



REVIEW

Australian Energy Market Commission

SCOPING PAPER

**Biennial review into liquidity in wholesale gas
and pipeline trading markets**

13 February 2018

Reference: GPR0005

Review into liquidity in wholesale gas and pipeline trading markets

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About the AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

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1 Introduction

1.1 Background

Recognising ongoing structural changes in the Australian gas market, the Council of Australian Governments Energy Council (the COAG Energy Council) established a set of principles in 2014, referred to as the COAG Energy Council's Vision (the Vision) for Australia's future gas market.

The COAG 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."*¹

In order to achieve a road map for gas market development to allow the Vision to be met, the COAG Energy Council directed the Australian Energy Market Commission (AEMC or Commission) to conduct a review of the gas markets and gas transportation arrangements on the east coast of Australia (the East Coast Review). In the East Coast Review the AEMC recommended, amongst other things, that the COAG Energy Council task it with reporting to Energy Ministers on a biennial basis on the growth in trading liquidity in the Australian wholesale gas and pipeline capacity trading markets.²

On 20 December 2017, the COAG Energy Council provided the AEMC with terms of reference to conduct that biennial review (the review).³

1.2 Scope of the review

The terms of reference provided by the COAG Energy Council requires the AEMC to:

- monitor changes in liquidity in the gas markets
- report on the effectiveness of reforms implemented
- identify the need for any further reforms, if appropriate.

The terms of reference also sets out the relevant markets for the review to consider. These markets cover the wholesale gas and pipeline capacity trading markets on the east coast of Australia.⁴

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

2 See recommendation 12, in AEMC, *East Coast Wholesale Gas Markets and Pipeline Frameworks Review*, Stage 2 Final Report, 23 May 2016, p. 15

3 The terms of reference are available at the AEMC's website on:
<http://www.aemc.gov.au/Markets-Reviews-Advice/Biennial-review-into-liquidity-in-wholesale-gas-an>

4 The terms of reference states that in subsequent reviews, the AEMC will be expected to monitor developments in the Northern Territory and Western Australia, where and when it is relevant to do so.

The COAG Energy Council recognised that a number of the reforms set out in the East Coast review will not be in place when the first biennial review is completed. Therefore, the initial review is expected to be relatively narrow in scope and to focus primarily on:

- the development of the methodology the AEMC intends to use to monitor the growth in liquidity over time and the information it requires to carry out this monitoring role
- establishing a baseline measure of liquidity that can be used in future reviews to assess the success of the reforms the Energy Council has agreed to implement
- the growth in liquidity that has occurred in the Wallumbilla gas supply hub (GSH) and Moomba GSH and the effect that the introduction of Optional Hub Services at Wallumbilla has had on liquidity in this market.

The terms of reference includes a more detailed description of the scope of the review.

1.3 Review process

In accordance with the terms of reference, the AEMC will publish three reports as part of this review:

- A scoping paper outlining the approach proposed to be used by the Commission for this review, including the liquidity metrics and the methodology for determining those metrics.
- A draft report containing draft results and draft recommendations on any further reforms that may be required, if appropriate.
- A final report containing the final liquidity metrics and if appropriate, recommendations.

The AEMC is required to provide the final report to the COAG Energy Council six weeks prior to the Council's mid-year meeting in July 2018.

1.4 Responding to this paper

The AEMC welcomes submissions on any issues related to this review including, but not limited to the methodology and metrics proposed to assess liquidity in the wholesale gas and pipeline capacity trading markets.

The closing date for submissions is **6 March 2017**.

Submissions should quote project number "GPR0005" and may be lodged:

- online at www.aemc.gov.au
- by mail to: Australian Energy Market Commission, PO Box A2449 , Sydney South, NSW, 1235

2 Methodology and metrics

A liquid market is one in which market participants have access to a range of products and can reliably make transactions in a timely way, at a cost-reflective price.

We note that liquidity is a broader concept than gas volumes, as adding to the supply of gas may not necessarily result in more gas being traded between different parties.

In determining if liquidity exists in a market, four inter-related characteristics are often examined:⁵

- **Market depth:** where no single buy or sell order is likely to move the market price excessively
- **Market breadth:** where a large number of bids to purchase gas and offers to sell gas are present in the market
- **Immediacy:** the ability to trade large volumes in a short period of time
- **Resilience:** the ability of the market to recover towards its natural equilibrium after being exposed to a shock.

This review will measure liquidity based on these characteristics.⁶

For each of these characteristics, metrics are chosen that can accurately measure whether that characteristic of liquidity is present on the east coast of Australia, in the wholesale gas and pipeline capacity trading markets (gas markets).

Table 2.1 provides an overview of the metrics the AEMC proposes to be included in the analysis of liquidity in the gas market. The table includes both quantitative and qualitative metrics and provides information on which of the above four inter-related characteristic each metric addresses, how the metric will be constructed, and the expected trend in these metrics over time. Where appropriate, indicative threshold values are also provided along with the underlying data.

The majority of these metrics relate only to the so called “facilitated markets” or exchanges: the Gas Supply Hubs (GSHs) of Moomba and Wallumbilla. However, in some limited cases, some metrics may be calculated for other markets such as the Short Term Trading Markets (STTMs), the Victorian Declared Wholesale Gas Market (DWGM) or traded pipeline capacities listed on the Gas Bulletin Board (GBB).

These metrics, and in some cases the underlying data, will be published on a regular basis on the AER's website.⁷ As the AER publishes wholesale gas market statistics on its website, the liquidity metrics and the data series underlying the metrics will likely also be included with these statistics in the future. The underlying data can also provide context and further information regarding the metrics.

⁵ IEA, *Development of competitive gas trading in continental Europe – How to achieve workable competition in European gas markets?*, IEA Information Paper, May 2008, p. 46

⁶ Resilience will not be measured separately. Metrics used to assess the first three characteristics (market depth and breadth and immediacy) can also be used to evaluate resilience. However, it is difficult to evaluate on an ex ante basis when the market has not been subject to a shock.

⁷ As the information is at a market-level it is not expected that there would be any issues regarding confidentiality.

The AEMC acknowledges that some initial work by the AER and AEMO may be necessary to identify the required data and to establish a process for collecting and sharing the data where it is not already available to the AER. However, we expect that once such a process is established, the benefits of regularly publishing the metrics and their underlying data would outweigh the costs.

The AEMC, the AER and AEMO will cooperate to determine the appropriate processes for gathering and publishing information related to the liquidity metrics set out in this review.

Table 2.1 Metrics to monitor liquidity in the gas markets

Metric	Characteristic	Description	Trend and/or threshold	Underlying data
Traded volumes	Market breadth	Volume of trades in each market over the measurement period	Should be increasing	<ul style="list-style-type: none"> traded volumes
Churn rate	Immediacy	Ratio of all traded volumes to demand for the underlying physical product	Around 10 in a liquid market but likely to be much lower as the market develops. Trend should be increasing	<ul style="list-style-type: none"> traded volumes throughput of the underlying physical product
Bid-offer spreads	Immediacy	The difference between prices on the bid and offer side of the market	Should be narrowing	<ul style="list-style-type: none"> bid prices offer prices
Number of active participants	Market depth, market breadth	The number of participants that have actively traded in the markets and the breakdown of the types of participants (e.g. producers, retailers, industrial customers, physical or financial participants)	Increasing to a state where all market participants are actively trading on the facilitated markets	<ul style="list-style-type: none"> number of actively trading participants number of participants in each registered category
Concentration of trades amongst active participants	Market depth	The proportion of trades accounted for by individual participants	Should be decreasing	<ul style="list-style-type: none"> traded volumes by participant⁸ all traded volumes
Number of trades per product	Market breadth	The number of traded transactions per product	Should be increasing	<ul style="list-style-type: none"> number of trades by product category
Trades conducted through the facilitated markets vs bilateral and OTC trades	Immediacy	The proportion of trades conducted through the facilitated markets versus trades conducted bilaterally or OTC (to the extent this information is publicly available)	An increasing share of trades through the facilitated markets	<ul style="list-style-type: none"> traded volumes in the facilitated markets traded volumes outside the facilitated markets
Range of products traded	Market breadth	The types of products available to trade, including bilateral products, over the counter products and exchange traded products	Should be increasing	<ul style="list-style-type: none"> types of bilateral or OTC products available types of exchange traded products available
Confidence of market participants	All characteristics	Survey-based measure of market participants' confidence in the trading market and any perceived impediments or barriers to using the markets vis-à-vis entering into bilateral trades	Participants should have increasing confidence and be more willing to engage in hub-based trading	Survey (qualitative)
Market participants perception of future market developments	All characteristics	Survey-based measure of market participants' perceptions of the future state of the market and the potential for further growth in liquidity.	Participants should expect more hub-based trading to occur	Survey (qualitative)

⁸ The Commission understands that this set of underlying data may include confidential information. Therefore, the appropriate level of aggregation will be considered, so that individual participants are not identifiable from this metric.

2.1 Quantitative metrics

Table 2.1 shows ten potential metrics which may be used to assess liquidity in the gas markets. Of the ten metrics listed above, the first eight are quantitative indicators. That is they can be objectively measured and quantified. Each of the eight metrics is discussed in more detail below.

Quantitative metrics will aim to cover a two year period (i.e. the calendar years of 2016 and 2017), to preserve consistency with reviews in the future. For example the next review, due in 2020, will include liquidity metrics that relate to the calendar years of 2018 and 2019.

As there is very limited information available about pipeline capacity trading, only one of the eight liquidity metrics will include reference to that market. However, more information may become available in the future after a set of reforms envisaged in the Capacity Trading Reform Package is implemented.

Based on the AEMC's recommendation in the East Coast Review, the COAG Energy Council tasked the Gas Market Reform Group (GMRG) with developing a reporting obligation related to secondary capacity trading.⁹ The GMRG's final recommendation on reporting contains the proposed reporting framework for secondary capacity trading. This will include information about:

- the date of the trade and its delivery period
- the type of the trade and service
- the geographical location and direction of the trade
- the amount of capacity being sold
- the price paid for the capacity.¹⁰

2.1.1 Traded volumes and churn rate

Natural gas can be traded multiple times before it reaches its destination where it is consumed. Churn rate is defined as the ratio of all traded volumes to the throughput of the underlying physical product, whether that is gas or pipeline capacity. The churn rate is commonly used in commodity and financial markets to assess maturity and liquidity of a given market.

A high churn rate is indicative of a market that has many participants (and many participant types), trading many different products in large volumes. Therefore this metric relates to the immediacy characteristic of liquidity.

In commodity markets, a churn rate of 10 or more is deemed to signify that the market has reached maturity and is liquid.¹¹ However, many markets cannot realistically be

9 See recommendation 8, in AEMC, *Stage 2 Final Report: East Coast Review*, 23 May 2016, p. 14, and pp. 108-109.

10 GMRG, *Capacity Trading Reform Package (Standardisation, capacity trading platform and reporting framework for secondary trades)*, Final Recommendations, November 2017, p. 132

expected to reach churn rates associated with mature liquid markets. This would be the expectation with respect to the east coast wholesale gas market in the near to medium term.

Traded volumes refer to quantities that are either traded on centrally operated markets such as the GSHs, the STTMs, and the DWGM, pipeline capacity listed on the GBB or wholesale trades in bilateral form. The delivery period of the contracts behind those volumes may include intraday, daily, weekly, monthly or longer tenors.

Traded volumes as a standalone metric will group trades by their trading date and not by their delivery period. For example the volume from a monthly trade concluded in December 2016 with a delivery for January 2017 will be counted towards the total traded volumes of calendar year 2016.

For the purposes of calculating the churn rate, for any given period, traded volumes will be calculated differently, grouped by their delivery period and not by their trading date. Using the previous example, a monthly product traded in December 2016 with a delivery for January 2017 will be counted towards the total traded volumes of calendar year 2017.

We propose to show liquidity at the Wallumbilla and Moomba GSHs by calculating a churn rate for each hub. Churn rates will not be calculated for the STTMs and the DWGM. This is because the STTMs are mandatory markets and the DWGM is a gross pool market, where traded volumes would equal the underlying demand. Churn rate is therefore not an appropriate metric to measure liquidity in these markets.

Some information is already publicly available in relation to the traded volumes metric. The AER already publishes the volumes of trading that takes place on facilitated markets, and AEMO publishes similar information in relation to the STTMs and the DWGM. Capacity trading information is also published for some pipelines operated by APA and Jemena. However, the volumes of bilateral trades remain confidential. Therefore market participants will be surveyed to discover the quantities of gas that is being sold and purchased bilaterally or over-the-counter (OTC).

To preserve the consistency of the reports in the future, we propose to differentiate between bilateral trade and traded volumes on the exchanges. Therefore, one churn rate will be calculated by using GSH-only volumes, and another one will include bilateral trades.

Churn rate is proposed to be calculated by dividing the traded volumes of all products that refer to the same delivery period by the total throughput of gas that occurred over the same time period. We propose to calculate only the gross market churn in our analysis.¹² Net market churn is a metric that is best suited for areas where a significant portion of the traded gas is consumed locally. This does not appear to be case for the GSHs where gas is mainly transited through to other locations.

11 ACER, *Implementation monitoring and managing the impact of the gas networks codes and guidelines on the internal market*, Final Report, October 2015, pp. 139-141.

12 Net market churn refers to the physical consumption that occurred in a certain market area and it does not include exports to adjacent local markets. Gross market churn also includes exports.

Total throughput, for the purpose of calculating the gross market churn, will include the sum of all natural gas that could have been traded on the GSHs. This will be calculated as the sum of all the gas flows (in all directions) on the pipelines that physically deliver natural gas from those locations. Information about pipeline flows is available at the GBB.

2.1.2 Bid-offer spreads

Bid-offer spreads are the difference between the price on the bid side (buy side) of the market and the price on the offer side (sell side) of the market. As such, bid-offer spreads include transaction costs, amongst other things. In a liquid market with many well-informed participants, supply and demand should be well aligned and transaction costs should be minimised. In practice, large bid-offer spreads prevent market participants from trading significant volumes within a reasonably short timeframe. As a result, a liquid market is characterised by bid-offer spreads that become narrower over time.

Bid-offer spreads only provide meaningful information if they relate to similar products. For example daily and monthly deliveries will have separately calculated liquidity metrics. Products traded at the Wallumbilla and Moomba GSH will also be separated.

Bid-offer spreads will not be calculated for the STTMs and the DWGM. This is because these markets have auctions with a single clearing price. In those cases the calculation of a spread between bids and offers submitted to the auction would not provide meaningful information.

This metric is not going to be published in relation to capacity trading, as there is no information that is publicly available about bid-offer spreads in those markets at this time.

The review is to contain yearly average bid-offer spread values for each relevant product or group of products traded on the GSHs. More specifically, yearly averages will be constructed from the arithmetic average of daily bid-offer spread values. These values will originate from those days, where relevant bids and offers for the same product were simultaneously present in the order book.

Further, the daily values will be equal to the arithmetic average of all relevant bid-offer spreads that were present in the order book during trading hours. An individual bid-offer spread is calculated as a percentage, by subtracting the highest bid price from the lowest offer price and dividing that difference by the highest bid price.

2.1.3 Number of active participants

Metrics relating to the number of participants that commonly trade are useful to measure the depth and breadth of a market. A large number of market participants engaged in trading mean that it is less likely the market can be manipulated (i.e. one participant is able to move the market price), and therefore the resulting market price will more accurately represent supply and demand conditions.

It should be noted that there are numerous types of participants in the wholesale gas markets. For example, a physical participant is one that sells and consumes natural gas

and includes producers, shippers, retailers and large users.¹³ Financial participants do not have a physical position in gas but may be active in the markets for financial products for hedging or speculative purposes - this means that they close out positions before being required to deliver or take receipt of the gas. A liquid market is generally characterised as one with active physical and financial players.

For the metric listed in Table 2.1 it is necessary to define an "active" participant in the market. It is proposed that an active participant be defined as one that has been engaged in trading on the market at least once in any given month.

This metric is designed to measure participation in the markets at the early stages of market development. As liquidity in the market increases over time consideration may be given to the development of more sophisticated measures of market depth.

This liquidity metric will be expressed through ratios of active market participants to registered participants. The metric will be published for the GSHs and the STTMs separately.

To the extent it is possible to determine from publicly available information, categories of registered participants on the GSHs and the STTMs will be published. These categories will include exporters, retailers, generators, industrial customers and traders, wherever possible.

This metric is not going to be published in relation to capacity trading, as there is no information that is publicly available about the type of participants in those markets at this time.

In addition, this metric will be published jointly for Wallumbilla and Moomba, as there is no separate membership on the GSHs for those locations.

The AER already publishes monthly trade activity statistics by participant for the facilitated markets, which may be used as one of the underlying datasets for this liquidity metric.

2.1.4 Concentration of trades

Closely related to the previous metric (number of active participants), the concentration of trades by individual market participants is also a measure related to market breadth. Concentration in this context refers to a measure that shows to what extent the market is dominated by just a few players.

A liquid market is characterised by lower concentration of trades. This is because if the majority of trades were to be conducted by just a few participants, it may both deter those participants from trading in facilitated markets¹⁴ and may also make the markets susceptible to manipulation. Fewer participants also reduces the benefit to the market

¹³ Physical participants may not necessarily be active in trading markets, for example they may buy or sell all of their gas through bilateral contracts outside of a trading market.

¹⁴ Market participants may be reluctant to trade on facilitated, transparent markets, where their positions and trading strategies could be revealed. For example, if more than half of the volume is traded by just two participants and those volumes are publicly published, it can reveal sensitive information even if the published data is anonymised.

from trading through markets such as the GSHs, as the transaction costs associated with bilateral trading are smaller in a market with fewer participants.

We propose no specific threshold for this liquidity measure, however, we expect concentration to decrease over time as gas markets become more mature.

We believe that the concentration of trades can be measured by a commonly accepted measure of market concentration that is based on market share: the Herfindahl-Hirschman index (HHI).¹⁵

Market share is only going to be calculated for the GSHs. The STTMs and the DWGM will also be included in this metric, wherever possible. It is not going to be published for the pipeline trading capacity markets, as there is no publicly available information about market shares in those markets at this time.

Market share can be calculated by dividing traded volumes by a participant with the total of traded volumes in the market. Both of these volumes would ideally include both bilateral and exchange based trading, subject to availability of the former. However, because the availability of information about bilateral trading volumes may vary over time, we recommend, for the sake of consistency, to separate market shares on the GSHs, the STTMs and the DWGM from market shares that is traded outside of the centrally operated markets.

The HHI is then calculated by squaring the market share of each firm competing in a market, and then summing the resulting numbers.

We propose to calculate separate HHI for the Moomba and Wallumbilla GSHs, because the concentration of trades and market share of market participants may vary by location. The HHI will also be separately calculated for the three demand centres (i.e. Adelaide, Brisbane and Sydney).

2.1.5 Number of trades per product

The number of trades completed for a given product provides a measure of liquidity (that relates to market breadth) on a per product basis at the hubs. A liquid market is characterised by ease of trade and therefore it is expected that the number of trades per product will increase as market liquidity develops. By examining the number of trades on a per product basis over time, the relative development of the market for different products can be distinguished.¹⁶

¹⁵ The HHI measures the size of firms in relation to the industry. Higher HHI scores close to 10000 indicate a highly concentrated, non-competitive market environment, while those closer to zero indicate a much more competitive market. The ACCC's Merger Guideline document indicates that HHI levels above 2000 are indicative of a concentrated market.

¹⁶ An alternative metric to the number of trades for each product is the volume of gas traded per product. However, traded volumes may vary widely across products as the size of trades, in energy terms, will vary significantly. It should be noted that traded volumes will be collected in order to calculate the churn rate. Depending on the granularity of the data collected it may be possible to examine the volume of gas traded per product to supplement the analysis of number of trades per product.

There is no threshold proposed for the absolute number of trades per product, however, it is recognised that the higher the number of trades for a product, the more trustworthy its price signal.

As liquidity in the market develops, the number of trades per product is expected to increase.

This metric is proposed to encompass exchange based products only, traded on the GSHs, due to the non-standard feature of bilaterally traded products in the wholesale and capacity trading markets. The metric will not be calculated in relation to the DWGM and the STTMs as they are intraday and day ahead markets with mandatory participation and a very limited set of tradeable products.

In order to provide meaningful information, all products will have separate figures assigned to them.

For the defined yearly period, the number of trades per product will be calculated as an arithmetic average of the number of trades relating to products with the same tenor length. For example, in the case of monthly products, this number would be the average of the number of times each of the 12 months was traded.

As there are distinct products that are traded with Moomba and Wallumbilla delivery locations, separate metrics will be calculated for each.

The AER currently publishes the aggregate number of trades for all products traded on the facilitated markets on a monthly basis, while AEMO reports on individual products on a weekly basis.

2.1.7 Share of on-market and off-market trades

From the perspective of liquidity metrics, it is useful to differentiate between so called “on-market” and “off-market” trades. For the purpose of this review, the former refer to trades executed on the facilitated markets (GSHs), the latter to trades that are conducted bilaterally or OTC.

On-market trades contribute to transparency and help price discovery, but they lack the flexibility of off-market trading instruments. In addition, on-market trades contribute to immediacy, as exchange-based trading is usually easier to execute quickly relative to negotiating bilateral trades.

We do not propose a specific threshold for this metric. However, we note that in a liquid market the share of on-market trades should be increasing over time.

The terms of reference states that this metric is to be calculated in relation to the facilitated markets only.

This metric would be calculated on an aggregated basis. This would require summing up traded volumes from all products that relate to the same time period at the same delivery location (Moomba or Wallumbilla). Aggregating these volumes would be advantageous from the perspective of being able to compare on- and off-market trades, because of the non-structured nature of the latter.

We understand that the AER already publishes monthly statistics of trades occurring on the facilitated markets. However, the volume of bilateral off-market trades is

confidential and may only be discovered by voluntary surveys or occasional inquiries conducted by the Australian Competition and Consumer Commission (ACCC).¹⁷

2.1.8 Range of products traded

In addition to monitoring the number of transactions per product it is necessary to examine the range of products available for trade in the gas markets. A liquid market is one in which participants are able to find a suitable product to satisfy all of their needs and this means that a variety of products should be available. The larger the range of products available, the greater the choice for market participants and the wider the market breadth that can be observed in the market.

When examining the range of products available on the traded markets, all categories of products should be included; this means that the analysis should include bilateral and exchange trading. This information is usually not considered to be commercial sensitive information and should be available for bilateral trades.

As liquidity grows in the market it is expected that the range of products available will expand. However, it is not expected that the market for products will grow in a uniform fashion; some products may take longer to come to market and, even in mature markets, liquidity for products far along the traded curve (i.e. further out into the future) may be quite low.

No specific threshold value for the range of products is proposed, however, the range is expected to increase over time.

In terms of exchange based trading, the range of tradeable products currently stretches three months into the future.¹⁸ The tenors of bilaterally traded products on all relevant markets may be discovered via voluntary surveys.

A separate metric is proposed to be calculated for bilateral and exchange based products.

2.2 Qualitative metrics

Not all aspects of liquidity are easily measurable. The use of qualitative information to supplement the quantitative indicators provides a complete view of market liquidity. Survey-based information allows for valuable information on the non-quantifiable aspects of the development of liquidity to be incorporated into the analysis. These qualitative metrics may capture all four characteristics of liquidity and therefore provide a wider view that supports the less flexible quantitative ones discussed in section 2.1.

¹⁷ Information requested from market participants on off-market trades via voluntary surveys may not be provided or may not be provided in full, while ACCC inquiries that can access such information are not conducted on a regular basis. Therefore, the extent to which these reported volumes represent the total volume of bilateral contracts may vary over time.

¹⁸ The tenor and other technical specifications of products tradeable on the GSHs is set out in AEMO's GSH Trading Timetable document:
https://www.aemo.com.au/-/media/Files/Gas/Gas_Supply_Hubs/Market_Operations/2016/GSH-Trading-Timetable.pdf

Qualitative metrics can be forward-looking and can provide insight into the prospect for liquidity to develop further in the future. Quantitative metrics rely on observed data and therefore cannot be forward-looking.

The survey-based information would focus on two areas: market participants' experience of the market to date and their expectations for the future. For this initial review, the survey will be conducted through informal stakeholder discussions. In future years, it is expected that a formal survey would be completed.

In order for market participants to be willing to trade they must have trust that the market price reflects underlying supply and demand.

Over time, it is expected that market participants will have increased confidence to trade on the GSHs, which will result in greater traded volumes and liquidity in the market.