

MEMORANDUM

TO: Stakeholders

FROM: First Gas

DATE: 11 September 2018

RE: Block 5 Support Materials – 5 PR Auction Terms and Conditions Scoping

This memo provides an outline of the considerations in scoping the PR Auction Terms and Conditions. This will provide an outline of the document to be prepared and approved by the GIC during 2019. This memo is intended to support the discussion at the workshop on 18 September 2018.

What's in the GTAC

The provisions of the GTAC give some guidance on the parameters of a PR auction. These are contained in the following provisions:

Purpose	Clause	Detail
Timing	3.17	<ul style="list-style-type: none"> The auction will take place on the First Business day of the month Prior to when Congestion is expected to begin
Cancellation	3.17	<ul style="list-style-type: none"> First Gas can cancel the auction if it considers that the delivery point will no longer be affected by congestion
Notification of Auction	3.19	<ul style="list-style-type: none"> 20 Business Days prior to auction (or shorter if circumstances require)
Information to be provided	3.19	<ul style="list-style-type: none"> Delivery points affected PR Effective date PR Term Estimated Available Operating Capacity (AOC) during PR Term and method for determining this Number of PRs to be offered in relation to AOC and how this was determined Reserve Price
Bidding Rights	3.20	<ul style="list-style-type: none"> Shippers may bid for up to five tranches of PRs which must have different prices
Assessment of bids	3.20	<ul style="list-style-type: none"> First Gas will rank bids in descending order and allocate PRs in that order until all either all PRs are allocated or all bids are satisfied If the remaining number of PRs to be allocated is less than the number in then next lowest tranche of PRs, the remaining PRs will be allocated to the next lowest priced bid or pro-rata across the next lowest priced bids (if there are more than one equally priced bid)
Pricing Rules	3.20 11.2	<ul style="list-style-type: none"> No bid may be lower than the reserve price The price paid will be the lowest price accepted over the Reserve Price

Purpose	Clause	Detail
Publication of Results	3.20	<ul style="list-style-type: none"> First Gas will notify Shippers of their allocation and publish allocations on OATIS
Trading of PRs	3.21 3.22	<ul style="list-style-type: none"> Shippers may notify PRs for trade on a trading platform The trade and trade price will be notified on OATIS

What factors might be considered for the PR auction terms and conditions?

In investigating the other things to be considered in the PR Auction Terms and Conditions we investigated some comparable auction structures in the emsTradePoint FTR Auctions and the AEMO Day-ahead Capacity Auctions. These sources have helped us scope the range of factors that might be sensibly covered by PR Auction Terms and Conditions.

FTR Auctions

Financial Transmission Rights (FTRs) are a product that allow participants in electricity markets to hedge the difference between electricity prices at different locations across the grid. They are a financial derivative as their price is derived from the difference between the electricity price at two nodes. Prices at different nodes are set by line losses and capacity constraints. Although PRs are not a derivative product, there are similarities between the two but the FTR market is a much more complex and dynamic market.

The basis of the design for the auction is was determined by the Electricity Authority (EA) as follows¹:

2. The FTR auction must be designed to:
 - a. maximise the value of trade in the auction as determined by the bids made in the auction;
 - b. maximise competition in the auction; and
 - c. minimise costs of participation in the auction.
4. The initial FTR allocation plan must specify a plan that seeks to:
 - a. ensure that, no later than 1 year after the first FTR auction, FTRs are available in each FTR auction relating to an initial month and to at least each of the 11 months following the initial month; and
 - b. ensure that the availability of FTRs is progressively increased so that, no later than 3 years after the first FTR auction, FTRs are available in each FTR auction relating to an initial month and to at least the 23 months following the initial month.

The first objective of the auction is to maximise the value of the trades in the auction due to considerations of revenue adequacy. This is required as the funds from the auction need to be adequate to cover the value of the locational difference at the time that the option is

¹ emsTradePoint, FTR Market – an explanatory document, <https://www.ftr.co.nz/documents/10179/61715/FTR+Market+-+an+explanatory+document+v1.4/b3ce954d-d4e3-4ce9-8c89-0746ab41f9de>

exercised. This is not a requirement for the PR auction as there is no need to cover the costs.

The final consideration for FTR auctions is the allocation of available capacity over time to ensure that there is a full release of allocation to allow equity of access to different market participants over time. This consideration is important in a dynamic market with large churn of participants. While the gas market is less dynamic, we need to be careful that new entrants can access PRs to ensure there are no barriers to entry for new market participants. Given that PR auctions are likely to be close in time to the PR term, this avoids the need to progressively release capacity. However, we would need to consider what happens if there is a new shipper during the PR term.

The second and third objectives of the auction design are to maximise competition in the auction and minimise the costs of participation in the auction. These are valid concerns in the PR auction and should be objectives for the PR auction Terms and Conditions. For FTRs, these objectives are furthered by:

- Equal access to all those trading who meet prudential requirements
- Two auctions per month to maximise availability
- Transparency of information on the capacity being offered
- Transparency of information on the auction results and holdings
- Ability to assign FTRs
- Automated trading platform to reduce transaction costs

These attributes are analogous to the provisions set out in the GTAC for the provision of information following PR auctions.

The detailed design of the FTR auction products are:

- Bids to be price and volume pairs as multiples of 0.1 MW.
- Clearing price will be the price of the lowest bid accepted
- Timing of the auction on the day

Many of the elements above are covered in the GTAC provisions. However, there is potential for refinements in the Terms and Conditions to maximise competition, allow for new entrants and provide more detail on auction specifics.

AEMO Day-ahead Capacity Auctions

As part of the review of gas transmission pipelines in Australia undertaken following the Australian Competition and Consumer Commission (ACCC) investigation into gas markets, the release of unused capacity on a day-ahead basis was mandated. Capacity in transmission pipelines is generally contracted on individual terms and reserved well ahead. There is little to no consistency in contracting between pipelines. The ACCC found that hoarding of capacity was potentially impeding competition.

The Gas Market Reform Group (GMRG) was asked to undertake the design of an auction process to release of unused capacity to market on a day-ahead basis. This is complex as contracted capacity may only be for a single pipeline while bids may be for a combination of pipeline routes. Moreover, the auction product needs to coexist with firm and as available capacity on each pipeline. Many of the design choices in the design document have

therefore been focused on the problem of combinations of capacity and relationship to existing products².

The preferred outcomes for the auction process were defined as:

- Reserve price of zero dollars with compressor fuel provided by shippers in-kind
- Bidders pay the lowest price fully cleared bid
- Winning combination of bids determined using a profit maximisation algorithm (constrained by requirement that at least all contracted but un-nominated capacity is put on sale in auction)
- At least all technically feasible contracted but un-nominated capacity to be released through the auction
- Auction to be conducted on a daily basis, shortly after nomination cut-off time
- Market governance and conduct rules to ensure that rights are exercised in good faith and not to game or undermine the auction.

Other parts of the design relate to curtailment and compensation of bidders in this event. In the GTAC context this element is covered by section 10 of the GTAC. The GMRG also considered the treatment of the auction proceeds. Again, this is considered in the GTAC and further detail is not required in the PR Auction Terms and Conditions. Finally, consideration was given to prudential and clearance requirements, which are not necessary in the PR auction context as this is covered by GTAC.

The considerations in the GMRG document are very similar to that in the design of the FTR market. Again, many of the provisions are covered by the GTAC as the auction is within that context. However, provisions on market conduct are of interest and would support competitiveness of the auction process.

Proposed Scope

Based on our analysis we consider that the following objectives would be appropriate in deciding the scope of rules to be included:

- Maximise competition in the auction process and in upstream and downstream gas markets
- Ensure capacity is allocated to those most willing to pay
- Ensure costs to participate are minimised

We consider that the mechanics of the auction itself are well defined in the GTAC in terms of assessing the bids, pricing, timing and information provision. We welcome input on these points to understand if there are any gaps in these provisions or any clarifications that could usefully be made via the auction terms and conditions.

We also consider that the following matters do not need to be covered as they are covered by the GTAC itself:

- Clearing
- Prudentials
- Warrantee on title

² Gas Market Reform Group, Design of the Day-Ahead Auction of Contracted but Un-Nominated Capacity – Final Recommendations, <http://gmrgr.coagenergycouncil.gov.au/sites/prod.gmrgr/files/publications/documents/20180103-Design-of-day-ahead-auction-of-contracted-but-un-nominated-capacity-final-recommendations.pdf>

We therefore consider that the main gaps that will need to be covered are around competition and market conduct. These would include:

- Ensuring bids are a genuine estimate of required capacity (good faith requirement)
- Ensuring new market entrants can access Priority Rights

We also consider there needs to be further precision on the time that the auction is conducted on the day of the auction.

We look forward to discussion of the scope of the PR Auction Terms and Conditions at our workshop on 18 September.