**

| Standardised Product | | | |
|---|---|---|---|
| **Contract Size** | | **Minimum Contract Size** | |
| Day-ahead product | | MDQ: 500 GJ<br>MHQ factor: 1 (i.e. MDQ/24) | |
| Daily product (available on a 6 day rolling basis) | | | |
| Weekly (available on a 4 week rolling basis) | | | |
| Monthly (available on a 3 month rolling basis) | | | |
| **Contract paths** | | | |
| **Pipeline** | **Service provider** | **Receipt Zone** | **Delivery Zone** |
| RBP | APA | Wallumbilla zone (runs 1, 2, 3, 4 and 7) | Brisbane STTM zone |
| | | Darling Downs (Kogan North, Scotia, Woodroyd, Condamine, Windibri, Argyle) | Wallumbilla (Low Pressure Trade Point (LPTP)[87] |
| QGP | Jemena | Wallumbilla (High Pressure Trade Point (HPTP)[88] | Gladstone (Gladstone, Wide Bay, NOR, Qld Alumina, Boyne, Yarwun, Orica) |
| SWQP | APA | Wallumbilla (HPTP) | Moomba Compression Facility (MCF)[89] |
| | | Moomba (MCF) | Wallumbilla (LPTP) |
| CGP | APA | Ballera (includes compression service provided by Santos) | Mt Isa (Mt Isa Mine, Diamantina, Mica Creek, Phosphate Hill, Osborne, Cannington) |
| MSP | APA | Moomba (MSP Inlet) | Sydney STTM (Wilton) |
| | | Moomba (MSP Inlet) | Culcairn (Culcairn South) |
| | | Culcairn (Culcairn North) | Moomba (MCF) |
| | | Culcairn (Culcairn North) | Sydney STTM (Wilton) |
| EGP | Jemena | Longford | Sydney STTM |
| MAPS | Epic | Moomba (MAPS IPT) | Adelaide STTM (Metro Mainline) |
| SEAGas | APA /REST | Brumby | Adelaide STTM |
| TGP | Palisade | Longford (includes TGP transfer service provided by Jemena) | Hobart |
| DTS Transfer Service | Jemena | Longford zone | Entry point of DTS |
| NGP | Jemena | Warrego | Mt Isa |
| ADP | APA | Mereenie and Palm Valley | Darwin City Gate |
| | | | Tennant Creek |
| | | Bonaparte | Darwin City Gate |
| | | | Tennant Creek |

### 7.2.2 Standardised compression products

Table 7.4 sets out the GMRG's preliminary view on the standardised firm compression products that should be available for screen trading through the exchange at market start. It is worth noting in this context that the current Wallumbilla compression product listed on

87 The LPTP (Low Pressure Trade Point) is a notional point in APA's Wallumbilla hub at the low pressure header.

88 The HPTP (High Pressure Trade Point) is a notional point in APA's Wallumbilla hub at the high pressure header.

89 The MCF (Moomba Compression Facility) is a notional point in APA's Moomba hub at the low pressure header.

the GSH is delivered through a swap instead of an operational transfer. A required outcome from the AEMC's *East Coast Review* is that trades carried out on the capacity trading platform be given effect through an operational transfer. A new Wallumbilla compression product will therefore need to be developed to meet this requirement.

**Table 7.4: Standardised firm compression products – screen-traded products**

| Standardised Product | | |
|---|---|---|
| **Contract Size** | | **Minimum Contract Size** |
| Day-ahead product | | MDQ: 500 GJ<br>MHQ factor: 1 (i.e. MDQ/24)<br>Reasonable endeavours renomination rights |
| Daily product (available on a 6 day rolling basis) | | |
| Weekly (available on a 4 week rolling basis) | | |
| Monthly (available on a 3 month rolling basis) | | |
| **Contract paths** | | |
| **Compressor location** | **Service provider** | **Compression product** |
| Wallumbilla[90] | APA | Wallumbilla LPTP to Wallumbilla HPTP |
| Moomba | APA | MCF to SWQP In-pipe Trade Point |

## 7.2.3 Standardised park products

Table 7.5 sets out the GMRG's preliminary view on the standardised firm park products that should be available for screen trading through the exchange at market start. It is worth noting in this context that park services are not offered on all pipelines, so the list of pipelines on which this service would be available is somewhat limited.

**Table 7.5: Standardised firm park products – screen traded products**

| Standardised Product | |
|---|---|
| **Contract Size** | **Minimum Contract Size** |
| Day-ahead product | MDQ: 500 GJ<br>MHQ factor: 1.1 (i.e. MDQ/24x1.1)<br>Reasonable endeavours renomination rights |
| Daily product (available on a 6 day rolling basis) | |
| Weekly (available on a 4 week rolling basis) | |
| Monthly (available on a 3 month rolling basis) | |
| **Contract paths** | |
| **Pipeline** | **Pipeline operator** |
| RBP | APA Group |
| SWQP | APA Group |
| MSP | APA Group |
| MAPS | Epic Energy |
| TGP | Palisade Investment Partners |
| EGP | Jemena |

[90] The current Wallumbilla compression product listed on the GSH is delivered through a swap instead of an operational transfer. A required outcome from the AEMC's *East Coast Review* is that trades carried out on the capacity trading platform be given effect through an operational transfer. A new Wallumbilla compression product will therefore need to be developed to meet this requirement.

As with the other products, the GMRG welcomes feedback on the park product specifications set out in Table 7.5.

### 7.2.4 Questions on standardised products

The GMRG is interested in stakeholders' views on the product specifications set out in sections 7.2.1-7.2.3 and, in particular, whether they agree with the proposed contract tenors, contract size and contract paths.

**Box 7.3: Questions on standardised products**

71. Do you agree with the proposed contract tenors for the standardised products (i.e. day-ahead, daily, weekly and monthly) at market start, or do you think other tenors should be included (e.g. a quarterly product) or excluded at market start?
72. Do you agree with the proposed contract sizes for the standardised products (500 GJ), or do you think a higher (e.g. 1 TJ) or lower (e.g. 100 GJ) contract size should be adopted?
73. **Firm forward haul products:** Do you agree with the proposed contract paths for the standardised firm forward haul products, or do you think other contract paths should be considered for market start?
74. **Compression products:** Do you agree with the proposed facilities on which this service would be available at market start?
75. **Park products:** Do you agree with the proposed pipelines on which this service would be available?

## 7.3 Charging parameter for capacity products

The GMRG understands that while the charges levied by service providers for firm forward haul, park and compression services are usually capacity based (i.e. $/GJ of MDQ) and payable irrespective of the volume of gas actually transported, there are some shippers that are currently paying:

- a purely variable charge ($/GJ), with the charge levied by the service provider depending on the volume of gas actually transported; and
- a combined capacity and variable charge.

This variation in charging parameters raises an important question about how the price of capacity products on the exchange should be expressed, with the options including a capacity based charge, a variable charge and a combined fixed and variable charge. The latter two of these options are problematic because they may result in the primary shipper obtaining information on how much gas the secondary shipper transported (unless the variable charge was payable to the service provider rather than the primary shipper). They would also result in higher system costs and complexity for AEMO, who would also need to know how much gas was transported to calculate the settlement amounts. So of the three options, the fixed capacity charge ($/GJ of MDQ) option appears to be the most workable.

If a capacity charge is applied, then the next question that must be considered is how to deal with the variable charge that the primary shipper is required to pay under its primary

GTA. There are three potential ways in which this issue could be resolved, each of which is likely to require amendments to the primary GTA:

- **Option 1:** The variable charge could be paid by the secondary shipper to the service provider, which would need to be set out in the operational GTA (note that this may not be equal to the charge in the primary shipper's GTA).
- **Option 2:** The variable charge could be paid by the primary shipper to the service provider, based on the actual volume of gas transported by the secondary shipper. This implicitly allows for the primary shipper to convert the variable charge into a fixed charge when the primary shipper offers the capacity on the exchange.
- **Option 3:** The primary shipper's variable charge could be converted by the service provider into a capacity charge for that portion of capacity that has been sold for the duration of the trade (i.e. it is assumed they use all the capacity every day of the trade and the service provider retains any difference between the reserved capacity and actual volume of gas transported).

The GMRG has not formed a view on the viability of any of these options, but it understands that while Option 1 appears to be the easiest option to implement, it cannot deal with the situation where the primary shipper's charge is a pure throughput charge and would result in financial risk being passed through to the service provider. Option 2, on the other hand, would result in the secondary shipper's information being provided to the primary shipper, which may result in a loss of commercial confidentiality for the secondary shipper. Another downside of this option is that the primary shipper would bear the risk associated with the secondary shipper's demand unless it converted the variable charge into a fixed charge. Option 3, which some pipelines already put in place, also appears problematic because it could introduce new costs for primary shippers and discourage their use of the platform.

The GMRG would value any thoughts that stakeholders have on these or any other options that could be used to deal with variable transportation charges.

**Box 7.4: Questions on treatment of variable transportation charges**

76. Which option do you think should be used to deal with those cases where a primary shipper is liable to pay a variable transportation charge under its primary GTA:
    - variable charge paid by secondary shipper to service provider?
    - variable charge paid by primary shipper to service provider, based on actual volumes transported by the secondary shipper?
    - primary shipper's variable charge converted to a fixed charge for that portion of capacity sold for the duration of the trade.

# 8. Delivery Process for Exchange Traded Products

In keeping with the AEMC's recommendation that all trades conducted through the exchange be given effect through an operational transfer, once a trade has occurred the capacity will need to be transferred by the service provider from the seller's GTA to the buyer's operational GTA. [91] This transfer will need to occur ahead of the gas day so that the buyer can take 'delivery' of the capacity and make nominations against the capacity prior to the service provider's nomination cut-off time.

At a high level, the delivery process is expected to involve:

- the provision of transaction information to service providers;
- service providers transferring the capacity from the seller to the buyer and providing AEMO and the buyer with confirmation that the transfer has occurred; and
- AEMO transferring the STTM trading rights and/or updating the DWGM accreditation constraints where applicable.

There are a number of ways in which these elements of the delivery process could be implemented, which are explored in further detail in the remainder of this chapter.

## 8.1 Provision of transaction information to service providers

The way in which transaction information is provided to service providers will depend on

- whether anonymity is to be preserved post-transaction;
- the frequency with which information is transferred; and
- the data interchange systems that are used.

These issues are discussed below.

### 8.1.1 Anonymity post transaction

Trades executed through the exchange will occur on an anonymous basis. After a transaction occurs on the exchange there are two options with respect to anonymity:

- **Partial anonymity**: Under this option the counterparties' names would be revealed after the transaction so they can jointly confirm the transfer of capacity with the service provider; or
- **Full anonymity**: Under this option AEMO would confirm the transaction with the service provider so counterparty names are not revealed.

#### Partial anonymity

Under the partially anonymous approach counterparties would be anonymous until the capacity needs to be transferred. At this point, AEMO would reveal the counterparty names so that participants can provide this information to the service provider. The

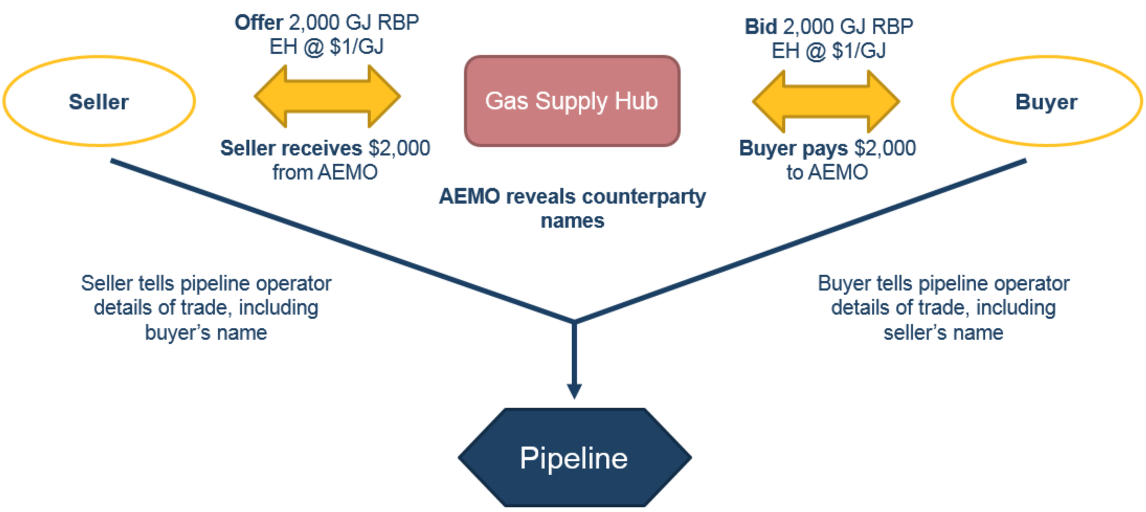
[91] The service provider can also offer an operational GTA-style service under a primary GTA, allowing a primary shipper to roll capacity bought in the secondary market into the primary GTA.

information that counterparties would be expected to provide to the service provider, includes:

- the amount of capacity that has been traded;
- the buyer's and seller's identities;
- the seller's GTA that the capacity will be transferred from and the receipt and delivery points from which the capacity will be released; and
- the buyer's operational GTA that the capacity will be transferred to and the receipt and delivery points the buyer intends to use (note that information on receipt and delivery points could also be provided through the nomination process).

The partially anonymous option is illustrated in Figure 8.1. The top line shows a transaction taking place on the exchange. To facilitate the transfer of capacity, AEMO would reveal counterparty names and shippers would confirm the capacity transfer with the service provider separately.

**Figure 8.1: Partial anonymity**

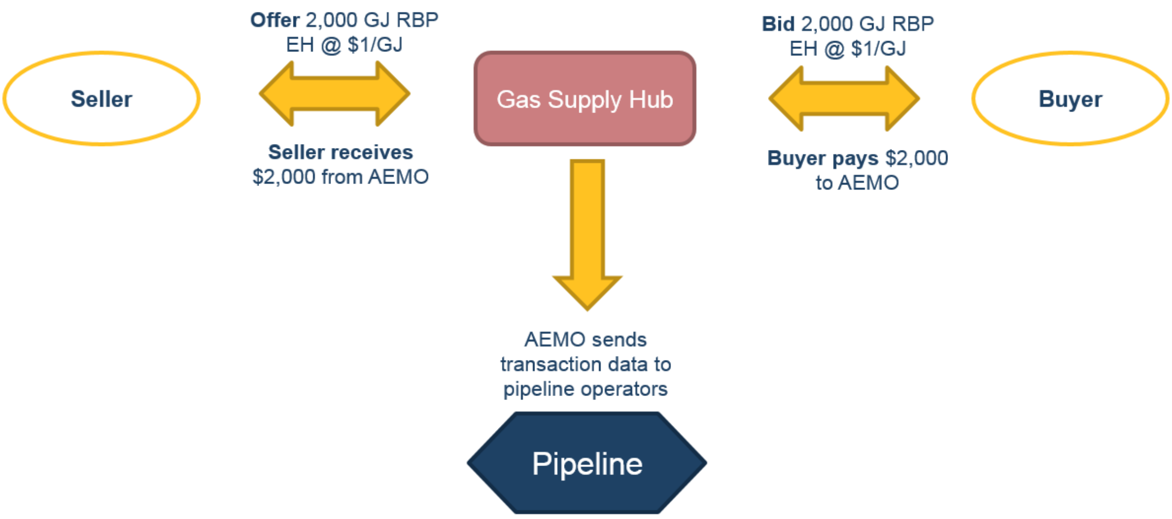



The key difference between this option and the fully anonymous option is that rather than AEMO providing the transaction information directly to the service provider, AEMO would provide the information to the trading counterparties as part of the trade confirmation. The information would then be provided by the counterparties to the service provider. The cost of advising the service provider about any trades would therefore be borne by shippers rather than AEMO. From AEMO's perspective, the cost saving is likely to be relatively low because data links would still be required for the day-ahead auction and to potentially facilitate the transfer of STTM trading rights (see section 8.3.1).

### Full anonymity

Under the fully anonymous option, the names of counterparties would not be revealed post transaction. AEMO's systems would send the transaction information to the relevant service provider each day and service providers would then transfer the capacity. The way in which the fully anonymous option would operate is shown in Figure 8.2.

**Figure 8.2: Full anonymity**




### GMRG's preliminary view and questions for stakeholders

The options outlined above were discussed with the Capacity Trading Platform project team and a number of pipeline operators. In short, the project team and pipeline operators that were spoken to were of the view that the fully anonymous option should be employed. Like the project team, the GMRG can see the merit of adopting the fully anonymous option and its preliminary view is that this option be implemented. The GMRG is, however, interested in hearing other stakeholders' views on the two options.

**Box 8.1: Questions on partial or full anonymity**

77. Do you agree that the fully anonymous option should be implemented? If not, please explain why.

## 8.1.2 Frequency with which information is relayed to service providers

The provision of trading information to the service provider could occur:

1. after each transaction;
2. once a day for all transactions that have occurred in the last 24 hours; or
3. once a day for transactions that will be on foot on the following gas day.

Under options 2 and 3, AEMO would provide netted transaction information to shippers and service providers. This means that, where a shipper had bought and sold the same capacity product for the same gas day, AEMO would net the transaction before sending the capacity transfer information to the service provider to give effect to the capacity transfer.

These options are discussed in further detail below. Note that the description of each of these options assumes the implementation of the fully anonymous model. If the partially anonymous model was to be implemented, then it would be the counterparties receiving the information from AEMO and providing the relevant information to the service provider.

### Option 1: Transfer of capacity after each transaction

Under this option AEMO would send service providers a transaction report after each trade takes place on the platform and, subject to verification, the capacity would be transferred immediately after each trade. The pros and cons of this option are as follows:

- **Pros**: Service providers would be able to keep track of the capacity being sold on the exchange on a trade-by-trade basis, which would minimise the risk of capacity being oversold and delivery failure.
- **Cons**: It may be costly for service providers to develop systems to receive and process potentially large amounts of data. Full automation is also likely to be required by AEMO and service providers to manage the administrative burden.

### Option 2: Transfer of capacity once per day for all transactions

Under this option AEMO would send net positions to the service providers once a day for all the trades that have occurred in the last 24 hours (including day-ahead trades and trades with longer tenors). Subject to verification, the service providers would transfer capacity for all tenors in time to allow shippers to nominate against any day-ahead products they had purchased. The pros and cons of this option are as follows:

- **Pros:** Service providers would receive one batch of data per day from AEMO for the capacity trading platform and transfer the capacity once a day. For longer dated products, such as a monthly product, service providers would only need to transfer the capacity once after the transaction occurs and not each day.

  Transferring capacity for all transactions on a daily basis limits the extent to which a shipper can sell capacity it does not have, as service providers will not be able to transfer the capacity. Any issues will become known on a daily basis, potentially providing sufficient time for shippers to resolve them ahead of delivery and thus supporting confidence in the market.

  Transferring capacity on a daily basis allows shippers to submit forecast nominations more than 24 hours ahead of the gas day, providing more information into service providers' operational planning processes, which should result in greater operational efficiencies.
- **Cons:** Because service providers are transferring capacity for transactions that apply day-ahead as well as those into the future, the capacity may need to be transferred multiple times between parties if it is on-sold. For instance, a daily product for next week may 'churn' 10 times between when it was first sold and the day-ahead cut-off point for trading. However, if churn of products is low, this issue will not be material.

### Option 3: Transfer of capacity once per day for day-ahead transactions

Under this option AEMO would send net positions to service providers for the transactions that will be on foot the next day. Service providers would then transfer that capacity prior to the nomination cut-off time, subject to verification. AEMO could also provide additional information on transactions applying past day-ahead. This would facilitate monitoring of future positions. The pros and cons of this option are as follows:

- **Pros:** Service providers would be required to transfer capacity once per day, for the following day. This would avoid having to potentially transfer capacity multiple times if

there is churn. Service providers would also have the information to transfer capacity for future trades if they chose to.

- **Cons:** Transferring capacity for the following day only provides a small window within which a seller can rectify a situation if they have oversold capacity. This may lead to a greater possibility of a shortfall and potential delivery default, particularly if the pipeline is constrained.

  For longer dated products, such as a monthly product, there will be a higher administrative burden for service providers. For example, under options 1 and 2 capacity would be transferred once for a monthly product, whereas under this option it would be transferred 30-31 times. This option would not therefore allow shippers to provide forecast nominations, potentially reducing the ability of service providers to maximise the operational efficiencies of their pipelines.

#### GMRG's preliminary view and questions for stakeholders

The options outlined above were considered by the Capacity Trading Platform project team and pipeline operators, who were of the view that **Option 2** should be implemented because it would:

- provide parties greater scope to resolve any issues that may arise during the capacity transfer process; and
- enable service providers to be more informed about the expected use of their facilities.

The GMRG agrees with this view and notes that Option 2 provides a more appropriate balance between the costs of transferring information to the service provider and the management of risks. This is, however, a preliminary view only and the GMRG is interested in whether there is any stakeholder support for the other two options.

**Box 8.2: Questions on information to be provided to service providers**

78. Do you agree that Option 2 should be implemented? If not, please explain why.
79. Do you think AEMO should net out shippers' positions prior to transaction information being provided to service providers to transfer capacity? If not, please explain why.

### 8.1.3 Other information that could be provided to service providers

In addition to providing service providers with information on the capacity that has been traded and the term of the trade, the Capacity Trading Platform project team noted that there may be value in collecting the following information from buyers and sellers at the time the trade is conducted and to provide it to the service provider:[92]

- the GTA that the seller wants to deduct the sold capacity from and the receipt and delivery points it intends to release the capacity from; and

[92] The provision of this information to the service provider may be of some value if, for example the seller has multiple primary GTAs on a pipeline, or the buyer has an operational GTA as well as a primary GTA that it can use to allocate capacity to.

- the operational GTA[93] that the buyer wants to add the capacity to and the receipt and delivery points it intends to use.

This information could be provided by buyers and sellers at the time of the trade and communicated by AEMO to service providers along with shippers' net positions. Alternatively, this information could be provided directly by the counterparties to the service provider.

### GMRG's preliminary view and questions for stakeholders

The GMRG believes there is merit in the exchange collecting the contract and receipt and delivery point information and providing this information to the service provider. This is because it will reduce the administrative burden for shippers and service providers who would otherwise need to liaise with each other after the trade to transfer this information. The GMRG is interested, however, in obtaining other stakeholders' perspectives on this issue and the questions set out in the box below.

**Box 8.3: Questions on other information that could be collected and provided**

80. Do you think there is value in having AEMO:
    - o collect information from the seller on the GTA and receipt and delivery points that it wants to deduct the capacity from and to provide this to service providers?
    - o collect information from buyers on the GTA they want to add the capacity to and the receipt and delivery points they intend to use?

    Or do you think this information should be provided directly by the counterparties to the service provider?
81. If you think the information should be provided by counterparties, at what point do you think they should be required to do so (e.g. as soon as practicable after the trade occurs or through the nomination process)?

## 8.1.4 Data interchange between AEMO and service providers

Under the fully anonymous model, data links will be required between AEMO and service providers. To minimise costs, AEMO is proposing to utilise one of the existing data exchange systems, such as the BB data exchange or the STTM Interface Protocol (SIP) data link.

The BB CSV interface provides a file gateway allowing service providers to submit market data to AEMO using File Transfer Protocol (FTP). BB participants have two options to submit their CSV files:[94]

- CSV file upload using FTP; and
- CSV file upload using the website upload page.

93 As outlined in section 3, a service provider and secondary shipper may agree to include secondary capacity purchases in the shipper's primary GTA. If this is agreed to, then information on the primary GTA that the shipper wants to add the capacity to could also be collected and provided to the service provider.

94 AEMO, Guide to Natural Gas Services Bulletin Board CSV File Transactions, October 2016, p. 7-8.

This exchange is used by all service providers on the east coast that are required to report information to the BB, which should minimise implementation risks and costs.

Another option is to use the SIP data link.[95] The SIP is used to transfer data between STTM registered participants, service providers and AEMO. Four different interfaces are available under the SIP to submit information to and from AEMO:

- direct data entry using a browser;
- data loading using CSV file to browser;
- CSV file upload using FTP; and
- CSV file upload using HTTPS.

In contrast to the BB CSV interface, not all service providers are utilising the SIP data link because some are not connected to a STTM.

AEMO is carrying out further work on these options to understand the strengths, limitations and costs of the different options, but in the interim the GMRG is interested in hearing from service providers on which data interchange option they think should be used.

**Box 8.4: Questions on data interchange**

82. Do you think the BB CSV interface or STTM SIP data link should be used? Or do you think another option could be used?

## 8.2 Transfer of capacity

Once the service provider has received information on the trades that have occurred, it will need to transfer the capacity in sufficient time for shippers to nominate against any day-ahead products that may have been purchased on the exchange.[96] Service providers will also be required to confirm with AEMO that the transfers have occurred and provide buyers with notification as to when they can make nominations. The confirmation provided to AEMO could, where applicable, act as a trigger for STTM trading rights to be transferred or DWGM accreditation constraints updated (see section 8.3).

There may be circumstances in which the service provider is unable to transfer capacity because, for example:

- the seller has insufficient capacity at the time of transfer;
- the seller's primary GTA has been terminated or the seller has breached its obligations under the Exchange Agreement and membership is terminated by AEMO; or
- the service provider's or AEMO's systems or processes fail.

95 AEMO, STTM Participant Build Pack, 22 March 2017, p. 14.

96 Service providers will need to consider whether transferring MDQ will be undertaken manually or if systems will be built to automate this transfer.

While some thought has been given to how the first two of these risks could be dealt with (see Chapter 10), further consideration needs to be given to how the technical risks will be managed. The GMRG therefore welcomes further feedback on this issue.

**Box 8.5: Questions on transfer of capacity**

83. Do you agree with the proposal for service providers to provide AEMO with confirmation that the transfer has occurred?
84. Do you think the buyer should also be provided a confirmation, or should they only be notified if there is a problem with the transfer?
85. Do you have a view on the processes that should be put in place to deal with failure to transfer capacity for technical reasons?

## 8.3 Interaction between the delivery process and other markets

Parties that procure capacity through the capacity trading platform may want to supply that gas to a STTM or the DWGM. It is relevant therefore to consider how this would occur and if there are impediments to it occurring. This issue is considered below.

### 8.3.1 Interaction with the STTM

If parties procure capacity through the capacity trading platform and want to participate in the STTM in Adelaide, Brisbane or Sydney then they may, depending on when they purchased the capacity, be able to participate in the ex-ante schedule or use market schedule variations (MSVs) (see Box 8.6).

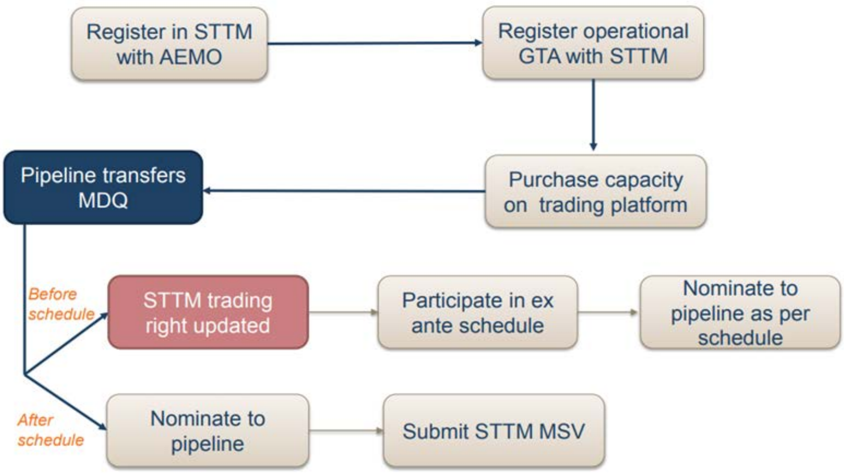
**Box 8.6: STTM ex-ante schedule and MSVs**

Shippers that want to supply gas to the STTM can do so in two different ways:

- **Ex-ante schedule**: Participants submit bids and offers to buy and sell gas at a STTM in the ex-ante schedule. After the ex-ante schedule for the market is published participants receive individual schedules to flow gas to or withdraw gas from a STTM hub. Gas bought or sold is settled at the ex-ante market price.
- **Market Schedule Variation (MSV):** If a market participant does not supply gas in accordance with the ex-ante schedule, either through a deviation or renomination, it can avoid financial penalties by submitting a MSV notifying AEMO that it has matched a deviation with an offsetting position.

A high-level overview of how a shipper can purchase capacity on the exchange to transport gas to a STTM is shown in Figure 8.3.

**Figure 8.3: Overview of STTM integration**




As this figure shows, a shipper that wants to utilise a STTM will need to register with AEMO[97] if it is not an existing STTM participant and may need to register an operational GTA to support the transfer of STTM trading rights. If capacity has been purchased, and transferred in time for the shipper to offer into the ex-ante schedule, then AEMO will transfer STTM trading rights from the seller to the buyer. The buyer will then be able to participate in the ex-ante schedule and nominate to the service provider as per that schedule. If, however, the capacity has been purchased after the cut-off for ex-ante offers (see Table 8.1), then the shipper can still supply gas to a STTM hub and use a MSV to avoid financial penalties.[98] Under this approach, STTM trading rights are not required to be transferred because the shipper will not be using the ex-ante schedule.

A key consideration for STTM integration will be the latest time by which a participant can purchase capacity on the exchange and participate in the ex-ante schedule. As ex-ante bids and offers are required to be submitted by midday in Adelaide and Sydney or 1:30 pm in Brisbane on gas day D-1, participants would need to have purchased capacity and had the capacity and STTM trading rights transferred prior to the ex-ante schedule cut-off time on D-1.[99] Given all the activities that would be required to enable this to occur, shippers that want to participate in the ex-ante schedule on D-1 would need to purchase capacity for gas day D by close of trade of the day-ahead product on D-2. The capacity and STTM trading rights would then be transferred on gas day D-2, allowing the shipper to participate in the ex-ante schedule on D-1 (see Box 8.7). Trades conducted after this time would need to use a MSV to avoid financial penalties.

97 Organisations must apply to AEMO to be registered in the STTM for the roles they intend to perform and at what hubs. Participants looking to use the capacity trading platform to flow gas to a STTM will register as a STTM shipper at the STTM hubs they want to participate in (Adelaide, Brisbane and/or Sydney). An organisation submits a registration request using the registration form from the AEMO Gas Market Registration Kit. AEMO completes the registration process within 15 business days.

98 For example, a gas-fired generator located on the RBP may decide late on gas day D-1 to transport additional gas to a STTM so it can increase its output the following day. The gas-fired generator could do this by purchasing gas at Wallumbilla and RBP eastern-haul capacity on the GSH. As it would have missed the ex-ante schedule, the gas-fired generator would submit a MSV with itself to avoid STTM penalties.

99 As the day-ahead auction will run after the ex-ante schedule, participants wishing to purchase capacity in the auction to flow gas to a STTM will be required to submit MSVs. This will be discussed further in a day-ahead auction consultation paper.

**Table 8.1: STTM and DWGM key timings (AEST)**

| Market | Pipelines | Ex-ante bids and offers close | Ex-ante schedule published (D-1) | Gas day start time (D) |
|---|---|---|---|---|
| Adelaide STTM | MAPS and SEAGas | Midday (D-1) | 13:00 (D-1) | 06:30 |
| Brisbane STTM | RBP | 13:30 (D-1) | 14:30 (D-1) | 08:00 |
| Sydney STTM | MSP and EGP | Midday (D-1) | 13:00 (D-1) | 06:30 |
| DWGM | DTS | 05:00 for 06:00 schedule | By 06:00 | 06:00 |

**Box 8.7: Process for procuring capacity through the exchange to participate in STTM ex-ante schedule**

The process for purchasing capacity on the exchange to participate in the ex-ante STTM schedule is as follows:

- D-2: Shipper A purchases capacity on a pipeline connecting to a STTM prior to the close of trading for the day-ahead product.
- D-2: After the close of trading for the day-ahead product the service provider transfers capacity for all transactions.
- D-2: AEMO receives confirmation from the service provider that capacity has been transferred and transfers STTM trading rights from the seller to Shipper A.
- D-2 to D-1: Shipper A can make bids and offers into the STTM ex-ante market once STTM trading rights have been transferred.
- D-1: STTM ex-ante schedule runs and Shipper A receives its schedule.
- D: Shipper A flows and/or withdraws gas from the STTM hub.

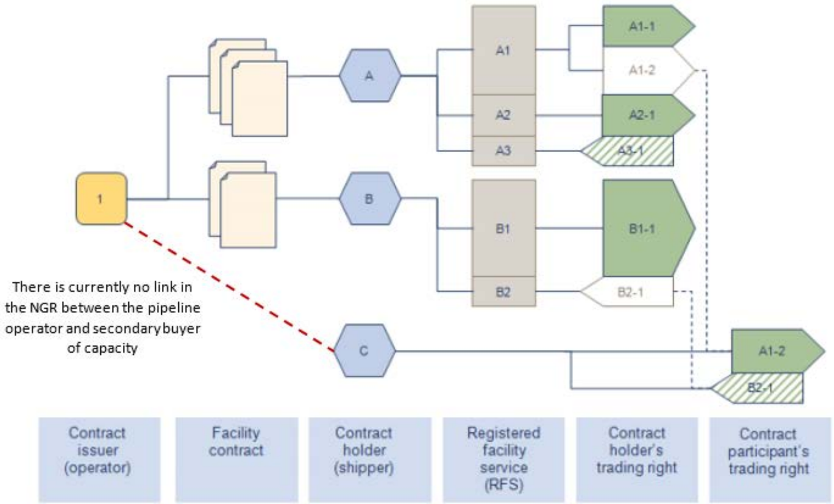
## STTM trading rights

A condition of offering gas to a STTM is that a shipper must have the ability to schedule gas under a pipeline contract to a STTM hub. Shippers' pipeline services must be registered with AEMO before the shipper can use that contract to participate in the STTM. A shipper registers the pipeline service with AEMO and the service provider subsequently confirms the contract details with AEMO. If the contract between the contract issuer and contract holder contains multiple services, each service must be registered separately. For example, a contract between a facility operator and a shipper might contain services for forward haul with firm capacity and as-available capacity. In this case, two facility services would be registered.

When a facility service is registered the shipper is granted a trading right in the STTM. Trading rights are used to validate bids and offers and to limit the quantities of gas that each shipper and user are scheduled to supply or withdraw. The contract holder must register this primary trading right before it can place bids or offers in the STTM.

Trading rights can currently only be transferred from one shipper to another through a *bare transfer*. That is, under the NGR, there is no relationship between the service provider and buyer of secondary capacity. When a capacity trade occurs, the seller makes nominations to the service provider on behalf of the buyer. This relationship is shown below where Shipper A has undertaken a capacity trade with Shipper C.

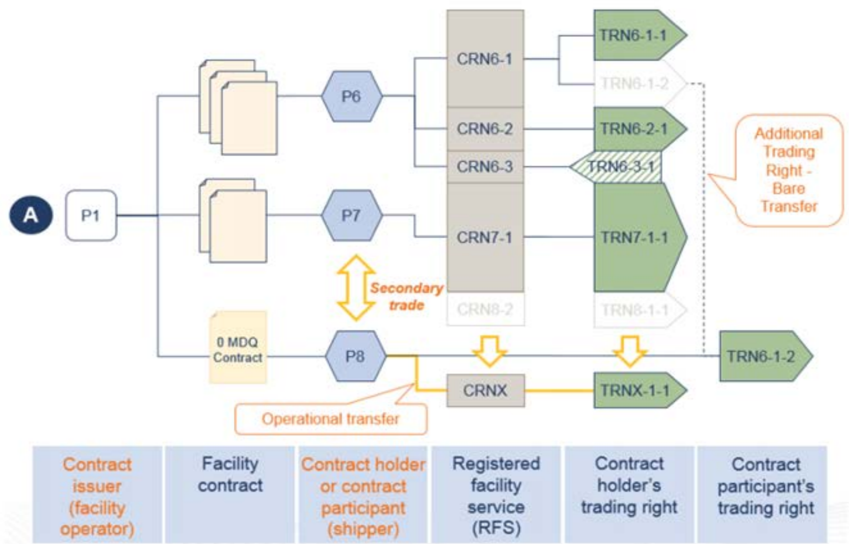
**Figure 8.4: No NGR link between secondary buyer and service provider**




As outlined in Part A, a required outcome under the AEMC's recommendations is that trades carried out through the exchange and day-ahead auction be given effect through an operational transfer. Under this transfer mechanism, a relationship is established between the buyer of secondary capacity and the relevant service provider. A new relationship and process therefore needs to be implemented in the NGR to enable STTM trading rights to be transferred between shippers via an operational transfer.

The way in which the operational transfer mechanism could be recognised if the relevant changes are made to the NGR, can be seen in Figure 8.5. In brief, the shipper's operational GTA would be registered in the STTM and a registered facility service created. If the shipper buys capacity on a STTM pipeline prior to the ex-ante schedule, then a trading right (green box) would be created allowing it to participate in the ex-ante schedule.

**Figure 8.5: Operational transfer relationship to be established in NGR**



A key design question that needs to be considered in relation to the integration of the capacity trading platform and the STTM is whether the transfer of STTM trading rights should be carried out on:

- a manual and partially anonymous basis;
- an automatic and fully anonymous basis; or
- a manual and fully anonymous basis (hybrid option).

The differences between these three options are summarised in Table 8.2.

As this table highlights, the main problem with the manual and partially anonymous option is that it would not maintain the anonymity of the trading parties post transaction, which is the GMRG's preferred approach (see section 8.1.1). Of the remaining two options, the automatic and fully anonymous option appears to be more robust and, as AEMO pointed out, there are unlikely to be significant cost savings from employing a manual and fully anonymous approach. The GMRG's preliminary view is therefore that the automatic and fully anonymous option should be implemented. The GMRG is interested in other stakeholders' views on this option and whether the benefits of implementing this option are likely to outweigh the cost, or if the hybrid option should be pursued.

**Box 8.8: Questions on STTM participation and integration**

86. Do you have any concerns about the proposal that shippers wanting to participate in the ex-ante STTM schedule would need to purchase the capacity on D-2? If so, please explain how you think this could be addressed.
87. Do you think there is value in trying to integrate the capacity trading platform and the STTM? If so, do you think the manual and partially anonymous, the automatic and fully anonymous or the hybrid option should be implemented? Or are there other options you think should be considered?

## Table 8.2: Manual and partially anonymous vs automatic and fully anonymous vs hybrid model

| | Manual and partially anonymous | Automatic and fully anonymous | Manual and fully anonymous (hybrid) |
|---|---|---|---|
| Description | Under this option, shippers' names would be revealed by AEMO, after which shippers would contact the service provider and jointly request the capacity to be transferred.<br>If the buyer wishes to offer into the ex-ante schedule, shippers would need to ask AEMO to transfer STTM trading rights through the STTM Web Exchange (SWEX) system. STTM participants currently use SWEX to transfer STTM trading rights between themselves after undertaking a bare transfer capacity trade. AEMO would not transfer the STTM trading rights until notification had been received that the service provider had successfully transferred capacity.<br>A new process would need to be implemented to facilitate operational transfers so that STTM trading rights are not transferred until confirmation from service providers had been received. This could be where both counterparties enter the request into SWEX, upon which a notification is sent to the service provider to confirm. If a buyer missed the ex-ante schedule, it could use a MSV with itself or a counterparty to register an offsetting position and avoid deviation payments or charges; SWEX would not be required under this scenario. | If a shipper purchases capacity on the exchange to a STTM delivery point, and there is sufficient time to participate in the ex-ante schedule, a process would automatically be triggered to transfer STTM trading rights from the seller to the buyer.<br><br>The process would need to occur in the following sequence:<br>▪ Capacity trade takes place on the platform.<br>▪ AEMO sends capacity positions to service providers.<br>▪ The relevant service provider transfers capacity from the seller to the buyer.<br>▪ AEMO receives confirmation from the service provider that capacity has been transferred.<br>▪ AEMO transfers STTM trading rights and provides a confirmation to the buyer and seller. | In order to use SWEX, market participants must know their trade counterparties. The process is buyer initiated, after which the seller confirms, then AEMO transfers trading rights. Under a manual but anonymous approach, AEMO would need information from service providers to confirm the transactions, prior to transferring the STTM trading rights.<br>The process would occur in the following sequence:<br>▪ Capacity trade takes place on the platform.<br>▪ AEMO sends capacity positions to service providers.<br>▪ The relevant service provider transfers capacity from the seller to the buyer.<br>▪ AEMO receives confirmation from the service provider that capacity has been transferred.<br>▪ Buyer uses SWEX to request STTM trading right transfer.<br>▪ Seller notified and confirms in SWEX.<br>▪ Service provider notified and confirms with AEMO.<br>▪ AEMO transfers STTM trading rights. |
| Pros | A manual and partially anonymous approach would require less IT system development and would therefore be expected to result in lower establishment costs than an automated approach. | Maintains anonymity. Seamless process for traders to purchase capacity on the exchange and participate in the STTM ex-ante schedule. Once implemented, low ongoing administrative costs. Engender confidence in using the exchange to purchase capacity and participate in the STTM. | Maintains anonymity. |
| Cons | Higher degree of administrative burden on traders, service providers and AEMO and a greater potential for errors occurring, relative to automation. This combination of process and risk could result in shippers undertaking bilateral transactions and the exchange failing to fulfil its objective of being a 'platform of choice'. | Higher establishment costs for pipelines, shippers and AEMO when compared to the manually, partially anonymous approach, although AEMO proposes to use the same communication systems to transfer information as will be used for the trading platform. | Because maintaining anonymity will require some level of data link between AEMO and the service provider, AEMO's preliminary view is that there are unlikely to be significant costs savings from having half the approach automated and half manual. |

### 8.3.2 Interaction with the DWGM

In contrast to the STTM, the DWGM runs five schedules during the gas day. Shippers that procure capacity through the capacity trading platform on gas day D-1 for supply to the edge of the DTS (i.e. to the Longford Close Proximity Point; Culcairn System Injection Point and System Withdrawal Point; and Iona Close Proximity Point) on gas day D will still therefore be able to participate in the DWGM's scheduling processes on gas day D if they are a registered DWGM market participant.

The only potential complexity that the integration of the capacity trading platform and DWGM therefore raises is that AEMO, in its capacity as DWGM operator, would need to know what accreditation constraint to apply to the capacity that is to be supplied into System Injection Points or withdrawn from System Withdrawal Points.[100,101]

Accreditation constraints reflect the contractual or operational constraints, such as the MHQ, that are to be taken into account by AEMO in the scheduling process. For example, if a participant has purchased 10 TJ of capacity for one day with an MHQ factor of 1/24, this would imply a MHQ of 417 GJ per hour (10,000 GJ÷24 hours) and this constraint would be reflected in how AEMO schedules the participant in the DWGM.

Accreditation constraints for capacity purchased through the capacity trading platform could be dealt with in the following ways:

- **Standing accreditation constraint**: A default accreditation constraint could remain in place for all transactions unless a participant requests a change.
- **Automatic accreditation constraints**: Constraints could automatically be updated when capacity is purchased on the capacity trading platform.
- **Blank accreditation constraints**: No accreditation constraint is entered for capacity purchased on the platform or auction.

Further detail on these options is provided below.

#### Standing accreditation constraint

Participants would provide AEMO with a default MHQ that remains in place unless a change is requested. The default MHQ might represent an average size capacity product a participant expected to purchase. For example, if a participant generally expected to purchase a 5 TJ product, then the accreditation constraint for that participant could be 208 GJ per hour (5,000 GJ/24 hours).

The issue with this approach is that if the participant purchased a larger capacity product, say 10 TJ, its MHQ flows would be constrained below what it was entitled to flow (417 GJ per hour). Conversely, if the participant purchased a smaller capacity product, say 2 TJ,

[100] A system injection/withdrawal point is a transmission system connection point designed to permit gas to flow through a single pipe into the transmission system, which may also be, in the case of a transfer point, a system injection/withdrawal point.

[101] Accreditation at System Injection Points and System Withdrawal Points takes five business days from receiving the initial application. A current DWGM system limitation is that only one accreditation per Participant ID at each controllable point is allowed. If participants need to treat accreditations for secondary capacity differently from their primary contracts this will require an additional participant ID to be set up (and bid separately).

this would imply a MHQ of only 83 GJ per hour, which would likely be exceeded if the accreditation constraint remained at 208 GJ per hour, unless managed using intraday schedules.

Another option that could be employed would involve the development of an interface that participants can use to update their accreditation constraints after undertaking trades. If the shipper did not nominate a constraint, the standing constraint would be used.

### Automatic accreditation constraints

To resolve the issue discussed above, automatic accreditation constraints could be implemented. This would require a system to be developed such that, after a capacity trade had taken place, and capacity was transferred, the DWGM system would receive information on the size of the capacity product purchased. The DWGM system would then convert this into a MHQ constraint in accordance with a pre-determined factor, such as 1/24. Automatic accreditation constraints would require AEMO to implement system changes to the GSH and DWGM, the cost of which has not yet been estimated.

### Blank accreditation constraints

A third option is for the accreditation constraint to be left blank. While this would not require any additional implementation costs to be incurred, participants may be required to manage their MHQ through the DWGM intraday schedules to avoid penalties on contract carriage pipelines connecting to the DTS, as described above.

### Preliminary view and questions for stakeholders

It is not clear on the information currently before the GMRG the significance of the accreditation constraint issue or the costs and benefits that are associated with these options. The GMRG is therefore interested in obtaining feedback on these options.

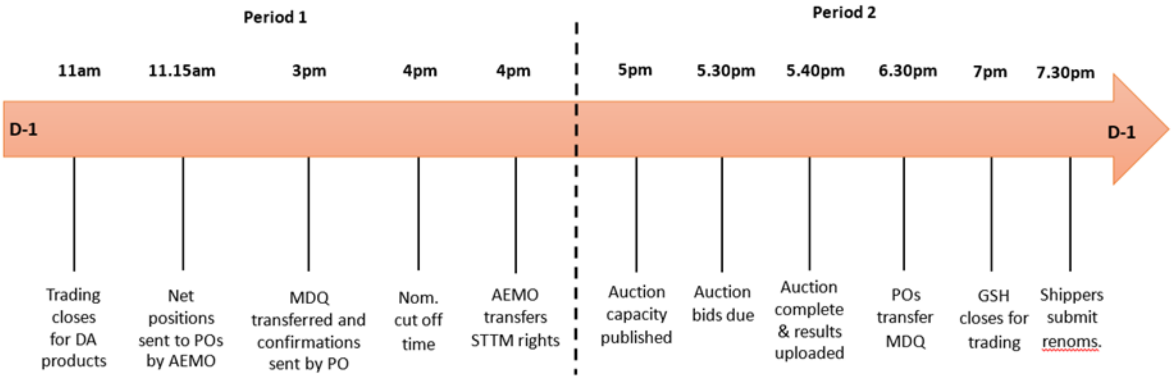
**Box 8.9: Questions on DWGM integration**

88. How do market participants currently manage MHQ constraints in the DWGM and how significant an issue do you think it is?
89. Do you think any of the options that have been identified to deal with accreditation constraints should be implemented? If so, please state which option you think should be implemented and why.
90. To minimise implementation costs for industry, could standing or blank accreditation constraints be used?

## 8.4 Key timings on the capacity trading platform

As the preceding discussion highlights, a number of activities will need to occur the day prior to the gas day (D-1) for the capacity trading platform and day-ahead auction to function effectively and in the manner envisaged by the AEMC. These activities are illustrated in Figure 8.6 using an indicative nomination cut-off time of 4 pm and assuming a fully anonymous and automated approach to transferring capacity.

**Figure 8.6: Illustrative D-1 timeline**




As this figure shows, gas day D-1 can be broken into two periods, with Period 1 containing all the activities associated with the capacity trading platform, while Period 2 contains all the activities associated with the day-ahead auction. In Period 1, the following assumptions have been made about the timing of the various activities, which have been developed as offsets from the current range of nomination cut-off times in place in the east coast (see Table 5.2):

- The trade of day-ahead products would cease at 11 am (i.e. 2.5 to 3 hours before the earliest nomination cut-off time in the east coast – see Table 5.2).
- Within 15 minutes of trade closing, AEMO would send the net position to service providers for trades conducted in the last 24 hours.
- Service providers would have until one hour prior to nomination cut-off time to transfer the capacity between the trading shippers and to send confirmations to AEMO and the buyer that the transfers are complete.
- Shippers would then have one hour to submit their nominations for any day-ahead capacity they have purchased on the exchange.
- AEMO would also have one hour to transfer STTM rights for gas day D+1.

The GMRG understands that some market participants may prefer to trade day-ahead products for a longer period than has been assumed in Figure 8.6, but the only way this could occur is if the time allowed for service providers to transfer the capacity and for shippers to make their nominations was reduced. While it is unlikely to take service providers as long as has been assumed in Figure 8.6 to transfer the capacity, additional time has been allowed to enable any unanticipated system and process issues to be resolved. The GMRG is nevertheless interested in hearing stakeholders' views on the proposed timings.

Finally, it is worth noting that the GSH exchange can be configured to enable the trade of day-ahead products to close at either:

- a uniform time across all pipelines (e.g. 11 am); or
- different times depending on the pipeline's nomination cut-off time.

While different cut-off times for day-ahead products would provide participants with more flexibility, it might add to complexity for little additional benefit.

The GMRG's preliminary view is that a uniform close of trading time should be adopted, but it is interested in obtaining stakeholders' views on the two options.

**Box 8.10: Questions on the timing of activities on D-1**

91. Do you agree with the proposed timing offsets for D-1 activities? If not, how long do you think should be allowed for each activity?
92. Do you think a uniform close of trading time should be adopted or different close of trading times?
93. If a uniform close of trading time is to be adopted, do you think 11 am is appropriate or do you think another time would be more appropriate (e.g. post the NEM pre-dispatch, which currently occurs shortly after 12.30 pm) ? If you think a later time would be more appropriate, how do you foresee all the activities being carried out prior to nomination cut-off time?

# 9. GSH Settlement and Credit Risk Management

Effective settlement and credit risk management processes provide participants with confidence in the integrity of the market. The remainder of this chapter provides an overview of the settlement and credit risk management processes that are expected to be applied to capacity products purchased through the exchange.

## 9.1 Centralised settlement system

Trades carried out using the screen trading or pre-matched service are settled centrally by AEMO, with settlement amounts calculated and reported to each market participant on a daily basis.[102] The daily settlement calculation enables the credit risk of Trading Participants to be monitored on a daily basis (see section 9.2 for more detail).

The settlement amount for a Trading Participant that has purchased capacity products through the exchange will be calculated having regard to:

- the face value (i.e. price x quantity) of each transaction the Trading Participant has entered into;
- the value of any reallocation that the Trading Participant has entered into (see Box 9.1 for more detail on reallocations);
- the market fees payable by the Trading Participant; and
- any miscellaneous settlement items that do not fit into the above categories.

**Box 9.1: Reallocations**

Market participants can use reallocations in the GSH as a way of transferring settlement obligations from one party to another. A reallocation is a financial arrangement between two market participants and AEMO to transfer the settlement commitment between participants.

Reallocations can be an efficient way for small market participants to manage their prudential obligations to the GSH because it may be difficult or expensive for a small market participant to secure sufficient credit support from a financial institution. Instead, a participant could enter into a reallocation agreement with a third party, whereby that third party agrees to take on the market participant's settlement obligation under a commercial arrangement.

Reallocations can be used by market participants as an additional tool for managing prudential obligations.

While settlement amounts are calculated on a daily basis, the GSH billing cycle is monthly. Final settlement statements are therefore prepared and issued by AEMO to participants on a monthly basis, which is informed by information provided by Trading Participants. AEMO also prepares revised settlement statements three months after the final settlement, which are based on the most recent gas delivery information and include any adjustment that may be required to account for differences between the settlement

[102] AEMO uses the Austraclear system to clear the market and process security deposits provided for prudential purposes (see AEMO Market Clearing Procedure). This system provides real-time gross settlement of transactions and is widely used in the finance industry for the settlement of transactions.

amount specified in the final settlement statement and the revised settlement statement. Further detail on the GSH settlement process is provided in Table 9.1.

**Table 9.1: Settlement timeline**

| Process | When | Who |
|---|---|---|
| **Daily Settlement** | | |
| Determine the Actual Delivered Quantity | From the end of the delivery gas day | Trading Participants |
| Provide AEMO with actual gas delivery information | From the end of the delivery gas day | Trading Participants |
| Prepare estimate of settlement amounts | Each business day | AEMO |
| Report settlement amount and quantities to participants via market report | Each business day | AEMO |
| **Monthly Settlement** | | |
| Provide AEMO with actual delivery information | By 9am on the 14th business day after the end of that billing period | Trading Participants |
| Submit and confirm Reallocation Requests | By 9am on the 14th business day after the end of the Billing Period | Trading Participants |
| Issue Final Settlement Statement | By the 15th business day after the end of the Billing Period | AEMO |
| Make payment to AEMO | By 12 noon on the 17th business day after the end of the Billing Period | Trading Participants |
| AEMO makes payments to Market Participants | By 2pm on the same day | AEMO |
| Provide AEMO with updated information for a revised statement | By 9am on the 1st business day, of the 4th Billing Period after the settled Billing Period | Trading Participants |
| Issue a revised settlement statement | By 2nd business day of the 4th Billing Period after the settled Billing Period. | AEMO |

AEMO has proposed to combine the settlement amount for capacity products with the settlement amount for GSH gas products. Trading Participants would therefore receive one settlement statement for all products traded on the GSH.[103]

The GMRG thinks there is merit in this proposal and the proposal to use the existing settlement process for capacity products. The GMRG is interested though in whether stakeholders share this view.

**Box 9.2: Questions on settlement process**

94. Do you agree with AEMO's proposal to combine the settlement amounts for capacity products and gas products? If not, please explain why.

[103] A breakdown of the settlement amounts for capacity products would, however, be listed as a separate line item on the settlement statement.

95. Do you think any changes need to be made to the settlement process to accommodate capacity products?

## 9.2 Centralised credit risk management

Credit risk in the GSH is managed centrally by AEMO through the collection of credit support (collateral) from each Trading Participant to cover their prudential exposure. In a similar manner to settlement, AEMO has proposed to aggregate the prudential requirements across all products on the GSH, which means that if a Trading Participant has an offsetting exposure in another product, it will reduce the collateral requirements.

In the event of a payment default AEMO would make a call on that Trading Participant's collateral so that it can meet payments to traders that are owed money from the market. In the unlikely event there is a payment default and the Trading Participant's credit support is insufficient to meet its exposure, then any shortfall will be borne by market participants that are owed money by the market.[104]

Further detail on the form of credit support that can be provided and how the prudential exposure is calculated is provided below.

### 9.2.1 Form of credit support

The primary mechanism that is used for credit support in the GSH is an unconditional bank guarantee from an authorised financial institution or state-owned treasury.[105]

Cash deposits, which are treated as an interest-bearing security deposit, may also be used for collateral up to a cap of $100,000 if a participant has not lodged a bank guarantee with AEMO, or if a bank guarantee has been lodged up to the value of the bank guarantee. Cash deposits are not considered a payment for goods or services, but are made by the participant as a pre-payment against future liabilities. The security deposit must therefore be lodged against a specific billing period, and unless alternative instructions are provided, the security deposit and applicable interest are applied to the settlement of the designated billing period.

Reallocations are another mechanism available to participants to reduce exposure to AEMO and therefore collateral requirements (see Box 9.1).

### 9.2.2 Exposure

Prudential assessments are performed each business day to assess the trading position of each participant against the level of collateral provided and to determine whether further collateral is required. The trading position is determined once a day within the

[104] This is consistent with the approach used in the STTM and DWGM.

[105] AEMO has a single financial guarantee pro forma for use in existing gas and electricity markets and all guarantees must be in the prescribed format.

settlement and credit risk management system. The trading position is updated during the course of the day with any new transactions entered into by the participant.

Real time checking of a Trading Participant's prudential exposure occurs when an order is submitted to determine if the order can be accepted. Under the terms of the Exchange Agreement, the order can be rejected if:

- the Trading Participant is in a trading halt;
- the Trading Participant's current prudential exposure amount is greater than its trading limit; and/or
- the order is a bid and the value of the order would cause the participant exposure to breach the trading limit.

A Trading Participant's prudential exposure is calculated as the maximum net aggregate amount actually or contingently owing in relation to transactions, reallocations and security deposits. For the purposes of describing prudential exposure, the exposure period for GSH transactions is split into three periods, as shown in Figure 9.1:

- **Settlement period (post delivery)**: During this period, an exposure exists for transactions covering gas days in the past until settlement statements for that period are issued and paid.
- **Delivery period**: Transactions in this period are close to or in the process of being delivered (i.e. gas days D and D+1), so exposure estimates for this period are based on the assumption that delivery occurs.
- **Forward period**: Trades covering gas days D+2 and beyond are treated as falling in the Forward Period, which extends as far into the future as a Trading Participant's transactions.

**Figure 9.1: Exposure period**

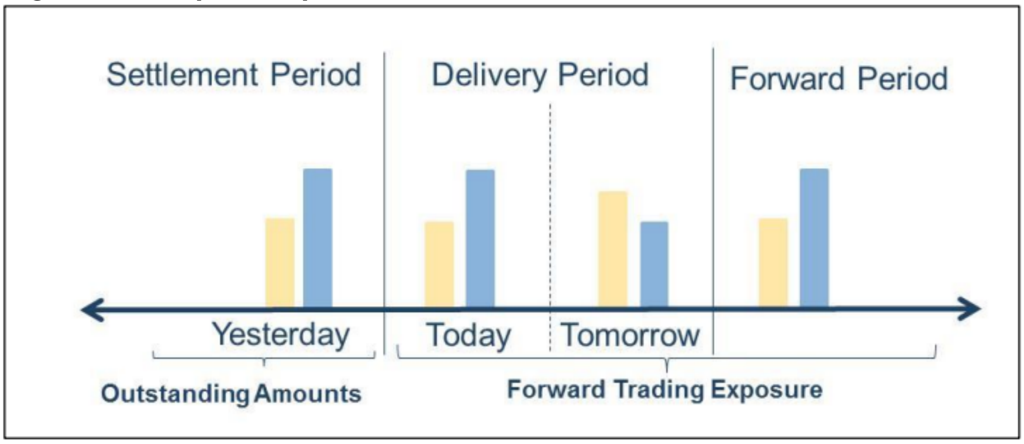



Table 9.2 shows the exposure calculation for current GSH products across these three time periods, which participants must provide credit support to cover.

**Table 9.2: Current exposure calculation for gas products**

| Period | Buyer | Seller |
|---|---|---|
| Settlement period (after delivery) | Calculated settlement charges and payments | |
| Delivery period (within 2 days from delivery) | 100% of the face value | 25% of the face value payable to the seller |
| Forward period (future gas days out past 2 days from delivery) | 25% of the face value | 25% of the face value payable by the seller |

As this table highlights:

- during the settlement period buyers provide 100% collateral against the face value of their net position and sellers are owed 100% of the face value of their net positions;
- during the delivery period buyers provide 100% collateral against the face value of their net position while sellers are owed 25% of the face value of their net positions.
- during the forward period buyers and sellers are required to hold 25% collateral against their net positions.

The rationale behind a lower collateral requirement in the forward period is that if a default occurs, then AEMO will cancel the transaction and the counterparty has time to go back to the market and purchase or sell the product to try and make itself whole. The risk is that the market price has moved in an adverse direction from the time of the original transaction. Without daily margining, this risk cannot be completely removed. However, it can be mitigated by requiring traders to hold some collateral that can be used by AEMO to compensate the impacted market participant.

For example, Trader A buys 10 TJ of gas for delivery in three weeks at $8/GJ. If Trader A defaults in the forward period, the transaction would be cancelled and the seller would receive 25% of the face value in compensation. The seller could then go back to the market and try and resell its gas for the same period. If the market price had moved in the interim, the seller may be able to resell the gas for more or less than the original transaction, including the 25% compensation.

If the commodity traded on the market is expected to be highly volatile, then the level of collateral held in the forward period should be higher to manage the risk that, if a trader defaults, its counterparty can re-enter the market to make itself whole. Conversely, if a commodity is expected to exhibit low volatility, the requirement for collateral in the forward period could be reduced.

In discussions with the Capacity Trading Platform project team about the GSH credit risk arrangements, project team members questioned whether the same amount of collateral would be required for capacity products because:

- the price of capacity is effectively capped at the as-available price offered by the service provider; and
- in contrast to gas, capacity prices are likely to exhibit low levels of volatility in the short-term.

One of the options that was discussed in this context was to reduce the collateral requirement for capacity products in the forward period to, for example, 10% (see Table 9.3). The risk with reduced collateral is that compensation paid to a counterparty impacted by a default is reduced, which may result in a loss on the original transaction. Further, if quarterly products are listed 12 months out, then there may be a greater level of volatility over that period and the lower level of collateral may not be sufficient to compensate the impacted counterparty. The other point to bear in mind with the collateral is that transportation products are lower cost products than gas products, so a 25% collateral level applied to a $1/GJ of MDQ forward haul product is only $0.25/GJ of MDQ. This is in contrast to gas products, where a 25% collateral level applied to an $8/GJ gas price is $2/GJ.

**Table 9.3: Potential exposure calculation for capacity products**

| Period | Buyer | Seller |
|---|---|---|
| Settlement period (after delivery) | Calculated settlement charges and payments | |
| Delivery period (within 2 days from delivery) | Calculated settlement charges and payments once capacity transferred, | |
| Forward period (future gas days out past 2 days from delivery) | **10%** of the face value | **10%** of face value payable by seller |

While the project team supported a reduction in collateral, they did not come to a firm view on either of these options. The GMRG is therefore interested in hearing from other stakeholders on these options. In providing feedback on this issue, it is important to bear in mind that the exposure calculation should reflect the consequences of a default by the buyer or seller.

**Box 9.3: Questions on prudential exposure**

96. Do you agree with AEMO's proposal to aggregate the prudential requirements across gas and capacity products on the GSH? If not, please explain why.
97. Do you think the same collateral requirements that currently apply to gas products should also apply to capacity products on the GSH? Or do you think a lower level of collateral is required in the forward period? If so, what level do you think this should be set at or do you think further quantitative work should be carried out to determine the level of collateral?
98. If the collateral requirement was to be reduced in the future period, would you be comfortable receiving a lower level of compensation if a default event occurs? Or alternatively, do you think the compensation level could be maintained at 25% but the collateral reduced?

# 10. Financial and Delivery Default Arrangements

The GSH arrangements that have been put in place to deter Trading Participants from defaulting on their financial[106] or delivery obligations and to deal with any default that does occur can be summarised as follows:

- The market conduct rules in Part 22 of the NGR (rule 543), which include requirements that Trading Participants must not:
  - submit offers to buy or sell if they know, or ought to know, they will not be able to perform their obligations under a resulting transaction, or with the intention of defaulting in its performance; and
  - intentionally or recklessly default in the performance of its obligations under any transaction arising on the exchange.

  These rules are classified as both civil penalty and conduct provisions, which means that if a Trading Participant breaches these rules, then:
  - the AER can institute civil proceedings in the Federal Court and seek an injunction or an order that the Trading Participant cease or remedy the conduct, and/or an order that a penalty be paid;[107,108] or
  - the counterparty that suffers loss or damage as a result of the default may institute court proceedings to recover the amount of the loss or damage.
- If the Trading Participant does default on their financial or delivery obligations,[109] then AEMO may suspend or terminate the participant's membership and use the Close Out and Offset Procedures (see Box 10.1) to cancel any transactions that are on foot. If this occurs, then the counterparty to the trade will be compensated 25% of the face value of the transaction, which will be paid for using the collateral collected from the Trading Participant.

The appropriateness of the arrangements in the Exchange Agreement for the capacity trading platform was discussed by the Capacity Trading Platform project team. In short, the project team was of the view that additional remedies could be put in place to deal with any default by a seller of its delivery obligations that results in capacity failing to be transferred to the secondary shipper. The potential remedies that the project team identified are discussed in further detail in the remainder of this chapter, which commences with an overview of the circumstances in which a seller may default on its delivery obligations.

Before moving on, it is worth noting that because the GSH is a voluntary market, the trade-offs around the costs and benefits of managing risk need to be considered keeping

[106] Financial default includes the failure by the Trading Participant to pay an invoice or to make a margin call.

[107] The civil penalty provisions are set out in section 3 of the NGL. The maximum civil penalty is currently $100,000 for body corporates (or $20,000 for individuals) plus $10,000 ($2,000 for individuals) for every day it continues.

[108] The AER may also issue an infringement notice if the AER has reason to a Trading Participant has breached a civil penalty provision. The maximum infringement notice is $20,000 for body corporates and $4,000 for individuals.

[109] If, rather than defaulting on their delivery obligation, the Trading Participant breaches its gas delivery obligation and the variance is outside a 5% tolerance level then compensation must be paid to the counterparty (the compensation is based on the delivery variance quantity and the delivery price). If the delivery variance quantity is outside this tolerance then the party at fault must compensate the counterpart 25% of the value of the variation quantity.

See AEMO, Gas Supply Hub Industry Guide, October 2016, p. 74 for more detail.

in mind that participants can bypass the market. The checks and balances need to be rigorous enough to provide confidence in the platform, but not too costly such that participation is avoided.

**Box 10.1: Close Out and Offset Procedure**

The Close Out and Offset Procedure, within the Exchange Agreement, set out the instructions for the termination of transactions covering future Gas Days. The objectives of this procedure are to:

- crystallise the loss so that creditors can take action to recover amounts owed by a defaulting party;
- provide for an orderly termination process that minimises the impact on the operation of the gas market; and
- allow exposure to be measured and collateralised with a clear designation of roles and responsibilities.

Under the procedures, the defaulting participant's position is separated into a net quantity and an offsetting quantity. Transactions associated with the net position (buy or sell) are terminated leaving the defaulting participant without any future gas delivery obligations (zero net position). The defaulting participant is removed from transactions associated with the offset position so that the non-defaulting parties can be paired together to minimise the disruption to market. The netting process means the impact of default may need to be shared across all related parties to the defaulting party. This is currently done on a pro rata basis.

The way in which a transaction will be closed out will depend on the nature of the transactions:

- **Net zero:** If a participant has a net position of 0 (i.e. bought 10 TJ and sold 10 TJ) the defaulting party is removed from the transaction and the counterparties to the defaulting party are matched together.
- **Net short:** If a participant has a net short position (i.e. bought 5 TJ and sold 10 TJ) then 5 TJ of transactions will be offset. The net short position of 5 TJ will be cancelled and compensation paid to the buyer(s) involved in the transaction(s).
- **Net long**: If a participant has a net long position (i.e. bought 10TJ and sold 5 TJ) then 5 TJ of transactions will be offset. The net long position will be cancelled and compensation paid to the seller(s) involved in the transaction(s).

If the defaulting party has made a loss on the transactions (i.e. bought for $8 and sold for $7) then AEMO collateralises the loss ($1) when the trade takes place so in the event of close out the seller is kept whole. If they have made a gain, then this money goes to paying any compensation owed to the impacted parties.

The close-out settlement amount is compensation payable by the defaulting participant to any of their counterparts (via AEMO) affected by the close-out of forward transactions, which is paid from the defaulting party's collateral. Offset settlement amounts are determined for the defaulting participant, in aggregate they represent the gain or loss on any offsetting buy and sell transactions.

Note that compensation in the GSH is currently set at 25% of the face value of the transactions. The collateral requirement for buyers and sellers is therefore also set at 25%. The trade-off of higher compensation/penalty is higher collateral, which increases the cost of participating in the market.

Source: AEMO, Gas Supply Hub Industry Guide, October 2016, p. 84.

## 10.1 Circumstances in which delivery default can occur

A seller of capacity products on the exchange, which could be either a primary or secondary shipper, could default on its delivery obligations for one of the following reasons:

1. the seller defaults on its primary GTA or operational GTA with the service provider and the service provider decides to suspend or terminate the contract;
2. the seller defaults on its financial obligations in the GSH and AEMO decides to close out the seller's trades; and/or
3. the seller defaults on its delivery obligation – in the case of capacity, most likely due to the seller selling more capacity than it has a right to use under a primary GTA or other secondary trades (short selling).

While the market conduct rules and default arrangements in the Exchange Agreement have been developed to deal with the latter two forms of default, the default arrangements cannot currently deal with default under the seller's GTA. Changes to the Exchange Agreement may therefore be required to recognise this form of default. Additional provisions may also need to be included in the NGR (or procedures made under the NGL) to require service providers and AEMO to inform each other if any of the circumstances described above occur and, where relevant, to work together to provide for an orderly termination process that minimises the impact on the operation of the gas market.

In relation to short selling, it is worth noting that the proposed design of the platform does not require Trading Participants to provide evidence that they have capacity that can be sold through the exchange. Trading Participants will instead be required to warrant as a term of each product that they have all necessary rights under agreements with gas transporters to deliver the capacity, which is consistent with the approach that currently applies to gas products on the GSH. This issue was discussed with the project team and while some consideration was given to developing a registry of capacity contracts that could be used by AEMO as part of a pre-trade verification process,[110] the project team noted that:

- the development and maintenance of such a registry would be a major task because AEMO would need to be provided access to all GTAs (including bilateral trades) and monitor changes in capacity rights across contracts over time; and
- the costs of developing such a registry were likely to outweigh the benefits of preventing short selling.

The project team also noted that if service providers were informed of trades on a daily basis then a post-trade verification process could be carried out within 24 hours of the trade being conducted and steps could then be taken to address any short-sales that have occurred in that trading window.

Following this discussion, another pre-trade validation option has been identified, which is a self-certified approach that would operate in a similar manner to trading rights in the STTM. That is, the shipper would inform AEMO of its physical trading limit (created by

[110] That is to verify a seller had the requisite amount of capacity before the trade was entered into.

providing capacity into a trading account), which could then be validated by the service provider.

The GMRG understands the concerns about short selling and the risk this poses to users of the exchange, but agrees with the project team that the costs of establishing a registry that could be used for a pre-verification process are likely to outweigh the benefits, particularly given the operation of the warranty, the market conduct rules and the delivery default payment, which are designed to deter short selling. While the GMRG's preliminary view is that a registry is unnecessary, it is interested in hearing other stakeholders' views on this issue and the questions set out in Box 10.2.

**Box 10.2: Questions on delivery default, pre-trade verification and short selling**

99. Are there any other circumstances in which you think delivery default could occur?
100. Do you think there is value in developing a registry that could be used by AEMO to verify whether sellers have capacity to sell before they enter into a trade, or do you think the costs of doing so are likely to outweigh the benefits?
101. Do you think the market conduct rules will deter Trading Participants from engaging in short-selling?

## 10.2 Potential remedies for delivery default

As noted above, the project team identified a number of options that could be used to ameliorate the effects of a delivery default by the seller, which are discussed in further detail below. The GMRG is yet to form a view on the feasibility of these options and welcomes any feedback stakeholders may have on these remedies.

### 10.2.1 Seller defaults on its GTA with the service provider

#### Default under primary GTA

In this case, the seller is assumed to be a primary shipper that on-sells its capacity and then defaults on its primary GTA with the service provider, who then decides to suspend or terminate the primary GTA.

The sale of capacity could occur under a number of scenarios on the exchange, including:

- a single sale of capacity by the primary shipper to a secondary shipper; or
- a chain of sales resulting in either one secondary shipper holding all the defaulted capacity, or more than one secondary shipper holding the defaulted capacity.[111]

[111] For example, if a service provide has primary GTAs with Shipper 1 (30 TJ) and Shipper 2 (30 TJ) and each shipper on-sells capacity to Secondary Shipper 3 (20 TJ) and Secondary Shipper 4 (20 TJ), who in turn on-sell capacity to Secondary Shipper 5 (30 TJ) and Secondary Shipper 6 (10 TJ). If the service provider terminates Shipper 1's primary GTA, then consideration will need to be given to how to treat the 20 TJ of capacity that it has sold. The options in this case include:

- treating the 20 TJ defaulted capacity as if it were shared between Secondary Shipper 5 and Secondary Shipper 6 on a pro rata basis and curtail accordingly; or

If the primary GTA is suspended or terminated then the following options could be employed:

1. The trade could be cancelled and the buyer would be compensated (currently 25% of the face value of the trade) as compensation for the cancellation (this is the approach that is currently used in the GSH). If more than one secondary shipper holds the defaulted capacity, the cancelled capacity would be shared between the secondary shippers on a pro-rata basis.
2. The service provider honours the trade, either in its entirety or for a defined period of time (e.g. one month), and receives the price that was established through the exchange in return for doing so.
3. The trade is cancelled and the buyer is compensated, but either:
   a. the buyer has a first right of refusal to acquire the capacity released by the primary shipper from the service provider for the remaining term of the trade at a price specified in the operational GTA; or
   b. the operational GTA allows the buyer to initiate good faith negotiations with the service provider about access to the capacity for the remaining term of the trade.

Note that under each of these options, the service provider may still have a claim to payment for the capacity under the primary GTA.

The Capacity Trading Platform project team thought that to promote an orderly transition and minimise the impact of default on the operation of the gas market, the second and third options were worth exploring further and that a combination of the two could also be used. For example, the service provider could be required to honour the trade for up to one month and if the trade extends beyond this, the buyer could initiate negotiations directly with the service provider to access the capacity for the duration of the contract.

One member of the project team also observed that while options 2 and 3 would impose obligations on service providers, this may be appropriate because service providers are better placed to manage this risk of termination (i.e. because the decision to terminate is within their control) than secondary shippers. This project team member also noted that honouring the trade could be beneficial to the service provider because in any subsequent action against the primary shipper, they would be able to show that they had taken steps to mitigate their loss.

The approach may also depend on the timing for notification of transactions to the service provider and whether the service terms for the capacity has started or will start within a short time and whether the transaction occurred before or after the termination of the primary GTA.

The following table illustrates what might happen under different notifications scenarios and for different products and assumes that the service provider will honour trades for 30 gas days after the primary GTA terminates or is suspended. In the table, D refers to the

- tracing the trades through and treating the 20 TJ defaulted capacity as if it were held by Secondary Shipper 5 only and curtail on that basis.

date of termination of the primary GTA and assumes the GTA is terminated and not merely suspended.

**Table 10.1: Impact of termination timing on scenarios**

| Product | Transaction date | Service Term | Trade notified after each transaction or once a day | Trade notified each day for transactions with a service term the following day |
|---|---|---|---|---|
| Monthly firm forward haul | D-2 | D+60 to D+90 | Notified D-2 and MDQ transferred<br>Transaction cancelled since service term starts after D+30 | Notified D+59 to D+89<br>MDQ transfer rejected by service provider<br>Delivery failure by seller |
| Monthly firm forward haul | D-2 | D+25 to D+55 | Notified D-2 and MDQ transferred<br>Secondary shipper uses capacity on D+25 to D+30<br>Transaction cancelled for balance of service term<br>Operational GTA may give shipper the option to continue use for the balance of the service terms at a capacity charge negotiated in advance or at the time | Notified D+24 to D+29 and MDQ transferred<br>Secondary shipper uses capacity on D+25 to D+30<br>Notified D+30 to D+54, notification rejected, seller delivery default<br>Operational GTA may give shipper the option to continue use for the balance of the service term at a capacity charge negotiated in advance or at the time |
| Monthly firm forward haul | D-2 | D to D+30 | Notified D-2 and MDQ transferred<br>Secondary shipper uses capacity since service term falls in the period ending D+30 | Notified D-1 to D+29 and MDQ transferred<br>Secondary shipper uses capacity on D to D+30 since service term is within the period ending D+30 |
| Weekly firm forward haul | D-2 | D+7 to D+14 | Notified D-2 and MDQ transferred<br>Secondary shipper uses capacity | Notified D+6 to D+14 and MDQ transferred<br>Secondary shipper uses capacity |
| Daily firm forward haul | D-2 | D+3 | Notified D-2 and MDQ transferred<br>Secondary shipper uses capacity | Notified D-1 and MDQ transferred<br>Secondary shipper uses capacity |

**Box 10.3: Questions on default under primary GTA**

102. Do you think arrangements should be put in place (other than cancellation) to mitigate the risk of termination of the primary GTA, such as options 2 and 3? If you think other options should be used:
    - o Why do you think capacity should be treated differently to gas products?
    - o Why do you think it is appropriate for service providers to be subject to the obligations that would come with these options?
    - o Do you support options 2 and/or 3(a) or (b)? What other options are available?
103. If you think option 2 should be used, how long do you think service providers should be required to honour the trade (e.g. 1-2 days, one month, or for the duration of the trade)?
104. If you think buyers should have an option to acquire the capacity from the service provider, do you think:
    - o the buyer should have a first right of refusal, an enforceable option or a general right to initiate good faith negotiations?
    - o the price at which the secondary shipper can access the capacity should be specified in the operational GTA or be regulated in some way?
105. Do you agree that if the trade must be cancelled, then the effect of the cancellation should be borne by all secondary shippers on a pro-rata basis?

### Default under operational GTA

In this case, the seller is assumed to be a secondary shipper that on-sells its capacity to another shipper and then defaults on its operational GTA with the service provider, who then decides to suspend or terminate the operational GTA.

In this case, the project team noted that if the default under the operational GTA occurred:

- after the transfer is effected, the trade could stay on foot because the transfer would give the buyer “good title” subject only to a default under the primary shipper’s primary GTA; or
- before the transfer is effected, the transfer could be cancelled and the buyer would receive 25% of the face value of the trade as compensation.

**Box 10.4: Questions on default under operational GTA**

106. Do you agree that if default under the operational GTA occurs:
    - o after the trade is effected, the trade should be allowed to proceed?
    - o before the trade is effected, the trade should be cancelled?

## 10.2.2 Seller defaults on its GSH financial obligations

To deal with seller defaults under the GSH, an option that could be considered if the transfer of capacity from the seller to the buyer has already occurred is to treat that transaction as being fully “delivered” and exclude it from any close out and offset

calculation. For example, if there is a month transaction that is notified for the full term on the day after being transacted and the seller subsequently defaults on its financial obligations in the GSH, there may be no need to close this trade out due to a risk of non-delivery.

It is worth noting in this context that the feasibility of this option is yet to be assessed by AEMO and the interaction with the arrangements for the seller default under a primary GTA would also need to be considered.

**Box 10.5: Questions on default on GSH financial obligations**

107. Do you think the arrangements that currently apply to seller defaults under the GSH should be applied to capacity products, or do you think that any transfers of capacity that have already occurred at the time of default should be excluded from the close out and offset calculation?

### 10.2.3 Seller short-sells capacity

The options that the project team identified for dealing with short-sales of capacity include:

1. Cancelling the trade as soon as the service provider becomes aware that the seller does not have sufficient capacity to sell to give effect to the trade. Under this option, the trade would be cancelled by the transfer cut-off time and the buyer would be compensated for the cancellation.
2. Providing the seller a period of time within which to rectify the short position if there is any spare capacity on the pipeline. Under this option, the short seller would have an opportunity to rectify the short position by, for example, purchasing additional capacity through the capacity trading platform or from the service provider, and if it fails to do so the trade would be cancelled and the buyer would be compensated.

Another option that some project team members noted could be used if financial players are to be encouraged to participate in the market is for participants to enter into an arrangement with a service provider ahead of time to obtain firm capacity up to a specified level if they end up with a short position (in effect, a call option).

**Box 10.6: Questions on short selling**

108. If a short sale occurs, do you think the trade should automatically be cancelled, or do you think the seller should have a period of time to rectify the short sale before it is cancelled?
109. If seller is unable to rectify the short-sale (e.g. because there is no spare capacity on the pipeline), should the capacity of all affected secondary shippers be curtailed on a pro-rata basis?

# 11. Capacity Listing Service and Bilateral Trading

In contrast to the exchange, the listing service allows shippers to specify any service they wish to buy or sell and the price at which they are willing to do so and to enter into trades through bilateral negotiations. As noted in section 6.2, there is already a capacity listing service on the GSH that enables market participants to list transportation services, storage services, gas and swaps that they have an interest in buying or selling. The Capacity Trading Platform project team were asked if they thought any changes to the design of the listing service were required, but the project team was of the view that it was working as intended by the AEMC and that no changes were required.

While changes to the design of the listing service may not be required, some changes to the governance arrangements that apply to the listing service and bilateral trading more generally may be required if the following recommendations in the AEMC's *East Coast Review* are implemented:[112]

- If a seller enters into a bilateral capacity trade, it must offer the buyer the option of using an operational transfer to give effect to the trade. This recommendation was classified by the AEMC as a required outcome because it had concerns that the use of a bare transfer may result in secondary shippers having to submit nominations to potential competitors.[113] Rather than banning bare transfers, the AEMC recommended that the seller always offer prospective buyers the option to use an operational transfer.
- Trades conducted outside the exchange should be advertised ahead of time on the listing service. This recommendation was classified by the AEMC as a preferred outcome. In this case, the AEMC noted that it was concerned that allowing trades to occur outside the exchange would not guarantee non-discriminatory access to capacity. Specifically, the AEMC was concerned that counterparties could discriminate against one another, by choosing not to enter into a bilateral trade, or pricing the trade differently than would otherwise be the case.[114]

Implementing the first of these recommendations will be relatively straightforward. In short, it will require changes to be made to the NGL[115] and the NGR, to require shippers that sell secondary capacity on a bilateral basis to offer buyers the option of using an operational transfer to give effect to the trade. It is envisaged that this obligation would be classified as a civil penalty and conduct provision in the regulations made under the NGL and the AER would be responsible for monitoring compliance with this obligation. Compliance monitoring in this case is expected to occur on a reactive basis in response to complaints from secondary shippers that have not been offered the option of an operational transfer.

In contrast to the first recommendation, the recommendation that all trades be advertised ahead of time on the listing service could be difficult to implement and monitor because trading parties are unlikely to have an incentive to inform the AER. This point was noted

[112] AEMC, Stage 2 Final Report: *East Coast Review*, 23 May 2016, p. 17.

[113] ibid, p. 98.

[114] ibid, p. 104.

[115] Changes to the NGL would be required to include the necessary definitions and extend the AEMC's rule making power to the new arrangements.

by the Capacity Trading Platform project team, which also noted that discriminatory access was not as significant an issue as it was in the US where this approach has been employed. The project team went on to add that this type of obligation could:

- adversely affect their ability to carry out deals in a timely manner; and
- discourage trades where secondary capacity is one component of the overall deal (e.g. delivered gas products) even when it would be efficiency enhancing, because having to advertise the capacity component in advance could pose a risk to the overall deal.

The views of the project team expressed in this context are similar to the feedback that the AEMC received from stakeholders in the *East Coast Review.*[116]

While the GMRG appreciates the concerns that project team members and stakeholders in the East Coast Review have raised about this recommendation, it is yet to form a final view on this issue. The GMRG would therefore appreciate further feedback from stakeholders on the workability of this proposal and whether the AEMC's concerns about discriminatory access could be addressed by the new reporting framework that is to be developed for bilateral trades and the day-ahead auction.

**Box 11.1: Questions on bilateral trading obligations**

110. Do you think that shippers offering to sell capacity on a bilateral basis should be required to offer a prospective buyer the option of using an operational transfer to give effect to the trade?
    - If not, please explain why.
    - If so, do you think the proposal to include a provision in the NGR to require shippers to offer this option will work effectively?
111. Do you think it should be mandatory for shippers to advertise any secondary capacity trades conducted outside the exchange ahead of time on the listing service?
    - If not, please explain why and also outline whether you think the AEMC's concerns about discriminatory access could be dealt with in another way.
    - If so, how do you think the practical issues raised by the project team could be overcome?

[116] AEMC, Stage 2 Final Report: *East Coast Review*, 23 May 2016, pp. 104-105.

# 12. Changes to the Governance Arrangements

The governance framework that currently applies to the GSH is set out in the NGL, Part 22 of the NGR, the Exchange Agreement and a range of procedures that AEMO has developed (see Table 6.1). While the same governance framework is expected to apply to the capacity trading component of the GSH, some changes to the NGR, the Exchange Agreement and procedures will be required to implement the capacity trading platform and the design options discussed in Chapters 7-11.

Table 12.1 summarises the changes to the governance arrangements that the GMRG expects will be required to implement the capacity trading platform. The GMRG is, however, interested in whether there are any other changes that stakeholders think will need to be made to the NGL, NGR, Exchange Agreement or Procedures (see Box 4.4).

**Table 12.1: Governance arrangements**

| instrument | Change required | Summary |
| --- | --- | --- |
| NGL | × | Section 91BRK of the NGL provides for AEMO to establish, operate and administer 'gas trading exchanges', which is defined as a facility through which persons may elect to buy and sell natural gas or related goods or services, <u>including</u> pipeline capacity. Given this section of the NGL already provides for the GSH to extend to pipeline capacity products, the GMRG does not expect any changes will be required to the NGL to implement the capacity trading platform.<br>Changes to the NGL will, however, be required for standardisation of operational GTAs and for AEMO to make procedures dealing with information exchange. These are dealt with in Part A of this paper. |
| NGR | ✓ | **GSH rules (Part 22):** As currently drafted, the rules in Part 22 appear to be sufficiently broad to accommodate capacity trading. The GMRG does not therefore envisage material changes to this part of the NGR.<br>**STTM rules (Part 20):** As noted in Chapter 8, the STTM rules currently only provide for trading rights to be transferred using a bare transfer. The GMRG therefore anticipates some changes to the rules in Part 20 may be required to enable STTM trading rights to be transferred using an operational transfer.<br>**DWGM rules (Part 19):** The GMRG does not anticipate any changes will be required to the DWGM rules.<br>**New rules:** Depending on the final design of the capacity trading platform, new rules may be required to impose an obligation on shippers that sell secondary capacity on a bilateral basis to:<br>▪ offer prospective buyers the option of using an operational transfer to give effect to the trade; and<br>▪ advertise the trade on the listing service prior to entering into the trade.<br>Some aspects related to the processes and obligations around the transfer of capacity may also need to be included in the NGR or in Procedures made under the NGL (see section 3.5.4)<br>Depending on the final arrangements to deal with default under a primary GTA, new rules may be needed to deal with the obligations of service providers in those circumstances, most likely as part of the arrangements for standardisation of operational GTAs. |

| instrument | Change required | Summary |
|---|---|---|
| Exchange Agreement | ✓ | **Exchange Agreement:** A number of amendments to the body of the Exchange Agreement and the product specification schedules will be required before capacity products can be added to the exchange. The Exchange Agreement will, for example, need to specify the standardised products that will be available for sale on the exchange and changes will also need to be made to the delivery, credit risk management and default arrangements, depending on the feedback provided on the issues set out in Chapter 7-10.<br>**GSH subsidiary documents:** Some changes to the existing GSH settlement and prudential methodology, reallocation and fees procedures are likely to be required, depending on the final design.<br>Changes to the Exchange Agreement and subsidiary documents are expected to be made by AEMO using the process set out in rule 540 of the NGR. |
| AEMO Procedures | ✓ | **Capacity trading procedures:** New procedures will be required to implement capacity products and the transfer of capacity (see section 3.5.4).<br>**STTM procedures:** Changes to STTM Procedures around the transfer of trading rights are also likely to be required.<br>**DWGM procedures:** Some changes to the Wholesale Market Accreditation Procedures and Wholesale Market AMDQ Procedures may be required. |

The changes to the NGR and Exchange Agreement are expected to be made in the first half of 2018 to enable the capacity trading platform to commence operation in 2018/19. Before the capacity trading platform can go live, some work is likely to be required by AEMO and service providers to set up their respective systems and to test these systems. The GMRG is interested in hearing from service providers on how long they think this may take so that a clearer timeline for implementation can be established.

**Box 12.1: Questions on governance and transitional arrangements**

112. Are there any other changes that you think will be required to the governance arrangements that have not been identified in Table 12.1?

113. How long do service providers think it will take to set up any systems that may be required and to test these systems with AEMO?

# Appendix A Summary of AEMC Recommendations

The table below contains a summary of the recommendations contained in the AEMC's Stage 2 Final Report which have been categorised by the AEMC as follows:

- **required outcomes** – these recommendations were described by the AEMC as outcomes that must be progressed by the GMRG and are necessary to the implementation of the reforms;
- **preferred outcomes** – these recommendations were described by the AEMC as outcomes that should be pursued by the GMRG unless it is clear there are greater benefits in alternative approaches; and
- **suggested outcomes** – these recommendations were described by the AEMC as outcomes that have in-principle benefits but need to be considered further by the GMRG.

### AEMC Recommendations

| Recommendation | Required outcomes | Preferred outcomes | Suggested outcomes |
|---|---|---|---|
| **Standardisation of key primary and secondary capacity contractual terms** | ▪ Standardisation of key primary and secondary capacity contractual terms for pipeline and for hub (compression) services.<br>▪ Where possible and appropriate apply across the eastern Australian gas market.<br>▪ Standards to be developed are for key operational, prudential and other contractual provisions in GTAs, CTAs and Operational GTAs, and provisions in contracts used for exchange based trading on the capacity trading platform.<br>▪ Counterparties to existing contracts should not be materially disadvantaged through the standardisation process | ▪ Shippers provided greater flexibility to change their receipt and delivery points | n.a. |

| Recommendation | Required outcomes | Preferred outcomes | Suggested outcomes |
|---|---|---|---|
| **Auction for contracted but un-nominated capacity** | ▪ A daily, day-ahead capacity auction for contracted but un-nominated pipeline capacity and hub (compression) services.<br>▪ Auction happens shortly after nomination cut-off time.<br>▪ Reserve price of zero dollars, with compressor fuel provided by shippers in-kind.<br>▪ At least all contracted but un-nominated capacity placed for sale through auction.<br>▪ Accommodate nominations or renominations by incumbent shippers after the auction is conducted. | ▪ Combinatorial auction where multiple buyers and sellers can simultaneously coordinate trades, managing the complementarities between different pipeline segments.<br>▪ Single round auction to reduce complexity and opportunities for anti-competitive behaviour between participants.<br>▪ Bidders pay the value of their winning bids ("first-price" rule) to reduce complexity.<br>▪ Algorithm determines the winning combination of bids by maximising profit (constrained by requirement that at least all contracted but un-nominated capacity is put on sale in auction).<br>▪ Capacity purchased in the auction curtailed before (i.e., earlier than) firm capacity.<br>▪ Single auction across the east coast market, in order to optimise allocation across as many products as possible.<br>▪ Exemption from the auction for pipelines serving a single user. | ▪ As available rights in current GTAs to be phased out to avoid them competing with rights allocated in the auction.<br>▪ Exempting on a case-by-case basis pipelines that are not fully contracted from needing to conduct the auction.<br>▪ The auction to be run by the same institution(s) which run the capacity trading platform. |
| **Capacity trading platform(s)** | ▪ Creation of capacity trading platform(s) which include electronic anonymous exchange based trading for commonly traded products in addition to a capacity listing service typical on current capacity trading platforms.<br>▪ Trades carried out through trading platform to be given effect through an operational transfer.<br>▪ Bare transfers will be allowed but the seller will be required to offer the buyer the option to use an operational transfer. | ▪ Single capacity trading platform operating across the east coast.<br>▪ As many services as possible capable of being traded on the platform (e.g., transportation services, hub (compression) services and pipeline storage services), recognising the need to avoid unnecessary complexities.<br>▪ Trades conducted outside the capacity trading platform to be advertised ahead of time on the capacity trading platform listing service. | n.a. |
| **Publication of information on secondary capacity trades** | ▪ Publication of information on all secondary trades of pipeline capacity and hub (compression) services.<br>▪ The information to be published is the price of the trade and any other information that might reasonably influence that price, taking into account measures to protect anonymity.<br>▪ Publication should occur at or shortly after the time the transaction is entered into | n.a. | n.a. |

# Appendix B Members of the project teams and Advisory Panel

The tables below contain a list of the members of the Standardisation, Capacity Trading Platform and Day-Ahead Auction project teams and the Advisory Panel.

**Table B.1: Membership of Project Teams and Advisory Panel**

| Project Team Members | | |
|---|---|---|
| **Standardisation Project Team** | **Capacity Trading Platform Project Team** | **Day-Ahead Auction Project Team** |
| Sally Calder, AGL | Kieran O'Leary, AGL | John Jamieson, APA |
| Ainslie Lynch, APA | Lino Fusco, CQ Partners | Deidre McEntee, APLNG |
| Simon Taylor, DBP | Trent Leach, DBP | Leon Devaney, Central Petroleum |
| Peter Frost, EnergyAustralia | Ishara De Silva, EnergyAustralia | Andrew O'Farrell, Origin |
| Samantha Staunton, Epic | Andrew Zancanaro, Jemena | Matt Sherwell, Santos |
| Jan Peric, Jemena | David Lawrence, Pacific Markets Consulting | Jeff Cooke, SEAGas |
| Michael Handley, Origin | Jennifer Tarr, Stanwell | Erin Bledsoe, Shell |
| Brad Mills, Shell | Daniel Hamel, AEMO | Kevin Ly, Snowy Hydro |
| Angelo Mantsio, AEMO | | Tom Walker, AEMC |
| | | Nicholas Pope, AEMO |
| **Advisory Panel Members** | | |
| Nevenka Codevelle, APA | | |
| Warwick King, APLNG | | |
| Graham Salmond, BHP | | |
| Mark Collette, EnergyAustralia | | |
| Rosemary Sinclair, Energy Consumers Australia | | |
| Paul Adams, Jemena | | |
| Chris Crozier, Orica | | |
| Greg Jarvis, Origin | | |
| Dr Stephen Bell, Qenos | | |
| Angus Jaffray, Santos | | |
| Tom Summers, Shell | | |

# Appendix C Transportation services

The box below provides an overview of the services that transmission pipelines typically provide.

### Box C.1: Services provided by transmission pipelines

**Transportation services**

Transmission pipelines operating on a point-to-point basis usually offer:

- Forward haul services, which provide for the transportation of gas from a receipt point to a delivery point in the direction of the predominant flow of gas.
- Backhaul services, which involve the 'virtual transportation' of gas in the opposite direction to the predominant flow of gas. The term 'virtual transportation' is used in this context, because a backhaul service does not involve the physical transportation of gas. It instead involves a physical swap of gas at the point at which it is supplied into the pipeline for an equivalent amount of gas at the backhaul delivery point. To be able to provide this service, the volume of gas being backhauled must be less than, or equal to, the volume of gas to be transported on a forward haul basis, which is why it is offered on an as available or interruptible basis.

If a pipeline can physically flow in both directions across its full length (i.e. a bi-directional pipeline), then it will usually offer a single transportation service, which enables gas to be transported in either direction.

Forward haul and bi-directional services can be provided on:

- a firm basis – a firm service allows users to transport gas up to their maximum daily and hourly capacity reservation. The priority accorded to this service in terms of scheduling is higher than any other services and is the last service to be curtailed.
- an as available basis – an as available service allows users to transport gas without reserving and having to pay for capacity on a daily basis, if there is spare capacity available. The priority accorded to this service is lower than that accorded to a firm transportation service in terms of scheduling and is curtailed before firm services.
- an interruptible basis – an interruptible service also allows a buyer to transport gas without reserving and paying for capacity on a daily basis. However, the priority accorded to this service in terms of scheduling is lower than as available services and is usually curtailed ahead of both as available and firm services.

**Storage services**

Transmission pipelines may also be used to provide the following storage related services:

- Park services, which allow users to inject more gas into a pipeline than they take out on a particular day, up to a specified level and to store that gas in the pipeline. The additional gas supplied into the pipeline may be withdrawn by users at a later point in time, subject to constraints in their transportation contracts.
- Park and loan services, which in addition to allowing users to store gas on the pipeline, also allows users to inject less gas than it takes on any given day (a loan), up to a specified level.

**Ancillary services**

Transmission pipelines can be used to provide a range of ancillary services, including:

- Renomination services, which enable users to amend their nominations after the nomination cut-off time, which is typically the afternoon before the gas day.
- In-pipe trade services, which enable gas to be traded between users at a notional point on the pipeline and allow users to manage their imbalances.
- Capacity trading services, which enables capacity traded between users to be managed by the service provider rather than by the users (e.g. the user purchasing the capacity can make nominations directly to the pipeline rather than through the user selling the capacity).

Source: AER, Draft Decision Roma to Brisbane Gas Pipeline AA 2017-22, July 2017, Attachment 1, Appendix A.