IMPACT & IMPLEMENTATION REPORT (IIR)

IMPLEMENTATION OF SWAP PRODUCTS, EGP AND UGS TRADE POINTS ON THE GSH

Issue number	25		
Impacted jurisdiction(s)	Queensland, New South Wales, South Australia, Northern Territory, Tasmania, Victoria, Australian Capital Territory		
Proponent	AEMO	**Company**	AEMO
Affected gas market(s)	Gas Supply Hub	**Consultation process (ordinary or expedited)**	Ordinary
Industry consultative forum(s) used	Gas Supply Hub Reference Group		Thursday, 5 October 2023
Short description of change(s)	Amendments to the Gas Supply Hub Exchange Agreement to: • Implement location SWAP products • Include EGP and UGS GSH Trade Points • Administrative changes		
Procedure(s) or documentation impacted	Gas Supply Hub Exchange Agreement		

Summary of the change(s)	• Physical locational gas swap products
	  • Update to Schedule 6
	• New trading location on the Eastern Gas Pipeline (EGP)
	  • Update to Schedule 3 and 4
	• New trading location at Iona Underground Storage
	  • Update to Schedule 3 and 4
	  • Minor updates to the body of the Exchange agreement to allow for trading at a storage facility.		

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Date IIR published	21/3/2024	**Date consultation concludes**	22/4/2024
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IMPACT & IMPLEMENTATION REPORT – DETAILED REPORT SECTION

CRITICAL EXAMINATION OF PROPOSAL

1. DESCRIPTION OF ISSUE

1.1. Overview

This Impact and Implementation Report is an integrated consultation on implementing the following changes for the Gas Supply Hub:

- Physical locational gas swap products
- New trading location on the Eastern Gas Pipeline (EGP)
- New trading location at Iona Underground Storage
- Administrative changes

AEMO is combining these items for consultation in order to streamline their implementation. AEMO notes that there are benefits in implementing these changes concurrently as the proposed products and trading locations complement each other.

1.2. Physical locational gas swaps on the Gas Supply Hub

1.2.1. Background on swap products

In 2019, the COAG Energy Council (the Council) tasked AEMO to develop, in consultation with stakeholders, an implementation plan for standardised locational swap products for the Gas Supply Hub (GSH). The Council's request to AEMO followed a 2019 gas swaps feasibility study commissioned by government and undertaken by Deloitte Access Economics (Deloitte).

In May 2020, AEMO consulted with Gas Supply Hub Reference Group (GSHRG) members on potential design options for physical gas swaps at Wallumbilla. In July 2020, AEMO provided government with its implementation plan. Officials endorsed AEMO's report and AEMO is now seeking to proceed with the implementation of swap products on the GSH.

1.2.2. Swaps consultation and implementation update

AEMO decided to pause the implementation of swap products in order to prioritise the expedited implementation of stage one of the east coast gas reforms in 2023. AEMO has continued to receive informal feedback from Gas Supply Hub members that swaps products would be a beneficial addition to the GSH. AEMO considers that now is the opportune time to re-consult on swaps for implementation, alongside the implementation of new trading locations on the EGP and Iona Underground Storage.

1.2.3. What is a locational gas swap?

A locational gas swap can be thought of as a form of virtual gas transport. A locational gas swap involves two parties exchanging an equivalent and offsetting quantity of gas at two different locations obviating the need to physically move the gas between the two locations.

A swap product listed on the GSH is a product for a service to swap a quantity of gas between two different locations for a specified time period (also referred to as a tenor). A participant who is selling the gas swap product would be offering to take the buyer's gas at the first location in the swap and deliver it back to the buyer at the second location and the buyer is paying the seller to make this transfer of gas. To give effect to the swap, a transaction in the swap product would create two delivery obligations for each counterparty:

1. The buyer would have an obligation to transfer gas to the seller at the first swap location and;
2. The seller would have an obligation to transfer the equivalent amount of gas to the buyer at the second location.

The GSH Exchange agreement already has a framework for physical gas swap products. These provisions were developed for the Wallumbilla gas compression swap that was available for trade prior to the introduction of pipeline capacity trading in March 2019. AEMO is seeking to use these provisions to implement a number of new locational swap products.

1.2.4. Summary of consultation undertaken in 2020

AEMO asked GSHRG members a series of questions to inform the design of GSH swaps products. Stakeholder feedback is summarised below:

Views on swap product locations

AEMO sought feedback from GSHRG members on an appropriate set of swap products. AEMO proposed that the initial set of swap products be between Wallumbilla and other locations.

A majority of respondents agreed with AEMO's proposal to establish swap products between Wallumbilla and Moomba, Wallumbilla and Culcairn and Wallumbilla Wilton. Respondents wanted to leverage APA Group's in-pipe trade points at these locations as the delivery point for each swap product. A small number of respondents also saw value in some non-Wallumbilla swap pairings for example between Wilton and Culcairn, SEQ and Wallumbilla or Moomba and Wilton.

Views on swap product tenors

AEMO proposed that swap products use the same set of tenors as the GSH's commodity products however noted that a subset of tenors could apply as an alternate option.

Respondents agreed with AEMO's proposal to replicate the commodity tenors for swap products.

Views on whether swap products are preferred to spread products

The GSH presently offers spread products between trading locations. Spread products link markets together by enabling participants to trade the price differences between each market. While there are a number of differences between the existing spread products and the proposed swap products, spread products can be traded in a way that results in a similar physical outcome to a swap product.

The majority of respondents indicated a preference for swap products over spread products particularly for new trading locations. It was noted that swap products may have lower collateral requirements than spread products, that they have a simpler price structure and, that unlike spread products, they can be traded off-market. Several respondents also noted that both swap products and spread products should not be established between the same locations as having both products available may dilute the market and split liquidity.

Prudential arrangements

The GSH requires participants provide collateral to cover their liabilities in case of default. Typically, the amount of collateral that is retained is related to the transaction price for the product. This model may present issues for swap products as the value of the gas that is being swapped may exceed the value of the swap transaction (which will reflect a capacity cost rather than a commodity cost). This means that if a participant defaults on its swap obligations (for example if the seller of a swap does not return the buyer's gas at the second location), the counterparty may be out of pocket for an amount greater than the value of the swap transaction.

There was a broad view that the existing GSH supporting arrangements (reports, settlement, etc.) would be adequate to facilitate swap products. However, a number of respondents raised concerns about the risk of default and implications for collateral management, though several respondents believed that swap products should use the same collateral approach as commodity products. Several respondents also noted that by

tying the amount of collateral to the transaction price of the swap product (rather than a commodity price) the amount of collateral that would be needed for a swap trade would be less than a similar spread trade. This was seen as a key advantage for swap products over spread products that may enable greater liquidity. These respondents acknowledge that using another method to determine exposure could drive up collateral costs (which may reduce the appeal of swap products).

1.2.5. Additional swap locations since consultation

With the addition of the EGP trade point (see section 1.3), there is the ability to incorporate the EGP into the swaps framework. As such, AEMO is proposing the addition of two swap products:

1. Wallumbilla to EGP
2. EGP to Wallumbilla.

These products will enable participants to swap gas between Queensland and the EGP, allowing for delivery into NSW or Victoria from the EGP and the ability to swap gas that has been injected from Longford onto the EGP for gas in Queensland (and vice versa). AEMO understands from informal consultation that there is likely to be industry demand for these additional swap products.

1.2.6. Proposal

Considering industry views provided to the consultation process undertaken, AEMO is proposing the following:

Product locations

- Eight swaps products between:
    - Wallumbilla and Moomba
    - Moomba and Wallumbilla
    - Wallumbilla and Culcairn
    - Culcairn and Wallumbilla
    - Wallumbilla and Wilton
    - Wilton and Wallumbilla
    - EGP and Wallumbilla
    - Wallumbilla and EGP

Delivery Netting

For swap products, it is proposed that netting of delivery obligations will not apply. Netting is most likely not required as it is unlikely that participants will trade in and out of swap positions as they may do with commodity positions. That is to say it is expected that most trades for swap products will be executed on a one-off basis. Without delivery netting, delivery obligations for swap products will be immediate.

Product tenors

Each swap product will have the same set of tenors as commodity products with the exception of a day-ahead netted tenor. It is proposed that swap products are not subject to delivery netting and therefore a non-netted and netted day ahead tenor (as exists for commodity products) is not required.

Product limits

AEMO is proposing that swap products have the same product limits as the physical gas products currently available on the GSH. These product limits are:

- Minimum price: $0/GJ
- Maximum price: $999/GJ
- Maximum quantity: 50,000 GJ (50 TJ)
- Minimum transaction quantity: 100 GJ

Collateral and delivery requirements

AEMO recognises the concerns raised by some participants with respect to the risks associated with defaulting or non-delivery of a swap product. There is a trade-off between minimising the amount of collateral required to support a trade and ensuring that participants have confidence in trading the product. AEMO's proposal is to retain the current framework where compensation is tied to the transaction price of the trade and any additional compensation is managed bilaterally between participants as a breach of contract. Non-delivery would also be a compliance issue that would be reviewable by the Australian Energy Regulator (AER). It is worth noting that for commodity trades non-delivery has been very rare and where has it occurred, it has been bilaterally managed between the affected counterparties and has not required intervention from AEMO or the AER.

In addition, to ensure that participants have confidence in trading in swap products AEMO is proposing to:

- Only list swap products for in-pipe trade points. As allocations are deemed at an in-pipe trade point, the risk of under or over delivery is minimised.
- Provide an ability for participants to bilaterally settle any delivery variances via the GSH using the existing optional delivery variance settlement mechanism. Delivery variances will be settled using the Wallumbilla Benchmark price.

Other matters

AEMO is proposing that pre-matched trades in swap products will be permitted. However, alternate delivery points will not be available for swap products. Custom delivery periods will also be available.

1.3. New Trading Locations for the EGP and Iona Underground Storage

In response to industry feedback, AEMO is proposing to expand the Gas Supply Hub locations to the EGP and Iona UGS. AEMO has been undertaking informal consultation with GSH members and facility operators to understand what would be involved in developing these new trading locations. AEMO understands that the trading of gas already regularly occurs at these locations bilaterally and off-market. AEMO also understands that title transfer services are readily accessible at each location, facilitated by the respective facility operator. As such, it would be relatively simple and low cost to extend the GSH trading model to Iona UGS and the EGP. The Iona UGS and EGP products will be implemented alongside the existing commodity products on the commodity tab and will be available both for trading on and off-market. AEMO is therefore initiating formal consultation to make the necessary Exchange Agreement and system changes required to expand the hub to these new locations.

Incorporating a storage product on the GSH

Iona UGS will be the first trading product at a storage facility on the GSH. Whilst the GSH framework is readily able to facilitate a storage product, AEMO has identified a few specific differences in trading gas at storage (versus trading on a pipeline) that will need to be considered. This section outlines several storage-specific considerations.

AEMO understands storage transfers would be immediately executed as part of title transfer and there is no expectation that there would be a need to forward trade storage positions therefore longer-dated tenors are not required. AEMO has therefore decided to limit the product tenors for Iona UGS to daily and day-ahead due to the unique nature of this being a product for trading inventory in storage.

AEMO understands that an important commercial limitation with trading at Iona UGS is that contractually Lochard customers are typically permitted a maximum of one transfer per month. AEMO notes that this restriction may limit liquidity in the product. GSH members need to be aware of their commercial arrangements and contractual obligations when entering any trades or orders on the GSH.

The GSH Exchange Agreement was drafted on the basis that trading is executed and delivered on pipelines and that title transfers are facilitated by pipeline operators. As such there are a number of pipeline-specific terms and concepts in the EA that either do not contemplate storage or are not applicable to a trading product at storage. As a consequence, AEMO is making a number of minor changes to the Exchange Agreement to broaden the scope of the EA to incorporate storage and to clarify where terms and concepts do not apply to trades at the Iona UGS trading location. These changes are primarily definitional or clarifying in nature. The following table outlines these changes to the Exchange Agreement:

Table 1: Summary of Exchange Agreement changes

Exchange Agreement section	Summary of change
2.1 Definitions	*Gas Storage Services Agreement* term included *Gas Transporter* updated to include other facilities to allow storage facilities *Physical Gas* updated to capture insitu transfers
2.2 Meaning of 'gas'	A reference to 'gas' is to covered gas (updated from 'natural gas' to align with the NGR changes to extend the Rules to hydrogen and renewable gases) note this may not be included if the NGR changes have not come into effect.
13.2 Pre-Matched Trades	Slight amendment excluding alternate delivery point for pre-matched trades for gas storage in-situ transfers
14.1 Delivery of Physical gas transactions	Included c) to clarify for storage transfers,
14.2 Nominations	Updates to include insitu gas storage transfers.
14.3 Delivery obligations	Updates to include insitu gas storage transfers.
14.5 Gas Quality	Updates to exclude insitu gas storage transfers.
14.6 Measurement	Updates to exclude insitu gas storage transfers.
25.2 Effect of Force Majeure	Update to include Storage agreements
Schedule 3	Update name from Moomba to Non Wallumbilla Include EGP point and Jemena details Include UGS point and Lochard details
Schedule 4	Update name from Moomba to Non Wallumbilla Include EGP point Include UGS point Update the end time of the trading window for OTD and DA products to align with the harmonised gas day end time.

Schedule 6	Delete compression SWAPS and replace with Location SWAPS

2. REFERENCE DOCUMENTATION

Proposed Exchange agreement changes attached GSH Exchange Agreement V17 Draft

Proposed GSH Exchange Agreement V17 Draft Schedule 3,4 and 6.

3. OVERVIEW OF CHANGES

3.1. Physical locational gas swaps

The Gas Exchange Agreement already includes provision for swap products. AEMO has reviewed the existing provisions in the EA and has determined that only minor amendments are required to implement the new proposed gas swap products. The proposed amendments include:

To implement the proposed swap products, six new swap products are required. The proposed amendments to the EA include:

- A new schedule for swap trading locations which will include trading locations for:
    1. Wallumbilla to Moomba
    2. Moomba to Wallumbilla
    3. Wallumbilla to Culcairn
    4. Culcairn to Wallumbilla
    5. Wallumbilla to Wilton
    6. Wilton to Culcairn
    7. EGP and Wallumbilla
    8. Wallumbilla and EGP
- New product specifications for each swap trading location for:
    - On-the-day
    - Day ahead
    - Daily
    - Weekly
    - Monthly

The items in each product specification will be defined based on the proposals in section 1.1.3 of this IIR.

Please refer to attachment A for the amended drafting.

3.2. Iona UGS and EGP trading locations

Only minor changes to the Exchange Agreement are required to facilitate the implementation of these new products. The changes are primarily to the product schedules to define the new trading locations, the product tenors and technical parameters of each delivery point.

The Exchange Agreement changes involve:

- Updates schedule 3 for trading location and delivery points
- New Gas Specification schedule for EGP and Iona UGS
- New Pressure range schedule for EGP and noting pressure range is not application for Iona UGS
- Updates to schedule 4 to include EGP and Iona UGS product tenors.

The existing framework for the trading of physical gas in the Exchange Agreement will be re-used for these products.

Some changes have been made to accommodate trading of gas in-situ at a ga storage facility. .

AEMO will also need to make the following changes to the trading system to implement the new products:

- New product tenors (Same as Wallumbilla tenors) for EGP.
- New product tenors (*only* Daily and Day-ahead) for Iona UGS.

Changes will be implemented in the pre-production environment ahead of being implemented and Members are encouraged to monitor market notices and to test the changes.

3.3. Changes to reports

To facilitate swap products, AEMO will need to make minor changes to the following GSH reports

- Delivery obligations report. The delivery obligations report current does not have a field for a receipt point. AEMO has modified the report to include a new receipt point field. This new field will only be populated when they subscribe to the updated delivery obligations report.

4. LIKELY IMPLEMENTATION EFFECTS AND REQUIREMENTS

AEMO considers that the implementation effects to industry are minor in nature.

5. OVERALL COST AND BENEFITS

The implementation costs of these changes are minor and AEMO expects no increase to ongoing GSH costs resulting from these changes. Based on industry feedback AEMO considers that these enhancements will deliver the following benefits:

- EGP and UGS trading products will provide participants with the ability to trade gas at EGP Longford and Iona leveraging the GSH framework to reduce costs and manage trading risk.
- Locational swap products may be used an alternate to physical transport potentially reducing the costs of transporting and supporting the efficient allocation of gas across the east coast.

Use of the Gas Supply Hub and these new features is voluntary, and participants are able to undertake their own assessment of whether the benefits of participation outweigh any cost to their organisation.

6. MAGNITUDE OF THE CHANGES

AEMO considers these changes are of a minor magnitude. The proposed changes require material but minor changes to the Exchange Agreement and market systems. AEMO considers that impact on industry participants is not material.

7. AEMO'S PRELIMINARY ASSESSMENT OF THE PROPOSAL'S COMPLIANCE WITH SECTION 135EB:

In accordance with NGR rule 135EB and NGR rule 540, AEMO is satisfied that the proposed changes will contribute to the National Gas Objective as they:

- are likely to result in additional volumes of gas being transacted through the Gas Supply Hub improving information transparency and promoting the efficient operation of the gas market.
- are likely to improve the ability for participants to transact in the market at a lower cost compared to current arrangements.
- aid risk and portfolio management through the ability to trade gas at EGP Longford and Iona UGS on the GSH.
- are not costly to implement.

8. CONSULTATION FORUM OUTCOMES

AEMO raised both changes at an industry forum in May 2020. AEMO received supportive feedback for the proposed changes from industry participants. No material concerns were raised.

Feedback was received at the October 2023 GSHRG to support the new trading locations at EGP and UGS.

A EGP to WAL SWAP was also requested by industry participants

IMPACT & IMPLEMENTATION REPORT – RECOMMENDATION(S)

9. SHOULD THE PROPOSED PROCEDURES BE MADE?

AEMO recommends that the proposed amendments to the Gas Supply Hub Exchange Agreement are made.

10. PROPOSED TIMELINES

AEMO is proposing an implementation date of the 15th of May 2024 for the GSH Exchange Agreement changes. AEMO will provide market participants with at least 15 business days' notice prior to commencement.

ATTACHMENT A – DOCUMENTATION CHANGES (SEE SECTION 3)

BLUE REPRESENTS ADDITIONS ~~RED~~ AND STRIKEOUT REPRESENTS DELETIONS – MARKED UP CHANGE.

TRADING LOCATIONS AND DELIVERY POINTS (~~MOOMBA~~NON WALLUMBILLA)

1. Pipeline/ Facility~~s~~

Pipeline/ Facility	Gas Transporter
MAP or Moomba to Adelaide Pipeline	Epic Energy South Australia Pty Ltd ACN 068 599 815
MSP or Moomba to Sydney Pipeline	APT Petroleum Pipelines Pty Limited ACN 009 737 393
EGP or Eastern Gas Pipeline	Jemena Eastern Gas Pipeline (1) Pty Ltd (ABN 15 068 570 847) and Jemena Eastern Gas Pipeline (2) Pty Ltd (ABN 77 006 919 115)
Iona Gas Storage Facility	Lochard Energy (Iona Operations) Pty Ltd (ABN 67 608 441 729), as trustee for the Lochard Energy (Iona Operations) Trust (ABN 25 151 811 449)

2. Trading Locations and Delivery Points

Trading Location	Delivery Point	Delivery Point Definition
MAP Trading Location (Moomba transfer points on the MAP)	Moomba	Interconnection of the Moomba Gas Plant and MAP
	QSN	Interconnection of the QSN and MAP
	MAP In Pipe Trade Point (IPT)	The notional delivery point immediately downstream of the Moomba Gas Plant Receipt Point at which gas is deemed to be delivered pursuant to the MAP IPT Service on a Gas Day.
MSP Trading Location (Moomba transfer points on the MSP)	Moomba Gas Plant	Interconnection of the Moomba Gas Plant and SWQP at Moomba
	Moomba Low Pressure Trade Point	Any notional trading point within the SWQP Moomba Compound nominated by the Gas Transporter at which transfers of title in gas can be effected
	Culcairn Trade Point	A virtual point on the MSP located adjacent to the point of interconnection between the Victorian Transmission System and the MSP at Culcairn.
	Wilton Trade Point	A virtual point on the MSP located adjacent to the point of Interconnection between the MSP and the Jemena Gas Networks distribution at Wilton.
Culcairn Trading Location	Culcairn Trade Point	As defined for the MSP Trading Location.
Wilton Trading Location	Wilton Trade Point	As defined for the MSP Trading Location.
EGP Trading Location	KP zero on the Eastern Gas Pipeline	KP zero on the Eastern Gas Pipeline which corresponds with the intersection of any inlet pipe to the Longford compressor station in the state of Victoria
Iona UGS Trading Location	Iona Gas Storage In-Situ Trade Point	A notional point within the Iona Gas Storage Facility nominated by the Facility Operator at which transfers of title in gas can be effected

3. Gas Specification

3.1 MAP Trading Location

Gas supplied must be in accordance with AS 4564-2005 and must not contain more than 3% by volume of carbon dioxide.

3.2 MSP Trading Location

In accordance with Australian Standard AS 4564-2005 – Specification for general purpose natural gas.

3.3 Culcairn Trading Location

In accordance with Australian Standard AS 4564-2005 – Specification for general purpose natural gas.

3.4 Wilton Trading Location

In accordance with Australian Standard AS 4564-2005 – Specification for general purpose natural gas.

3.5 EGP Trading Location

The gas quality specifications set out in the Transporter's standard terms and conditions of service for the EGP from time to time, as published on its website.

3.6 Iona UGS Trading Location

The gas quality specifications set out in the Facility operator's standard terms and conditions of service for Iona Gas Storage Facility from time to time, as published on its website.

4. Pressure Range

4.1 MAP Trading Location

As notified by the Gas Transporter to MAP shippers from time to time but no greater than 7322 kPa

4.2 MSP Trading Location

As notified by the Transporter to MSP gas shippers from time to time, but no greater than 9,600 kPa.

4.3 Culcairn Trading Location

As notified by the Transporter to MSP gas shippers from time to time, but no greater than 10,200 kPa.

4.4 Wilton Trading Location

As notified by the Transporter to MSP gas shippers from time to time, but no greater than 5,800 kPa.

4.5 EGP Trading Location

Within the applicable pressure requirements set out in the Transporter's standard terms and conditions of service for the EGP from time to time, as published on its website.

4.6 Iona UGS Trading Location

Not applicable, refer to In Situ Trade terms set out in the Facility operator's standard terms and conditions of service for Iona Gas Storage Facility from time to time, as published on its website.

SCHEDULE 3. Product Specifications for PHYSICAL GAS

This Schedule contains the Product Specifications for Physical Gas.

The table in item 1 sets out terms applicable to all Physical Gas Products.

Item 2 specifies terms applicable to Products according to the Product tenor.

1. General Specification

General Product Specification for Physical Gas Products	
Commodity	Gas complying with the Gas Specification
Parcel Size	100 GJ for each Gas Day in the Delivery Period.
Price	The price is to be expressed in dollars per GJ
Product Limits	Minimum Price: $-100/GJ Maximum Price $999/GJ Maximum Quantity 50,000 GJ (50 TJ)
Unit	GJ
Admission to trade	Automatic
Gas Specification	The gas specification applicable to the Delivery Point as determined in accordance with schedule 2 or schedule 3 (as applicable).
Flow Rate	Even flow rate through each Gas Day in the Delivery Period.
Pressure	The pressure range applicable to the Delivery Point as determined in accordance with schedule 2 or schedule 3 (as applicable).
Partial acceptance of Orders	Permitted if specified in the Order.
Minimum Transaction Quantity	100 GJ per Gas Day unless a larger number is specified in the Order.
Expiry Time	Unless an earlier time is specified in the Order, an Order for Gas Day D expires at the end of the Trading Window.
Automatic Withdrawal	Applicable to open Orders at the end of each trading day after 7:00 pm Automatic withdrawal is not applicable to OTD or DA Products.
Order Quantity to be displayed	The whole of the Order Quantity will be displayed unless otherwise specified in the Order.
Special conditions	Each Trading Participant who submits an Order in relation to a Physical Gas Product represents and warrants for the purposes of this agreement that the Trading Participant has all necessary rights under agreements with the applicable Gas Transporter at the Delivery Point (as identified in schedule 2 or schedule 3 as applicable) to deliver (in the case of the Seller) or accept (in the case of the Buyer) the Transaction Quantity.

2. Trading Windows

Product Type	Delivery Period	Trading Window
On-The-Day (OTD)	One Gas Day	For Gas Day D, Trading Hours on that same Gas Day. For a Pre-matched Trade where the Trading Participants have specified that

		Delivery Netting is not to apply, the Trading Window for Gas Day D is from 8am on Gas Day D to ~~7~~5:59am on Gas Day D+1.
Day-Ahead (DA)	One Gas Day	For DA where Delivery Netting applies: • For Gas Day D, from 9:00 am to 1:00 pm on D-1. • For a Pre-matched Trade where the Trading Participants have specified that Delivery Netting is not to apply, the Trading Window for Gas Day D is from 12am to 1pm on Gas Day D-1. For DA where Delivery Netting does not apply: • For Gas Day D, from 1:00 pm to 7:00 pm on D-1. • For a Pre-matched Trade where the Trading Participants have specified that Delivery Netting is not to apply, the Trading Window for Gas Day D is from 1pm on Day D-1 to ~~7~~5:59am on Gas Day D.
Daily (D)	One Gas Day	For Gas Day D, Trading Hours on each of Gas Day D-7 to Gas Day D-2. For a Pre-matched Trade where the Trading Participants have specified that Delivery Netting is not to apply, the Trading Window for Gas Day D is from 12am to 11:59pm on Gas Day D-90 to Gas Day D-2.
Weekly (W)	Seven consecutive Gas Days, beginning and ending at Gas Day commencement on a Sunday.	For a Delivery Period commencing on Gas Day D, Trading Hours on each Gas Day commencing 4 weeks prior to Gas Day D and ending on D-2. For a Pre-matched Trade where the Trading Participants have specified that Delivery Netting is not to apply, the Trading Window for Gas Day D are Trading Hours on each of Gas Day D-90 to Gas Day D-2.
Monthly (M)	Calendar month consecutive Gas Days, beginning at Gas Day commencement on the first day of the calendar month and ending at Gas Day commencement on the first day of the immediately following calendar month.	For a Delivery Period commencing on Gas Day D, Trading Hours on each Gas Day commencing 3 calendar months and 1 calendar day prior to the calendar month in which Gas Day D falls and ending on D-2 prior the commencement of the calendar month in which Gas Day D falls.

		For a Pre-matched Trade where the Trading Participants have specified that Delivery Netting is not to apply, the Trading Window for Gas Day D are Trading Hours on each Gas Day commencing 12 calendar months and 1 calendar day prior to the calendar month in which Gas Day D falls and ending on D-2 prior to the commencement of the calendar month in which Gas Day D falls. For an EFP Trade, for a Delivery Period commencing on Gas Day D, Trading Hours on each Gas Day commencing D-14 prior to the calendar month in which Gas Day D falls and ending on D-2 prior to the commencement of the calendar month in which Gas Day D falls.

3. Product list

Refer to Product list in the following table. In the Product list:

(a) the terms used in the columns headed "Trading Location" and "Delivery Point" have the meaning in Schedule 2 or Schedule 3 (as applicable);

(b) the terms OTD, DA, D, W and M refer to On-The-Day, Day-Ahead, Daily, Weekly and Monthly Product types, which have the Delivery Period and Trading Window specified for the Product type in item 2 above;

(c) Physical Gas is offered as an On-The-Day, Day-Ahead, Daily, Weekly or Monthly Product if there is a "Y" in the OTD, DA, D, W or M column for that Trading Location; and

(d) The terms EFP and CDP refer to "EFP Trade" and "Custom Delivery Period" respectively and EFP Trades and Custom Delivery Periods are permitted for a Product where specified.

Product List for Physical Gas

Physical Gas List 1: Products available for on-screen (continuous trading)

Pre-matched Trades/Broker Pre-matched Trades are permitted for Physical Gas Products

Ref	Trading Location	Delivery Point	Delivery Netting	Delivery Matching	OTD	DA	D	W	M
~~Moomba~~ Non Wallumbilla **(Netted)**									
1.1	MAP Trading Location	MAP In Pipe Trade Point	Applicable Trading Participants may specify that Delivery Netting is not to apply to a Pre-matched Trade	Applicable	N	Y	Y	Y	Y
1.2	MSP Trading Location	Moomba Low Pressure Trade Point	Applicable Trading Participants may specify that Delivery Netting is not to apply to a Pre-matched Trade	Applicable	N	Y	Y	Y	Y
1.3	Culcairn Trading Location	Culcairn Trade Point	Applicable Trading Participants may specify that Delivery Netting is not to apply to a Pre-matched Trade	Applicable	N	Y	Y	Y	Y
1.4	Wilton Trading Location	Wilton Trade Point	Applicable Trading Participants may specify that Delivery Netting is not to apply to a Pre-matched Trade	Applicable	N	Y	Y	Y	Y
1.5	EGP Trading Location	KP zero on the Eastern Gas Pipeline	Applicable	Applicable	Y	Y	Y	Y	Y
~~Moomba~~ Non Wallumbilla **(Non-netted)**									
1.6~~5~~	MAP Trading Location	MAP In Pipe Trade Point	Not Applicable	Not Applicable	Y	Y	N	N	N
1.7~~6~~	MSP Trading Location	Moomba Low Pressure Trade Point	Not Applicable	Not Applicable	Y	Y	N	N	N
1.8~~7~~	Culcairn Trading Location	Culcairn Trade Point	Not Applicable	Not Applicable	Y	Y	N	N	N

1.9~~8~~	Wilton Trading Location	Wilton Trade Point	Not Applicable	Not Applicable	Y	Y	N	N	N
1.10	EGP Trading Location	KP zero on the Eastern Gas Pipeline	Not applicable	Not Applicable	Y	Y	Y	Y	Y
1.11	Iona UGS Trading Location	Iona Gas Storage In-Situ Trade Point	Not applicable	Not Applicable	N	Y	Y	N	N
Wallumbilla (Netted)									
1.12~~9~~	Wallumbilla Trading Location	one of the following: • RBP - Run 3 • RBP - Run 4 • RBP - Run 7 • SWQP Fairview • SWQP In Pipe Trade Point • Wallumbilla High Pressure Trade Point • Wallumbilla Low Pressure Trade Point.	Applicable Trading Participants may specify that Delivery Netting is not to apply to a Pre-matched Trade	Applicable	N	Y	Y (CDP* permitted)	Y	Y (EFP permitted)
1.13~~0~~	SEQ Trading Location	RBP In Pipe Trade Point	Applicable Trading Participants may specify that Delivery Netting is not to apply to a Pre-matched Trade	Applicable	N	Y	Y (CDP* permitted)	Y	Y
Wallumbilla (Non-netted)									
1.14~~1~~	Wallumbilla Trading Location	Wallumbilla High Pressure Trade Point.	Not Applicable	Not Applicable	Y	Y	N	N	N
1.15~~2~~	SEQ Trading Location	RBP In Pipe Trade Point	Not Applicable	Not Applicable	Y	Y	N	N	N

*Custom Delivery Period (CDP)	The Custom Delivery Period is for consecutive gas days from the start date (inclusive) to the end date (inclusive) as submitted and confirmed for the Pre-matched Trade or Broker Pre-matched Trade. The end date for the Custom Delivery Period must not be greater than 364 calendar days from the date on which the Trading Participant or Broker Participant (as applicable) confirm the details of the of the Pre-matched Trade or Broker Pre-matched Trade in the Trading System.

SCHEDULE 6. Product Specifications for gas ~~compression~~ Location swaps

This Schedule contains the Product Specifications for Gas Location Swaps.

The table in item 1 sets out terms applicable to all Gas Location Swap Products.

Item 2 specifies terms applicable to Products according to the Product tenor.

1. General Specification

General Product Specification for Gas Location Swap Products	
Commodity	Gas complying with the Gas Specification
Parcel Size	100 GJ for each Gas Day in the Delivery Period.
Price	The price is to be expressed in dollars per GJ
Product Limits	Minimum Price: $0/GJ Maximum Price $999/GJ Maximum Quantity 50,000 GJ (50 TJ)
Unit	GJ
Admission to trade	Automatic
Gas Specification – Swap Receipt Point	The gas specification applicable to the Swap Receipt Point as determined in accordance with schedule 2 or schedule 3 as applicable.
Gas Specification – Swap Delivery Point	The gas specification applicable to the Swap Delivery Point as determined in accordance with schedule 2 or schedule 3 as applicable.
Flow Rate	Even flow rate through each Gas Day in the Delivery Period.
Pressure – Swap Receipt Point	The pressure range applicable to the Swap Receipt Point as determined in accordance with schedule 2 or schedule 3 as applicable.
Pressure – Swap Delivery Point	The pressure range applicable to the Swap Delivery Point as determined in accordance with schedule 2 or schedule 3 as applicable.
Partial acceptance of Orders	Permitted if specified in the Order.
Minimum Transaction Quantity	100 GJ per Gas Day unless a larger number is specified in the Order.
Expiry Time	Unless an earlier time is specified in the Order, an Order for Gas Day D expires at the end of the Trading Window.

General Product Specification for Gas Location Swap Products	
Automatic Withdrawal	Applicable to open Orders at the end of each trading day after 7:00 pm Automatic withdrawal is not applicable to OTD or DA Products.
Order Quantity to be displayed	The whole of the Order Quantity will be displayed unless otherwise specified in the Order.
Special conditions	Each Trading Participant who submits an Order in relation to a Gas Location Swap Product represents and warrants for the purposes of this agreement that the Trading Participant has all necessary rights under agreements with the applicable Gas Transporter: • -at the Swap Delivery Point (as identified in schedule 2 or schedule 3 as applicable) to deliver (in the case of the Seller) or accept (in the case of the Buyer) the Transaction Quantity-; and • at the Swap Receipt Point (as identified in schedule 2 or schedule 3 as applicable) to deliver (in the case of the Buyer) or accept (in the case of the Seller) the Transaction Quantity

2. Trading Windows

Product Type	Delivery Period	Trading Window
On-The-Day (OTD)	The Delivery Period starts at the Start Time and ends at the end of the Gas Day in which the Start Time falls. The Start Time is the start of the first full hour (being one o'clock, two o'clock and so on) which commences at least 60 minutes after the time the Transaction is confirmed by the Trading System.	For Gas Day D, Trading Hours on that same Gas Day.
Day-Ahead (DA)	One Gas Day	For Gas Day D, from 1:00 pm to 7:00 pm on D-1.
Daily (D)	One Gas Day	For Gas Day D, Trading Hours on each of Gas Day D-7 to Gas Day D-2.

Product Type	Delivery Period	Trading Window
Weekly (W)	Seven consecutive Gas Days, beginning and ending at Gas Day commencement on a Sunday.	For a Delivery Period commencing on Gas Day D, Trading Hours on each Gas Day commencing 4 weeks prior to Gas Day D and ending on D-2.
Monthly (M)	Calendar month consecutive Gas Days, beginning at Gas Day commencement on the first day of the calendar month and ending at Gas Day commencement on the first day of the immediately following calendar month.	For a Delivery Period commencing on Gas Day D, Trading Hours on each Gas Day commencing 3 calendar months and 1 calendar day prior to the calendar month in which Gas Day D falls and ending on D-2 prior the commencement of the calendar month in which Gas Day D falls.

3. Product list

Refer to Product list in the following table. In the Product list:

(e) the terms used in the columns headed "Swap Receipt Point" and "Swap Delivery Point" have the meaning in Schedule 2 and Schedule 3;

(f) the terms OTD, DA, D, W and M refer to On-The-Day, Day-Ahead, Daily, Weekly and Monthly Product types, which have the Delivery Period and Trading Window specified for the Product type in item 2 above; and

(g) Gas Location Swap is offered as an On-The-Day, Day-Ahead, Daily, Weekly or Monthly Product if there is a "Y" in the OTD, DA, D, W or M column for that Swap Receipt Point and Swap Delivery Point.

Product List for Gas Location Swaps

Gas Location Swap List 1: Products available for on-screen (continuous trading)

Pre-matched Trades/Broker Pre-matched Trades are permitted for Gas Location Swaps

Custom Delivery Period (CDP) is permitted for all Gas Location Swap Products

The Custom Delivery Period is for consecutive gas days from the start date (inclusive) to the end date (inclusive) as submitted and confirmed for the Pre-matched Trade or Broker Pre-matched Trade. The end date for the Custom Delivery Period must not be greater than 364 calendar days from the date on which the Trading Participant or Broker Participant (as applicable) confirm the details of the of the Pre-matched Trade or Broker Pre-matched Trade in the Trading System.

Ref	Swap Receipt Point	Swap Delivery Point	Delivery Netting	Delivery Matching	OTD	DA	D	W	M
1.1	Wallumbilla High Pressure Trade Point	Moomba Low Pressure Trade Point	Not Applicable	Not Applicable	Y	Y	Y	Y	Y
1.2	Moomba Low Pressure Trade Point	Wallumbilla High Pressure Trade Point	Not Applicable	Not Applicable	Y	Y	Y	Y	Y
1.3	Wallumbilla High Pressure Trade Point	Culcairn Trade Point	Not Applicable	Not Applicable	Y	Y	Y	Y	Y
1.4	Culcairn Trade Point	Wallumbilla High Pressure Trade Point	Not Applicable	Not Applicable	Y	Y	Y	Y	Y
1.5	Wallumbilla High Pressure Trade Point	Wilton Trade Point	Not Applicable	Not Applicable	Y	Y	Y	Y	Y
1.6	Wilton Trade Point	Wallumbilla High Pressure Trade Point	Not Applicable	Not Applicable	Y	Y	Y	Y	Y
1.7	Wallumbilla High Pressure Trade Point	KP zero on the Eastern Gas Pipeline	Not Applicable	Not Applicable	Y	Y	Y	Y	Y

Ref	Swap Receipt Point	Swap Delivery Point	Delivery Netting	Delivery Matching	OTD	DA	D	W	M
1.8	KP zero on the Eastern Gas Pipeline	Wallumbilla High Pressure Trade Point	Not Applicable	Not Applicable	Y	Y	Y	Y	Y

~~This Schedule contains the Product Specifications for Gas Compression Swaps.~~

~~The table in item 1 sets out terms applicable to all Gas Compression Swap Products.~~

~~Item 2 specifies terms applicable to Products according to the Product tenor.~~

~~1. General Specification~~

~~General Product Specification for Gas Compression Swap Products~~	
~~Commodity~~	~~Gas Compression Service~~
~~Parcel Size~~	~~1,000 GJ (1 TJ) for each Gas Day in the Delivery Period.~~
~~Price~~	~~The price is to be expressed in dollars per GJ~~
~~Product Limits~~	~~Minimum Price: $0/GJ~~ ~~Maximum Price $999/GJ~~ ~~Maximum Quantity 32,000 GJ (32 TJ)~~
~~Unit~~	~~GJ~~
~~Admission to trade~~	~~Automatic~~
~~Gas Specification – Swap Receipt Point~~	~~The gas specification applicable to the Swap Receipt Point as determined in accordance with schedule 2 or schedule 3 as applicable.~~
~~Gas Specification – Swap Delivery Point~~	~~The gas specification applicable to the Swap Delivery Point as determined in accordance with schedule 2 or schedule 3 as applicable.~~
~~Flow Rate~~	~~Even flow rate through each Gas Day in the Delivery Period.~~
~~Pressure – Swap Receipt Point~~	~~The pressure range applicable to the Swap Receipt Point as determined in accordance with schedule 2.~~

~~General Product Specification for Gas Compression Swap Products~~	
~~Pressure – Swap Delivery Point~~	~~The pressure range applicable to the Swap Delivery Point as determined in accordance with schedule 2.~~
~~Partial acceptance of Orders~~	~~Permitted if specified in the Order.~~
~~Minimum Transaction Quantity~~	~~1,000 GJ (1 TJ) per Gas Day unless a larger number is specified in the Order.~~
~~Expiry Time~~	~~Unless an earlier time is specified in the Order, an Order for Gas Day D expires at the end of the Trading Window.~~
~~Automatic Withdrawal~~	~~Applicable to open Orders at the end of each trading day after 7:00 pm Automatic withdrawal is not applicable to OTD or DA Products.~~
~~Order Quantity to be displayed~~	~~The whole of the Order Quantity will be displayed unless otherwise specified in the Order.~~
~~Special conditions~~	~~Each Trading Participant who submits an Order in relation to a Gas Compression Swap Product represents and warrants for the purposes of this agreement that the Trading Participant has all necessary rights under agreements with the applicable Gas Transporter at the Delivery Point (as identified in schedule 2) to deliver (in the case of the Seller) or accept (in the case of the Buyer) the Transaction Quantity, and in the case of the Seller, to make the Gas Compression Service available to the Buyer on the terms applicable to the Transaction.~~

2. Trading Windows

Product Type	Delivery Period	Trading Window
On-The-Day (OTD)	The Delivery Period starts at the Start Time and ends at the end of the Gas Day in which the Start Time falls. The Start Time is the start of the first full hour (being one o'clock, two o'clock and so on) which commences at least 60 minutes after the time the Transaction is confirmed by the Trading System.	For Gas Day D, Trading Hours on that same Gas Day.
Day-Ahead (DA)	One Gas Day	For DA where Delivery Netting applies: • For Gas Day D, from 9:00 am to 1:00 pm on D-1. For DA where Delivery Netting does not apply: • For Gas Day D, from 1:00 pm to 7:00 pm on D-1.
Daily (D)	One Gas Day	For Gas Day D, Trading Hours on each of Gas Day D-7 to Gas Day D-2.
Weekly (W)	Seven consecutive Gas Days, beginning and ending at Gas Day commencement on a Sunday.	For a Delivery Period commencing on Gas Day D, Trading Hours on each Gas Day commencing 4 weeks prior to Gas Day D and ending on D-2.

Product Type	Delivery Period	Trading Window
Monthly (M)	Calendar month consecutive Gas Days, beginning at Gas Day commencement on the first day of the calendar month and ending at Gas Day commencement on the first day of the immediately following calendar month.	For a Delivery Period commencing on Gas Day D, Trading Hours on each Gas Day commencing 3 calendar months and 1 calendar day prior to the calendar month in which Gas Day D falls and ending on D-2 prior the commencement of the calendar month in which Gas Day D falls.

3. Product list

Refer to Product list in the following table. In the Product list:

( ) the terms used in the columns headed "Swap Receipt Point" and "Swap Delivery Point" have the meaning in Schedule 2;

( ) the terms OTD, DA, D, W and M refer to On-The-Day, Day-Ahead, Daily, Weekly and Monthly Product types, which have the Delivery Period and Trading Window specified for the Product type in item 2 above; and

(a) Gas Compression Swap is offered as an On-The-Day, Day-Ahead, Daily, Weekly or Monthly Product if there is a "Y" in the OTD, DA, D, W or M column for that Swap Receipt Point and Swap Delivery Point.

~~**Product List for Gas Compression Swaps**~~

~~**Gas Compression Swap List 1: Products available for on-screen (continuous trading)**~~

~~**Pre-matched Trades/Broker Pre-matched Trades are permitted for Gas Compression Swaps**~~

~~Ref~~	~~Swap Receipt Point~~	~~Swap Delivery Point~~	~~Delivery Netting~~	~~Delivery Matching~~	~~OTD~~	~~DA~~	~~D~~	~~W~~	~~M~~
~~1.1~~	~~Wallumbilla Low Pressure Trade Point~~	~~Wallumbilla High Pressure Trade Point~~	~~Not Applicable~~	~~Not Applicable~~	~~Y~~	~~Y~~	~~Y~~	~~N~~	~~N~~
~~1.2~~	~~Wallumbilla Low Pressure Trade Point~~	~~Wallumbilla High Pressure Trade Point~~	~~Applicable~~	~~Applicable~~	~~N~~	~~Y~~	~~N~~	~~N~~	~~N~~