GAS SUPPLY HUB EXCHANGE AGREEMENT
IMPACT & IMPLEMENTATION REPORT – SUMMARY SECTION

Issue Number	GSH IIR 008		
Impacted Jurisdiction (s)	South Australia, Queensland All Gas Supply Hub Trading Locations		
Proponent	Darryl White	Company	Australian Energy Market Operator
Affected Gas Markets(s)	Gas Supply Hub	Consultation process (Ordinary or Expedited)	Ordinary
Industry Consultative forum(s) used	GSH Reference Group	Date Industry Consultative forum(s)consultation concluded	10 June 2016
Short Description of change(s)	Addition of a Wallumbilla Compression Service product to be listed on the GSH exchange		
Procedure(s) or Documentation impacted	• GSH Exchange Agreement • Gas Interface Protocol • Guide to Gas Supply Hub Reports • GSH Settlements and Prudential Methodology		
Summary of the change(s)	Amendment of the Exchange Agreement for the inclusion of: • Provision to permit exchange trading of Wallumbilla Compression service product • Additional Schedules for the 'Product Specifications for Day Ahead, Daily and Balance-of-Day Gas Compression Location Swaps Section 12.5(b)(ii) of the Exchange Agreement has also been amended. This amendment should have been made when the Moomba hub was introduced to reflect negatively priced offers, which became possible when the Moomba hub was introduced and is consistent with changes made to the Prudential methodology at that time.		
I&IR Prepared By	Darryl White	Approved By	Joe Spurio
Date I&IR published	22 July 2016	Scheduled date for end of consultation under EA 3.3, 3.4 or 3.6	19 August 2016
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IMPACT & IMPLEMENTATION REPORT – DETAILED REPORT SECTION

CRITICAL EXAMINATION OF PROPOSAL	
1. Description of change(s) and reasons for change(s)	Background The Gas Supply Hub (GSH) is an exchange for the wholesale trading of natural gas. GSH Participants have direct access to an electronic platform (Trayport) for the trading of standardised, short-term physical gas products at each of the three foundation pipelines connecting at Wallumbilla. AEMO centrally settles transactions, manages prudential requirements and provides reports to assist participants in managing their portfolio and gas delivery obligations. As part of its GSH implementation request to AEMO, the COAG Energy Council (the Council) sought a review of hub services (in 2015) to follow implementation of the Wallumbilla hub. AEMO, with the agreement of Council officials in November 2014, developed models for a single market to assess the adequacy of existing hub services. In its report to the Council, AEMO recommended to transition to a single gas market at Wallumbilla through the implementation of the Optional Hub Services model. This recommendation was endorsed by the Council in December 2015 and AEMO was subsequently tasked with the implementation in February 2016. The first task associated with the implementation of the Optional Hub Services model is to facilitate the secondary trading of hub services. This is known as the Wallumbilla Compression Product. The GSH also allows for trading of gas on pipelines at the Moomba hub. However, secondary trading of hub services is only proposed to apply at the Wallumbilla hub. Wallumbilla Compression Product Hub services (redirection and compression) enable the pooling of buyers and sellers across various pipelines into a single gas market at Wallumbilla. To facilitate secondary trading in Wallumbilla compression services, it is proposed that a standard product is defined and listed for trading on the GSH exchange. The product would trade alongside commodity products on the exchange. It takes the form of a location swap, where the seller receipts gas at a low pressure location and then delivers the gas to a high pressure location (via a bare transfer, linepack adjustment, or flow offset). The centralised settlement and prudential arrangements of the GSH would be applicable to compression service transactions. Section 12.5(b)(ii) of the Exchange Agreement has also been amended. This amendment should have been made when the Moomba hub was introduced to reflect negatively priced offers, which became possible when the Moomba hub was introduced

	and is consistent with changes made to the Prudential methodology at that time. Some general drafting issues from previous changes to the Exchange Agreement have also been identified and corrected. <u>GSH Settlement and Prudential Methodology</u> This proposal includes an update to the Settlements and Prudential Methodology. This is to pick up location swap transactions in all settlement and prudential calculations, except for delivery variances (for example, transaction & fee settlement). Delivery variances for the compression product are calculated separately from physical gas transactions and would not be settled through the market – participants could settle them bilaterally or use a reallocation. The updated methodology also calculates commodity and service variation components separately and then they are aggregated, as they have different prices. <u>Update to GSH Interface Protocol and Guide to GSH Reports</u> This proposal also includes an update to the GSH Interface Protocol as the Guide to GSH Reports will be updated for a new component of the Settlements Supporting Data report to cater for Hub Services for the Wallumbilla compression product. In addition, the guide incorrectly listed wrong primary keys in some reports, which have been amended.
2. Reference documentation ▪ Exchange Agreement ▪ Other	<u>Exchange Agreement</u> (see attachment A for a marked up version of the changes) **Proposal:** • Inclusion of changes throughout the Exchange Agreement to facilitate the inclusion of the Compression Service Location Swap product specifications including, 'Section 14.3(ba) for delivery obligations for Location Swaps and Section 15.4 for delivery variance for Location Swaps' • 'Schedule 17 Product Specification for Day-Ahead Gas Compression Location Swap (Wallumbilla)' • 'Schedule 18 Product Specification for Balance-of-Day Gas Compression Location Swap (Wallumbilla)' • 'Schedule 19: Product Specification for Daily Gas Compression Location Swap (Wallumbilla)' • Amending Section 12.5(b)(ii), which should have been amended when the Moomba hub was introduced to reflect negatively priced offers. • Correcting some general drafting issues.

	GSH Settlement and Prudential Methodology **Proposal:** • Section 2.3.5 – New equation terms defined • Section 3.1.2 – Net Swap Imbalances • Section 3.1.3 – Location Swap Variance Quantity • Section 3.1.4 – Additional formulae • Section 3.1.8 – Location Swap Variation Amounts GSH Interface Protocol **Proposal:** new version of the Guide to Gas Supply Hub Reports. The updated guide presents the new report fields that are proposed for the Settlement Supporting Data report, as well as correcting some Primary Key labels that were previously incorrectly labelled.
3. The high level details of the change(s) including: ▪ A comparison of the existing operation with changed operation ▪ A marked up version as amended (see section 1)	Current Operation Trading participants can not currently trade Wallumbilla compression services via the GSH exchange. Proposed Operation Under the proposed amendment, trading participants will be able to trade Wallumbilla Compression services via the GSH Exchange.
4. Assessment of significant of change (eg: material, non-material or non-substantial)	While the proposed amendment will be significant for gas trading in eastern Australia, this implementation of a Wallumbilla compression product is a non-material change to current market operations with no impact on existing products.

ASSESSMENT OF LIKELY EFFECT OF PROPOSAL	
5. Overall Industry Cost / benefit (tangible / intangible / risk) analysis and/or cost estimates	Costs for gas trading exchange members associated with the implementation of the Wallumbilla Compression Service is dependent on whether participants choose to update their trading processes and systems for the new product. There are no costs for gas trading exchange members if they do not trade the new product. There are no changes to any existing reports or interfaces – information relating to orders or transactions in the compression service product will be reported in the existing reports. AEMO estimates its costs for implementing the entire Optional Hub Services model to be in the order of $380,000 to $419,000 including development, testing and implementation. The Wallumbilla Compression Service product component represents approximately 40% of this cost. Benefits of the proposal include: • The Wallumbilla compression service product is a standardised, exchange-listed product that will facilitate secondary trading of compression services between trading participants. • The compression product is an alternative to acquiring a primary service from the facility operator. • The compression product will also allow contract holders of firm services at Wallumbilla to sell spare capacity to other participants via the GSH). • The product will use the same centralised settlement and prudential arrangements as used for other GSH products.
6. The likely implementation effect of the change(s) on stakeholders (e.g. Industry or end users)	The implementation of the Wallumbilla Compression Service product will allow these services to be traded through the GSH exchange. Implementation will occur outside of market trading hours, and as such is not expected to impact on existing operations.

7. Testing requirements	AEMO will undertake end to end testing and user acceptance testing for the implementation of the Wallumbilla Compression Service product.

8. AEMO's preliminary assessment of the proposal's compliance with rule 540(1) NGR: - consistency with NGL and NGR, - appropriate with regard to national gas objective - appropriate with regard to likely compliance costs for Operator or Members	Consistency with NGL and NGR The NGR provisions relating to the gas trading exchange requires the Exchange Agreement to set out, amongst other things, a description of the products offered on the exchange and the process for amending the Exchange Agreement. National Gas Objective The national gas objective is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply. Transition to a single market at Wallumbilla aims to increase trading liquidity through the pooling of potential buyers and sellers into a single market. This in turn will provide participants with a signal for the efficient production and utilisation of gas as well as providing a signal for the efficient utilisation of pipeline and storage facilities connecting at Wallumbilla. Potential compliance costs AEMO does not anticipate any additional compliance costs to gas trading exchange members associated with this proposal.
9. Consultation Forum Outcomes (e.g. the conclusions made on the change(s) whether there was unanimous approval, any dissenting views)	The proposal was discussed at the Gas Supply Reference Group on 22 March 2016, 27 April 2016, 25 May 2016 and 17 June 2016 The proposal was broadly supported by Gas Supply Hub Reference Group members. Feedback received, and AEMO's response is summarised in Attachment B.

RECOMMENDATION(S)	
10. Should the proposed changes be made, (with or without amendments)?	AEMO recommends that the proposal should be implemented.
11. If applicable, a proposed effective date for the proposed change(s) to take effect and justification for that timeline.	Proposed implementation date for the Wallumbilla Compression Product is 26 October 2016. The proposed implementation date coincides with the AEMO Data Interchange update which occurs twice yearly.

ATTACHMENT A

Documentation Changes

Blue represents additions. Red and strikeout represents deletions – Marked up changes.

1. See draft Exchange Agreement v7.0 with amendments as specified above (section 2)

2. Gas Supply Hub Interface Protocol

Form of documentation	Document	Version
Reports	**Guide to Gas Supply Hub Reports** Purpose: specify all of the reports published by the Operator on its Gas Hub Direct System (to trading participants and the public).	~~1.5~~ 1.6

3. See draft Settlements and Prudential Methodology v3.1 with amendments as specified above (section 2)

ATTACHMENT B

At the April 2016 GSHRG, AEMO asked members for feedback on the key terms for hub service product and whether the proposed delivery mechanisms could be included. This feedback is summarised below.

Question	Feedback	AEMO Response
Liability for failure to deliver the hub service product via a swap		
Should parties to a transaction be liable to each other for a failure to deliver?	Feedback received indicated that parties should be liable to each other for a failure to deliver hub service product. This aligns with the current approach to managing gas delivery variations for commodity deals which would be a good model to use for the location swaps.	AEMO will draft the compression service product so that parties are liable to each other for non-delivery (consistent with commodity products) There will be an obligation for defaulting party to make-up gas as soon as possible to their counterpart. AEMO is not proposing to include a delivery variance settlement mechanism through the market

Question	Feedback	AEMO Response
		(participants will manage this bilaterally if needed).
If so, should the compensation payable between the parties be a function of the prevailing commodity price?	Feedback received indicated that any penalty or compensation payable should be a function of the prevailing gas price. Feedback also suggested that compensation is capped at the value of the service transaction.	AEMO proposes to include a clause that compensation would be payable by defaulting party in the event they do not make up gas to their counterpart. The compensation payable would be set with reference to the Wallumbilla Benchmark price for the day on which the service was to be delivered.
Nomination process for delivery via a swap		
Under a swap, should the daily swap quantity be equal to the transaction quantity?	Feedback received from several participants indicated that buyers of a long-dated swap product would need the ability to nominate up and down, and that setting the swap quantity equal to the transaction quantity could be too restrictive.	AEMO considers the need to renominate primarily applies to longer-dated products (monthly and perhaps weekly products) where service requirements are likely to change as the delivery date approaches. AEMO considers that the most practical initial step would be to limit location swaps to daily, on-the-day and day ahead tenors and develop liquidity in these products first. The product could eventually be expanded to weekly and monthly tenors
Is there any other information that needs to be exchanged between counterparties to a swap?	Feedback from members indicated there would be a need for a seller of a swap to provide the buyer with any pertinent information on outages or reduction in capacity.	AEMO proposes that the seller of a swap is required to inform the buyer of any reduction in capacity that will impact the delivered quantity of the swap as soon as it is aware of any such change.
The inclusion of both swaps and operational transfers as a delivery mechanism for a hub service product		
Are the differences in delivery process and risk too material for Operational Transfers and Location Swaps to be permitted as delivery options?	Feedback received indicated that if possible accommodating both delivery mechanisms under a single product would be preferable but it was noted by several members that this may not be practical. One member noted that perhaps two products could be included (one for each delivery mechanism) but it	After considering the ramifications of including both delivery mechanisms, AEMO has concluded that potential differences in cost (for a buyer), and nomination process for long-dated products between swaps and operational transfers are too material to include in a single exchange traded service product. AEMO proposes that the short-term exchange traded product is delivered via a swap. Initially,

Question	Feedback	AEMO Response
	was also noted that this may not be efficient.	monthly and weekly products could be transacted off-market and delivered via operational transfer (this is further elaborated on below).
If so, should Location Swaps be permitted for off-market deals?	All members who responded indicated that location swaps should be permitted for off-market deals	AEMO proposes to include location swaps for daily, day ahead and on the day tenors for off-market trades.