Capacity trading platform(s) project team

Terms of Reference and Road Map

1. Background

The Gas Market Reform Group (GMRG) was established by the COAG Energy Council in the latter half of 2016 to lead the design, development and implementation of a number of reforms set out in the Gas Market Reform Package, including the development of:

- a number of pipeline and hub services (jointly referred to as 'transportation') capacity trading related reforms;
- a new commercial arbitration framework for pipelines that will be underpinned by greater transparency of prices and contract terms, as well as pricing principles;
- the market transparency reforms, which for GMRG involves the development of terms of reference for the biennial review on the growth in liquidity in wholesale gas and pipeline capacity trading markets; and
- the wholesale gas market related reforms, which primarily relate to the Southern Hub and Declared Wholesale Gas Market (DWGM) that the AEMC is currently working on.

These interlinked suite of reforms, which were proposed by the AEMC in its *East Coast Wholesale Gas Markets and Pipeline Frameworks Review Stage 2 Final Report* and by Dr Vertigan in his *Examination of the Current Test for the Regulation of Gas Pipelines*, are designed to promote:

- the National Gas Objective, which 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.*

- the Energy Council's Vision for the Australian Gas Market, which 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.*

To carry out the work listed above, the GMRG has established the following work streams:

- the transportation (pipeline and hub services) capacity trading work stream;
- the disclosure and commercial arbitration framework work stream;
- the information and market transparency work stream; and
- the wholesale markets work stream.

Work on the first three of these work streams will commence in early 2017, while work on the fourth work stream will commence when the AEMC finalises its recommendations.

Further detail on the transportation capacity trading work stream is provided below, while Appendix A provides an overview of the GMRG's governance structure, its work streams and relationships with stakeholders.

2. Transportation capacity trading work stream

The transportation capacity trading work stream will be responsible for progressing the capacity trading related reforms identified in the AEMC's Stage 2 Final Report. These reforms, which have been endorsed by the Energy Council, are expected to foster the development of a more liquid market for secondary capacity by:[1]

- enabling capacity to be allocated on a non-discriminatory basis to those that value it most highly through market based processes and, in so doing, improve the efficiency with which capacity is used on pipelines;
- reducing search and transaction costs;
- aiding the price discovery process by reducing information asymmetries and, in so doing reduce search and transaction costs and enable more informed decision making; and
- providing capacity holders with a greater incentive to trade capacity.

The proposed reforms include the development of:

- standards for key operational, prudential and other contract terms that govern the relationship between the parties and their contractual obligations ('other contract terms') in primary, secondary, operational transfer and trading exchange agreements;
- a day-ahead auction of contracted but un-nominated pipeline and hub services capacity;
- a capacity trading platform(s) that provides for exchange based trading of commonly traded transportation services and a listing facility for other services; and
- a reporting framework for secondary capacity trades that provides for the publication of the price and other related information on secondary trades.

Further detail on the scope of these reforms can be found in Table 2.1, which 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.

[1] AEMC, Stage 2 Final Report, 23 May 2016, p. 69.

Table 2.1: 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 services. ▪ Where possible and appropriate apply across the eastern Australian gas market. ▪ 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. ▪ Counterparties to existing contracts should not be materially disadvantaged through the standardisation process	▪ Sippers provided greater flexibility to change their receipt and delivery points	n.a.
Auction for contracted but un-nominated capacity	▪ A daily, day-ahead capacity auction for contracted but un-nominated pipeline capacity and hub services. ▪ Auction happens shortly after nomination cut-off time. ▪ Reserve price of zero dollars, with compressor fuel provided by shippers in-kind. ▪ At least all contracted but un-nominated capacity placed for sale through auction. ▪ 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. ▪ Single round auction to reduce complexity and opportunities for anti-competitive behaviour between participants. ▪ Bidders pay the value of their winning bids ("first-price" rule) to reduce complexity. ▪ 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). ▪ Capacity purchased in the auction curtailed before (ie, earlier than) firm capacity. ▪ Single auction across the east coast market, in order to optimise allocation across as many products as possible. ▪ 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. ▪ Exempting on a case-by-case basis pipelines that are not fully contracted from needing to conduct the auction. ▪ The auction to be run by the same instruction(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. ▪ 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.	▪ Single capacity trading platform operating across the east coast. ▪ As many services as possible capable of being traded on the platform (eg, transportation services, hub services and pipeline storage services), recognising the need to avoid unnecessary complexities. ▪ 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 services. ▪ 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. ▪ Publication should occur at or shortly after the time the transaction is entered into	n.a.	n.a.

To progress the reforms identified by the AEMC, the GMRG has established the following project teams:

- the standardisation of contract terms project team;[2]
- the capacity trading platform project team; and
- the auction project team.

The project teams consist of members from a range of different backgrounds and are expected to have the technical expertise that will be required to contribute to the design and development work in the project team meetings. The project teams will be facilitated by the GMRG Strategic Program Director (or assistant) and assisted by the GMRG senior technical advisor, a secondee analyst from one of the market bodies and, where relevant, by other legal, economic and/or market design experts, including from the market bodies.

The GMRG has also sought nominations for the development of an advisory panel, which will be made up of senior representatives from industry (including consumers and users of gas) and will provide strategic perspective and advice to the GMRG.

The GMRG will also be carrying out an extensive program of engagement on the recommendations emerging from the project teams with other stakeholders and the market bodies (i.e. the AEMC, AEMO and AER). The Gas Market Project Implementation Team (GMPIT), Standing Committee of Officials (SCO) and the Energy Council will also be provided with regular updates on the progress of this work stream.

Further detail on the work that the capacity trading platform project team will be expected to carry out is provided in the following section.

3. Capacity trading platform project team

The Capacity trading platform project team will be responsible for progressing the reforms set out in the third row of Table 2.1 and making recommendations to the GMRG, which will then be consulted on with other stakeholders before the final recommendations are made to SCO and the Energy Council.

Before setting out the specific matters that will need to be considered by this project team, it is worth taking the time to set out what the AEMC achieve through these reforms.

3.1 AEMC recommendations on the capacity trading platform(s)

In its Stage 2 Final Report, the AEMC recognised that steps had been taken by some pipelines to try and facilitate more capacity trading but noted that the following factors are limiting the ability of shippers to access competitively priced secondary capacity:

- 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;
- limited information on the market for buyers and sellers, which the AEMC noted may lead to additional transaction costs as parties try to determine the value of capacity; and
- highly customised GTAs, which the AEMC noted can make it difficult for participants to quickly and inexpensively determine the value of capacity rights being sold and also limited liquidity in the market.

[2] Given the parallels between the work to be carried out on standardisation and reporting, this project team may take on the reporting of secondary trading information work towards the end of the program.

To address these issues, the AEMC recommended the development of capacity trading platform(s), which would provide for:

- exchange based trading for commonly traded standardised products; and
- a listing service for more bespoke products.

The AEMC also recommended that:[3]

- trades carried out through the trading platform be given effect through an operational transfer; and
- off-platform trades could be carried out using either a bare transfer or operational transfer, if the seller also offers the buyer the option of an operational transfer.

These recommendations were classified as 'required outcomes' in the Stage 2 Final Report.

The AEMC also identified several preferred outcomes in the Stage 2 Final Report, which included:

- the development of a single capacity trading platform operating across the east coast;
- providing for as many services as possible to be traded on the platform (including transportation services, hub service and pipeline storage services); and
- requiring trades conducted outside the trading platform to be advertised ahead of time on the trading platform listing service.

Further detail on these preferred outcomes is provided below.

Single vs multiple capacity trading platforms

In the Stage 2 Final Report, the AEMC noted the potential for:

- a single capacity trading platform to be developed and operated as part of the Gas Supply Hub or on a stand-alone basis by either a joint venture between pipeline owners or other parties with relevant capabilities (e.g. the ASX); or
- multiple trading platforms to be developed, with each pipeline operator to develop and operate their own platform.

Of the two options, the AEMC noted that a single trading platform covering all contract carriage assets in the east coast that sat alongside the Gas Supply Hub was likely to offer a number of benefits over a stand-alone platform, including:

- enabling shippers to co-ordinate their gas, hub services and transportation requirements through one platform;
- subjecting shippers to just one set of prudential arrangements;
- lower implementation costs for the exchange based function because the IT, prudential, settlement and billing arrangements have already been established; and
- facilitating more effective competition between shippers that are offering to sell capacity on either the same transportation route or on competing routes.

Stakeholders were, however, divided on this issue, with pipeline operators advocating the use of multiple trading platforms because in their view it is a lower cost option. Shippers and PIAC, on the other hand, advocated the use of a single platform forming part of the Gas

[3] See pages 99-100 of the AEMC's Stage 2 Final Report for more detail on operational and bare transfers.

Supply Hub and potentially operating alongside the auction. AEMO also supported the adoption of a single platform and noted that regardless of who operated the platform, it would be beneficial to have pipeline operators involved in its development.

While the AEMC expressed a preference for a single trading platform that forms part of the Gas Supply Hub, it recognised that establishing communication links between the platform and pipeline operators could be costly. It therefore suggested that the GMRG consider this further.

Services to be traded on the platform

In the Stage 2 Final Report, the AEMC noted that the trading platform could be used to sell a range of services on a firm, as available or interruptible basis, including:

- transportation services (forward haul, backhaul or bi-directional services);
- hub services, such as compression and redirection services; and
- pipeline storage services, such as park and loan services.

The AEMC also noted that, in principle, the trading platform could be used by pipeline operators to sell spare capacity on the trading platform.

While the AEMC was of the view that as many services should be capable of being traded on the platform, it noted that there may value avoiding any unnecessary complexity in the initial stages of the development of the exchange component of the platform by, for example, limiting the services to be sold through the exchange to firm transportation and hub services on the most popular contract paths in the initial stages.

In the AEMC's Pipeline Access Discussion Paper that preceded the Stage 2 Final Report, the AEMC noted that to maximise the potential pool of buyers and sellers of capacity via the exchange, some degree of standardisation will be required across the following service dimensions:

- type and firmness of the service;
- points between which capacity will be provided (contract path);
- capacity to be made available (including any trading rights that may be required for trades involving supply to an STTM); and
- contract length.

While noting the need for industry to be involved in determining the appropriate level of service standardisation for exchange based products, the AEMC set out its preliminary thoughts on the service dimensions that could be standardised to maximise the level of trade and align the products with those sold through the Gas Supply Hub. These thoughts are reflected in the table below.

Service Dimension	Potential standardisation
Type and firmness of service	The standardised product could (at least in the initial stages) be limited to a firm forward haul and firm bi-directional transportation services.
Contract path	The contract paths that are likely to attract most interest at this stage are: • Wallumbilla to Brisbane • Wallumbilla to Moomba (or Moomba to Wallumbilla) • Moomba to Sydney (or Sydney to Moomba) • Moomba to Adelaide (or Adelaide to Moomba) • Culcairn to Sydney (or Culcairn to Moomba) • Longford to Sydney via the Eastern Gas Pipeline • Port Campbell to Adelaide Over time other contract paths may become more relevant and separate products developed.
Capacity (MDQ)	In a similar manner to the GSH, a minimum MDQ parcel size could be adopted, but some thought would need to be given to the appropriate size. To eliminate unnecessary complexity and make the traded product more fungible the capacity would potentially be provided at a constant hourly rate and with no renomination rights.[32] For any trades involving the supply of gas to an STTM hub, the trading rights associated with the capacity will also need to be transferred to the purchasing party, or AEMO will need to be informed of this transfer.
Contract period	The term of the standardised products would ideally be aligned with the GSH products, which currently include a day-ahead product, a daily, weekly and monthly product. The only product that would not be possible to trade through the platform(s) is a balance-of-day product, because contracted but un-nominated capacity will have already been auctioned.

Off-platform trades to be advertised ahead of time

While the AEMC expects the trading platform to become the primary means by which secondary capacity is traded, it has acknowledged that forcing all trades through the platform may discourage some participants from trading. Bilateral trades outside the platform will therefore be allowed, but the AEMC has recommended that any trades conducted outside the platform be advertised ahead of time on the listing service so that other shippers have an opportunity to compete for the trade. The AEMC believed that this condition was necessary to address the concerns it had that off-platform trades may not provide for non-discriminatory access to capacity, as noted in the following extract:[4]

> *Counterparties could discriminate against one another, by choosing not to enter into a bilateral trade, or pricing that trade differently than would otherwise be the case. In this sense, allowing the continued use of bilateral trades may favour incumbents and prevent the entry of smaller participants that these reforms are designed to achieve.*

While most stakeholders supported the AEMC's proposal to allow off-platform trades, they did not see the need to advertise the trade ahead of time. The AEMC therefore recommended that the GMRG investigate this issue further and consider how the requirement to advertise capacity ahead of time would be implemented in practice and if any exemptions may be appropriate.

4 AEMC, Stage 2 Final Report, 23 May 2016, p. 104.

3.2 Matters to be considered by the Capacity trading platform project team

In keeping with the recommendations set out in the AEMC's Stage 2 Final Report, the Capacity trading platform project team will be responsible for the development of a trading platform(s) for secondary pipeline and hub service capacity that provides for both:

- exchanged based trading for commonly traded products; and
- a capacity listing service for more bespoke products.

Before work on the design of the trading platform(s) can commence, the project team will need to consider whether:

- a single trading platform should be developed and, if so:
  - who will be responsible for operating the platform (i.e. a joint venture between pipeline operators; AEMO or another body); and
  - whether the trading platform will operate alongside the Gas Supply Hub and use the same exchange infrastructure.
- multiple trading platforms should be developed:

Given the parallels between these issues and the issues the auction project team will need to consider, the two project teams will work together in the initial stages to develop their recommendations to the GMRG.

Once these recommendations have been made, the project team can commence work on the development of:

- the standardised transportation and hub services to be sold through the exchange,[5] which will require consideration to be given to:
  - the transportation and hub service products to be traded on the exchange;
  - the firmness of the product;
  - the transport paths;
  - other elements of the standardised product (e.g. MDQ, MHQ factor, overruns/imbalance allowances, renomination rights); and
  - the delivery method (e.g. operational transfer or a locational swap).

  Consideration will also need to be given to how the products will interact with the facilitated markets, if the product design will give rise to any risks in these markets and how delivery failure will be dealt with).
- the integration of the capacity trading platform with other markets (i.e. DWGM, STTM and GSH) and with AEMO market systems and pipeline operator systems; and
- the design of the exchange component of the trading platform and the institutional, operational, financial (e.g. settlement and prudential arrangements), regulatory, market and legal arrangements that will be required to underpin the exchange;[6] and

5 Note that while the operational, prudential and other contract terms will be developed by the Standardisation project team Group, consideration will need to be given to the service related elements of the products to be sold through the exchange. For example, consideration will need to be given to: (a) the type of services (forward haul, backhaul, bi—directional transportation services, hub services or storage services) to be sold; (b) the firmness of the service; (c) the contract path (i.e. the receipt and delivery points between which the services will be provided); (d) the capacity to be made available (including any trading rights that may be required for trades involving supply to an STTM); and (e) the contract term.

6 For example, consideration will need to be given to: (a) the settlement and prudential arrangements that will apply to the

- the design of the capacity listing service.

As part of this process, the capacity trading platform project team will also need to consider:

- when the trading platform should be implemented and if any transitional arrangements may be required (e.g. for the introduction of exchange based products);
- how the following AEMC recommendations would be implemented and enforced:
  - all sellers of secondary capacity to offer buyers the option of using operational transfer (required); and
  - trades conducted outside the platform to be advertised ahead of time on the listing component of the platform (preferred).

This project team will also be responsible for advising the GMRG of any changes that would need to be made to the functions and powers of the AEMC, AER or AEMO and/or the NGL, the NGR or subordinate instruments, to give effect to any of its recommendations.

In considering these issues and developing its advice to the GMRG, the project team will be expected to have regard to the AEMC's recommendations as well as the National Gas Objective and the Energy Council's Vision for the Australian Gas Market.

While the tasks to be carried out by this project team are relatively discrete, there are some interdependencies with the other project teams. For example:

- the matters that the Capacity trading platform project team will need to consider when developing its recommendations on the governance arrangements for the trading platform and the products to be sold through the exchange are closely related to the matters the auction project team will need to consider, which is why the two teams are expected to work together in the initial stages;
- the work the standardisation of contract terms project team will be carrying out on standardising the operational, prudential and other contract terms in the operational transfer agreements and secondary capacity trading agreements will be required by the capacity trading and auction teams;
- the work that the capacity trading and auction teams will be carrying out on the products to be sold through the exchange and auction could have a bearing on the work the Standardisation of contract terms project team is to carry out on developing standards for the operational, prudential and other contract terms; and
- the work that the Standardisation of contract terms project team will be carrying out on delivery and receipt point flexibility will have a bearing on the capacity products to be sold through the exchange and the auction.

Given these interdependencies, it will be important for the work carried out by this project team to be appropriately sequenced and for the team to communicate effectively with the other project teams.

3.3 Deliverables

Any advice provided by the project team to the GMRG on the issues identified in the preceding section should be in written form and of a standard that can be consulted upon with other stakeholders.

exchange; (b) the contractual arrangements that will need to be put in place between the primary capacity holder, the buyer, the exchange and the pipeline operator; and (c) how the results of the trade will be communicated to the relevant pipeline operator if a single trading platform is developed; and (d).

3.4 Accelerated time frame

The GMRG has been asked to accelerate its work on the capacity trading platform related reforms and has advised the Commonwealth Minister for the Environment and Energy that it should be in a position to provide the COAG Energy with recommendations on:

- the organisation(s) designated to operate and administer the day-ahead auction and capacity trading platform(s) in May 2017;
- the form that the standardised capacity trading contracts and the capacity trading platform should take by September 2017; and
- the design of the day-ahead auction by December 2017.

We anticipate that this will enable the trading platform and auction to become operational prior to summer 2018-19.

4. Road Map

Approximate Date	**Tasks for Project Team**
15/5/2017-13/6/2017 (3 meetings)	Standardised exchange products
26/6/2017-24/7/2017 (4 meetings)	Design of the exchange component of the capacity trading platform and the operational, financial, institutional, regulatory, market, legal and operational arrangements required to underpin the exchange
25/7/2017 (1 meeting)	Design of the capacity listing service.
Advisory Panel July meeting	*Recommendations on product design for exchange products*
8/8/2017-21/8/2017 (2 meetings)	Integration of capacity trading platform with other markets and arrangements
22/8/2017 (1 meeting)	Residual issues
4/9/2017-5/9/2017 (2 meetings)	Review of end to end design Consideration of implementation and transitional arrangements.
18/9/2017-19/9/2017 (2 meetings)	Identification of any changes to the functions and powers of the AEMC, AEMO and/or AER and changes to the NGL, NGR and other subordinate instruments
Advisory Panel Sep meeting	*Recommendations on overall design*
25/9/2017-23/10/2017 *(4 weeks)*	*Public consultation on capacity trading platform design.*
3/11/2017	**GMRG recommendations to SCO**
13-15/11/2017	**GMRG recommendations to COAG Energy Council**

5. Meeting Dates

Month	Dates	Time	Meeting
May	2 May	10am-5pm	Joint meeting with Capacity Trading project teams.
	15 May	10am-3pm	Project team meeting
	30 May	11am-5pm	Project team meeting
	30 May	9am -11am	Joint meeting with other project teams.
June	13 June	10am-3pm	Project team meeting
	26-27 June	10am-3pm, 9am-2pm	Project team meeting
July	11 July	11am-5pm	Project team meeting
	11 July	9am -11am	Joint meeting with other project teams.
	24-25 July	10am-3pm, 9am-2pm	Project team meeting
August	8 August	10am-3pm	Project team meeting
	21-22 August	10am-3pm, 11am-5pm	Project team meeting
	22 August	9am -11am	Joint meeting with other project teams.
September	4-5 September	10am-3pm, 9am-2pm	Project team meeting
	18-19 September	10am-3pm, 9am-2pm	Project team meeting

Appendix A: GMRG Governance Structure