Capacity Trading Reform Package:

Specification of service points, zones and pipeline segments for capacity trading platform and auction

Consultation Paper

4 July 2018

AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

GMRG
Gas Market Reform Group

Submissions

Stakeholders are encouraged to make submissions in response to this consultation process by **5pm (AEST) Friday 27 July 2018**.

Electronic submissions are preferred and can be sent via e-mail addressed to AEMO at pct@aemo.com.au

AEMO and the GMRG have a strong preference for public submissions to generate full and frank debate. All stakeholder submissions will be published on AEMO's website unless stakeholders have clearly indicated that a submission should remain confidential, either in whole or in part.

In addition to providing a written submission, stakeholders will have an opportunity to attend a public forum, which will be held on **10 July 2018 at AEMO's offices**. Stakeholders are encouraged to express their interest in attending this forum by emailing pct@aemo.com.au

For further information on making a submission, please contact AEMO via email at pct@aemo.com.au.

Abbreviations

Term	Definition
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AEST	Australian Eastern Standard Time
BB	Natural Gas Services Bulletin Board
CBU	Contracted but un-nominated
CT&A Procedures	Capacity Transfer and Auction Procedures
CTP	Capacity trading platform
DAA	Day-ahead Auction
DWGM	Declared Wholesale Gas Market
Energy Council	Council of Australian Governments Energy Council
GMRG	Gas Market Reform Group
GSH	Gas Supply Hub
MHQ	Maximum Hourly Quantity
MSV	Market Scheduled Variation
NGL	National Gas Law
OTSA	Operation Transportation Service Agreement
STTM	Short Term Trading Market

List of Pipelines

Term	Definition
AGP	Amadeus Gas Pipeline
BWP	Berwyndale to Wallumbilla Pipeline
CGP	Carpentaria Gas Pipeline
DDP	Darling Downs Pipeline
DTS	Declared Transmission System
ITP	Illabo to Tumut Pipeline
MAPS	Moomba to Adelaide Pipeline System
MSP	Moomba to Sydney Pipeline
NGP	Northern Gas Pipeline
NQGP	North Queensland Gas Pipeline
PCA	Port Campbell to Adelaide Pipeline
PCI	Port Campbell to Iona Pipeline
QGP	Queensland Gas Pipeline
RBP	Roma to Brisbane Pipeline
SESA	South East South Australia Pipeline
SGP	Spring Gully Pipeline
SWQP	South West Queensland Pipeline
TGP	Tasmanian Gas Pipeline

Contents

1 Introduction

On 29 June 2018 the Council of Australian Governments Energy Council (Energy Council) agreed to implement the legal and regulatory framework required to give effect to the capacity trading reform package. The capacity trading reform package, which applies to the operators of transmission pipelines and compression facilities operating under the contract carriage model[1] (jointly referred to as 'transportation facility operators'), provides for the implementation of:

1. A capacity trading platform (CTP) that will form part of the gas trading exchange (Gas Supply Hub (GSH)) and provide for:
    - exchange-based trading of commonly traded transportation products (including firm forward haul services, firm park services and firm compression services on stand-alone compressors); and
    - a listing service for other more bespoke products.
2. A day-ahead auction (DAA) of contracted but un-nominated (CBU) capacity, which will be conducted each day on non-exempt transportation facilities shortly after nomination cut-off and subject to a reserve price of zero. Shippers will be able to use the DAA to procure forward haul transportation services (with separate products offered in both directions on bi-directional[2] pipelines); backhaul services on single direction pipelines (or parts of pipelines) and stand-alone compression services.
3. A range of measures to facilitate capacity trading and the DAA, including the development of standard operational transportation service agreements (standard OTSA) that will establish the standard contract terms between service providers and shippers for capacity procured through the CTP and DAA.
4. A reporting framework for secondary capacity trades and a number of other transparency measures that are designed to facilitate capacity trades and the DAA.
5. A standard market timetable that provides for:
    - a common gas day start time of 6 am (AEST) across the east coast (and Northern Territory once connected to the east coast) that will apply to all production, pipeline, compression and storage facilities and in the facilitated markets; and
    - a common nomination cut-off time of 3 pm (AEST) and common auction service nomination cut-off time of 6:45 pm (AEST) for transportation facilities that will be subject to the capacity trading reforms.

Work on the design of the reform package commenced in early 2017. Following an extensive consultation process, which included a large number of meetings with industry-based project teams, the GMRG provided its final recommendations to the Energy Council on:[3:]

[1] The reforms do not apply to the Declared Transmission System, which operates under the market carriage model.

[2] A pipeline will be classified as bi-directional if at any time the direction of the physical flow of gas on the pipeline (or part) is capable of being reversed under normal operating conditions and transportation facility users have transportation capacity for firm forward haul services in both directions (with a service time that includes that time).

[3] GMRG, Final Recommendations on the Operation and Administration of the Transportation Capacity Trading Platform and Day-Ahead Action, June 2017. GMRG, Final Recommendations on the Capacity Trading Reform Package (Standardisation, capacity trading platform and reporting framework for secondary trades), November 2017. GMRG, Final Recommendations on the Design of the Day-Ahead Auction of Contracted but Un-Nominated Capacity, December 2017.

- the proposal to accord the Australian Energy Market Operator (AEMO) responsibility for operating the CTP and DAA, which was approved by the Energy Council at its 14 July 2017 meeting;
- the proposed design of the trading platform, the measures required to facilitate capacity trading and the DAA, the reporting framework for secondary trades and the adoption of a standard market timetable, which were approved by the Energy Council at its 24 November 2017 meeting; and
- the proposed design of the DAA, which was approved by the Energy Council out-of-session on 3 January 2018.

The Energy Council also agreed at its 24 November 2017 meeting that:

- the capacity trading reform package should be implemented by **1 March 2019**; and
- the harmonisation of gas day start times and nomination cut-off times should occur by **1 October 2019**.

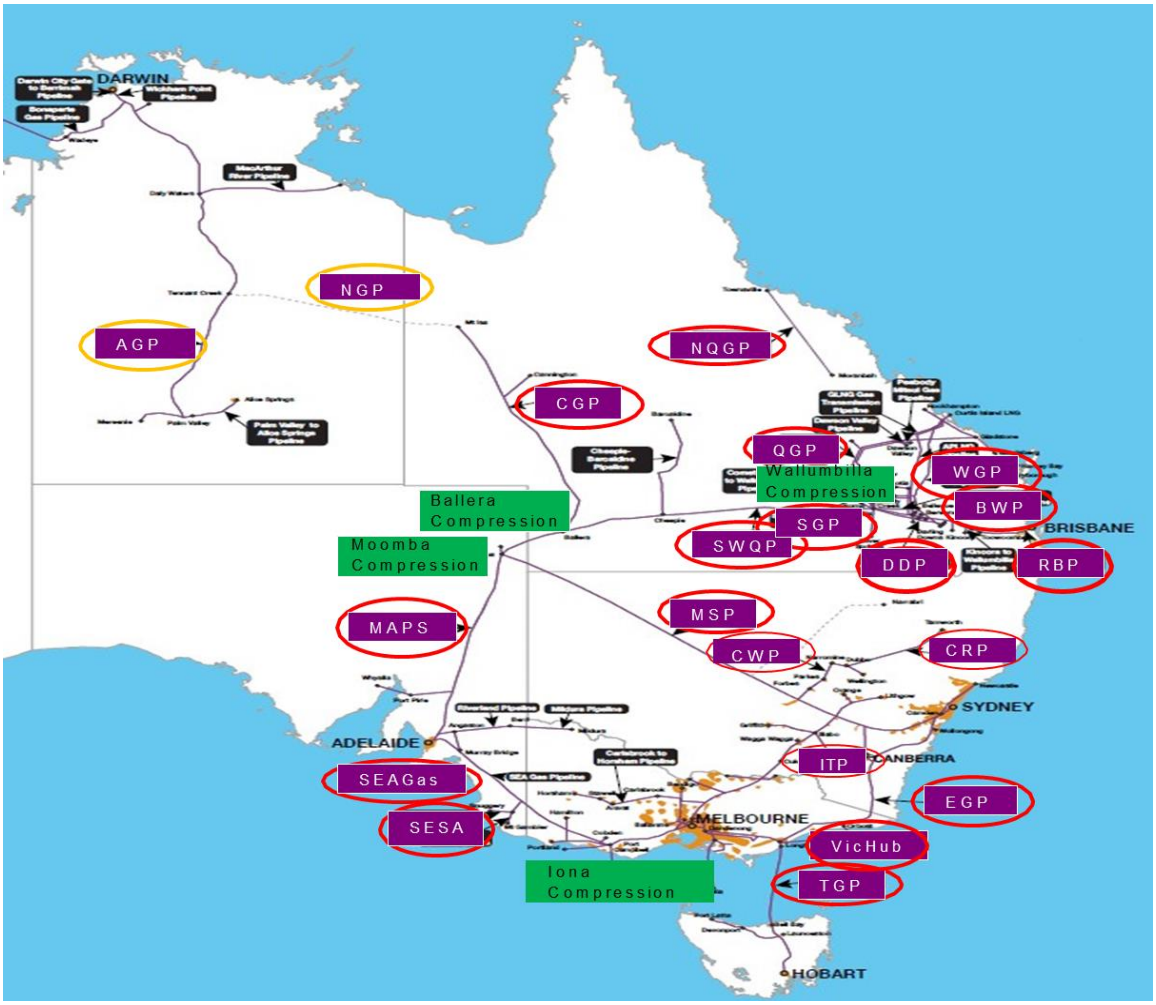
On 29 June 2018, the Energy Council agreed that the reform package will initially apply in the Australian Capital Territory, New South Wales, Queensland, South Australia, Tasmania and Victoria (outside the Declared Transmission System (DTS)). The Energy Council also agreed, at the request of the Northern Territory Government, to:[4]

- implement a derogation that will delay the application of the DAA to transportation facilities located wholly or partly in the NT; and
- apply all other aspects of the capacity trading reform package in the NT once the Northern Gas Pipeline (NGP) is commissioned, which is expected to occur in late 2018.

Figure 1 provides an indication of the coverage of the capacity trading reforms and identifies those facilities located wholly or partly in the NT that, by virtue of the operation of the derogation, will not be subject to the DAA until the derogation expires (see facilities circled in yellow). Note that the map excludes those transportation facilities that will be automatically exempt from the reforms and those that are likely to obtain a full or conditional exemption from the reforms.

[4] Further detail on the derogation (including the term of the derogation) can be found in the Senior Committee of Officials' Bulletin dated 3 July 2018 (http://www.coagenergycouncil.gov.au/sites/prod.energycouncil/files/publications/documents/Bulletin%20-%20Application%20of%20the%20Capacity%20Trading%20Reforms%20in%20the%20NT.pdf).

Figure 1: Indicative coverage of capacity trading reforms (excluding harmonisation reforms)



Map source: AEMC with additions made by the GMRG.

1.1 Service points, zones and pipeline segments

Under the legal and regulatory framework that the Energy Council has agreed to implement, AEMO will be responsible for:

- maintaining and publishing a register of each service point (physical or notional) at or between which transportation services are (or may be) provided by the facilities that will be subject to the reform package and each park service point;
- determining the backhaul service points between which backhaul auction services will be available in the DAA on single direction pipelines (or parts of pipelines);
- determining the allocation of service points to the zones that will be used for both the CTP and DAA; and
- determining the forward haul pipeline segments (i.e. the part of a pipeline between pipeline zones) and, where relevant, the backhaul pipeline segments that will be used in the DAA.

Before making a determination on the service points, zones and pipeline segments that will apply on each of the facilities that will be subject to the reforms, AEMO must have regard to a range of matters and must also consult with stakeholders. Box 1.1 provides more detail on the matters that AEMO must consider when making its determination.

Box 1.1: Requirements for service points, zones and segments

Service points

The operators of transportation facilities that are subject to the capacity trading reforms will be required to provide AEMO (and keep up to date) for each transportation facility a specification of:

- each pipeline and compression service point[5] between which services are (or may be) provided by the facility; and
- each park service point for the facility.

This information will be published in the transportation service point register and must be in a form that complies with the Capacity Transfer and Auction Procedures (CT&A Procedures). AEMO will be responsible for maintaining and publishing the transportation service point register, which will set out the service points, pipeline segments and zones on each of the transportation facilities that is subject to the reforms.

AEMO will also be responsible for determining the points between which backhaul auction services will be available in the DAA on single direction pipelines (or parts of pipelines). There are no specific criteria that AEMO must consider when making a determination on backhaul service points.

Zones

AEMO will be responsible for determining the allocation of service points to the receipt and delivery point zones that will be used on each of the facilities that will be subject to the capacity trading reforms (including those facilities that are commissioned after the reforms take effect or later become subject to the reforms through the revocation of an exemption or derogation). When exercising this power, AEMO will be required to consult with stakeholders[6] and apply a number of principles.

These principles provide that AEMO may have regard to:

- the impact of the proposed allocation of points on the trade of products through the CTP and DAA, including the impact on demand or liquidity;
- the possible curtailment of capacity transferred between points within a zone, over time or at particular times or in particular conditions; and
- the technical or operational characteristics of the transportation facility.

The principles also:[7]

- require service points used for *receipt* of gas must be allocated to *receipt zones*;
- require service points used for *delivery* of gas must be allocated to *delivery zones*; and
- specify that a service point cannot be in more than one delivery zone or receipt zone, but if:
  - the point is used for delivery and receipt, it may be in both a delivery zone and receipt zone; or
  - the facility is bi-directional, it may be in both a delivery zone and receipt zone.[8]

To help inform AEMO's determination, transportation facility operators will be required to provide AEMO with the information it reasonably requires for the assessment of the proposed zones and to undertake any analysis that may be required. Once the zones are established and trade commences, AEMO will be required to publish information provided by transportation facility operators on the transfer of capacity between service points in a zone, so shippers can get a better understanding of the deliverability risks associated with a particular zone.

To ensure that the receipt and delivery point zones can adapt to changes in the market and/or to changes in the operational or technical characteristics of the transportation facility, facility operators and any other person (including AEMO) will be able to propose a change to the zones. If this occurs, AEMO will be required to consider the proposal having regard to the principles outlined above.

Pipeline segments

In a similar manner to zones, AEMO will be responsible for determining the forward haul pipeline segments and, where relevant, the backhaul pipeline segments to be used in the DAA. Before making a determination, AEMO must consult with stakeholders. There are no specific matters that AEMO must consider when making a determination on pipeline segments.

1.2 Consultation process

While some preliminary consultation on the specification of service points, zones and pipeline segments has been carried out with transportation facility operators, it is important that all market participants have an opportunity to provide their views on the proposed specification of zones, pipeline segments and backhaul service points, particularly given the trade-offs that may be involved. To this end, the GMRG and AEMO have jointly prepared this initial Consultation Paper, which is intended to provide market participants with an opportunity to provide their feedback on the proposed service points, zones and, where relevant, pipeline segments for the initial set of facilities that are expected to be subject to the reforms.

The GMRG and AEMO are seeking written feedback on these issues by **5pm (AEST) on 27 July 2018**. To assist stakeholders, a template has been prepared (see **Attachment 1**) that stakeholders can use to provide their feedback on the proposed specification of service points, zones and pipeline segments for each facility.

Stakeholders are also encouraged to attend a public forum on the specification of service points, zones and pipeline segments that will be conducted via VCU from AEMO's offices on **10 July 2018**. If you are interested in attending this forum, please email pct@aemo.com.au

1.3 Next steps

The feedback received through this initial consultation process will be used to inform the draft specification of service points, zones and pipeline segments, which will be subject to a further round of consultation before AEMO makes its final determination. The draft specification is expected to be published in September with a further period of industry consultation to be carried out.

Following consultation on the draft specification, AEMO will make its final determination on the specification of service points, zones and pipeline segments and publish the transportation service point register. The final determination cannot be made until the legal and regulatory framework for the capacity trading reforms is implemented, which is expected to occur in late October or early November. AEMO's final determination is therefore expected to be made on or before 1 December 2018.

Further detail on the key dates for the specification of service points, zones and pipeline segments is provided in the table below.

[5] The term 'service point' is used to refer to physical and notional receipt and delivery points and includes in-pipe trading points.

[6] The CT&A Procedures will set out the arrangements AEMO will use when consulting on and determining zones, the information to be published in the consultation process (this will include information relating to the possible curtailment of capacity within a zone), the time frames and the confidentiality arrangements.

[7] Note also that a zone may consist of only one service point.

[8] A pipeline will be classified as bi-directional if at any time the direction of the physical flow of gas on the pipeline (or part) is capable of being reversed under normal operating conditions and transportation facility users have transportation capacity for firm forward haul services in both directions (with a service time that includes that time).

Table 1.1: Dates for consultation on zones, pipeline segments and service points

Date	Process
5 July – 27 July 2018	Initial consultation on the specification of service points, zones and pipelines segments.
September 2018	Publication of the draft specification of service points, zones and pipeline segments
September – October 2018	Consultation on the draft specification of service points, zones and pipeline segments
On or before 1 December 2018	AEMO to make final determination on service points, zones and pipeline segments and to publish the transportation service point register.

1.4 Structure of consultation paper

The remainder of this Consultation Paper is structured as follows:

- Chapter 2 provides background material on:
  - how capacity can be procured through the CTP and DAA;
  - the matters that AEMO and the GMRG have considered when developing the proposed specification of service points, zones and pipeline segments; and
  - the naming conventions that have been used for service points, zones and pipeline segments in this Consultation Paper.
- Part A – Transmission Pipelines (Chapters 3- 23): This part of the consultation paper focuses on the transmission pipelines that are expected to be subject to the CTP and DAA, with separate chapters for each pipeline setting out:
  - the pipeline service points at or between which transportation services are (or may be) provided by the pipeline and, where relevant, each park service point;
  - the proposed allocation of pipeline service points to the receipt and delivery point zones that will be used for both the CTP and DAA;
  - the proposed specification of backhaul service points that will be available in the DAA on single direction pipelines (or parts of pipelines); and
  - the proposed specification of forward haul and, where relevant, backhaul pipeline segments that will be used in the DAA.
- Part B – Compression Facilities (Chapters 24-27): This part of the consultation paper focuses on the compression facilities that are expected to be subject to the capacity trading reforms, with separate chapters for each compressor setting out:
  - the compression service points at or between which compression services are (or may be) provided by the compressor; and
  - the proposed allocation of compression service points to the compression receipt and delivery point zones that will be used for both the CTP and DAA.

A separate attachment has also been prepared, which contains a template that the GMRG and AEMO encourage stakeholders to use to provide their feedback (**Attachment 1**).

2 Background

Before setting out the proposed service points, zones and pipeline segments for each of the facilities that are expected to be subject to the CTP and DAA, it is worth outlining:

- how capacity can be procured through the CTP and DAA and the role that service points, zones and pipeline segments will play in these two new facilitated markets;
- the matters that AEMO and the GMRG have considered when developing the proposed service points, zones and pipeline segments; and
- the naming convention that has been used for the service points, zones and pipeline segments set out in Chapters 3 to 27.

2.1 How capacity can be procured through the CTP and DAA

Once the reform package is implemented, shippers that want to procure secondary capacity on non-exempt transportation facilities will be able to do so using either:[9]

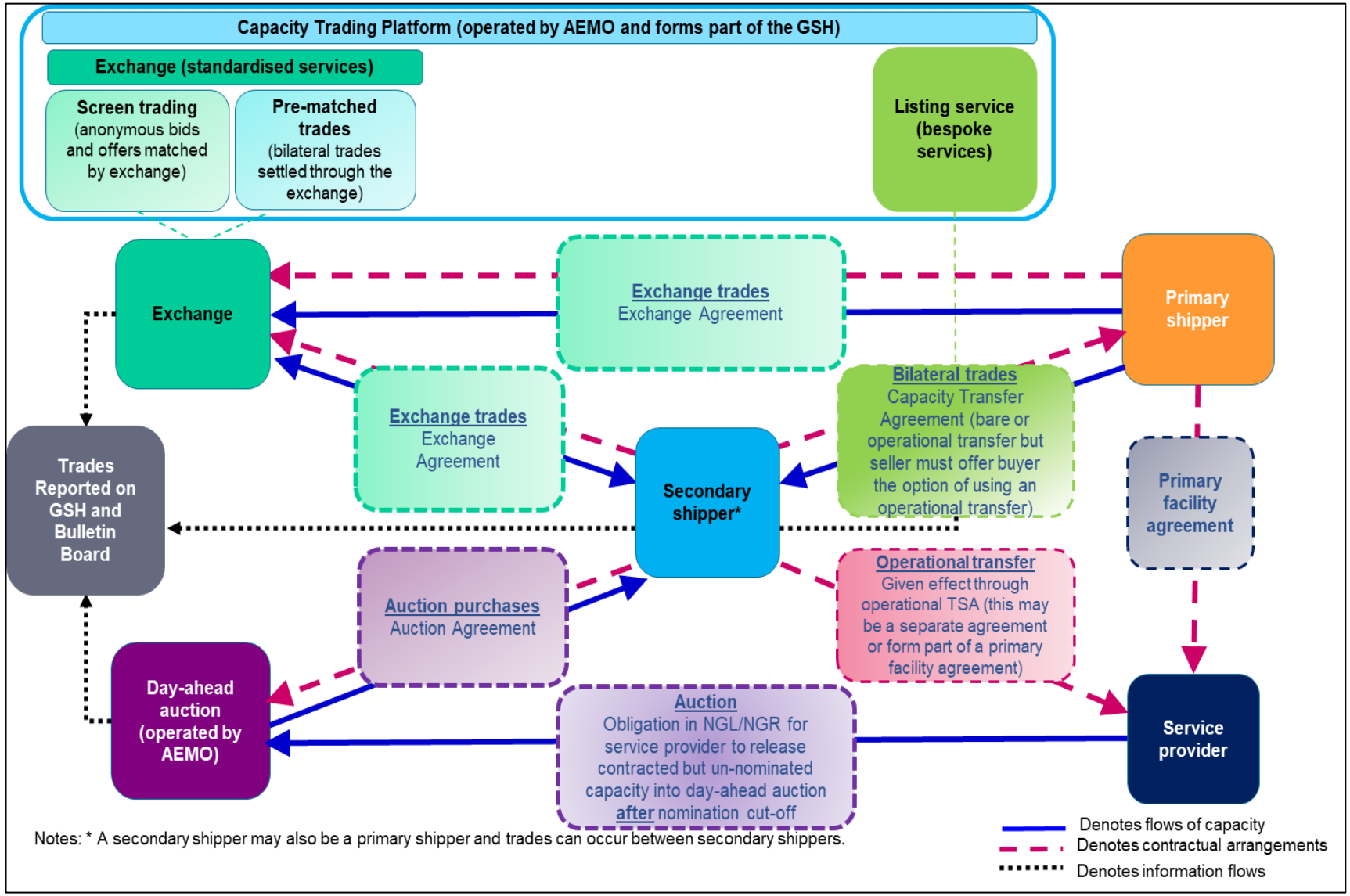
- the CTP, which shippers will be able to use to procure capacity on a day-ahead, daily, weekly or monthly basis or more bespoke services prior to market close; or
- the DAA, which shippers will be able to use to procure capacity on a day-ahead basis after nomination cut-off time if there is any CBU capacity available on the facility.

Figure 2 shows how secondary capacity will be released through these mechanisms. This figure also shows the contractual arrangements that shippers will need to have in place with:

- AEMO to trade capacity on the CTP (**Exchange Agreement**) and to use the DAA (**Auction Agreement**); and
- service providers to enable any capacity procured through these mechanisms to be used by way of an operational transfer through an **OTSA**.

[9] Shippers will also be able to use other means to identify potential counterparties and enter into bilateral trades.

Figure 2: How capacity will be released through the CTP and DAA and contractual arrangements



2.1.1 Capacity Trading Platform (CTP)

The CTP will be operated by AEMO and form part of the GSH. The CTP will provide for both:

- Exchange-based trading of commonly traded transportation products, which can be conducted through either:
  - the screen trade service, which will allow anonymous bids or offers to be placed on standardised products that are automatically matched; or
  - the pre-matched trade service, which will allow participants to bring a bilateral trade in one of the listed products to the exchange for settlement.

  The screen trade service will operate on a fully anonymous basis (i.e. the names of counterparties will not be revealed pre- or post-transaction), with AEMO informing the service provider of the trade and the service provider then confirming and giving effect to the trade.
- A listing service that shippers can use to list other more bespoke products and imbalance trades.

The initial set of products to be sold on the exchange include:

- firm forward haul services on transmission pipelines (with services offered in both directions if the pipeline is bi-directional);10
- firm park (storage) services on those pipelines that offer this service; 11 and
- firm compression services on the Wallumbilla, Moomba, Ballera, Iona and other non-exempt stand-alone compression facilities.

These products will have a minimum contract size of 500 GJ/day and are expected to be available as:

- a day-ahead product;
- a daily product (available on a 6-day rolling basis);
- a weekly product (available on a 4-week rolling basis); and
- a monthly product (available on a 3-month rolling basis).

The specific CTP products that will be available on the exchange will be consulted on as part of the proposed amendments to the Exchange Agreement.

The terms and conditions on which the buyer can use these products will be set out in the service provider's standard OTSA, which, amongst other things, will specify the hourly flexibility and imbalance allowance the buyer will have and provide for a reasonable endeavours renomination right. If a buyer intends to use the firm forward haul capacity it has procured through the CTP to supply gas into or out of a Short Term Trading Market

[10] A pipeline will be classified as bi-directional if at any time the direction of the physical flow of gas on the pipeline (or part) is capable of being reversed under normal operating conditions and transportation facility users have transportation capacity for firm forward haul services in both directions (with a service time that includes that time).

[11] A park service allows a shipper to inject more gas into a pipeline than it takes out on a particular day, up to a specified level, without incurring imbalance charges. The additional gas supplied into the pipeline (positive imbalance) may be withdrawn by the shipper at a later point in time, although the total volume of gas withdrawn on a particular day must not exceed the capacity specified in the shipper's transportation contract.

(STTM) or the Declared Wholesale Gas Market (DWGM), then it will also need to ensure the arrangements outlined in Box 2.1 are in place.

Box 2.1: Use of the STTM and DWGM

STTM

If a shipper procures capacity through the CTP and wants to participate in the STTM in Adelaide, Brisbane or Sydney then it may, depending on when the capacity is purchased, be able to:

- participate in the ex-ante schedule (this mechanism can be used if the trade is conducted prior to close of trade on D-2); [12] or
- use market schedule variations (MSVs) to manage their market position (this mechanism can be used if the trade is conducted after close of trade on D-2). [13]

To participate in the ex-ante schedule, a shipper must first have its transportation contract registered in the STTM. Registration for contracts will be as per the current registration process in the STTM and participants will be able to trade their existing contracts (*Registered Facility Service(s))* via the CTP. Where a participant has a new *operational transportation service* on a STTM facility they may register this service as a *Registered Facility Service* in the STTM with an initial capacity of zero. When a participant buys capacity via the CTP, at the time when capacity is transferred by the service provider, AEMO will automatically adjust the participant's nominated trading right to reflect the capacity transfer. The seller's nominated trading right will be adjusted down by the equivalent amount.

In contrast to the CTP, the DAA will run after the publication of the STTM ex-ante schedule. Participants who purchase capacity at an STTM point through the DAA will therefore need to manage any changes to their ex-ante STTM position through the use of nominations and renominations to the relevant pipeline operator, or MSVs (i.e. to manage their market position).

DWGM

The CTP and DAA will provide products for delivery and receipt points at the boundary of the DTS. Unlike the STTM, trading rights are not required to access the DTS. Instead, participants need to be accredited at the relevant points that they intend to use for bidding in the DWGM. Bid constraints can be applied to a participant's accreditation right to reflect their ability to respond to scheduling instructions from AEMO e.g. contractual limitations. Participants who have an *operational transportation service* at a DTS *interface point* will be able to apply to AEMO for accreditation at the relevant interface point as per the standard accreditation process. Participants will also be able to trade using their existing accreditation rights. A participant must have its rights accredited prior to trading a DTS CTP product or purchasing capacity via the DAA at a DTS point.

When a capacity transfer at a DTS transfer point is confirmed AEMO will automatically adjust the participant's maximum hourly flow (MHQ) constraint against its nominated accreditation right to reflect the capacity transfer.

Accreditation adjustments will be made to reflect capacity acquired either through the DAA or CTP. Note that capacity released by a firm shipper into the DAA will not reduce a participant's MHQ as the firm shipper may still renominate to use its capacity on the gas day.

- [12] Shippers that want to participate in the ex-ante schedule must submit bids and offers to AEMO prior to the ex-ante schedule being run. After the ex-ante schedule for the market is published participants receive individual schedules to flow gas to or withdraw gas from a STTM hub. Gas bought or sold is settled at the ex-ante market price.
- [13] If a market participant does not supply gas in accordance with the ex-ante schedule, either through a deviation or renomination, it can avoid financial penalties by submitting a MSV notifying AEMO that it has matched a deviation with an offsetting position.

Firm forward haul and compression products: To maximise the pool of prospective buyers and sellers of firm forward haul and compression products, these products will be sold on the exchange using the zonal model. Under the zonal model (Figure 3):

- shippers with firm forward haul or compression capacity will be able to sell their point-to-point capacity on a zone-to-zone basis; and
- secondary shippers will be able to acquire the firm forward haul and/or compression capacity on a zone-to-zone basis and have secondary firm rights at each receipt and delivery point in the relevant zone.

The secondary firm rights concept is required under the zonal model because:

- the capacity sold by the shipper with firm capacity may be released from a different receipt or delivery point in the zone to the point the secondary shipper intends to use in that zone; and
- the capacity of individual points within a zone will usually be lower than the zonal capacity.

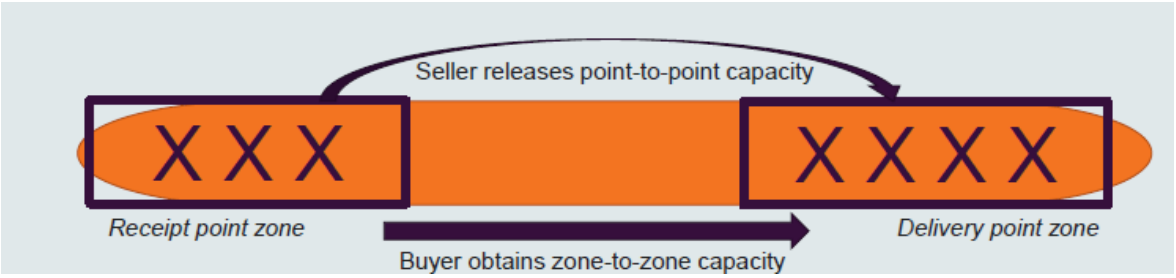
To deal with these limitations, while also recognising the firm rights that primary shippers have to use receipt and delivery points, the secondary firm rights concept allows secondary shippers to use any receipt or delivery points within a zone but their rights at those points are subordinate to primary shippers with firm rights at those points.

Under the proposed design of the exchange, the following will occur when a firm forward haul or compression product is traded (or when the capacity is transferred by the service provider):

- the seller will notify AEMO of the pipeline or compression receipt and delivery points it intends to release its capacity from; and
- the buyer will notify AEMO of the pipeline or compression receipt and delivery points it intends to use in the relevant receipt and delivery point zones.[14]

The receipt and delivery points that a buyer can use in each receipt point and delivery point zone, which may be physical or notional points, will be specified in the transportation service point register.

Figure 3: How firm forward haul and compression capacity will be sold



Firm park products: In contrast to firm forward haul and compression products, park products will be sold at a single physical or notional point on the pipeline (the 'park service point'). Like the park products sold by pipeline operators, the exchange traded park

[14] If a secondary shipper procures capacity through the CTP or DAA and wants to use a multi-user receipt or delivery point, it may need to become a party to an allocation agreement at that point(s). This agreement sets out the rules the allocation agent is required to use to allocate gas between shippers at the receipt or delivery point.

product will only entitle buyers to store gas on the pipeline. To use this product, a buyer will therefore need to have access to a transportation service that enables it to:

- supply gas into the pipeline and transport it to the park service point; and
- transport the gas from the park service point to the final delivery point.

This transportation service may be procured through the CTP or DAA, or if the buyer has an existing transportation service on the pipeline then it may be able to use this service.

2.1.2 Day-ahead Auction (DAA)

The DAA will be conducted by AEMO shortly after nomination cut-off time on gas day D-1 and subject to a reserve price of zero. Shippers will be able to use the DAA to procure the following day-ahead services:

- forward haul services (with separate products offered in both directions on bi-directional pipelines);
- backhaul services on single direction pipelines (or parts of pipelines); and
- compression services on the Wallumbilla, Moomba, Ballera, Iona and other non-exempt stand-alone compression facilities.

The terms and conditions on which a shipper can use auction products will be set out in the auction facility operator's standard OTSA (or other agreement containing the terms for use of the service). Amongst other things, the OTSA will specify the hourly flexibility the shipper will have and provide for a reasonable endeavours renomination right and a zero-imbalance allowance. If the shipper requires additional flexibility, it can procure it from service providers or shippers (where operationally and technically feasible). If the shipper intends to use the forward haul capacity it has procured through the DAA to supply gas into or out of an STTM or the DWGM, then it will also need to ensure the arrangements outlined in Box 2.1 are in place.

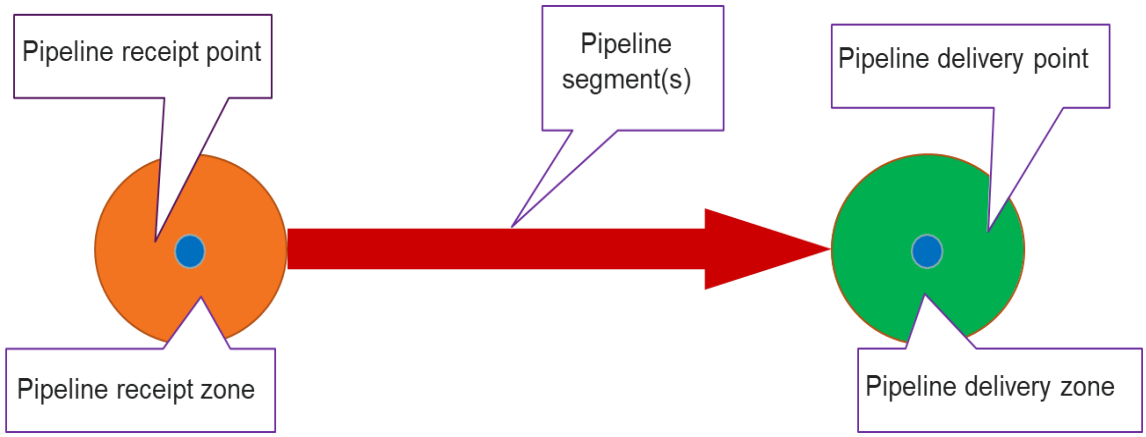
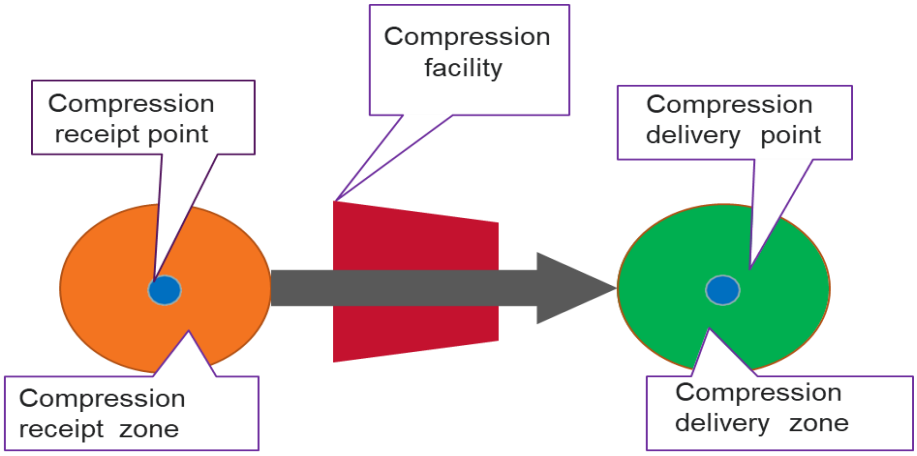
Forward haul and compression auction services: Forward haul and compression auction services will be sold using a hybrid point-to-point and zonal model. The hybrid model will allow auction participants to bid on a point-to-point basis for any unused physical capacity at individual receipt or delivery points, but their ability to secure capacity at those points will depend on whether there is sufficient:

- CBU capacity available in the receipt point zone and delivery point zone they wish to use; and
- CBU capacity along the pipeline segments (or the compression service facility) they wish to use.

The hybrid model, in effect, allows CBU capacity from individual points to be moved to other points within the zone if there is unused capacity at those points. It also overcomes the delivery risk associated with other contract path models, because when a shipper wins capacity it knows it has secured capacity at the points it requires and will only be curtailed if firm capacity holders renominate on the gas day.

Table 2.1 provides further detail on how forward haul and compression auction services will be sold through the DAA.

Table 2.1: How forward haul and compression services will be sold in the DAA

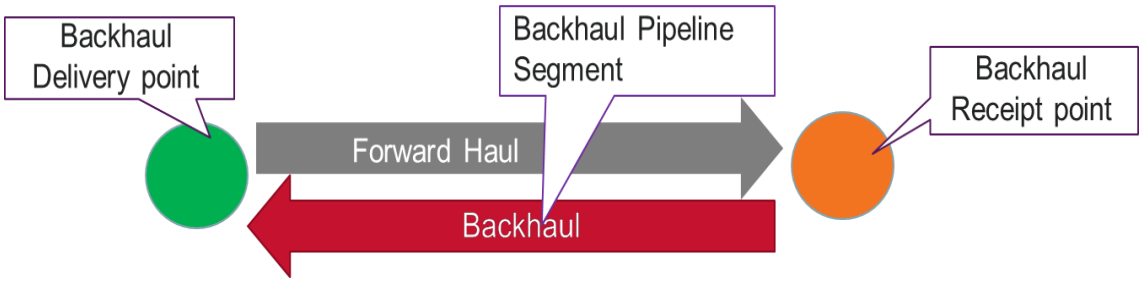
Forward haul auction services
When bidding in the auction for a forward haul auction service, a shipper will bid for the pipeline receipt and delivery point pair it wishes to use. The shipper's bid will then be broken down into the following product components by AEMO prior to the solver being run: ▪ pipeline receipt point capacity ▪ pipeline receipt zone capacity ▪ pipeline segment(s) capacity (if there are zones in between the required receipt and delivery point zones then there may be multiple pipeline segments) ▪ pipeline delivery zone capacity ▪ pipeline delivery point capacity. These product components can be seen in the figure below. 
Compression auction services
When bidding in the auction for a compression auction service, the shipper will bid for the compression receipt and delivery point pair that they wish to use. The shipper's bid will then be broken down into the following product components by AEMO prior to the solver being run: ▪ compression receipt point capacity ▪ compression receipt zone capacity ▪ compression facility capacity ▪ compression delivery zone capacity ▪ compression delivery point capacity. 

Backhaul auction services: Backhaul auction services will be sold on a point-to-point basis between the backhaul receipt points and backhaul delivery points that AEMO determines should be included in the DAA from time to time. In contrast to forward haul and compression services, the availability of backhaul services will not be constrained by

CBU capacity. The availability of backhaul services will instead depend on whether there are sufficient firm net forward haul flows between the points used for the backhaul service.

Table 2.2 provides further detail on how backhaul auction services will be sold in the DAA.

Table 2.2: How backhaul services will be sold in the DAA

Backhaul auction services
When bidding in the auction for a backhaul auction service, the shipper will bid for the backhaul receipt and backhaul delivery point pair that they wish to use. The shipper's bid will then be broken down into the following product components by AEMO prior to the solver being run: ▪ backhaul receipt point capacity ▪ backhaul pipeline segment(s) capacity (if there are backhaul receipt and delivery points in between the required backhaul receipt and delivery points then there may be multiple backhaul pipeline segments) ▪ backhaul delivery point capacity. 

2.2 Specification of service points, zones and segments

As the preceding discussion highlights, service points, zones and pipeline segments will play a critical role in the CTP and DAA. The remainder of this section outlines the matters that the GMRG and AEMO have considered when developing the proposed specification of service points, zones and pipeline segments set out in Chapters 3-27.

2.2.1 Service points

The term 'service point' is used to refer to the following types of service points:

- a **pipeline service point**, which is a point, or a combination of points, at which gas is received or delivered on a pipeline and includes both physical and notional pipeline receipt and delivery points and in-pipe trading points;
- a **park service point**, which is a point at which gas must be received or delivered to use the park service on the CTP;
- a **compression service point**, which is a point, or a combination of points, at which gas is received or delivered via a compressor and includes both physical and notional compression receipt and delivery points; and
- a **backhaul service point**, which is a point at which gas is received (backhaul receipt point) or delivered (backhaul delivery point) through a backhaul service.

Where a notional point is used in place of physical points, the transportation service point register will specify the physical points that are represented by the notional point.

As noted in Box 1.1, service providers for non-exempt facilities will be required, for each facility, to provide AEMO and keep up to date the specification of each pipeline and

compression service point between which services are (or may be) provided by the facility and each park service point for the facility.

In keeping with these requirements, the pipeline, compression and park service points set out in Chapters 3-27 are based on the preliminary information provided by the service providers of each facility.[15]

In relation to backhaul receipt and delivery points, there are, as noted in Box 1.1, no specific criteria that AEMO must have regard to when specifying the backhaul points that will be available in the DAA. For the purposes of this consultation paper, AEMO and the GMRG have selected the proposed backhaul receipt and delivery points having regard to, amongst other things:

- whether it is feasible to have a backhaul service on the pipeline, which will depend on whether the pipeline has a receipt point(s) that is downstream of a delivery point(s) or if the pipeline is connected to a facilitated market;
- the likely demand for backhaul services between the points; and
- the technical or operational feasibility of providing backhaul service between these points, which has been informed by discussions with service providers.

It is worth noting that, while in principle all the points on a single direction pipeline could be specified as a backhaul receipt or delivery point, doing so could add a greater degree of complexity to the DAA. AEMO and the GMRG are therefore only proposing at this stage to include those backhaul receipt and delivery points at which there is likely to be a reasonable level of demand for backhaul services.

Finally, it is worth noting that AEMO will be allowed to implement measures to ensure the publication of auction related information (e.g. auction limits) does not directly or indirectly disclose a nomination made by a market generating unit prior to the gas day. The list of service points in chapters 3 to 27 specify those delivery points that are used to supply gas to market generating units and that are likely to be excluded from the publication of auction limit information.

2.2.2 Zones

The term ‘zone’ is used to refer to the following types of zones:

- **a pipeline zone**, which may either be a**:**
  - **pipeline delivery zone**, which means one or more pipeline delivery points which comprise a pipeline delivery zone;
  - **pipeline receipt zone,** which means one or more pipeline receipt points which comprise a pipeline receipt zone;
- **a compression zone**, which may either be a:
  - **compression delivery zone**, which means one or more compression delivery points which comprise a compression delivery zone; and
  - **compression receipt zone**, which means one or more compression delivery points which comprise a compression receipt zone.

[15] Note that service providers will be required to formally provide the service point information to AEMO once the rules are implemented.

As noted in Box 1.1, AEMO will be responsible for determining the allocation of service points to pipeline and compression zones. When exercising this power, AEMO will be required to consult with stakeholders and apply a number of principles. These principles provide that AEMO may have regard to:

- the impact of the proposed allocation of points on the trade of products through the CTP and DAA, including the impact on demand or liquidity;
- the possible curtailment of capacity transferred between points within a zone, over time or at particular times or in particular conditions; and
- the technical or operational characteristics of the transportation facility.

The principles also:[16]

- require service points used for **receipt** of gas to be allocated to **receipt zones**;
- require service points used for **delivery** of gas to be allocated to **delivery zones**; and
- specify that a service point cannot be in more than one delivery zone or receipt zone, but if:
    - the point is used for delivery and receipt, it may be in both a delivery zone and receipt zone; or
    - the facility is bi-directional, a service point may be in both a delivery zone and receipt zone.[17]

AEMO and the GMRG have considered these principles when developing the proposed allocation of receipt and delivery points to the zones set out in Chapters 3-27. The proposed allocation of points to zones in these chapters has been informed by:

- information that a number of service providers provided to the GMRG in 2017 when some preliminary work was carried out on the specification of zones and the feedback that stakeholders provided on these proposed zones;[18] and
- discussions that AEMO and the GMRG have held with service providers in 2018 and information that these service providers have provided on the technical and operational characteristics of the certain facilities that may limit the ability to move capacity between points in zones on those facilities.

One issue that AEMO and the GMRG have had to consider when developing the proposed zones is whether the Sydney, Adelaide and Brisbane STTM delivery points should be:

1. allocated to either:
    - a **discrete pipeline zone** (i.e. the zone only includes STTM delivery points); or
    - a **mixed pipeline zone** (i.e. the pipeline zone comprises a mix of STTM and non-STTM delivery points);[19] or

16 Note also that a zone may consist of only one service point.

17 A pipeline will be classified as bi-directional if at any time the direction of the physical flow of gas on the pipeline (or part) is capable of being reversed under normal operating conditions and transportation facility users have transportation capacity for firm forward haul services in both directions (with a service time that includes that time).

18 GMRG, Final Recommendations: Capacity Trading Reform Package (Standardisation, capacity trading platform and reporting framework for secondary trades), November 2017, pp. 89-90.

19 Where it is feasible to do so, mixed zones permit additional delivery points to be included in the pipeline zones beyond the STTM hub, which can benefit users of the DAA. For example, if an STTM point's contracted capacity is not being

2. included in a **single zone** or a **split zone** (i.e. the STTM delivery points are allocated to more than one zone).

Through the work that has been carried out on this issue it has become clear that a combination of these approaches will be required. For example:

- In the Sydney STTM mixed pipeline zones are proposed for both:
    - the Moomba to Sydney Pipeline (MSP) – in this case the proposed delivery zone in Sydney will include the Wilton STTM point, the Wilton Trade Point, and the Booroowa, Yass, Goulburn, Marulan, Sally's Corner, Moss Vale, Bowral and Bargo delivery points; and
    - the Eastern Gas Pipeline (EGP) – in this case the proposed delivery zone in Sydney will be split into two:
        - the first delivery zone will include the Horsley Park, Port Kembla and Albion Park STTM points and the Smithfield and Tallawarra delivery points; and
        - the second delivery zone will include the Wilton Jemena Gas Networks STTM point and the Wilton (MSP) delivery point.
- In the Brisbane STTM a combination of discrete and mixed pipeline zones are proposed for the Roma to Brisbane Pipeline (RBP) to reflect the operational characteristics of this part of the pipeline – in this case the STTM delivery points will be split into three delivery zones:
    - the first delivery zone will include the Redbank, Riverview, Ellengrove, Mt Gravatt, Runcorn and Ritchie Road STTM points;
    - the second delivery zone will include the Gibson Island, Lytton, Murrarie and Tingalpa STTM points; and
    - the third delivery zone will include the Swanbank STTM point and the Oakey power station.
- In the Adelaide STTM a single mixed pipeline zone is proposed for both:
    - the Moomba to Adelaide Pipeline System (MAPS) – in this case the proposed delivery zone in Adelaide will include the Elizabeth, Gepps Cross and Taperoo STTM points and the Dry Creek and Torrens Island delivery points; and
    - the Port Campbell to Adelaide Pipeline (PCA) – in this case the proposed delivery zone in Adelaide will include the Cavan STTM point and the Torrens Island, Quarantine, Pelican Point, Jervois and Bolivar delivery points.

Where a mixed pipeline zone is adopted, the following products will be offered on the CTP in that zone:

1. **An integrated product** that only includes the STTM points in the delivery zone (note that AEMO will automatically adjust the buyer's and seller's STTM trading rights when this product is traded).
2. **A non-integrated product** that includes all the non-STTM points in the delivery zone.

In a similar manner to the STTM, there will be mixed and split zones for the DTS transfer points. Where there is a mixed zone and there is a confirmed transfer between a DTS

utilised (e.g. due to low demand) then that capacity can be made available via the DAA at non-STTM points. The reverse is also true.

point and a non-DTS point AEMO will adjust the MHQ constraint for the participant at the DTS point.

2.2.3 Pipeline segments

The term 'pipeline segment' is used to refer to both:

- a forward haul pipeline segment, which is the part of a pipeline between pipeline receipt and delivery point zones; and
- a backhaul pipeline segment, which is the part of a pipeline between the service points used for the backhaul auction service.[20]

In a similar manner to zones, AEMO will be responsible for determining the forward haul pipeline segments and, where relevant, the backhaul pipeline segments to be used in the DAA. As noted in Box 1.1 there are no specific criteria that AEMO must consider when making this determination, because the specification of pipeline segments is inextricably linked to the specification of zones and backhaul points. Any change to the proposed specification of zones or backhaul points will therefore result in changes to the proposed pipeline segments.

2.2.4 Feedback sought from stakeholders

The proposed service points, zones and pipeline segments for the initial set of facilities that are expected to be subject to the capacity trading reforms are set out in Chapters 3-27. AEMO and the GMRG welcome any feedback stakeholders may have on the proposals set out in these chapters. Further guidance on how these chapters have been structured is provided in section 2.4.

2.3 Naming conventions to be used in transportation service point register

In the transportation service point register, service points, zones, and pipeline segments will be described using:

- a name;
- a numeric ID, based on a convention for the transportation service point register; and
- additional information to describe the component.

The name of each service point will be the name provided by the facility operator. A naming convention will be used to describe each other component. AEMO and the GMRG are seeking feedback on the naming conventions that have been adopted for the purposes of this consultation paper, which are described in Table 2.3.

In addition, each component set out in the transportation service point register will be designated a unique ID by AEMO. This will also form the Limit ID against which facility operators will provide auction quantity limits. Preliminary consideration has been given to the convention for allocating IDs, which is set out in Appendix 1: Identification convention.

[20] Note that if a pipeline has a number of backhaul receipt and delivery points, then there may be multiple backhaul pipeline segments

Table 2.3: Naming conventions for components other than service points

Component	Naming convention	Example	Additional information to be provided in register
Receipt Zone	'Facility acronym' - 'RZ' for receipt zone - digit from 1-99 [Facility]-RZ-((?!00)[1-99]{2})	SWQP-RZ-01	A description of the zone. The points making up the zone will be described in the service point table, where each point will be allocated to either a receipt or delivery zone.
Delivery Zone	'Facility acronym' - 'DZ' for delivery zone - digit from 1-99 [Facility]-DZ-((?!00)[1-99]{2})	SWQP-DZ-01	A description of the zone. The points making up the zone will be described in the service point table, where each point will be allocated to either a receipt or delivery zone.
Compressor Receipt Zone	'Facility acronym' - 'CRZ' for compressor receipt zone - digit from 1-99 [Facility]-CRZ-((?!00)[1-99]{2})	WCF1-CRZ-01	A description of the compression zone. The points making up the zone will be described in the service point table, where each point related to the compressor will be allocated to either the receipt or delivery zone, including notional points.
Compressor Delivery Zone	'Facility acronym' - 'CDZ' for compressor delivery zone - digit from 1-99 [Facility]-CDZ-((?!00)[1-99]{2})	WCF1-CDZ-01	A description of the compression zone. The points making up the zone will be described in the service point table, where each point related to the compressor will be allocated to either the receipt or delivery zone, including notional points.
Forward Haul Pipeline Segment	'Facility acronym' - 'FS' for forward haul segment - digit from 1-99 [Facility]-FS-((?!00)[1-99]{2})	RBP-FS-01	The zones between which the forward haul segment connects. Forward haul segments are directional, so there will be a 'to' and 'from' zone, and there may be multiple at either end. Segments and the zones between which they connect will always be on the same facility. There are no segments connecting zones on different facilities.
Backhaul Pipeline Segment	'Facility acronym' - 'BS' for backhaul segment - digit from 1-99 [Facility]-BS-((?!00)[1-99]{2})	RBP-BS-01	The backhaul points between which the backhaul segment connects. Backhaul segments are directional, so there will be a 'to' and 'from' point, and there may be multiple at either end. Backhaul segments and the points between which they connect will always be on the same facility. There are no backhaul segments connecting points on different facilities.
Compression Service Facility	'Facility acronym' - 'CSF' for compressor service facility - digit from 1-99 [Facility]-CSF-((?!00)[1-99]{2})	WCF1-CSF-01	Applicable compression facility.

2.4 Structure of the facility specific chapters

Chapters 3-27 set out AEMO's and the GMRG's preliminary view on the service points, zones and pipeline segments that will be specified for each of the facilities that are expected to be subject to the capacity trading reforms from 1 March 2019. The specification is indicative and doesn't limit any decision on registration or exemptions.

These chapters have all been structured in the same way, with the beginning of each chapter containing a table that summarises the key facility information. A replica table is provided below, with explanatory notes for how to interpret this information.

Table 2.4: Replica of key facility information table

Key information	Detail
Facility name	Expected facility name (pending registration). Based on information provided by facility operators in preliminary consultation.
Facility operator/owner	Expected operator (pending registration). Based on information provided by facility operators in preliminary consultation.
Location	Description of the location of the facility
Single or bi-directional pipeline	Specifies whether a pipeline is single or bi-directional. A pipeline may have single and bi-directional pipeline segments.
Services that will be available through the CTP and DAA	Summary of the services expected to be available on the facility for each platform: • Forward haul services will be available on all pipeline facilities subject to the CTP and DAA. • Compression services will be available on all compression facilities subject to the CTP and DAA. • Those pipelines that offer park services to primary shippers will have park services available for trading through the CTP. • Single direction pipelines (or parts of pipelines) where it is feasible to offer and provide backhaul services and where there is likely to be a reasonable level of demand for these services, will have backhaul services available on the DAA.
Subject to CTP?	Self-explanatory
Subject to DAA?	Self-explanatory

The rest of each chapter then contains the proposed service points, zones and, where relevant, pipeline segments. This information is set out in a series of tables, which reflect how the proposed service points, zones and pipeline segments would appear in the transportation service point register (see for example Tables 2.4-2.6). Where relevant, additional information is provided in the text of each chapter to explain the proposed specification of service points (including any proposed backhaul points), zones and pipeline segments.

Table 2.5: Replica of service points table

Name	Type	Zone Name	Description
The names in this paper are as per advice AEMO and GMRG have received from facility operators in initial consultation.	Some points may have multiple types.	See section 2.3 for convention.	Description will be used to call out attributes of the service point such as: • Where the point is also a backhaul point. • Where the point is also a park service point.

Names of service points will be provided by the facility operator.

Options include: receipt, delivery, backhaul receipt, backhaul delivery, compression receipt, compression delivery.

Zone in which the service point is allocated.

Note that there may be multiple records in the service point table for a service point where different limits will be required by the facility operator. For example, where a forward haul receipt point is also a backhaul delivery point the service points will be shown as separate records. This approach will allow the facility operator to provide a different auction quantity limit for the for the forward haul receipt point (unused capacity) and the backhaul delivery point (scheduled flow).

Table 2.6: Replica of zones table

Name	Type	Description
See section 2.3 for convention.		A description will be added where it aids the interpretation

Options include: receipt, delivery, compression receipt, compression delivery. Note: backhaul is not allocated to a zone.

Table 2.7: Replica of pipeline segments table

Name	Type	From Location	To Location
See section 2.3 for convention		If the segment is forward haul, this will be a zone/s on that facility. If the segment is backhaul, this will be a backhaul point/s on that facility.	If the segment is forward haul, this will be a zone/s on that facility. If the segment is backhaul, this will be a backhaul point/s on that facility.

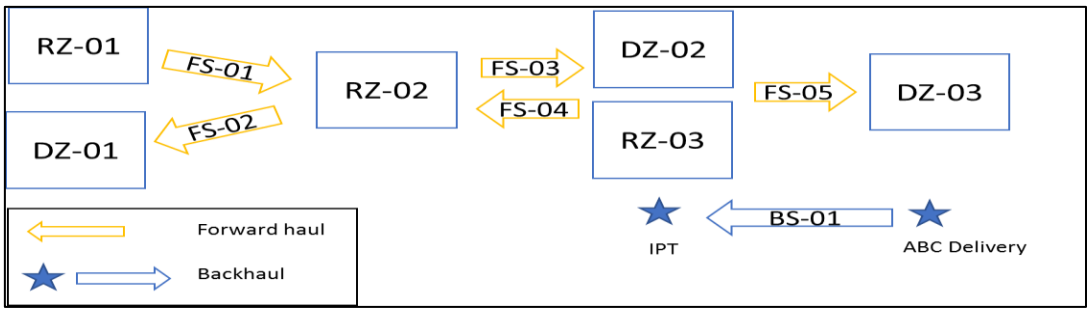
Options include: forward haul and backhaul.

From and to locations define the segment and its direction.

Note that a pipeline segment may have multiple From Locations and To Locations specified in the table which allows the flow to those locations to share a common auction quantity limit.

In those cases where a pipeline has more than one pipeline segment, a schematic is also included to show how the zones and pipeline segments fit together. An example of the schematics used in Chapters 3-27 is provided in Figure 2.3.

Figure 4: Replica of pipeline schematic



Part A: Transmission Pipelines

3 South West Queensland Pipeline

3.1 Key facility information

Table 3.1: Key facility information

Key information	Detail
Facility name	South West Queensland Pipeline (SWQP)
Facility operator/owner	APA Group
Location	South Australia – Queensland
Single or bi-directional pipeline	Bi-directional pipeline
Services that will be available through the CTP and DAA	Forward haul, Park (CTP only)
Subject to CTP?	Yes
Subject to DAA?	Yes

The South West Queensland Pipeline (SWQP) is a bi-directional pipeline between Moomba and Wallumbilla. Compression facilities at Moomba and Wallumbilla on the SWQP have been separated into stand-alone facilities (see Part B: Compression for further details).

3.2 Service points

Name	Type	Zone Name	Description
Moomba HP Trade Point	Receipt	SWQP-RZ-01	Connection from Moomba Compression Facility
Ballera Entry	Receipt	SWQP-RZ-02	Connection from Ballera Gas Plant, CGP
Fairview	Receipt	SWQP-RZ-03	
Wallumbilla HP Trade Point	Receipt	SWQP-RZ-03	Connection from Wallumbilla Compression Facility 1
MAPS Exit	Delivery	SWQP-DZ-01	Connects to MAPS
MSP Exit	Delivery	SWQP-DZ-01	Connects to MSP
Moomba HP Trade Point	Delivery	SWQP-DZ-02	Notional point
Ballera Exit	Delivery	SWQP-DZ-03	Connects to Ballera Gas Plant, Ballera Compression Facility, CGP
Tarbat	Delivery	SWQP-DZ-04	
Cheepie	Delivery	SWQP-DZ-04	
Roma	Delivery	SWQP-DZ-04	
Wallumbilla LP Trade Point	Delivery	SWQP-DZ-05	Connects to Wallumbilla Compression Facility 1
GLNG Delivery Stream	Delivery	SWQP-DZ-05	Connects to Wallumbilla Compression Facility 2

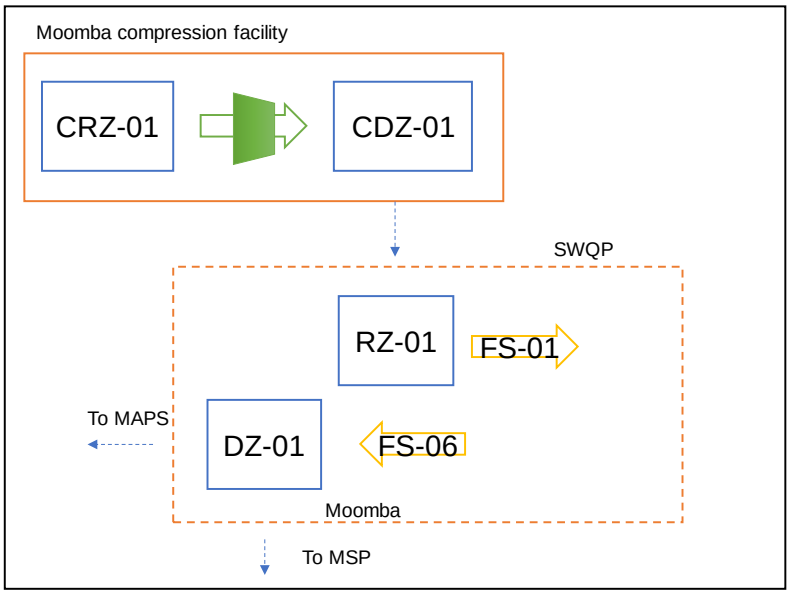
Moomba Receipt Points

When transporting gas on the SWQP from Moomba a shipper requires access to a compression service. A shipper may have an existing contract for access to a compression service or may purchase a service through the CTP or DAA.

The Moomba Compression Facility (MCF) will be established as a separate facility to the SWQP (see Chapter 25 for further details). The Moomba HP Trade Point on the SWQP is the outlet of the Moomba Compressor Facility and it is proposed this service point is:

- the compression delivery point on the MCF; and
- the receipt point on the SWQP.

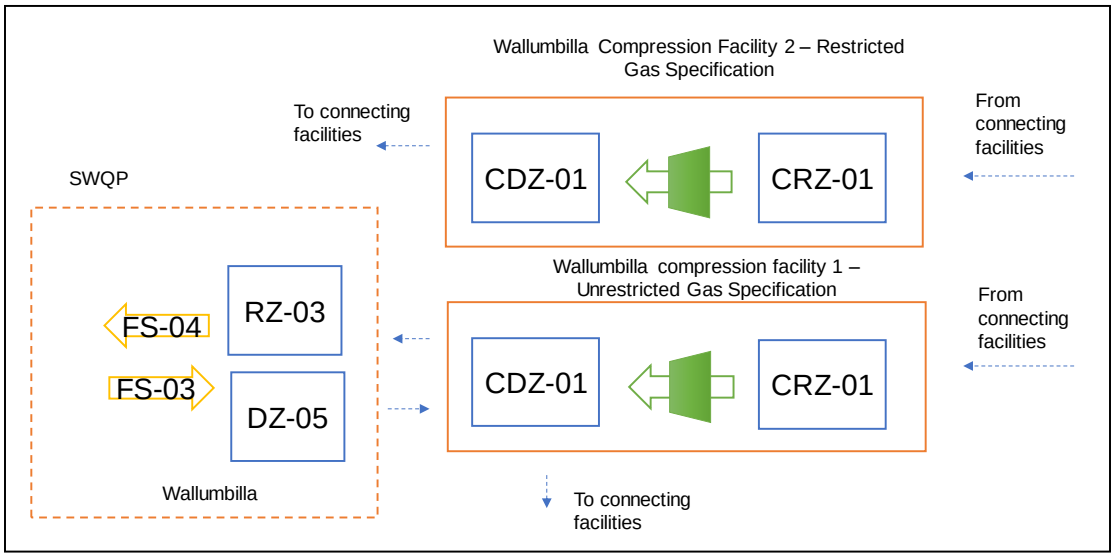
Figure 5: Connection between the SWQP and the Moomba Compression Facility



Wallumbilla Receipt from WCF1

The Wallumbilla Compression Facilities will be established as separate facilities to the SWQP (see Chapters 23 and 24 for further detail). The Wallumbilla HP Trade Point is a receipt point on the SWQP that represents gas that has been transferred from the Wallumbilla Compression Facility 1. The Wallumbilla HP Trade Point is also specified as the compression delivery point on the Wallumbilla Compression Facility 1.

Figure 6: Connection between SWQP and Wallumbilla Compression



Wallumbilla Delivery Points

The Wallumbilla hub is a connection point for many gas pipelines in southern Queensland. Gas delivered to Wallumbilla on the SWQP can be transferred to connecting gas pipelines via Wallumbilla Compression Facility 1.

The Wallumbilla LP Trade point is a delivery point on the SWQP at Wallumbilla and is also the compression receipt point on the Wallumbilla Compression Facility 1.

Park Service Points

APA Group has proposed that the Moomba HP Trade Point and the Wallumbilla HP Trade Point are used as park service points on the SWQP.

3.3 Proposed zones

Name	Type	Description
SWQP-RZ-01	Receipt	Moomba
SWQP-RZ-02	Receipt	Ballera
SWQP-RZ-03	Receipt	Wallumbilla
SWQP-DZ-01	Delivery	Moomba connection to MSP and MAPS
SWQP-DZ-02	Delivery	Moomba Trade Point
SWQP-DZ-03	Delivery	Ballera
SWQP-DZ-04	Delivery	South West Queensland
SWQP-DZ-05	Delivery	Wallumbilla

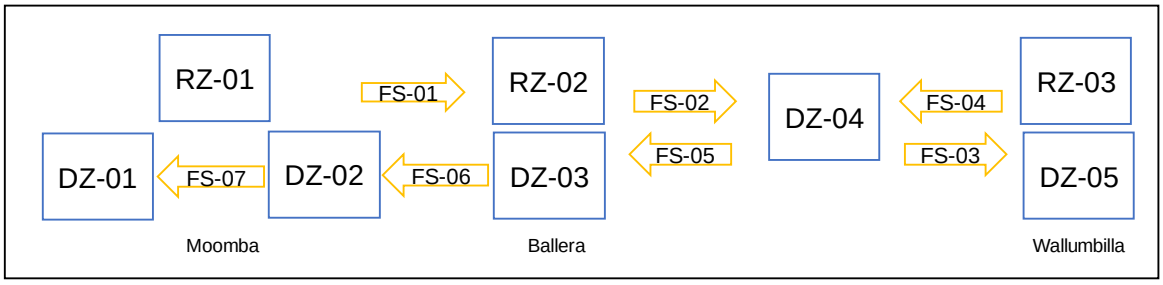
3.4 Proposed pipeline segments

Name	Type	From Location	To Location
SWQP-FS-01	Forward haul	RZ-01	RZ-02, DZ-03
SWQP-FS-02	Forward haul	RZ-02, DZ-03	DZ-04
SWQP-FS-03	Forward haul	DZ-04	DZ-05
SWQP-FS-04	Forward haul	RZ-03	DZ-04
SWQP-FS-05	Forward haul	DZ-04	RZ-02, DZ-03
SWQP-FS-06	Forward haul	RZ-02, DZ-03	DZ-02
SWQP-FS-07	Forward haul	DZ-02	DZ-01

Pipeline segments connecting to Ballera Zones

The pipeline segments to and from Ballera will connect to the Ballera receipt and delivery zones. This allows flows exiting or entering SWQP at Ballera to share the same pipeline segments (and hence constraints) with gas flows between Moomba and Wallumbilla.

Figure 7: SWQP proposed pipeline zones and segments



4 Roma to Brisbane Pipeline

4.1 Key facility information

Table 4.1: Key facility information

Key information	Detail
Facility name	Roma to Brisbane Pipeline (RBP)
Facility operator/owner	APA Group
Location	Queensland
Single or bi-directional pipeline	Single and bi-directional pipeline segments
Services that will be available through the CTP and DAA	Forward haul, Park (CTP only), Backhaul (DAA only)
Subject to CTP?	Yes
Subject to DAA?	Yes

The Roma to Brisbane Pipeline (RBP) has bi-directional and single direction pipeline segments. The pipeline is bi-directional between Wallumbilla and Kogan allowing forward haul services to be traded in an eastern and western direction. Between Kogan and Brisbane the pipeline allows forward haul in an eastern direction only.

4.2 Service points

Name	Type	Zone Name	Description
Wallumbilla Run 3	Receipt	RBP-RZ-01	
Wallumbilla Run 4	Receipt	RBP-RZ-01	
Wallumbilla Run 7	Receipt	RBP-RZ-01	
Wallumbilla Run 1	Receipt	RBP-RZ-02	10-inch pipeline
Wallumbilla Run 2	Receipt	RBP-RZ-02	10-inch pipeline
Scotia	Receipt	RBP-RZ-03	
Woodroyd	Receipt	RBP-RZ-03	
Argyle	Receipt	RBP-RZ-04	
Condamine	Receipt	RBP-RZ-04	
Kogan North	Receipt	RBP-RZ-04	
Windibri	Receipt	RBP-RZ-04	
RBP Trade Point (IPT)	Receipt	RBP-RZ-04	Notional trade point, Park service withdrawal
Wallumbilla delivery	Delivery	RBP-DZ-01	
Braemar PS	Delivery	RBP-DZ-02	Power station
RBP Trade Point (IPT)	Delivery	RBP-DZ-03	Notional trade point, Backhaul delivery point, Park service injection

Name	Type	Zone Name	Description
Oakey PS	Delivery	RBP-DZ-04	Power station
Swanbank PS	Delivery	RBP-DZ-04	Power station, Brisbane STTM Hub Custody Transfer Point
Dalby Bio Refinery	Delivery	RBP-DZ-04	10-inch pipeline
Dalby Town Council	Delivery	RBP-DZ-04	Gate station, 10-inch pipeline
Oakey APT Allgas	Delivery	RBP-DZ-04	Gate station, 10-inch pipeline
Sandy Creek	Delivery	RBP-DZ-04	Gate station, 10-inch pipeline
Toowoomba	Delivery	RBP-DZ-04	Gate station, 10-inch pipeline
Redbank	Delivery	RBP-DZ-04	Gate station, Brisbane STTM Hub Custody Transfer Point
Riverview	Delivery	RBP-DZ-04	Gate station, Brisbane STTM Hub Custody Transfer Point
Ellen Grove	Delivery	RBP-DZ-05	Gate station, Brisbane STTM Hub Custody Transfer Point
Mt Gravatt	Delivery	RBP-DZ-05	Gate station, Brisbane STTM Hub Custody Transfer Point
Runcorn	Delivery	RBP-DZ-05	Gate station, Brisbane STTM Hub Custody Transfer Point
Ritchie Road	Delivery	RBP-DZ-05	Gate station, Brisbane STTM Hub Custody Transfer Point
Gibson Island	Delivery	RBP-DZ-06	Brisbane STTM Hub Custody Transfer Point
Lytton	Delivery	RBP-DZ-06	Brisbane STTM Hub Custody Transfer Point
Murarrie	Delivery	RBP-DZ-06	Gate station, Brisbane STTM Hub Custody Transfer Point
Tingalpa	Delivery	RBP-DZ-06	Gate station, Brisbane STTM Hub Custody Transfer Point
Brisbane STTM nomination point	Backhaul receipt point	N/A	Brisbane STTM hub

Notional point

The RBP Trade Point (IPT) is a notional point that is used by shippers as the delivery point for commodity trading on the RBP. This point is notionally allocated to the Kogan receipt and delivery zone. It is proposed that the RBP Trade Point will be a forward haul receipt and delivery point as well as a backhaul delivery point.

Park service point

APA Group has proposed that the RBP Trade Point be used as the park service point. A shipper that wants to use the park service will therefore need to have a transportation service that allowed it to transport gas to and from this service point, which could be acquired through the CTP or DAA.

STTM nomination point

The STTM nomination point is currently used for allocating gas deliveries to STTM shippers using services to and from the Brisbane STTM hub. It is proposed that the STTM nomination point be specified as a backhaul receipt point, which would allow gas scheduled to flow to the Brisbane STTM hub to be offset and supplied upstream of the hub.

The auction will run after the STTM ex ante market has produced a schedule for gas flows to and from the Brisbane STTM hub. Unlike the Sydney and Adelaide STTM hubs, there is no additional gas supply to Brisbane and as such, a participant would need to reduce demand to supply gas to a backhaul service. For a participant that also supplies gas to the hub, an alternative to a backhaul service would be to re-nominate down their deliveries to the hub.

AEMO and the GMRG are seeking stakeholder feedback on whether a backhaul service from the Brisbane STTM hub to the RBP Trade Point is likely to have a reasonable level of demand.

4.3 Proposed zones

Name	Type	Description
RBP-RZ-01	Receipt	Wallumbilla
RBP-RZ-02	Receipt	Wallumbilla (10-inch pipeline)
RBP-RZ-03	Receipt	Scotia
RBP-RZ-04	Receipt	Darling Downs (10-inch pipeline)
RBP-DZ-01	Delivery	Wallumbilla
RBP-DZ-02	Delivery	Braemar power station
RBP-DZ-03	Delivery	RBP Trade Point
RBP-DZ-04	Delivery	Gas powered generators, Darling Downs, Brisbane STTM mixed zone
RBP-DZ-05	Delivery	Brisbane STTM split zone
RBP-DZ-06	Delivery	Brisbane STTM split zone

Brisbane Zones

As noted in section 2.2, it is proposed that delivery points defined as Brisbane STTM Hub Custody Transfer Points be split between the following three delivery zones.

- Custody transfer points east of Ellengrove have been split into a separate zone due to the potential risk for the rejection of nominations associated with trades that move capacity from the western suburbs of Brisbane to the eastern suburbs of Brisbane. Modelling performed by the APA Group showed that the transfer of delivery capacity from Ellengrove to Murrarie would breach minimum pressure requirements at the eastern end of the RBP.

- Swanbank delivery point is a Brisbane Hub STTM Custody Transfer Point but has not been grouped into the same zone as other Brisbane delivery points. This designation is based on advice from APA Group that capacity at the Swanbank power station cannot be transferred to Brisbane delivery points located to the east of the power station. Instead, the Swanbank delivery point has been grouped into a delivery zone (DZ-04) with the Oakey power station delivery point to enable trade to occur between these parties.
- The Redbank and Riverview delivery points, along with non-STTM delivery points to the west of Brisbane on the 10-inch pipeline, have been allocated to the same delivery zone as the Swanbank and Oakey power station (DZ-04).

Braemar

It is proposed that the Braemar power station delivery point be allocated to its own zone. While consideration was given to allocating this point to the same zone as the Oakey and Swanbank power stations, APA Group advised that the trading of capacity from Braemar power station to zone DZ-04 would reduce the capacity available to shippers using delivery points in that zone.

Pipeline configuration

The RBP consists of a 10-inch and a 16-inch pipeline. Receipt points on the 10-inch pipeline at Wallumbilla have been split into a separate zone (RZ-02) from the receipt points on the 16-inch pipeline (RZ-01). In comparison, delivery points on the 10-inch pipeline have been grouped with delivery points on the 16-inch pipeline (DZ-04)

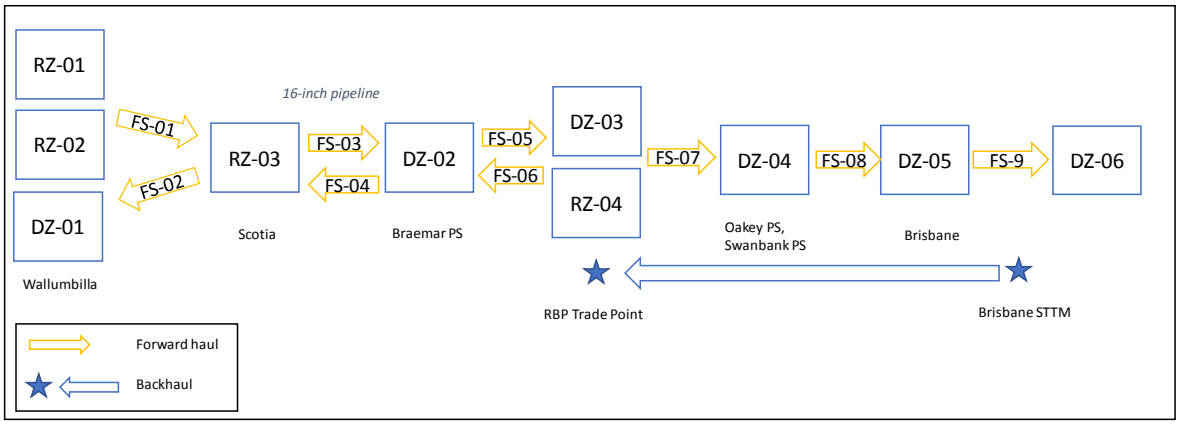
4.4 Proposed pipeline segments

Name	Type	From Location	To Location
RBP-FS-01	Forward	RZ-01, RZ-02	RZ-03
RBP-FS-02	Forward	RZ-03	DZ-01
RBP-FS-03	Forward	RZ-03	DZ-02
RBP-FS-04	Forward	DZ-02	RZ-03
RBP-FS-05	Forward	DZ-02	RZ-04, DZ-03
RBP-FS-06	Forward	RZ-04	DZ-02
RBP-FS-07	Forward	RZ-04	DZ-04
RBP-FS-08	Forward	DZ-04	DZ-05
RBP-FS-11	Forward	DZ-05	DZ-06
RBP-BS-01	Backhaul	Brisbane STTM nomination point	RBP Trade Point (IPT)

Backhaul segment

The backhaul segment connects the STTM nomination point (backhaul receipt) with the RBP Trade Point (backhaul delivery). A backhaul auction service could be combined with a forward haul service to the west or east from the Kogan receipt zone.

Figure 8: RBP proposed pipeline zones and segments



5 Berwyndale to Wallumbilla Pipeline

5.1 Key facility information

Table 5.1: Key facility information

Key information	Detail
Facility name	Berwyndale to Wallumbilla Pipeline (BWP)
Facility operator/owner	APA Group
Location	Queensland
Single or bi-directional pipeline	Bi-directional
Services that will be available through the CTP and DAA	Forward haul only APA has advised that park services are not currently sold on this pipeline
Subject to CTP?	Yes
Subject to DAA?	Yes

5.2 Service points

Name	Type	Zone Name	Description
Wallumbilla	Receipt	BWP-RZ-01	
Berwyndale Entry (SO4)	Receipt	BWP-RZ-02	
Wallumbilla	Delivery	BWP-DZ-01	
Silver Springs	Delivery	BWP-DZ-01	
Berwyndale Exit (SO4)	Delivery	BWP-DZ-02	

5.3 Proposed zones

Name	Type	Description
BWP-RZ-01	Receipt	Wallumbilla
BWP-RZ-02	Receipt	Berwyndale
BWP-DZ-01	Delivery	Wallumbilla
BWP-DZ-02	Delivery	Berwyndale

5.4 Proposed pipeline segments

Name	Type	From Location	To Location
BWP-FS-01	Forward	RZ-01	DZ-02
BWP-FS-02	Forward	RZ-02	DZ-01

6 Wallumbilla to Gladstone Pipeline

6.1 Key facility information

Table 6.1: Key facility information

Key information	Detail
Facility name	Wallumbilla to Gladstone Pipeline (WGP)
Facility operator/owner	APA Group
Location	Queensland
Single or bi-directional pipeline	Single
Services that will be available through the CTP and DAA	Forward haul only APA has advised that park services are not available for trade on this pipeline
Subject to CTP?	Yes
Subject to DAA?	Yes

6.2 Service points

Name	Type	Zone Name	Description
Ruby Jo	Receipt	WGP-RZ-01	Connects to Ruby Jo production facility
Jordan	Receipt	WGP-RZ-01	Connects to Jordan production facility
Kenya – R	Receipt	WGP-RZ-01	Connects to Kenya Gas Plant
Kenya – D	Delivery	WGP-DZ-01	
Bellevue - R	Receipt	WGP-RZ-01	Bellevue
Bellevue - D	Delivery	WGP-DZ-01	
Woleebee Creek	Receipt	WGP-RZ-01	Connects to Woleebee Creek production facility
Wandoan Interconnect Facility - R	Receipt	WGP-RZ-01	Connects to APLNG Pipeline
Mt Larcom - R	Receipt	WGP-RZ-02	Connects to GLNG Gas Transmission Pipeline
Mt Larcom – D	Delivery	WGP-DZ-02	Connects to GLNG Gas Transmission Pipeline
Curtis Island - D	Delivery	WGP-DZ-02	Connects to QCLNG plant

6.3 Proposed zones

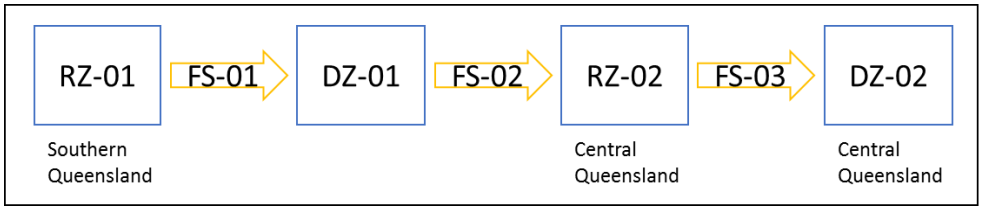
Name	Type	Description
WGP-RZ-01	Receipt	Southern Queensland
WGP-DZ-01	Delivery	

Name	Type	Description
WGP-RZ-02	Receipt	Central Queensland
WGP-DZ-02	Delivery	Central Queensland

6.4 Proposed pipeline segments

Name	Type	From Location	To Location
WGP-FS-01	Forward haul	RZ-01	DZ-01
WGP-FS-02	Forward haul	DZ-01	RZ-02
WGP-FS-03	Forward haul	RZ-02	DZ-02

Figure 9: Wallumbilla to Gladstone proposed pipeline zones and segments



7 Carpentaria Gas Pipeline

7.1 Key facility information

Table 7.1: Key facility information

Key information	Detail
Facility name	Carpentaria Gas Pipeline (CGP)
Facility operator/owner	APA Group
Location	Queensland
Single or bi-directional pipeline	Bi-directional Note that while the CGP is currently a single direction pipeline, APA has advised of its intention to convert this to a bi-directional pipeline to enable gas to flow from the NGP Interconnect in Mt Isa to Ballera from late 2018.
Services that will be available through the CTP and DAA	Forward haul service only APA has advised that park services are not currently sold on this pipeline
Subject to CTP?	Yes
Subject to DAA?	Yes

7.2 Service points

Name	Type	Zone Name	Description
Ballera	Receipt	CGP-RZ-01	Connection from Ballera Compression Facility
Ballera Trade Point	Receipt	CGP-RZ-01	Notional point
NGP Interconnect	Receipt	CGP-RZ-02	Connection from NGP
Ballera Trade Point	Delivery	CGP-DZ-01	Notional point
Phosphate Hill	Delivery	CGP-DZ-02	
Cannington Mine	Delivery	CGP-DZ-03	
Osborne	Delivery	CGP-DZ-03	
Diamantina Power	Delivery	CGP-DZ-04	Power station
Mica Creek Power Station	Delivery	CGP-DZ-04	Power station
Mt Isa Mines	Delivery	CGP-DZ-04	

7.3 Proposed zones

Name	Type	Description
CGP-RZ-01	Receipt	Ballera
CGP-RZ-02	Receipt	NGP
CGP-DZ-01	Delivery	Ballera

Name	Type	Description
CGP-DZ-02	Delivery	Phosphate Hill
CGP-DZ-03	Delivery	Cannington
CGP-DZ-04	Delivery	Mt Isa

Cannington Delivery Zone

The Cannington and Osborne delivery points have been allocated to a separate zone to the Phosphate Hill delivery point because they are located on a relatively small lateral off the CGP main line. APA Group has advised that if the delivery points were to be grouped together that it is highly unlikely that capacity transferred from Phosphate Hill could be used at Cannington.

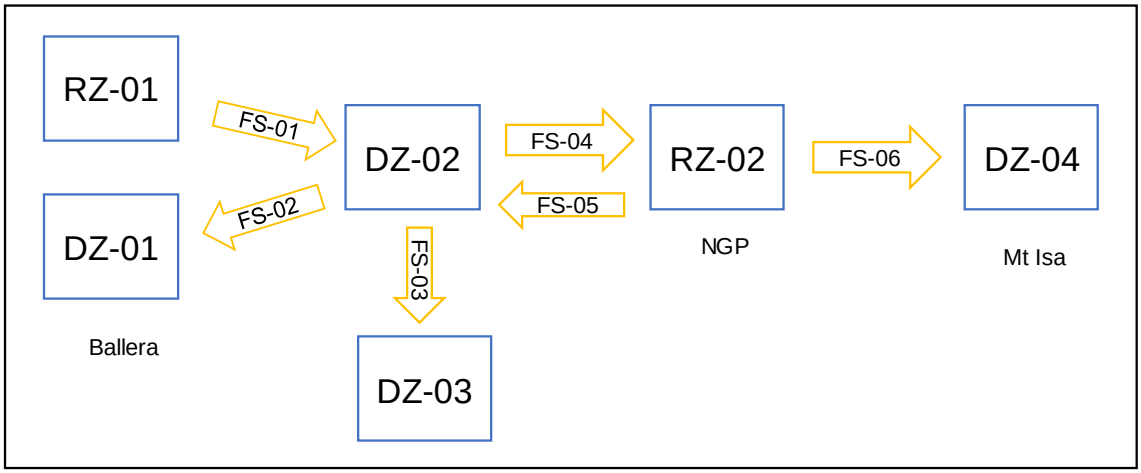
7.4 Proposed pipeline segments

Name	Type	From Location	To Location
CGP-FS-01	Forward	RZ-01	DZ-02
CGP-FS-02	Forward	DZ-02	DZ-01
CGP-FS-03	Forward	DZ-02	DZ-03
CGP-FS-04	Forward	DZ-02	RZ-02
CGP-FS-05	Forward	RZ-02	DZ-02
CGP-FS-06	Forward	RZ-02	DZ-04

The proposed forward haul pipeline segments are as follows:

- Bi-directional flows to and from Ballera (FS-01, FS-02).
- Flow from Phosphate Hill to Cannington Mine and Osborne (FS-03).
- Bi-directional flows to and from NGP interconnect (FS-04, FS-05).
- Flow to from the NGP Interconnect to the Mt Isa delivery zone (FS-06)

Figure 10: CGP proposed pipeline zones and segments.



8 Darling Downs Pipeline

8.1 Key facility information

Table 8.1: Key facility information

Key information	Detail
Facility name	Darling Downs Pipeline (DDP)
Facility operator/owner	Jemena
Location	Queensland, from Wallumbilla to Darling Downs
Single or bi-directional pipeline	Bi-directional
Services that will be available through the CTP and DAA	Forward haul only. Jemena has advised there are no park services on this pipeline.
Subject to CTP?	Yes
Subject to DAA?	Yes

8.2 Service points

Name	Type	Zone Name	Description
Spring Gully to Darling Downs Pipeline	Receipt	DDP-RZ-01	Connection from SGP
Wallumbilla Run 9	Delivery	DDP-DZ-01	
DDP to SGP	Delivery	DDP-DZ-02	Connection to SGP
Talinga	Receipt	DDP-RZ-02	Connection point from Talinga Compression
APLNG to DDP	Receipt	DDP-RZ-02	Connection point from APLNG Pipeline
DDP to APLNG	Delivery	DDP-DZ-03	Connection point to APLNG Pipeline
Tallinga	Delivery	DDP-DZ-03	Delivery to Talinga Compression
Orana	Receipt	DDP-RZ-03	Connection from Orana Gas Plant
Kenya	Receipt	DDP-RZ-03	Connection from Kenya Gas Plant
Ruby	Receipt	DDP-RZ-03	Connection from Ruby Jo Gas Plant
Darling Downs Power Station	Delivery	DDP-DZ-04	Power station

8.3 Proposed zones

Name	Type	Description
DDP-RZ-01	Receipt	SGP Wallumbilla
DDP-DZ-01	Delivery	Wallumbilla
DDP-DZ-02	Delivery	SGP
DDP-RZ-02	Receipt	APLNG/Talinga

Name	Type	Description
DDP-DZ-03	Delivery	APLNG/Talinga
DDP-RZ-03	Receipt	APLNG Surat Basin
DDP-DZ-04	Delivery	Darling Downs Power Station

The DDP can be divided into three sections:

1. *Wallumbilla section:* where RZ-01 is for receipts from Spring Gully, and DZ-01 and DZ-02 are for deliveries into the Wallumbilla compound and the SGP.

2. *Talinga section:* where RZ-02 is for receipts from the Talinga Compression or APLNG's Gladstone pipeline, and DZ-03 is for deliveries to Talinga Compression or APLNG's pipeline.

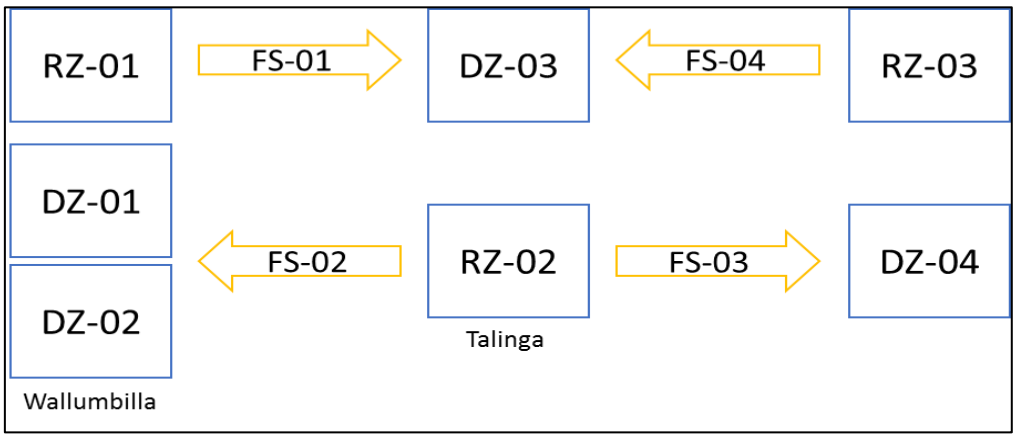
3. *Darling Downs section:* RZ-03 where gas can be receipted from the Surat Basin, and DZ-04 where gas can be delivered to the Darling Downs Power Station.

To move gas from RZ-03 to DZ-03, compression at Talinga is required. AEMO and the GMRG understand that the Talinga Compression Facility is owned by APLNG and that it intends to seek an exemption from the capacity trading reforms because it is not currently providing third party access. Participants seeking access to this facility would therefore need to enter into a bilateral agreement with APLNG.

8.4 Proposed pipeline segments

Name	Type	From Location	To Location
DDP-FS-01	Forward Haul	RZ-01	DZ-03
DDP-FS-02	Forward Haul	RZ-02	DZ-04
DDP-FS-03	Forward Haul	RZ-02	DZ-01, DZ-02
DDP-FS-04	Forward Haul	RZ-03	DZ-03

Figure 11: DDP proposed pipeline zones and segments



9 Spring Gully Pipeline

9.1 Key facility information

Table 9.1: Key facility information

Key information	Detail
Facility name	Spring Gully Pipeline (SGP)
Facility operator/owner	Jemena
Location	Queensland, Spring Gully to Wallumbilla and Darling Downs Pipeline
Single or bi-directional pipeline	Bi-directional
Services that will be available through the CTP and DAA	Forward haul only Jemena has advised that there are no park services available on this pipeline.
Subject to CTP?	Yes
Subject to DAA?	Yes

9.2 Service points

Name	Type	Zone Name	Description
Spring Gully Gas Plant and Strathblane Gas Plant	Receipt	SGP-RZ-01	Connection from Strathblane Gas Plants
Taloona Gas Plant	Receipt	SGP-RZ-01	Connection from Taloona Gas Plant
Darling Downs Pipeline	Receipt	SGP-RZ-02	Connection from DDP
Wallumbilla – Run 6	Delivery	SGP-DZ-01	Connection to the SWQP
Wallumbilla – Run 7	Delivery	SGP-DZ-01	Connection the RBP
Santos WCS	Delivery	SGP-DZ-01	Connection to Santos Wallumbilla Compressor Station
Darling Downs Pipeline	Delivery	SGP-DZ-01	Connection Darling Downs Pipeline
Spring Gully Gathering Line Pipeline	Delivery	SGP-DZ-02	Connection to APLNG Gooimbah Pipeline

9.3 Proposed zones

Name	Type	Description
SGP-RZ-01	Receipt	Spring Gully receipts from gas plants in northern section of pipeline
SGP-RZ-02	Receipt	Spring Gully receipts from DDP in southern section of pipeline
SGP-DZ-01	Delivery	Wallumbilla
SGP-DZ-02	Delivery	Spring Gully deliveries to APLNG's SGGL pipeline

9.4 Proposed pipeline segments

Name	Type	From Location	To Location
SGP-FS-01	Forward haul	RZ-01	DZ-01
SGP-FS-02	Forward haul	RZ-02	DZ-02

10 Queensland Gas Pipeline

10.1 Key facility information

Table 10.1: Key facility information

Key information	Detail
Facility name	Queensland Gas Pipeline (QGP)
Facility operator/owner	Jemena
Location	Queensland, Wallumbilla to Gladstone and Rockhampton
Single or bi-directional pipeline	Single direction
Services that will be available through the CTP and DAA	Forward haul, Part (CTP only), Backhaul (DAA only), Jemena has advised that no firm park services are available on this pipeline.
Subject to CTP?	Yes
Subject to DAA?	Yes

10.2 Service points

Name	Type	Zone Name	Description
Wallumbilla Injection	Receipt	QGP-RZ-01	Injections into the QGP from Wallumbilla Hub
Wallumbilla Backhaul Delivery Point	Backhaul Delivery Point	N/A	Delivery point for QGP's backhaul service from all backhaul receipt points
Fairview	Receipt	QGP-RZ-02	Forward haul receipt point from Fairview, also a backhaul receipt point
Gooimbah	Receipt	QGP-RZ-02	Forward haul receipt point at Gooimbah, also a backhaul receipt point
Westgrove	Receipt	QGP-RZ-02	Forward haul receipt point at Westgrove, also a backhaul receipt point
Rolleston	Receipt	QGP-RZ-03	Forward haul receipt point at Rolleston, also a backhaul receipt point
Moura	Delivery	QGP-DZ-01	Moura delivery point
Moura	Receipt	QGP-RZ-04	Forward haul receipt point at Moura, also a backhaul receipt point
Queensland Nitrates Plant	Delivery	QGP-DZ-01	
Boyne Island	Delivery	QGP-DZ-02	
Yarwun	Delivery	QGP-DZ-02	
Gladstone	Delivery	QGP-DZ-02	Distribution network
Orica	Delivery	QGP-DZ-02	
Queensland Alumina	Delivery	QGP-DZ-02	
Wide Bay	Delivery	QGP-DZ-02	

Name	Type	Zone Name	Description
Northern Oil Refineries	Delivery	QGP-DZ-02	
Queensland Magnesia	Delivery	QGP-DZ-03	
Rockhampton	Delivery	QGP-DZ-03	Distribution network

Backhaul service points

The proposed backhaul service points for the DAA include:

- the receipt points located downstream of Wallumbilla (e.g. Fairview, Gooimbah, Westgrove, Rolleston and Moura), which will be backhaul receipt points; and
- Wallumbilla, which will be a backhaul delivery point.

AEMO and the GMRG are seeking feedback on the proposed specification of these backhaul points.

10.3 Proposed zones

Name	Type	Description
QGP-RZ-01	Receipt	Wallumbilla
QGP-RZ-02	Receipt	Mid-line Receipt
QGP-RZ-03	Receipt	Rolleston
QGP-RZ-04	Receipt	Moura
QGP-DZ-01	Delivery	Moura
QGP-DZ-02	Delivery	Gladstone
QGP-DZ-03	Delivery	Rockhampton

RZ-02 is the receipt zone for receipt points between Wallumbilla and Rolleston. Jemena's preliminary advice was for all receipt points in RZ-02 to be in separate zones. However, AEMO and the GMRG consider that splitting the three receipt points into separate zones would split liquidity in the CTP and DAA. Following advice from Jemena, Rolleston has been excluded from RZ-02 and is instead included in RZ-03 due to a significant capacity reduction between Westgrove and Rolleston.

AEMO and the GMRG are seeking feedback on the proposed specification of RZ-02 and DZ-02.

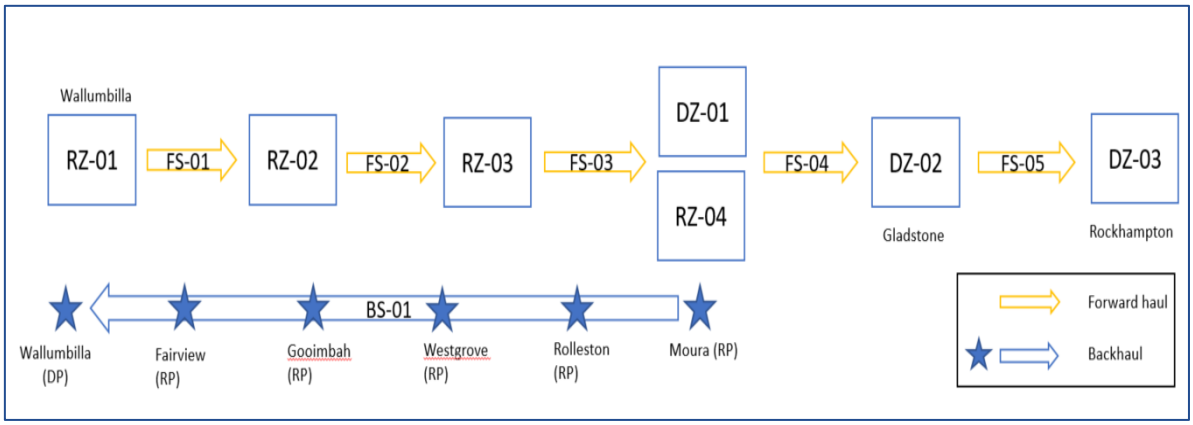
10.4 Proposed pipeline segments

Name	Type	From Location	To Location
QGP-FS-01	Forward haul	RZ-01	RZ-02
QGP-FS-02	Forward haul	RZ-02	RZ-03
QGP-FS-03	Forward haul	RZ-03	DZ-01, RZ-04
QGP-FS-04	Forward haul	DZ-01,RZ-04	DZ-02
QGP-FS-05	Forward Haul	DZ-02	DZ-03
QGP-BS-01	Backhaul	Moura Receipt, Rolleston Receipt, Westgrove Receipt, Gooimbah Receipt, Fairview Receipt	Wallumbilla Delivery

Backhaul segments

Backhaul on the QGP can only be delivered to Wallumbilla. As such, backhaul needs to be against the net firm forward flow on the QGP injected at Wallumbilla. BS-01 represents physical injections at Wallumbilla for delivery downstream. Any backhaul service from a backhaul receipt point on the QGP will need to acquire a share of the backhaul segment (BS-01).

Figure 12: QGP proposed zones and pipeline segments



11 North Queensland Gas Pipeline

11.1 Key facility information

Table 11.1: Key facility information

Key information	Detail
Facility name	North Queensland Gas Pipeline (NQGP)
Facility operator/owner	Palisade Asset Management Pty Ltd
Location	North Queensland
Single or bi-directional pipeline	Single direction
Services that will be available through the CTP and DAA	Forward haul only Palisade has advised that they don't offer park services on this pipeline.
Subject to CTP?	Yes
Subject to DAA?	Yes
Other information	The NQGP does not include compressor stations that are part of the Moranbah Gas Plant. It is understood that compression would be purchased by a shipper when, or as part of, their gas transaction. As such compression rights would not be part of the auction service purchased on the NQGP.

11.2 Service points

Name	Type	Zone Name	Description
Moranbah Gas Plant	Receipt	NQGP-RZ-01	
QNI (Yabulu)*	Delivery	NQGP-DZ-01	
TPS (Yabulu)*	Delivery	NQGP-DZ-01	Power station
CRL (Stuart)	Delivery	NQGP-DZ-01	

* The Townsville Power Station and QNI delivery points are supplied via the Yabulu metering station.

11.3 Proposed zones

Name	Type	Description
NGP-RZ-01	Receipt	Moranbah
NGP-DZ-01	Delivery	Townsville

11.4 Proposed pipeline segments

Name	Type	From Location	To Location
NQGP-FS-01	Forward haul	NQGP-RZ-01	NQGP-DZ-01

12 Amadeus Gas Pipeline

12.1 Key facility information

Table 12.1: Key facility information

Key information	Detail
Facility name	Amadeus Gas Pipeline (AGP)
Facility operator/owner	APA Group
Location	Northern Territory
Single or bi-directional pipeline	Bi-directional
Services that will be available through the CTP and DAA	Forward haul only
Subject to CTP?	Yes
Subject to DAA?	No – subject to a derogation.

12.2 Service points

Name	Type	Zone Name	Description
Mereenie	Receipt	AGP-RZ-01	
Palm Valley	Receipt	AGP-RZ-01	
Palm Valley Interconnect	Delivery	AGP-DZ-01	
Tennant Creek	Delivery	AGP-DZ-02	
NGP	Delivery	AGP-DZ-02	Connects to NGP
Elliot	Delivery	AGP-DZ-02	
Daly Waters	Delivery	AGP-DZ-03	
Katherine	Delivery	AGP-DZ-03	
Katherine (line pressure)	Delivery	AGP-DZ-03	
Pine Creek	Delivery	AGP-DZ-03	
Bonaparte	Receipt	AGP-RZ-02	
Channel Island Line	Delivery	AGP-DZ-04	
Channel Island HP	Delivery	AGP-DZ-04	
Channel Island LP	Delivery	AGP-DZ-04	
Townend Road	Delivery	AGP-DZ-04	
Darwin City Gate (to DDS)	Delivery	AGP-DZ-04	
Darwin City Gate (to WPP)	Delivery	AGP-DZ-04	

Name	Type	Zone Name	Description
Wickham Point	Receipt	AGP-RZ-03	Connects to the Wickham Point Pipeline (that can deliver gas from the Darwin LNG facility)

12.3 Proposed zones

Name	Type	Description
AGP-RZ-01	Receipt	Alice Springs
AGP-RZ-02	Receipt	Bonaparte
AGP-RZ-03	Receipt	Darwin
AGP-DZ-01	Delivery	Alice Springs
AGP-DZ-02	Delivery	Tennent Creek
AGP-DZ-03	Delivery	Katherine
AGP-DZ-04	Delivery	Darwin

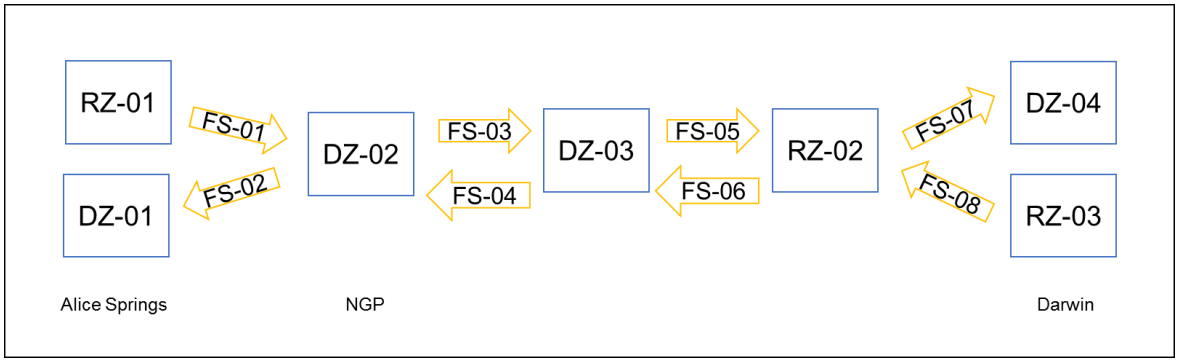
12.4 Proposed pipeline segments

Name	Type	From Location	To Location
AGP-FS-01	Forward haul	RZ-01	DZ-02
AGP-FS-02	Forward haul	DZ-02	DZ-01
AGP-FS-03	Forward haul	DZ-02	DZ-03
AGP-FS-04	Forward haul	DZ-03	DZ-02
AGP-FS-05	Forward haul	DZ-03	RZ-02
AGP-FS-06	Forward haul	RZ-02	DZ-03
AGP-FS-07	Forward haul	RZ-02	DZ-04
AGP-FS-08	Forward haul	RZ-03	RZ-02

The proposed forward haul pipeline segments are as follows:

- Bi-directional flow to and from Alice Springs (FS-01, FS-02).
- Bi-directional flow between the Katherine and Tennant Creek delivery zones (FS-03, FS-04).
- Bi-directional flow between the Tennant Creek delivery zone and the Bonaparte receipt zone (FS-05, FS-06).
- Bi-directional flow between the Bonaparte receipt zone and the Darwin receipt and delivery zones (FS-07, FS-08).

Figure 13: AGP proposed pipeline zones and segments



13 Northern Gas Pipeline

13.1 Key facility information

Table 13.1: Key facility information

Key information	Detail
Facility name	Northern Gas Pipeline (NGP)
Facility operator/owner	Jemena
Location	Northern Territory to Queensland (Tennent Creek to Mt Isa)
Single or bi-directional pipeline	Single
Services that will be available through the CTP and DAA	Forward haul only Jemena has advised that this service is only available on an 'as available' basis
Subject to CTP?	Yes
Subject to DAA?	No – subject to a derogation
Other notes	The NGP is currently under construction with first gas expected to flow in late 2018[21]

13.2 Service points

Name	Type	Zone Name	Description
Tennent Creek	Receipt	NGP-RZ-01	Receipts from the AGP
Mt Isa	Delivery	NGP-DZ-01	Deliveries to the CGP at Mt Isa

13.3 Proposed zones

Name	Type	Description
NGP-RZ-01	Receipt	Tennent Creek
NGP-DZ-01	Delivery	Mt Isa

13.4 Proposed pipeline segments

Name	Type	From Location	To Location
NGP-FS-01	Forward haul	NGP-RZ-01	NGP-DZ-01

[21] http://jemena.com.au/industry/pipelines/northern-gas-pipeline

14 Moomba to Adelaide Pipeline System

14.1 Key facility information

Table 14.1: Key facility information

Key information	Detail
Facility name	Moomba to Adelaide Pipeline System (MAPS)
Facility operator/owner	EPIC Energy
Location	South Australia
Single or bi-directional pipeline	Single and bi-directional segments
Services that will be available through the CTP and DAA	Forward haul, Park (CTP only)
Subject to CTP?	Yes
Subject to DAA?	Yes

14.2 Service points

Name	Type	Zone Name	Description
Moomba Injection	Receipt	MAPS-RZ-01	
QSN Injection	Receipt	MAPS-RZ-01	
MAPS In-Pipe Trade Point	Receipt	MAPS-RZ-01	Notional point
Park account receipt point	Receipt	MAPS-RZ-01	Park service point
PPIMS Injection	Receipt	MAPS-RZ-02	
Adelaide metro	Receipt	MAPS-RZ-02	Notional point
Amcor	Delivery	MAPS-DZ-03	
Angaston ABC	Delivery	MAPS-DZ-03	
Angaston Riverland	Delivery	MAPS-DZ-03	
Angaston Town	Delivery	MAPS-DZ-03	Gate station
Freeling	Delivery	MAPS-DZ-03	Gate station
Nuriootpa	Delivery	MAPS-DZ-03	Gate station
Sheoak Log	Delivery	MAPS-DZ-03	
Tanunda	Delivery	MAPS-DZ-03	
Pacific Salt	Delivery	MAPS-DZ-04	
Port Bonython	Delivery	MAPS-DZ-04	
Port Pirie	Delivery	MAPS-DZ-04	Gate station
Whyalla BHP	Delivery	MAPS-DZ-04	
Whyalla Cogen	Delivery	MAPS-DZ-04	
Whyalla Town	Delivery	MAPS-DZ-04	Gate station

Name	Type	Zone Name	Description
Frost Road	Delivery	MAPS-DZ-06	
Hi-Tech Hydroponics	Delivery	MAPS-DZ-06	
Osborne	Delivery	MAPS-DZ-06	Power station
Pelican Point	Delivery	MAPS-DZ-06	Power station
Quarantine PS	Delivery	MAPS-DZ-06	Power station
Virginia	Delivery	MAPS-DZ-06	Gate station
Adelaide metro delivery point	Delivery	MAPS-DZ-05	Metro delivery points, Gate stations, Adelaide STTM Hub Custody Transfer Points
Dry Creek	Delivery	MAPS-DZ-05	Power station
Torrens Island PS	Delivery	MAPS-DZ-05	Power station
Moomba Withdrawal	Delivery	MAPS-DZ-01	
QSN	Delivery	MAPS-DZ-01	Notional point
MAPS In-Pipe Trade Point	Delivery	MAPS-DZ-01	Notional point
Park account delivery point	Delivery	MAPS-DZ-01	Park service point
Beverley	Delivery	MAPS-DZ-02	
Burra	Delivery	MAPS-DZ-02	Gate station
Hallett	Delivery	MAPS-DZ-02	Power station
Mintaro	Delivery	MAPS-DZ-02	
Peterborough	Delivery	MAPS-DZ-02	Gate station
Wasleys Metro Farms	Delivery	MAPS-DZ-02	

Adelaide Metro Notional Point

EPIC has advised that the Adelaide Metro notional point is used as a forward haul receipt point only. Gas available at this location could be an offset to Adelaide STTM hub delivery points or gas stored on the pipeline. EPIC has also advised that shippers contract for firm northern haul services with the ability to receipt gas at the PPIMS Injection or the Adelaide metro receipt points. It is proposed that forward haul services from the Southern receipt zone are available for trading through the CTP and the DAA.

Adelaide Metro Delivery Point

Elizabeth, Gepps Cross and Taperoo delivery points connect to the Adelaide distribution network. EPIC has advised that contracting and nominations for delivery to these locations is carried out through the Adelaide metro delivery point.

Potential backhaul service points

An alternative to the specification of the Adelaide metro notional point as a forward receipt point would be to specify it as a backhaul receipt point. As gas supply at this service point is likely to be an offset from STTM deliveries, the service point cannot be defined as both

a forward haul and a backhaul receipt point as the auction quantity limit cannot be shared between the two service points. As such, under this alternative approach, the Adelaide metro notional point could not be used as a receipt point when trading a northern haul service.

AEMO and the GMRG are interested in obtaining stakeholder feedback on the proposed specification of the Adelaide metro notional point as a forward haul receipt point only.

Park Service Point

The proposed park service point is located around Moomba at the Park account receipt and delivery point. A shipper that wants to use the park service will therefore need to have a transportation service that allowed it to transport gas to and from this service point, which could be acquired through the CTP or DAA.

14.3 Proposed zones

Name	Type	Description
MAPS-RZ-01	Receipt	Northern receipt zone
MAPS-RZ-02	Receipt	Southern receipt zone
MAPS-DZ-01	Delivery	Northern delivery zone
MAPS-DZ-02	Delivery	Rural Mainline Delivery Zone
MAPS-DZ-03	Delivery	Angaston Delivery Zone
MAPS-DZ-04	Delivery	Iron Triangle Delivery Zone
MAPS-DZ-05	Delivery	Metro Mainline Delivery Zone
MAPS-DZ-06	Delivery	Loopline Delivery Zone

Adelaide STTM Hub mixed zone

The Metro Mainline Delivery zone (MAPS-DZ-05) contains STTM and non-STTM custody transfer points. It is proposed that an STTM integrated product is listed on the CTP that will allow the trading of capacity at the Elizabeth, Gepps Cross and Taperoo delivery points.

14.4 Proposed pipeline segments

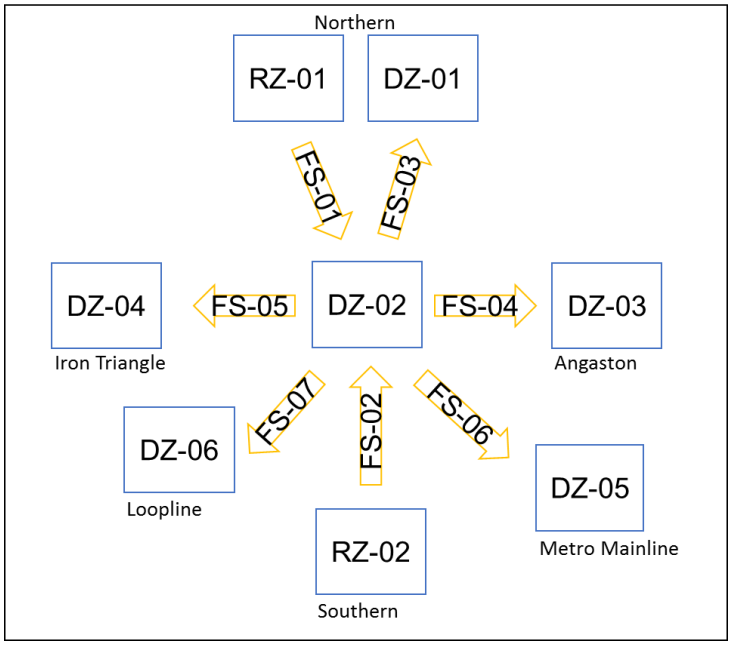
Name	Type	From Location	To Location
MAPS-FS-01	Forward haul	RZ-01	DZ-02
MAPS-FS-02	Forward haul	RZ-02	DZ-02
MAPS-FS-03	Forward haul	DZ-02	DZ-01
MAPS-FS-04	Forward haul	DZ-02	DZ-03
MAPS-FZ-05	Forward haul	DZ-02	DZ-04
MAPS-FZ-06	Forward haul	DZ-02	DZ-05

Name	Type	From Location	To Location
MAPS-FZ-07	Forward haul	DZ-02	DZ-06

The proposed forward haul segments for the MAPS are as follows:

- Bi-directional flows between Moomba and the rural mainline (FS-01, FS-03).
- Single direction flow to Angaston from the rural mainline (FS-04).
- Single direction flow to Iron Triangle delivery zone from the rural mainline (FS-05).
- Bi-directional flows between Adelaide and the rural mainline (FS-02, FS-07).
- Single direction flow to Adelaide metro mainline from the rural mainline (FS-06).

Figure 14: MAPS proposed pipeline zones and segments



15 Port Campbell to Adelaide Pipeline

AEMO has been advised by SEAGas that it intends to register the SEAGas Pipeline as two separate facilities:

- the Port Campbell to Adelaide pipeline (PCA), which links gas production facilities in the Otway basin to Adelaide.
- the Port Campbell to Iona pipeline (PCI), which links gas production, pipeline and storage facilities in the Otway region.

The PCA and PCI are connected at the Langley service point.

The remainder of this chapter sets out the proposed service points, zones and pipeline segments for the PCA while chapter 16 contains this equivalent information for the PCI.

15.1 Key facility information

Table 15.1: Key facility information

Key information	Detail
Facility name	Port Campbell to Adelaide Pipeline (PCA)
Facility operator/owner	SEAGas
Location	Victoria – South Australia
Single or bi-directional pipeline	Single direction
Services that will be available through the CTP and DAA	Forward Haul, Backhaul (DAA only) SEAGAS has advised there are no park services on this pipeline
Subject to CTP?	Yes
Subject to DAA?	Yes

15.2 Service points

Name	Type	Zone Name	Description
Minerva West - PCA	Receipt	PCA-RZ-01	
Langley	Receipt	PCA-RZ-01	Backhaul delivery point
Langley	Backhaul delivery point	N/A	Connection to PCI
UFM 2/3	Receipt	PCA-RZ-01	
UGS	Receipt	PCA-RZ-01	Backhaul delivery point
UGS	Backhaul delivery point	N/A	
Jervois	Delivery	PCA-DZ-03	
Bolivar	Delivery	PCA-DZ-03	
Cavan	Delivery	PCA-DZ-03	Backhaul receipt point, Adelaide STTM Custody Transfer Point

Name	Type	Zone Name	Description
Cavan	Backhaul receipt point	N/A	
Torrens Island	Delivery	PCA-DZ-03	
Quarantine	Delivery	PCA-DZ-03	
Pelican Point	Delivery	PCA-DZ-03	
Poolaijelo	Delivery	PCA-DZ-02	Backhaul delivery point, connects to SESA pipeline
Naracoorte	Delivery	PCA-DZ-02	
Langley Delivery	Delivery	PCA-DZ-01	

Backhaul service points

The following backhaul service points are proposed for the PCA:

- The Cavan forward haul delivery point has been specified as a backhaul receipt point, which would allow the offset of deliveries to the STTM hub.
- Poolaijelo is specified as a forward haul and a backhaul delivery point and as such unused capacity at this service point will be shared between forward haul and backhaul services.
- The UGS (Iona) and Langley forward haul receipt points are also defined as backhaul delivery points that would allow the offset of injections into the pipeline.

15.3 Proposed zones

Name	Type	Description
PCA-RZ-01	Receipt	Port Campbell
PCA-DZ-01	Delivery	Port Campbell
PCA-DZ-02	Delivery	South-east South Australia
PCA-DZ-03	Delivery	Adelaide

Adelaide STTM Hub mixed zone

There is a single delivery zone (PCA-DZ-03) defined for the Adelaide section of the pipeline that groups STTM and non-STTM custody transfer points. It is proposed that an STTM integrated product is listed on the CTP, which will allow the trading of capacity at the Cavan delivery point.

15.4 Proposed pipeline segments

Name	Type	From Location	To Location
PCA-FS-01	Forward haul	RZ-01	DZ-01
PCA-FS-02	Forward haul	RZ-01	DZ-02
PCA-FS-03	Forward haul	DZ-02	DZ-03
PCA-BS-01	Backhaul	Cavan	Poolaijelo
PCA-BS-02	Backhaul	Poolaijelo	Iona, Langley

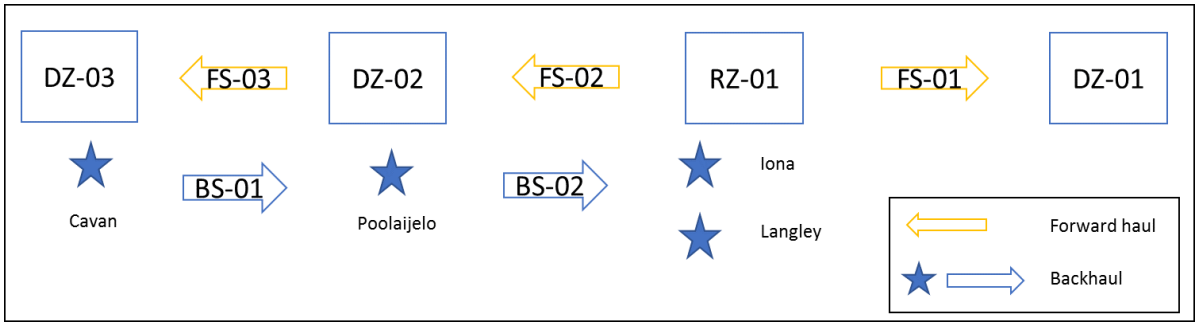
Backhaul segments

Consistent with the proposed specification of backhaul service points, the proposed backhaul segments include:

- the Cavan to Poolaijelo backhaul segment (BS-01); and
- the Poolaijelo to Iona or Langley backhaul segment (BS-02).

Note that the Iona and Langley backhaul delivery points will share the BS-02 backhaul segment.

Figure 15: PCA proposed zones and pipeline segments



16 Port Campbell to Iona Pipeline

16.1 Key facility information

Table 16.1: Key facility information

Key information	Detail
Facility name	Port Campbell to Iona Pipeline (PCI)
Facility operator/owner	SEAGas
Location	Victoria
Single or bi-directional pipeline	Single and bi-directional sections
Services that will be available through the CTP and DAA	Forward haul, Backhaul (DAA only). SEAGAS has advised there are no park services on this pipeline
Subject to CTP?	Yes
Subject to DAA?	Yes

16.2 Service points

Name	Type	Zone Name	Description
Minerva East	Receipt	PCI-RZ-01	
Langley East	Receipt	PCI-RZ-01	
Langley East	Backhaul Delivery Point	N/A	
UFM 2/3	Receipt	PCI-RZ-01	
SWCP	Receipt	PCI-RZ-02	Connection from South West Pipeline (DWGM)
UFM 4	Receipt	PCI-RZ-03	Connection from to Otway Gas Plant
M-UGS	Delivery	PCI-RZ-04	Connection from Iona Underground Storage Facility
MIJ-001	Receipt	PCI-RZ-05	Connection from Mortlake
M-UGS	Delivery	PCI-RZ-04	Connects to Iona Underground Storage Facility
Langley East	Delivery	PCI-DZ-01	
SWP	Delivery	PCI-DZ-02	Connects to South West Pipeline (DWGM)
SWP	Backhaul Receipt Point	N/A	
MPSWCP	Delivery	PCI-DZ-02	Connects to South West Pipeline (DWGM), known as Mortlake DWGM connection point
SWCP	Delivery	PCI-DZ-02	Connects to South West Pipeline (DWGM), known as DWGM connection point

Name	Type	Zone Name	Description
UFM 4	Delivery	PCI-DZ-03	Connects to Otway Gas Plant
M-UGS	Delivery	PCI-DZ-04	Connects to Iona Underground Storage Facility
MIJ-001	Delivery	PCI-DZ-03	Connects to Mortlake pipeline

DWGM Interface Points

The PCI has three DWGM interface points:

1. SWP: Connection point between SEAGas and the DTS (MIRN: 30000168PC (injection) and 30000169PC (withdrawal)).

2. MPSWCP: Mortlake injections into the DTS (MIRN: 30000179PC).

3. SWCP: Otway Connection point with the DTS (MIRNs: 30000181PC (injection) and 30000182PC (withdrawal)).

To acquire capacity at the DWGM interface points, a participant must be accredited at the point in the DWGM. Any transfers at a DWGM interface point will result in a participant's MHQ bid accreditation constraint being automatically adjusted. To utilise capacity at a DWGM interface point the participant will need to be scheduled in the DWGM.

See section 2.2 for more information on DWGM integration.

Backhaul service points

The following backhaul service points are proposed for the PCI:

- The SWP (DWGM) forward haul delivery point has been specified as a backhaul receipt point that would allow the offset of deliveries from the SEAGas pipeline to the South West Pipeline.
- The Langley East forward haul receipt point is also defined as a backhaul delivery point that would allow the offset of injections into the pipeline. The Langley East backhaul delivery point will have a different limit in the DAA to the forward haul delivery and receipt point.

A backhaul service from the SWP to Langley East will allow gas purchased in the DWGM to be transported to the PCA via Langley East.

16.3 Proposed zones

Name	Type	Description
PCI-RZ-01	Receipt	Minerva Receipt Zone
PCI-RZ-02	Receipt	DWGM Receipt Zone
PCI-RZ-03	Receipt	Otway Receipt Zone
PCI-RZ-04	Receipt	Iona Receipt Zone

Name	Type	Description
PCI-RZ-05	Receipt	Mortlake Receipt Zone
PCI-DZ-01	Delivery	Minerva Delivery Zone
PCI-DZ-02	Delivery	DWGM Delivery Zone
PCI-DZ-03	Delivery	Otway Delivery Zone
PCI-DZ-04	Delivery	Iona Delivery Zone
PCI-DZ-04	Delivery	Mortlake Delivery Zone

16.4 Proposed pipeline segments

Name	Type	From Location	To Location
PCI-FS-01	Forward haul	RZ-01	DZ-01
PCI-FS-02	Forward haul	RZ-01	RZ-05, DZ-05
PCI-FS-03	Forward haul	RZ-01	DZ-02
PCI-FS-04	Forward haul	RZ-05	DZ-02
PCI-FS-05	Forward haul	RZ-05	DZ-04
PCI-FS-06	Forward haul	RZ-03	DZ-02
PCI-FS-07	Forward haul	RZ-04	DZ-05
PCI-FS-08	Forward haul	RZ-02	DZ-03
PCI-BS-01	Backhaul	SWP	Langley East

Forward haul segments

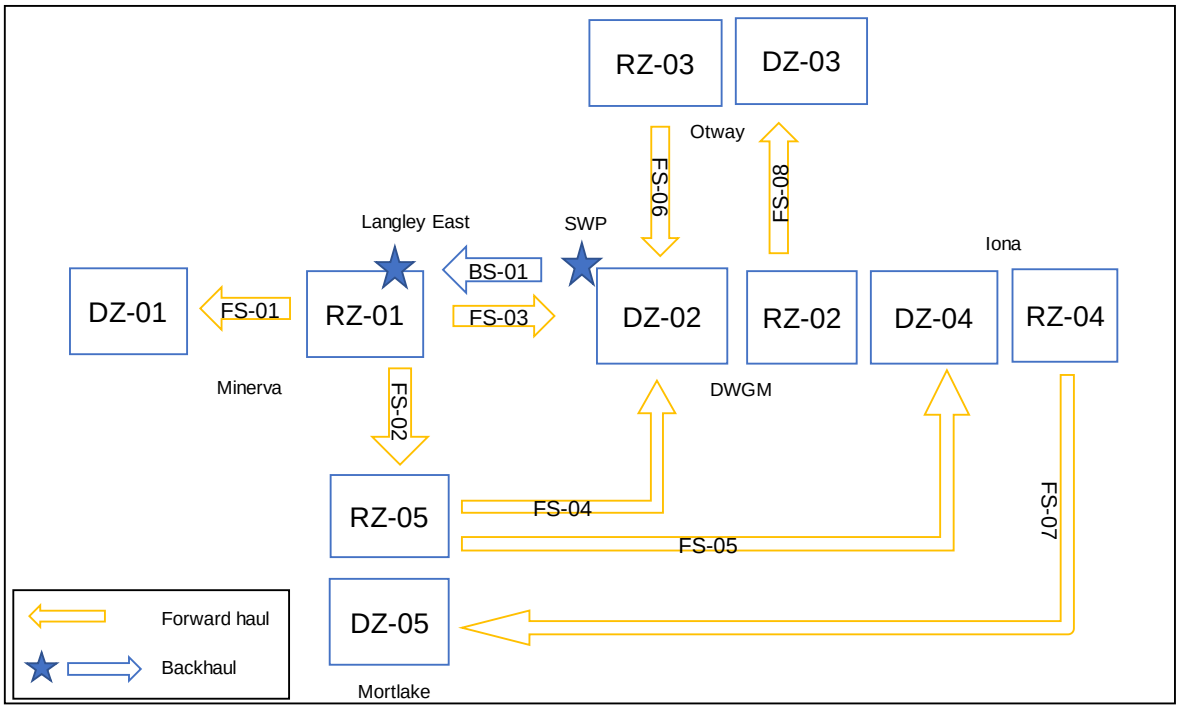
The following forward haul segments are proposed for the PCI:

- Forward haul segments from Minerva to the Minerva, DWGM and Mortlake delivery zones (FS-01, FS-02, FS-03).
- Forward haul segment connecting the Mortlake receipt zone and the DWGM delivery zone (FS-04).
- Bi-directional flow between Iona and Mortlake zones (FS-05, FS-07).
- Bi-directional flow between Otway and DWGM zones (FS-06, FS-08).

Backhaul segments

Consistent with the proposed specification of backhaul service points, the proposed backhaul segment for the PCI extends from SWP to Langley East.

Figure 16: PCI proposed zones and pipeline segments



17 SESA Pipeline

17.1 Key facility information

Table 17.1: Key facility information

Key information	Detail
Facility name	South East South Australia Pipeline (SESA)
Facility operator/owner	APA Group
Location	South Australia
Single or bi-directional pipeline	Single
Services that will be available through the CTP and DAA	Forward haul only. APA group has advised there are no park services on this pipeline.
Subject to CTP?	Yes
Subject to DAA?	Yes

17.2 Service points

Name	Type	Zone Name	Description
SEAGas Entry Point	Receipt	SESA-RZ-01	
South East Pipeline	Delivery	SESA-DZ-01	
Ladbroke Grove GT1	Delivery	SESA-DZ-01	Power station
Ladbroke Grove GT2	Delivery	SESA-DZ-01	Power station

17.3 Proposed zones

Name	Type	Description
SESA-RZ-01	Receipt	
SESA-DZ-01	Delivery	

17.4 Proposed pipeline segments

Name	Type	From Location	To Location
SESA-FS-01	Forward haul	RZ-01	DZ-01

18 Eastern Gas Pipeline

18.1 Key facility information

Table 18.1: Key facility information

Key information	Detail
Facility name	Eastern Gas Pipeline (EGP)
Facility operator/owner	Jemena
Location	Victoria – New South Wales
Single or bi-directional pipeline	Single direction pipeline
Services that will be available through the CTP and DAA	Forward haul, Park (CTP only), Backhaul (DAA only)
Subject to CTP?	Yes
Subject to DAA?	Yes

18.2 Service points

Name	Type	Zone Name	Description
Longford	Receipt	EGP-RZ-01	Connection point from Longford Gas Plant to the EGP
Longford (EGP)	Receipt	EGP-RZ-01	Park service receipt point.
Tasmania Gas Pipeline	Delivery	EGP-DZ-07	Connection point from EGP to TGP
VicHub Pipeline	Delivery	EGP-DZ-01	Connection point from EGP to VicHub. VicHub is also a backhaul receipt point and backhaul delivery point.
Longford (EGP)	Delivery	EGP-DZ-01	This point is used to nominate delivery for park and backhaul services on the EGP.
Bairnsdale	Delivery	EGP-DZ-02	Connects to Bairnsdale power station. Bairnsdale is also a backhaul delivery point.
Bairnsdale city	Delivery	EGP-DZ-02	Connects to Bairnsdale network
Cooma	Delivery	EGP-DZ-03	Connects to Cooma network
Bombala	Delivery	EGP-DZ-03	Connects to Bombala Network
Orbost	Receipt	EGP-RZ-02	Connection to Orbost Gas Plant. Orbost is also a backhaul receipt point
Hoskinstown	Delivery	EGP-DZ-04	Connects to Hoskinstown network (Canberra)
Nowra	Delivery	EGP-DZ-04	Connects to Nowra network
Bomaderry	Delivery	EGP-DZ-04	Connects to Bomaderry network
Tallawarra	Delivery	EGP-DZ-05	Power station

Name	Type	Zone Name	Description
			Tallawarra is also a backhaul delivery point
Port Kembla	Delivery	EGP-DZ-05	Connects to the Wollongong network at Port Kembla. Port Kembla is a Sydney STTM Hub Custody Transfer Point.
Albion Park	Delivery	EGP-DZ-05	Connects to Wollongong network at Albion Park. Albion Park is a Sydney STTM Hub Custody Transfer Point
Horsley Park	Delivery	EGP-DZ-05	Connects to the Sydney network at Horsley Park. Horsley Park is a Sydney STTM Hub Custody Transfer Point. Horsley Park is a backhaul receipt point
Horsley Park	Backhaul Receipt	N/A	Backhaul receipts from STTM hub
Smithfield	Delivery	EGP-DZ-05	Connects to Smithfield power station
Moomba to Sydney Pipeline (MSP) – Wilton	Delivery	EGP-DZ-06	Connects to the MSP
Wilton Jemena Gas Networks	Delivery	EGP-DZ-06	Connects to the Sydney network at Wilton. Wilton Jemena Gas Networks is a Sydney STTM Hub Custody Transfer Point.

Park Service Point

The proposed park service point is located at Longford (EGP). A shipper that wants to use the park service will therefore need to have a transportation service that allowed it to transport gas to and from this service point (the service point will be located in DZ-01 and RZ-01), which could be acquired through the CTP or DAA.

Backhaul Service Points

The proposed backhaul service points include:

- the Horsley Park, Orbost and VicHub service points (backhaul receipt points); and
- the Tallawarra, Bairnsdale, VicHub and Longford EGP service points (backhaul delivery points).

Specifying these points as backhaul points will allow the following:

- treating the Horsley Park point as a backhaul receipt point will allow gas to be backhauled to Tallawarra, Bairnsdale, VicHub or Longford EGP;
- treating the Orbost service point as a backhaul receipt point will allow gas to be backhauled to the Longford EGP or VicHub backhaul delivery points; and
- treating the VicHub service point as a backhaul receipt point will allow gas to be backhauled to the Longford EGP backhaul delivery point.

AEMO and the GMRG are seeking feedback on the proposed specification of backhaul service points on the EGP. We are also seeking feedback on whether Wilton (EGP) should be specified as a backhaul receipt point.

18.3 Proposed zones

Name	Type	Description
EGP-RZ-01	Receipt	Receipt from Longford Gas Plant and Park Service
EGP-DZ-01	Delivery	Delivery to VicHub and park service
EGP-DZ-02	Delivery	EGP delivery points at Bairnsdale
EGP-DZ-03	Delivery	
EGP-RZ-02	Receipt	Orbost gas plant
EGP-DZ-04	Delivery	
EGP-DZ-05	Delivery	Delivery zone for STTM points excluding Wilton
EGP-DZ-06	Delivery	Delivery zone for STTM Wilton and MSP interconnection
EGP-DZ-07	Delivery	Delivery zone for TGP

Sydney STTM hub mixed zone

As noted in section 2.2, AEMO and the GMRG are proposing to divide the Sydney STTM zone into the following zones:

- DZ-05, which includes the STTM custody transfer points at Albion Park, Port Kembla and Horsley park and the non-STTM points at Smithfield and Tallawarra (both of which are power stations).
- DZ-06, which includes the delivery point at Wilton on the MSP and the Jemena Gas Network Wilton STTM custody transfer point.

It was necessary to separate DZ-06 from DZ-05 as the Wilton points sit on their own lateral. DZ-06 is a mixed zone for STTM integration. More information on STTM transfers can be found in Section 2.2.

For the purpose of STTM integration DZ-05 and DZ-06 are mixed zones including both non-STTM and STTM delivery points. As such, the CTP will have at least two separate products:

- An integrated STTM product (e.g. in DZ-05 this will include Albion Park, Port Kembla and Horsley Park).
- A non-integrated STTM product (e.g. in DZ-05 this will include Smithfield and Tallawarra).

AEMO and the GMRG are seeking feedback on proposed allocation of the STTM custody transfer points to DZ-05 and DZ-06.

18.4 Proposed pipeline segments

Name	Type	From Location	To Location
EGP-FS-01	Forward haul	RZ-01	DZ-01
EGP-FS-02	Forward haul	DZ-01	DZ-02
EGP-FS-03	Forward haul	DZ-02	DZ-03
EGP-FS-04	Forward haul	RZ-02	DZ-03
EGP-FS-05	Forward haul	DZ-03	DZ-04
EGP-FS-06	Forward haul	DZ-04	DZ-05
EGP-FS-07	Forward haul	DZ-05	DZ-06
EGP-FS-08	Forward haul	RZ-01	DZ-07
EGP-BS-01	Backhaul	Horsley Park	Tallawarra
EGP-BS-02	Backhaul	Tallawarra	Orbost
EGP-BS-03	Backhaul	Orbost	Bairnsdale
EGP-BS-04	Backhaul	Bairnsdale	VicHub, Longford (EGP)

TGP transfer service

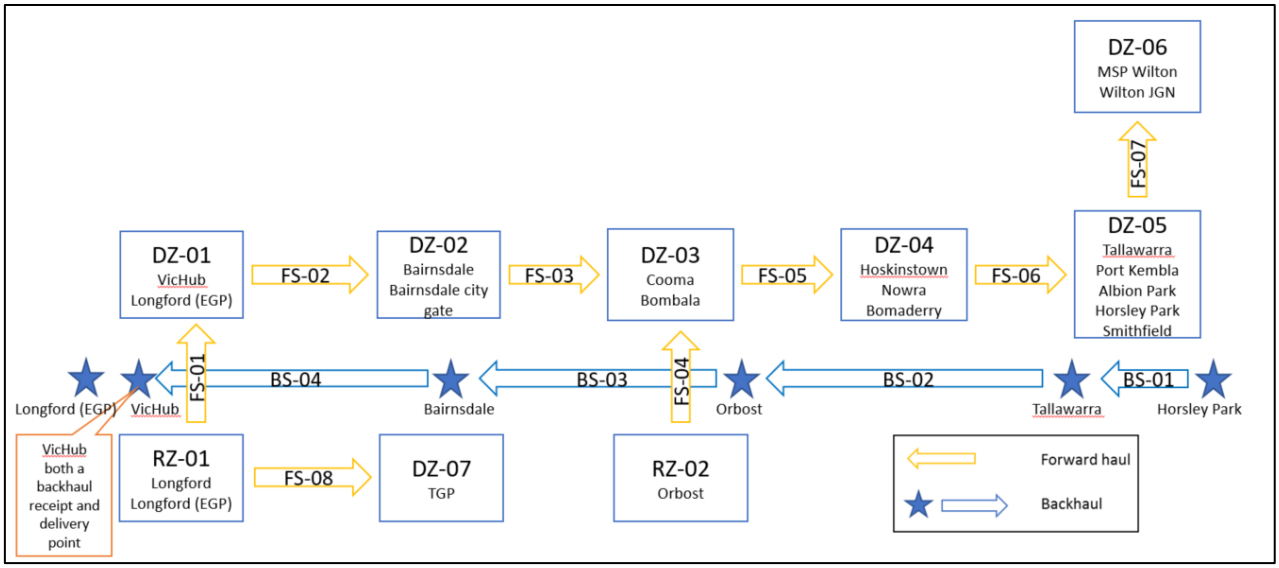
Jemena and Pallisade have advised that the TGP delivery point on the EGP would need to be in its own zone to reserve capacity for the EGP – TGP transfer service, which is required to transport gas on the TGP. AEMO and the GMRG are therefore proposing to allocate the TGP delivery point to its own delivery zone (DZ-07), which will be linked through a forward haul pipeline segment (FS-08) from the Longford receipt zone RZ-01. The segment and zone capacity will reflect the CBU capacity for the EGP – TGP transfer service.

Backhaul segments

Consistent with the proposed specification of backhaul service points, the proposed backhaul segments include:

- Horsley Park to Tallawarra (BS-01).
- Tallawarra to Orbost (BS-02).
- Orbost to Bairnsdale (BS-03).
- Barinsdale to VicHub and Longford EGP (BS-04).

Figure 17: EGP proposed zones and pipeline segments



19 Moomba to Sydney, Central West and Central Ranges pipelines

APA Group has advised that it intends to treat the Central West Pipeline (CWP) and Central Ranges Pipeline (CRP) as forming part of the Moomba to Sydney Pipeline (MSP) for the purposes of the CTP and DAA. This chapter has therefore been prepared on this basis.

19.1 Key facility information

Table 19.1: Key facility information

Key information	Detail
Facility name	Moomba to Sydney Pipeline (MSP) (includes the CWP and CRP)
Facility operator/owner	APA Group
Location	South Australia, New South Wales
Single or bi-directional pipeline	MSP: Bi-directional CWP and CRP: Single direction
Services that will be available through the CTP and DAA	Forward Haul, Park (CTP only)
Subject to CTP?	Yes
Subject to DAA?	Yes

19.2 Service points

Name	Type	Zone Name	Description
MSP Inlet	Receipt	MSP-RZ-01	
MAPS Exit	Delivery	MSP-DZ-01	
MGP Exit	Delivery	MSP-DZ-01	
SWQP Exit	Delivery	MSP-DZ-01	
Bulla Park	Delivery	MSP-DZ-02	
West Wyalong	Delivery	MSP-DZ-02	
CWP nomination point	Delivery	MSP-DZ-02	Central West Pipeline
CRP nomination point	Delivery	MSP-DZ-03	Central Ranges Pipeline
Wallerawang	Delivery	MSP-DZ-04	Gate station
Lithgow	Delivery	MSP-DZ-04	Gate station
Blayney	Delivery	MSP-DZ-04	Gate station
Bathurst	Delivery	MSP-DZ-04	Gate station
Cootamundra	Delivery	MSP-DZ-04	Gate station
Cowra	Delivery	MSP-DZ-04	Gate station

Name	Type	Zone Name	Description
Illabo	Delivery	MSP-DZ-04	Gate station
Millthorpe	Delivery	MSP-DZ-04	Gate station
Oberon	Delivery	MSP-DZ-04	Gate station
Orange	Delivery	MSP-DZ-04	Gate station
Wagga	Delivery	MSP-DZ-04	Gate station
Wallendbeen	Delivery	MSP-DZ-04	Gate station
Young	Delivery	MSP-DZ-04	Gate station
Junee	Delivery	MSP-DZ-05	Gate station
Coolamon	Delivery	MSP-DZ-05	Gate station
Ganmain	Delivery	MSP-DZ-05	Gate station
Narrandera	Delivery	MSP-DZ-05	Gate station
Rockdale	Delivery	MSP-DZ-05	Gate station
Leeton	Delivery	MSP-DZ-05	Gate station
Murrami	Delivery	MSP-DZ-05	Gate station
Griffith	Delivery	MSP-DZ-05	Gate station
Boorowa	Delivery	MSP-DZ-06	Gate station
Yass	Delivery	MSP-DZ-06	Gate station
Goulburn	Delivery	MSP-DZ-06	Gate station
Marulan	Delivery	MSP-DZ-06	Gate station
Sallys Corner	Delivery	MSP-DZ-06	Gate station
Moss Vale	Delivery	MSP-DZ-06	Gate station
Bowral	Delivery	MSP-DZ-06	Gate station
Bargo	Delivery	MSP-DZ-06	Gate station
Wilton	Delivery	MSP-DZ-06	Gate station, Sydney STTM Hub Custody Transfer Point
Wilton Trade Point	Delivery	MSP-DZ-06	Notional point, Park service point
Canberra	Delivery	MSP-DZ-07	Gate station
EGP Entry	Receipt	MSP-RZ-02	
Wilton Trade Point	Receipt	MSP-RZ-02	Notional point, Park service
Holbrook	Delivery	MSP-DZ-08	Gate station
Henty	Delivery	MSP-DZ-08	Gate station
Uranquinty Power Station	Delivery	MSP-DZ-08	
Uranquinty	Delivery	MSP-DZ-08	Gate station
Culcairn South	Delivery	MSP-DZ-08	DWGM interface point
Culcairn Trade Point	Delivery	MSP-DZ-08	Notional point, Park service

Name	Type	Zone Name	Description
Culcairn North	Receipt	MSP-RZ-03	DWGM interface point
Culcairn Trade Point	Receipt	MSP-RZ-03	Notional point, Park service

DWGM interface points

Culcairn South and North are DWGM interface points. To acquire capacity at Culcairn South or North, a participant must be accredited to inject at Culcairn south or withdraw at Culcairn North in the DWGM. Any transfers of capacity at Culcairn South or Culcairn North will result in a participant's MHQ bid accreditation constraint being automatically adjusted. See section 2.2 for more information on DWGM integration.

Notional points and park service points

There are two notional points available on the MSP:

1. Culcairn Trade Point, located at Culcairn near the Culcairn South DWGM interface point.

2. Wilton Trade Point, located near Sydney and the Sydney STTM point at Wilton.

Each notional point is specified as a forward haul receipt and delivery point. The notional points can also be used as the designated point for injection and withdrawal of park services.

CWP and CRP service points

APA Group has proposed the following service points for the CWP and CRP:

- CWP nomination point – shippers transporting gas to Dubbo, Parkes, Forbes or Narromine delivery points on the CWP make an aggregate nomination to the CWP nomination point.
- CRP nomination point – shippers transporting gas to Tamworth on the CRP make a nomination to the CRP nomination point.

19.3 Proposed zones

Name	Type	Description
MSP-RZ-01	Receipt	Moomba
MSP-RZ-02	Receipt	Sydney
MSP-RZ-03	Receipt	Culcairn
MSP-DZ-01	Delivery	Moomba
MSP-DZ-02	Delivery	CWP
MSP-DZ-03	Delivery	CRP
MSP-DZ-04	Delivery	
MSP-DZ-05	Delivery	

Name	Type	Description
MSP-DZ-06	Delivery	Sydney STTM hub mixed zone
MSP-DZ-07	Delivery	Canberra
MSP-DZ-08	Delivery	Culcairn

DWGM mixed zone

DZ-08 includes the delivery points at Culcairn South, Uranquinty, Uranquinty Power Station, Holbrook, Henty and the Culcairn Trade point. Demand at Culcairn South and Uranquinty Power Station is variable. Including both points in the same demand zone should enable participants to trade unutilised contracted capacity between these two points, subject to there being sufficient available physical capacity on the pipeline and at each delivery point.

Sydney STTM hub mixed zone

As noted in section 2.2, AEMO and the GMRG are proposing a mixed zone (DZ-06) for the Sydney STTM on the MSP, which will include the Wilton STTM point, the Wilton Trade Point, and the Booroowa, Yass, Goulburn, Marulan, Sally's Corner, Moss Vale, Bowral and Bargo delivery points. It is proposed that an STTM integrated product is listed on the CTP, which will allow the trading of capacity at the Wilton (Sydney STTM Hub) delivery point.

19.4 Proposed pipeline segments

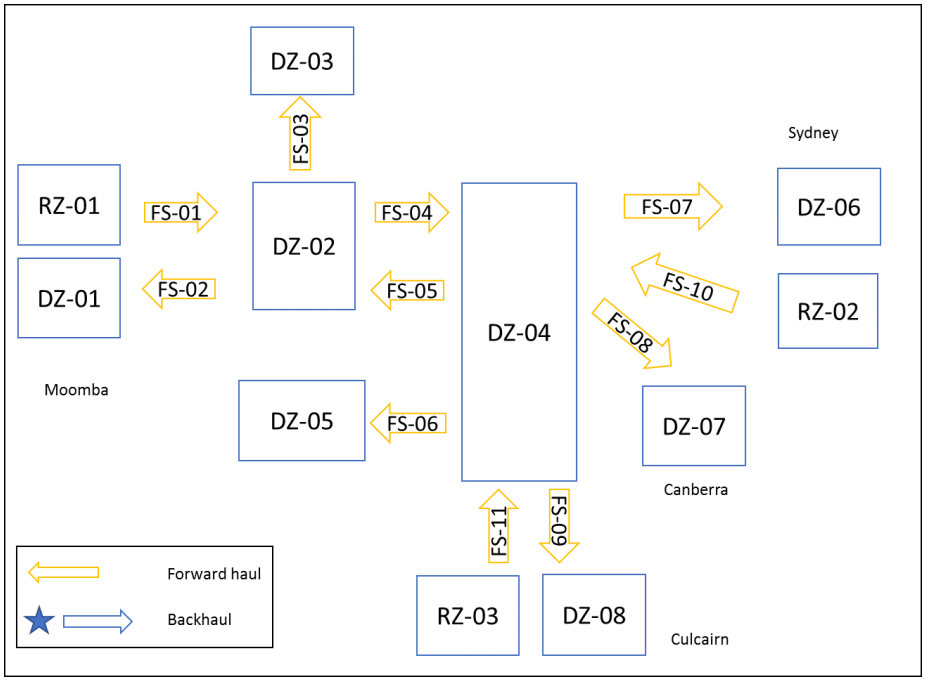
Name	Type	From Location	To Location
MSP-FS-01	Forward haul	RZ-01	DZ-02
MSP-FS-02	Forward haul	DZ-02	DZ-01
MSP-FS-03	Forward haul	DZ-02	DZ-03
MSP-FS-04	Forward haul	DZ-02	DZ-04
MSP-FS-05	Forward haul	DZ-04	DZ-02
MSP-FS-06	Forward haul	DZ-04	DZ-05
MSP-FS-07	Forward haul	DZ-04	DZ-06
MSP-FS-08	Forward haul	DZ-04	DZ-07
MSP-FS-09	Forward haul	DZ-04	DZ-08
MSP-FS-10	Forward haul	RZ-02	DZ-04
MSP-FS-11	Forward haul	RZ-03	DZ-04

The proposed forward haul pipeline segments on the MSP include:

- Bi-directional flows to and from Moomba (FS-01, FS-02).
- Bi-directional flows to and from Culcairn (FS-09, FS-11).
- Bi-directional flows to and from Sydney (FS-07, FS-10).

- Bi-directional flows through central NSW (FS-04, FS-05).
- Single-directional flows on laterals to CRP, Griffith and Canberra (FS-03, FS-06, FS-08).

Figure 18: MSP proposed zones and pipeline segments



20 Illabo to Tumut Pipeline

20.1 Key facility information

Table 20.1: Key facility information

Key information	Detail
Facility name	Illabo to Tumut Pipeline (ITP)
Facility operator/owner	AGN
Location	New South Wales
Single or bi-directional pipeline	Single
Services that will be available through the CTP and DAA	Forward haul only
Subject to CTP?	Yes
Subject to DAA?	Yes

20.2 Service points

Name	Type	Zone Name	Description
Illabo meter station	Receipt	ITP-RZ-01	Illabo
Tumut	Delivery	ITP-DZ-01	Gate station
Gundagai	Delivery	ITP-DZ-01	Gate station

20.3 Proposed zones

Name	Type	Description
ITP-RZ-01	Receipt	Illabo
ITP-DZ-01	Delivery	Tumut

20.4 Pipeline proposed segments

Name	Type	From Location	To Location
ITP-FS-01	Forward haul	RZ-01	DZ-01

21 VicHub Pipeline

21.1 Key facility information

Table 21.1: Key facility information

Key information	Detail
Facility name	VicHub
Facility operator/owner	Jemena
Location	Longford to Melbourne Pipeline – EGP
Single or bi-directional pipeline	Single
Services that will be available through the CTP and DAA	Forward haul, Backhaul (DAA only)
Subject to CTP?	Yes
Subject to DAA?	Yes

21.2 Service points

Name	Type	Zone Name	Description
Eastern Gas Pipeline	Receipt	VicHub-RZ-01	Connection point from EGP to VicHub
Eastern Gas Pipeline	Backhaul delivery		Gas can be backhauled from the DTS to this point
Declared Transmission System	Delivery	VicHub-DZ-01	Connection point from VicHub to the DTS. This is a DWGM interface point
Declared Transmission System	Backhaul receipt		Backhaul point at the DTS

DWGM interface points

The DTS service point is a DWGM interface point. To acquire capacity at the DTS service point, a participant must be accredited at the VicHub MIRN in the DWGM. Any transfers of capacity at VicHub (DTS service point) will result in a participant's MHQ bid accreditation constraint being automatically adjusted. See section 2.2 for more information on DWGM integration.

Backhaul Service Points

The proposed backhaul service points include:

- the DTS service point (backhaul receipt point); and
- the EGP service point (backhaul delivery point).

These service points will allow gas procured from the DWGM to be backhauled to the EGP via the VicHub.

21.3 Proposed zones

Name	Type	Description
VicHub-RZ-01	Receipt	EGP Zone
VicHub-DZ-01	Delivery	DWGM interface Zone

21.4 Proposed pipeline segments

Name	Type	From Location	To Location
VicHub-FS-01	Forward haul	VicHub-RZ-01	VicHub-DZ-01
VicHub-BS-01	Backhaul	Declared Transmission System Delivery Point	Eastern Gas Pipeline Receipt Point

Backhaul Segment

Consistent with the proposed backhaul service points, the backhaul pipeline segment will extend from the DTS service point to the EGP service point via BS-01.

22 Tasmanian Gas Pipeline

22.1 Key facility information

Table 22.1: Key facility information

Key information	Detail
Facility name	Tasmanian Gas Pipeline (TGP)
Facility operator/owner	Palisade Asset Management Pty Ltd
Location	Victoria – Tasmania
Single or bi-directional pipeline	Single
Services that will be available through the CTP and DAA	Forward Haul, Park (CTP only)
Subject to CTP?	Yes
Subject to DAA?	Yes
Other notes	To use this pipeline a shipper must also have access to the TGP transfer service, which is provided by the EGP.

22.2 Service points

Name	Type	Zone Name	Description
Longford Victoria	Receipt	TGP-RZ-01	Receipt point connected to the EGP
TGP Notional Park Point (Receipt)	Receipt	TGP-RZ-02	Notional receipt point used for purchasing auction service to receipt gas parked on TGP for delivery.
TGP Notional Park Point (Delivery)	Delivery	TGP-DZ-01	Notional delivery point used for purchasing auction service to park gas on TGP.
TasHUB	Delivery	TGP-DZ-02	Used to deliver parked gas from TGP into Victoria. Also known as Longford TGP-Transfer Station.
Port Latta	Delivery	TGP-DZ-04	
Spreyton/Devonport	Delivery	TGP-DZ-03	Gate station
Ulverstone	Delivery	TGP-DZ-03	Gate station
Burnie	Delivery	TGP-DZ-03	Gate station
Wynyard	Delivery	TGP-DZ-03	Gate station
Westbury	Delivery	TGP-DZ-03	
Westbury 2	Delivery	TGP-DZ-03	
Carrick/Hadspen	Delivery	TGP-DZ-03	Gate station
Longford Tasmania	Delivery	TGP-DZ-03	Gate station
Bell Bay GGT	Delivery	TGP-DZ-05	Power station
Bell Bay OCGT	Delivery	TGP-DZ-05	Power station

Name	Type	Zone Name	Description
Bell Bay CCGT	Delivery	TGP-DZ-05	Power station
Ecka	Delivery	TGP-DZ-05	Gate station
Comalco	Delivery	TGP-DZ-05	
Bridgewater	Delivery	TGP-DZ-06	Gate station

Park Service Points

The proposed park service point on the TGP is located near the TasHub. A shipper that wants to use the park service will need to be able to transport to and from the TGP Notional Park Point.

TGP Transfer Service

The only physical receipt point on the TGP is the Longford Victoria service point, which is the connection point with the EGP. To deliver gas onto the TGP at the Longford Victoria receipt point, a shipper requires a TGP transfer service with Jemena on the EGP (this is a service from the Longford receipt point on the EGP to the TGP delivery point – see Chapter 18 for more detail).

For the CTP, AEMO and the GMRG are proposing that a bundled product (including both the TGP transfer service on the EGP and forward haul transportation on the TGP) be traded. Sellers would therefore release both services simultaneously and buyers would obtain the two services on a bundled basis.[22] Capacity transfer notices would be sent to both facility operators to give effect to this transfer.

In contrast to the CTP, the TGP transfer service and the TGP transportation service will be sold on a separate basis on the DAA.

22.3 Proposed zones

Name	Type	Description
TGP-RZ-01	Receipt	Includes Longford Victoria receipt point, only physical receipt point on the TGP.
TGP-RZ-02	Receipt	Includes TGP Notional Park Point (Receipt).
TGP-DZ-01	Delivery	Includes the TGP Notional Park Point (Delivery).
TGP-DZ-02	Delivery	Includes TasHUB, used for delivering gas to Victoria from TGP
TGP-DZ-03	Delivery	Includes the entire mid-section of the pipeline.
TGP-DZ-04	Delivery	Includes Port Latta only.
TGP-DZ-05	Delivery	Includes Bell Bay and industries surrounding George Town.
TGP-DZ-06	Delivery	Includes Bridgewater only.

[22] Note that the buyer would have to have an OTSA in place with both Jemena and Palisade to use the bundled service, with the Jemena OTSA setting out the terms and conditions of use of the TGP transfer service and the Palisade OTSA setting out the terms and conditions of use of the TGP transportation service.

As the table above indicates, AEMO and the GMRG are proposing to include all points south of the lateral towards Bell Bay, other than those at the extremities of the pipeline, in one zone to increase liquidity. There is, however, a risk that aggregating all of these points into one zone could result in the capacity purchased at one service point not being able to be transferred to another service point in some circumstances. AEMO and the GMRG are seeking feedback on whether stakeholders agree with the proposal to include all points south of the lateral towards Bell Bay, other than those at the extremities of the pipeline, in a single zone.

In relation to the Port Latta and Bridgewater service points, which are located at the extremities of the TGP, AEMO and the GMRG are proposing to allocate these points to separate zones due to the physical distance between these points and other delivery points, which affects the ability to transfer capacity between points. Flow modelling carried out by Palisade, for example, indicates that capacity at Port Latta cannot be transferred because it is at the end of a small diameter pipeline (150mm) of approximately 180km in length such that any capacity transferred to Port Latta could reduce delivery pressure to unacceptably low levels. AEMO and the GMRG are seeking feedback on whether stakeholders agree with the proposal to have Port Latta and Bridgewater in separate zones due to the ability to transfer capacity at these points.

Park Zones

AEMO and the GMRG are proposing to include the TGP Notional Park Point as a single point zone for both receipt and delivery, with pipeline segments directly to and from these zones (FS-01 and FS-02).

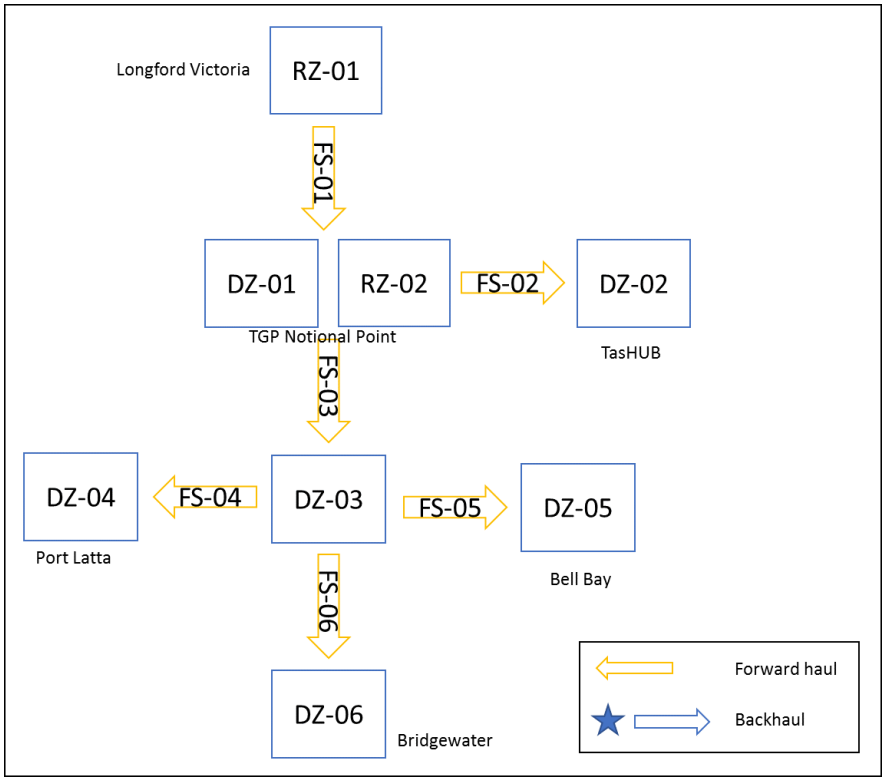
Alternatively, the TGP Notional Park delivery point and TasHUB could be included in the same zone (DZ-02). Under this option, the CBU capacity available to the notional point and to TasHUB is shared between them. The ability to deliver to either point will be limited by the CBU capacity available downstream of Longford Victoria (FS-01), and their combined CBU capacity.

AEMO and GMRG are seeking feedback on whether stakeholders agree with the proposal to include the TGP Notional Park point in its own delivery zone. Proposed pipeline segments

Name	Type	From Location	To Location
TGP-FS-01	Forward haul	RZ-01	DZ-01, RZ-02
TGP-FS-02	Forward haul	RZ-02	DZ-02
TGP-FS-03	Forward haul	DZ-01, RZ-02	DZ-03
TGP-FS-04	Forward haul	DZ-03	DZ-04
TGP-FS-05	Forward haul	DZ-03	DZ-05
TGP-FS-06	Forward haul	DZ-03	DZ-06

Forward haul segment FS-03 represents the capacity to transport gas to Tasmania.

Figure 19: TGP proposed zones and pipeline segments



Part B: Compression Facilities

23 Wallumbilla Compression Facility 1

23.1 Key facility information

Table 23.1: Key facility information

Key information	Detail
Facility name	Wallumbilla Compression Facility 1 (WCF1) Includes Wallumbilla Compression Stations 1 and 2
Facility operator/owner	APA Group
Location	Queensland
Services that will be available through the CTP and DAA	Compression services
What the compression services are used for	Compression services on WCF1 are used to transport gas from Wallumbilla on SWQP, BWP, QGP, RCWP or RBP. Gas may be receipted from SWQP, BWP, DDP, QGP, SGP, RBP or RCWP.
Subject to CTP?	Yes
Subject to DAA?	Yes
Other notes	APA Group proposes that the gas specification for this facility be based on the standard gas specification.

23.2 Service points

Name	Type	Zone Name	Description
Wallumbilla LP Trade Point	Compression Receipt	WCF1-CRZ-01	Notional point
Wallumbilla HP Trade Point	Compression Delivery	WCF1-CDZ-01	Notional point

Notional Points

APA Group has proposed the use of the following notional points for the WCF1 compression service points:

- The **Wallumbilla LP Trade Point,** which will be the compression receipt point for compression services traded through the CTP and DAA.
- The **Wallumbilla HP Trade Point,** which will be the compression delivery point for compression services traded through the CTP and DAA.

For the purpose of determining the auction quantity limits for the compression receipt point, the Wallumbilla LP Trade Point will reflect the CBU capacity for the physical receipt points specified in the table below.

Wallumbilla LP Trade Point physical points

Name	Type	Facility	Description
BWP	Receipt	SWQP	
Darling Downs Pipeline	Receipt	SWQP	
QGP Entry	Receipt	SWQP	
RBP Entry	Receipt	SWQP	
Spring Gully	Receipt	SWQP	
RCWP	Receipt	SWQP	

For the purpose of determining the auction quantity limits for the compression delivery point, the Wallumbilla HP Trade Point will reflect the CBU capacity for the physical delivery points specified in the table below.

Wallumbilla HP Trade Point physical points

Name	Type	Facility	Description
BWP Exit	Delivery	SWQP	
QGP Exit	Delivery	SWQP	
RBP Exit	Delivery	SWQP	
RCWP	Delivery	SWQP	
CRWP WCS2	Delivery	SWQP	

23.3 Proposed zones

Name	Type	Description
WCS1-CRZ-01	Compression Receipt	
WCS1-CDZ-01	Compression Delivery	

24 Wallumbilla Compression Facility 2

24.1 Key facility information

Table 24.1: Key facility information

Key information	Detail
Facility name	Wallumbilla Compression Facility 2 (WCF2) Includes Wallumbilla Compression Station 3
Facility operator/owner	APA Group
Location	Queensland
Services that will be available through the CTP and DAA	Compression services
What the compression services are used for	Transfer of gas to the Comet Ridge Wallumbilla Pipeline (CRWP) delivery point on the SWQP.
Subject to CTP?	Yes
Subject to DAA?	Yes
Other notes	APA Group proposes that the gas specification for this facility be based on a restricted gas specification, which will be specified in its standard OTSA for this facility. To use this compression facility, users will therefore have to comply with this gas specification.

24.2 Service points

Name	Type	Zone Name	Description
GLNG Delivery Stream	Receipt	WCF2-CRZ-01	
CRWP WCS3	Delivery	WCF2-CDZ-01	

24.3 Proposed zones

Name	Type	Description
WCF2-CRZ-01	Compression Receipt	
WCF2-CDZ-01	Compression Delivery	

25 Moomba Compression

25.1 Key facility information

Table 25.1: Key facility information

Key information	Detail
Facility name	Moomba Compression Facility (MCF)
Facility operator/owner	APA Group
Location	South Australia
Services that will be available through the CTP and DAA	Compression services
What the compression services are used for	Eastern haul services from Moomba onto the SWQP.
Subject to CTP?	Yes
Subject to DAA?	Yes

25.2 Service points

Name	Type	Zone Name	Description
Moomba Trade Point	Compression Receipt	MCF-CRZ-01	
Moomba HP Trade Point	Compression Delivery	MCF-CDZ-01	Connects to SWQP

Notional Receipt Point

APA Group has proposed the use of the Moomba Trade Point as the compression receipt point for compression services traded through the CTP and DAA. For the purpose of determining the auction quantity limits for this compression receipt point, the Moomba Trade Point will reflect the CBU capacity for the locations specified in the table below.

Moomba Trade Point physical points

Name	Type	Facility	Description
MSP entry	Delivery	SWQP	
MCF Moomba	Delivery	SWQP	

25.3 Proposed zones

Name	Type	Description
MCF-CRZ-01	Compression Receipt	
MCF-CDZ-01	Compression Delivery	

26 Ballera Compression

26.1 Key facility information

Table 26.1: Key facility information

Key information	Detail
Facility name	Ballera Compression Facility
Facility operator/owner	Santos Ltd
Location	Queensland
Services that will be available through the CTP and DAA	Compression services
What the compression services are used for	Used to compress gas delivered from the SWQP for northern haul transportation on the CGP
Subject to CTP?	Yes
Subject to DAA?	Yes

The Ballera Compression facility is owned and operated by Santos and is used to compress gas delivered from the SWQP onto the CGP. AEMO and the GMRG understand that APA has contracted compression capacity on this facility and on-sells it to shippers with whom it has contracts for transportation on the CGP. Under this arrangement APA nominates to Santos on behalf of these shippers. The proposed arrangements for products associated with the Ballera compression facility are outlined below in Table 26.2.

Table 26.2: Arrangements for the Ballera compression facility

Market	Product	Facility Operator	Description
CTP	Stand-alone compression	Santos	Seller: Has a direct contract for compression with Santos which it wishes to sell. Buyer: May already have a stand-alone CGP transportation service with APA, or may combine with the purchase of a stand-alone CGP transportation service. Must have arrangement in place with Santos.
CTP	Stand-alone CGP transportation	APA	As per CGP section.
CTP	Bundled compression and CGP transportation	APA	Seller: Has a contract with APA for a bundled service of Ballera compression and CGP transportation. Buyer: Wishes to purchase both Ballera compression and CGP transportation, and their OTSA with APA facilitates this purchase.
DAA	Compression service	Santos	Santos will be responsible for providing the auction service as the facility operator of the compressor, and will receive proceeds from the auction. CBU capacity on the compression facility calculated by Santos, including all nominations from shippers with direct contracts and nominations from APA. To use the auctioned compression service, a shipper would need to have an OTSA in place with Santos.

26.2 Service points

Name	Type	Zone Name	Description
Ballera inlet point	Compression Receipt	BCF-CRZ-01	Point of interconnection of the SWQP and the inlet to the Ballera Compression Facilities
Ballera outlet point	Compression Delivery	BCF-CDZ-01	Outlet from the Ballera Compression Facilities into the CGP

26.3 Proposed zones

Name	Type	Description
BCF-CRZ-01	Compression Receipt	Includes Ballera inlet point
BCF-CDZ-01	Compression Delivery	Includes Ballera outlet point

27 Iona Compression

27.1 Key facility information

Table 27.1: Key facility information

Key information	Detail
Facility name	Iona Compression Facility (ICF)
Facility operator/owner	Lochard Energy
Location	Victoria
What the compression services are used for	Used to compress gas delivered from the SWP or Iona storage into the PCA and vice versa
Services that will be available through the CTP and DAA	Compression
Subject to CTP?	Yes
Subject to DAA?	Yes

The Iona Underground Storage facility provides bundled storage and compression services to its shippers. An unbundled compression service will be available for trading through the CTP and DAA. The compression service will allow gas to be transferred between facilities connecting to the Iona Underground Storage Facility.

27.2 Service points

Name	Type	Zone Name	Description
Mortlake Withdrawal	Compression Receipt	ICF-CRZ-01	
Otway Withdrawal	Compression Receipt	ICF-CRZ-01	
SEA Gas Withdrawal	Compression Receipt	ICF-CRZ-01	
SWP Withdrawal	Compression Receipt	ICF-CRZ-01	
Mortlake Injection - D	Compression Delivery	ICF-CDZ-01	
Otway Injection - D	Compression Delivery	ICF-CDZ-01	
SEA Gas Injection	Compression Delivery	ICF-CDZ-01	
SWP Injection	Compression Delivery	ICF-CDZ-01	

27.3 Proposed zones

Name	Type	Description
ICF-CRZ-01	Compression Receipt	
ICF-CDZ-01	Compression Delivery	

Appendix 1: Identification convention

Participants will submit information against a unique numeric ID assigned to each component. The numbering for these IDs will be designated in a similar structure to that in the Natural Gas Services Bulletin Board (BB), with an additional inclusion of component type identifiers[23]. Unique identifying numbers will be allocated for each component in each state. Preliminary consideration has been given to the convention for allocating IDs. The proposed system is set out in the table below.

Table A1.1: ID system for each component in the register

Item	Description	Values
1	Energy type identifier	5 Gas
2	State code of component	2 NSW and ACT 3 Victoria 4 Queensland 5 South Australia 6 Western Australia 7 Tasmania 8 Northern Territory
3	Component	1 Service Point 2 Receipt Zone 3 Delivery Zone 4 Compressor Receipt Zone 5 Compressor Delivery Zone 6 Forward Haul Pipeline Segment 7 Backhaul Pipeline Segment 8 Compression Service Facility
4*	Component sub-type for service points	1 Forward haul receipt point 2 Forward haul delivery point 3 Backhaul receipt point 4 Backhaul delivery point 5 Park service point (receipt) 6 Park service point (delivery) 7 Shared limit ID for receipt points of different types 8 Shared limit ID for delivery points of different types 0 for all others
5	State and component based unique identifying number	1 to 999
Item	Description	Values
1	Energy type identifier	5 Gas

[23] A connection point on the BB may have a different ID to the corresponding service point in the transportation service point register for the purposes of Part 24. A mapping will be provided between the two point-registers. Due to the data structures required by each part, there may be a one-many, many-many, or many-one mapping. Each Part 24 facility will also be designated a unique ID, which also may differ from that of its corresponding BB facility.

Item	Description	Values
2	State code of component	2 NSW and ACT 3 Victoria 4 Queensland 5 South Australia 6 Western Australia 7 Tasmania 8 Northern Territory
3	Component	1 Service Point 2 Receipt Zone 3 Delivery Zone 4 Compressor Receipt Zone 5 Compressor Delivery Zone 6 Forward Haul Pipeline Segment 7 Backhaul Pipeline Segment 8 Compression Service Facility
4*	Component sub-type for service points	1 Forward haul receipt point 2 Forward haul delivery point 3 Backhaul receipt point 4 Backhaul delivery point 5 Park service point (receipt) 6 Park service point (delivery) 7 Shared limit ID for receipt points of different types 8 Shared limit ID for delivery points of different types 0 for all others
5	State and component based unique identifying number	1 to 999

*Item 4 is used to indicate the type of service point. See below for further discussion regarding the shared limit ID.

Shared Limit IDs

Where a forward haul receipt point is also a backhaul receipt point, they will have the same auction quantity limit. Auction participants procuring forward haul and back haul services using this receipt point will compete for injection capacity. Similarly, for where a point is both a forward haul and backhaul delivery point. This could also be the case where a park service point is also a backhaul service point. A 7 or 8 would be assigned to be the ID of all the points sharing the limit.

However, where a forward haul receipt point is a backhaul delivery point (or where a forward haul delivery point is a backhaul receipt point) they will have different limits as described in the Capacity Trading and Auction Procedures. In this scenario, two separate limit IDs will be required and item 4 will be used to generate multiple IDs.

AEMO and GMRG are seeking feedback on this identification convention.

Table A1.2: ID examples

Component	Naming Example	ID Example	Comment
Receipt Point that is not a Backhaul Point	Moomba Compression Facility (MCF Entry)*	5511007	
Receipt Point that is also a Backhaul Receipt Point	Fairview*	5417003	Same ID to be used for both point types as share capacity for DAA.
Receipt Point that is also a Backhaul Delivery Point	Kogan North*	5411005 5414005	Different IDs used for each point type since separate limit IDs.
Delivery Point that is not a Backhaul Point	MAPS exit*	5512001	
Delivery Point that is also a Backhaul Delivery Point	Bairnsdale*	5218007	Same ID to be used for both point types as share capacity for DAA.
Delivery Point that is also a Backhaul Receipt Point	Horsley Park*	5212001 5213001	Different IDs used for each point type since separate limit IDs.
Park service point	TGP Notional Point*	5315010 5316010	One ID for the park point as a receipt point, one as a delivery point.
Park service point that is also a backhaul delivery point.	Longford (EGP)*	5315001 5318001	One ID for the park point as a receipt point, one shared ID for the park point as a delivery point, and as a backhaul delivery point.
Receipt Zone	SWQP-RZ-01	5440003	
Delivery Zone	SWQP-DZ-01	5450005	
Compression Receipt Zone	WCF1-CRZ-01	5460001	
Compression Delivery Zone	WCF1-CDZ-01	5470001	
Forward Haul Pipeline Segment	RBP-FS-01	5480001	
Backhaul Pipeline Segment	RBP-BS-01	5490001	
Compression Service Facility	WCF1-CSF-01	5400001	

* Name given by facility operator

Appendix 2: Pipeline example

This appendix provides an example of how the pipeline facility chapters have been structured and how the information contained in these chapters would be used in the CTP and DAA. The pipeline used in this appendix is referred to as Example Pipeline (EP).

Key facility information for EP

Key facility information

Key information	Detail
Facility name	Example Pipeline (EP)
Facility operator/owner	Example Operator
Location	Queensland
Single or bi-directional pipeline	Single and bi-directional
Services that will be available through the CTP and DAA	Forward Haul, Park (CTP only), Backhaul (DAA only)
Subject to CTP?	Yes
Subject to DAA?	Yes

Service points for EP

Name	Type	Zone Name	Description
XYZ Receipt	Receipt	EP-RZ-01	
West Receipts	Receipt	EP-RZ-01	
West Delivery	Delivery	EP-DZ-01	
Inner west point	Receipt	EP-RZ-02	
IPT	Receipt	EP-RZ-03	Park service point
IPT	Delivery	EP-DZ-02	Park service point, also a backhaul delivery point
Apple Delivery	Delivery	EP-DZ-03	Delivery point that is also a backhaul receipt point
Apple Delivery	Backhaul receipt	N/A	
East Deliveries	Delivery	EP-DZ-03	Gate station

Zones for EP

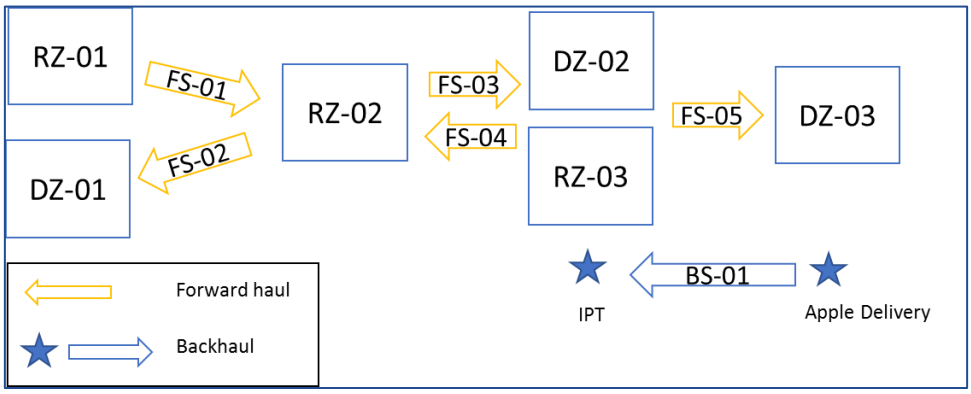
Name	Type	Description
EP-RZ-01	Receipt	Receipts at the west end of the pipeline
EP-RZ-02	Receipt	Receipts at the inner west end of the pipeline
EP-RZ-03	Receipt	Receipts midline
EP-DZ-01	Delivery	Deliveries at the west end of pipeline
EP-DZ-02	Delivery	Deliveries midline
EP-DZ-03	Delivery	Deliveries at the east end of pipeline

Pipeline segments for EP

Name	Type	From Location*	To Location
FS-01	Forward haul	RZ-01	RZ-02
FS-02	Forward haul	RZ-02	DZ-01
FS-03	Forward haul	RZ-02	DZ-02, RZ-03
FS-04	Forward haul	RZ-03	RZ-04
FS-05	Forward haul	RZ-03	DZ-03
BS-01	Backhaul	Apple Delivery	IPT

* For forward haul segments, from and to locations will be a zone. For backhaul segments, from and to locations will be a backhaul point.

Schematic for EP



How the information would be used in the CTP

As discussed in Section 2.1, forward haul and compression products on the CTP will be available on a zone-to-zone basis. An example of the types of products that could be available on the CTP for the EP are set out in the table below.

Product	Type	Description*
West to east on EP	Forward haul	RZ-01 to DZ-03 on EP where RZ-01 includes points XYZ Receipt and West Receipts, and DZ-03 includes points Apple Delivery and East Deliveries. Available for exchange-based trading and pre-matched.
East to west on EP	Forward haul	RZ-02 to DZ-01 on EP where RZ-02 includes the inner west receipt point, and DZ-01 includes East Deliveries. Available for pre-matched trading only.
Park on EP	Park	Park service point: IPT

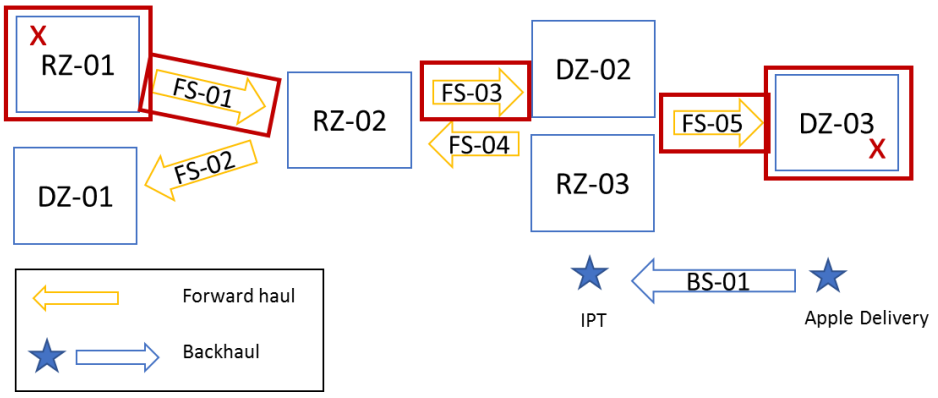
*A formalised definition will be included in the Exchange Agreement.

How the information would be used for the DAA

In the case of the DAA, each of the components (i.e. service points, zones, and pipeline segments) listed in the tables above would have an associated auction quantity limit that the operator of facility would provide each day.

If a shipper wanted to purchase a forward haul service on the EP from XYZ Receipts to East Deliveries in the DAA, then it would place a bid for those two points. AEMO would then pre-process that bid by breaking the bid into the required service point, zonal and pipeline segment components, as illustrated in the table and schematic below.

Service	Receipt	Delivery	Components
Forward Haul	XYZ Receipts	East Deliveries	• Receipt Point: XYZ Receipts • Receipt Zone: RZ-01 • Pipeline segments: FS-01, FS-03, FS-05 • Delivery Zone: DZ-03 • Delivery Point: East Deliveries



If the shipper instead wanted to purchase a transportation service from Apple Delivery in DZ-03 to West Delivery in DZ-01, then it would need to make a combinatorial bid for:

- the backhaul auction service between Apple Delivery and the IPT service points; and
- the forward haul auction service between the IPT and West Delivery service points.

AEMO would then pre-process that combinatorial bid by breaking it into the required service point, zonal and pipeline segment components, as illustrated in the table and schematic below.

Service	Receipt	Delivery	Components
Backhaul	Apple Delivery	IPT	• Backhaul receipt point: Apple Delivery • Backhaul segment: BS-01 • Backhaul delivery point: IPT (Green in diagram)
Forward Haul	IPT	West Delivery	• Receipt point: IPT • Receipt zone: RZ-03 • Forward haul segments: FS-04, FS-02 • Delivery zone: DZ-01 • Delivery point: West delivery. (Purple in diagram)