

Auction 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	<ul style="list-style-type: none"> ▪ 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 	<ul style="list-style-type: none"> ▪ Shippers provided greater flexibility to change their receipt and delivery points 	<p>n.a.</p>
Auction for contracted but un-nominated capacity	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ 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)	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ 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. 	<p>n.a.</p>
Publication of information on secondary capacity trades	<ul style="list-style-type: none"> ▪ 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 	<p>n.a.</p>	<p>n.a.</p>

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 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. Auction project team

The auction project team will be responsible for progressing the reforms set out in the second 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 day-ahead auction

In its Stage 2 Final Report, the AEMC recommended the development of a daily day-ahead auction of contracted but un-nominated capacity (pipeline and hub services) that would occur shortly after nomination cut-off time. The AEMC also recommended that:

- A reserve price of zero dollars be used in the auction, with compressor fuel provided by shippers in-kind.
- All contracted but un-nominated capacity be sold through the auction, provided it is technically feasible to do so. To limit the potential for pipeline operators to withhold capacity from this auction, the AEMC recommended that the GMRG consider whether a mechanism could be included in the NGR that would specify how much capacity is to be sold through the auction.

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.

- Nominations or renominations that occur after the auction is conducted should be accommodated by the auction. The AEMC identified three potential ways in which this could be achieved, which included:
 - selling the auctioned capacity on an interruptible basis;
 - conducting the auction more frequently than on a daily basis; or
 - selling both firm and interruptible capacity through the auction, or withholding some capacity to accommodate renominations.

The AEMC identified a number of shortcomings with each of these approaches and therefore recommended that the GMRG carry out further work to determine how nominations and renominations after the auction could be accommodated.

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

The AEMC also identified a number of preferred and suggested outcomes for the auction, which were as follows:

- **Preferred outcomes:**
 - Geographic scope: Single auction across the east coast market.
 - Auction design:
 - Single round, combinatorial auction with first price rule (i.e. bidders pay the value of their winning bid).
 - Winning bids to be determined using a profit maximisation algorithm.
 - Treatment of auction revenue: Auction revenue to be retained by the pipeline operator once the costs of running the auction have been recovered.
 - Curtailment order: Auctioned capacity to be curtailed before firm capacity.
 - Exemption: Pipelines serving a single user to be exempt from auction.
- **Suggested outcomes:**
 - The auction could be run by AEMO, individual pipeline operators, a joint venture of pipeline operators or other parties with relevant capabilities (e.g. the ASX). There may be benefits in the auction being run by the same institution that runs the trading platform.
 - As available rights to either be phased out, or consideration given to how they can be accommodated in the auction design.
 - Potential for exemptions for pipelines that are not fully contracted.

3.2 Matters to be considered by the Auction project team

In keeping with the recommendations set out in the AEMC’s Stage 2 Final Report, the Auction project team will be responsible for developing a day-ahead auction for contracted but un-nominated pipeline and hub services capacity, which will be conducted shortly after nomination cut-off time and have a zero reserve price.

Before work on the design of the auction can really commence, the project team will need to consider:

- The transmission pipelines/hub service assets that will be subject to the auction (i.e. contractually congested assets only or all transmission pipelines/hub service assets (excluding single user assets)).

- Whether a single auction platform should be developed, or if individual pipeline auction platforms should be developed. If a single auction platform is to be developed, consideration will also need to be given to:
 - who should be responsible for operating the platform and conducting the auction; and
 - whether the auction platform will operate alongside the Gas Supply Hub and/or the capacity trading platform(s).
- The geographic scope of the auction, which could include a single network wide auction, or pipeline/hub service specific auctions.

Given the parallels between these issues and the issues the capacity trading platform 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 Auction project team can commence work on the development of:

- the standardised day-ahead pipeline and hub service products that will be sold through the auction,³ which will require consideration to be given to:
 - the transportation and hub service products to be auctioned;
 - the firmness of the auction product (firm vs as available/interruptible or a combination) and how nominations and renominations that occur after the auction can be accommodated;
 - the transport paths; and
 - other elements of the standardised product (e.g. MDQ, MHQ factor, overruns/imbalance allowances, renomination rights).

Consideration will also need to be given to how the product will interact with the facilitated markets and if the product design will give rise to any risks in these markets.⁴

- the auction design which will require consideration to be given to:
 - the auction format (i.e. single or multiple round, combinatorial/conditional auction or individual auction);
 - the pricing rule to be applied;
 - how winning bids will be determined (i.e. optimisation algorithm based on maximising profit, revenue or capacity);
 - the methodology to be used to determine the amount of capacity to be auctioned; and
 - a number of other issues, including the treatment of bidirectional flows by the auction and auction obligations (i.e. treatment of delivery failure and shippers breaching rights associated with auctioned capacity).
- the auction timing and process;

³ Note that while the operational, prudential and other contract terms will be developed by the Standardisation Working Group, consideration will need to be given to the service related elements of the day-ahead product. 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); and (d) the capacity to be made available (including any trading rights that may be required for trades involving supply to an STTM).

⁴ For example, under the AEMO GSH Exchange Agreement, if the transport capacity was recalled to the primary holder, a Delivery Variance Amount would be created and the secondary capacity holder would need to compensate the other trade party (Clauses 14.3 and 15.2 (c) of the Exchange Agreement).

- the integration of the auction with other markets (i.e. DWGM, STTM and GSH) and with AEMO market systems and pipeline operator systems; and
- the operational, financial (e.g. settlement and prudential arrangements), institutional, regulatory, market and legal arrangements required to underpin the auction.⁵

As part of this process, the auction project team will also need to consider:

- when the auction should be implemented and if any transitional arrangements are required; and
- a number of the other preferred and suggested outcomes identified by the AEMC, including the potential phasing out of as available or interruptible rights in primary GTAs.

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 Auction project team will need to consider when developing its recommendations on the governance arrangements for the auction platform and the products to be sold through the auction are closely related to the matters the Capacity trading platform project team will need to consider;
- 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.

⁵ For example, consideration will need to be given to: (a) the settlement and prudential arrangements that will apply to the auction; (b) the contractual arrangements the pipeline operator, auction participants and, if relevant, auction operator will need to enter into; and (c) how the results of the auction will be communicated to the relevant pipeline operator if a single auction platform is developed.

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
17/5/2017-14/6/2017 (4 meetings)	Auction product
15/6/2017-13/7/2017 (4 meetings)	Auction design
26/7/2017 (1 meeting)	Auction timing and process
Advisory Panel July meeting	<i>Recommendations on product design for auction products</i>
9/8/2017-10/8/2017 (2 meetings)	Integration of auction with other markets and arrangements
23/8/2017-7/9/2017 (4 meetings)	Operational, financial, institutional, regulatory, market, legal and operational arrangements (incl. consideration of interaction with AEMO and/or pipeline operator systems, auction obligations, information and reporting requirements).
20/9/2017-21/9/2017 (2 meetings)	Review of end to end design Consideration of implementation and transitional arrangements.
Advisory Panel Sep meeting	<i>Recommendations on auction design</i>
25/9/2017-23/10/2017 (4 weeks)	<i>Public consultation on auction design.</i>
4/10/2017-5/10/2017 (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,
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	17 May	10am-3pm	Project team meeting
	30 May	9am -11am	Joint meeting with other project teams.
	31 May-1 June	10am-3pm, 9am-2pm	Project team meeting
June	14-15 June	10am-3pm	Project team meeting
	28 June	10am-3pm	Project team meeting
July	11 July	9am -11am	Joint meeting with other project teams.
	12-13 July	10am-3pm, 9am-2pm	Project team meeting
	26 July	10am-3pm	Project team meeting
August	9-10 August	10am-3pm, 9am-2pm	Project team meeting
	22 August	9am -11am	Joint meeting with other project teams.
	23-24 August	10am-3pm	Project team meeting
September	6-7 September	10am-3pm, 9am-2pm	Project team meeting
	20-21 September	10am-3pm, 9am-2pm	Project team meeting
October	4-5 October	10am-3pm, 9am-2pm	Project team meeting

Appendix A: GMRG Governance Structure

