



GBB (WA) Zones Review – Draft Report 2020

WA Market Operations

Important notice

PURPOSE

AEMO has prepared this report to facilitate engagement with interested parties on its five-yearly review of the West Australian Gas Bulletin Board Zones (GGB Zones) in accordance with sub-rule 82(10) of the Gas Services Information Rules. This report considers the appropriateness of the current GGB Zones in relation to facilitating the achievement of the GSI Objectives and providing an appropriate breakdown to represent the present, and near to mid-term future gas landscape in the state.

DISCLAIMER

This document does not constitute legal or business advice and should not be relied on as a substitute for obtaining detailed advice about the *Gas Services Information Regulations 2012* or any other applicable laws, procedures or policies. AEMO has made every effort to ensure the quality of the information in this document but cannot guarantee its accuracy or completeness.

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Executive summary

Background

Under sub-rule 82(10) of the Gas Services Information Rules (GSI Rules), the Australian Energy Market Operator (AEMO) is required to undertake a review of the Western Australian Gas Bulletin Board (GGB) Zones at least once every five years. The last review under sub-rule 82(10) of the GSI Rules was undertaken in 2015¹.

This draft report presents the preliminary outcomes of the 2020 GGB Zones review and looks at what changes may be required to the current Zones, and whether the information presented by Zones promotes the Gas Services Information objectives (GSI Objectives).

AEMO is seeking feedback from stakeholders on the preliminary findings of this review in accordance with sub-rule 82(11) of the GSI Rules before it is finalised.

The GGB was launched in 2013. The 2015 GGB Zones review was an in-depth review that provided a detailed evaluation of the GGB and the broader requirements of the GSI Rules. A number of recommendations from that review have since been implemented. For the 2020 review, AEMO has focused on ascertaining whether the gas landscape in WA has altered significantly enough to warrant a change in the GGB Zone List. Table 1 shows the current GGB Zone List.

Table 1 GGB Zone List

Zone name	Zone code	Description
Dampier	DM	The Dampier to Bunbury Natural Gas Pipeline (DBNGP) upstream of compressor station (CS) 7, the Burrup Extension Pipeline and the Wheatstone Ashburton West Pipeline.
Metro	MT	The DBNGP from CS7 to CS10.
Parmelia	PR	The Parmelia Gas Pipeline.
South West	SW	The DBNGP downstream of CS10.
Karratha	KA	The Pilbara Energy Pipeline.
Telfer	TL	The Telfer Pipeline and Nifty Lateral Pipeline.
Pilbara	PI	The portion of the Goldfields Gas Pipeline (GGP) upstream of, and including, the Delivery Point connecting the GGP to the Newman Lateral and the Fortescue River Gas Pipeline.
Goldfields	GO	The portion of the GGP downstream of the Newman Lateral to, and including, the Leonora Delivery Point.
Mid-West	MW	The Midwest Pipeline.
Kalgoorlie	KG	The portion of the GGP downstream of the Leonora Delivery Point and the Kalgoorlie to Kambalda Interconnect Pipeline.

In accordance with sub-rule 2(1)(a) of the GSI Rules, AEMO understands the aim of the Zones is to present aggregated data and information relating to the security, reliability, and availability of the supply of natural

¹ The Independent Market Operator (IMO) conducted the first review of the GGB Zone List in May 2015 (2 years after commencement) to consider the impact of and the changes required due to the introduction of the new Fortescue River Gas Pipeline, the Eastern Goldfields Gas Pipeline, and the Gorgon and Wheatstone domestic gas Production Facilities. The IMO Final Report on the 2015 GGB Zones review is available at https://www.aemo.com.au/-/media/Files/Stakeholder_Consultation/Consultations/Gas_Consultations/WA_GSI_Consultation_Documents/imo-final-report-on-the-2015-gas-bulletin-board-zones-review.pdf.

gas in Western Australia. Therefore, the Zones should aggregate/segregate this information in an effective and meaningful manner and promote the GSI Objectives.

Preliminary Findings

AEMO's preliminary findings are that the current GBB Zones List meets the requirements of the GSI Rules and does not require any changes to improve effectiveness. This is because:

- The gas landscape (i.e. number and identity of Registered Participants and Daily Actual Flow Data) in WA has not altered significantly enough to warrant a change to the Zones in order to be consistent with the GSI Objectives.
- Where changes have occurred – for example where new Facilities, including GBB Pipelines, or Registered Participants have registered on the GBB – AEMO considers the information published in the various reports that accompany the GBB is sufficient in providing information on these new Registered Participants and Facilities. This information allows users to ascertain the current and forecast status of natural gas supply, transmission, and storage in WA.
- AEMO does not believe changes to the Zones, beyond what already features in these reports, would add significant value to Registered Participants and other users of the GBB.

On this basis, AEMO's view is that the current information provided on the GBB and associated reports published by AEMO achieve a good balance between transparency of data and confidentiality of sensitive information. AEMO recommends the current GBB Zones List be retained until the next five-yearly review, or until there is a material change in the WA gas market that warrants reconsideration of the Zones under sub-Rule 82(10) of the GSI Rules.

Call for Submissions

To help inform the final report and test the preliminary findings, AEMO invites all interested parties to submit their views on the appropriateness of the current GBB Zone List, and any reasons why changes to the current Zones may be required. Stakeholders are asked to consider the following questions:

- Does the information aggregation/segregation of the current Zones provide meaningful information?
- How could the presentation of Zones data be improved?
- Are there any future gas developments that may impact the future accuracy and/or granularity of information provided by the current Zones?

AEMO welcomes feedback on the level of analysis provided in this draft report, and any other analysis stakeholders consider would be useful as part of this review and future GBB Zones List reviews.

Written submissions should be submitted by email to wa.operations@aemo.com.au by 5:00PM (AWST) Friday 23 October 2020.

Workshop

AEMO invites all interested parties to attend a public workshop on the draft report, to be held by teleconference from 2:00 PM to 3:00 PM on Thursday 15 October 2020. The objective of the workshop is to discuss the draft report and preliminary findings.

If you would like to register for this workshop, please RSVP to wa.operations@aemo.com.au by 5:00 PM (AWST) on Tuesday 13 October 2020. Details of how to join the teleconference will be provided once registration is confirmed.

Final Report

Feedback from consultation, stakeholder submissions and any additional analysis conducted by AEMO will be considered and included in a final report. AEMO expects to publish its final report in November 2020 and present the findings at the November WA Gas Consultative Forum.

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1. Background

1.1 Purpose of the Gas Services Information Rules in WA

The Gas Services Information Rules (GSI Rules) were established in Western Australia (WA) (described as the state) in 2013 as a key recommendation of the Gas Supply and Emergency Management Committee, following two major gas supply disruptions in 2008. The GSI Objectives, outlined in sub-rule 2(1) of the GSI Rules, are to promote the long-term interests of consumers of natural gas in relation to the:

- security, reliability and availability of the supply of natural gas in the state;
- efficient operation and use of natural gas services in the state;
- efficient investment in natural gas services in the state; and
- facilitation of competition in the use of natural gas services in the state.

The GSI Rules introduced a Gas Bulletin Board (GBB)² and Gas Statement of Opportunities (GSOO), which, under sub-rule 2(2) of the GSI Rules, are intended to provide visibility of the current and forecast status of natural gas supply, transmission, storage and use in Western Australia. AEMO is responsible for the operation of the GBB and development of the GSOO under sub-rule 8(1) of the GSI Rules.

1.2 What is the GBB?

As specified in sub-rule 2(2)(a) of the GSI Rules, the GBB is a website designed to provide information relating to short and near-term natural gas supply and demand, and transmission and storage capacity in WA. The GBB publishes forecast and historical data on the domestic production, storage and use of natural gas. It provides gas capacity, flow and consumption reports required under rules 85-89 of the GSI Rules, and is designed for use by Gas Market Participants, regulators, policy makers, future investors, and the general public.

The information published on the GBB (together with the information published in the GSOO) provides insight into WA's natural gas security, reliability and availability, and helps promote competition in the state's gas market. Having accurate and adequate publicly available gas services information is particularly important for WA, as the state relies heavily on gas supply for industrial processing, manufacturing industries and electricity generation, as well as residential use.

1.3 Purpose of the GBB Zones and the review

Part 3 of the GSI Rules places obligations on Registered Participants to report Facility-specific information related to the production, transport, storage and use of natural gas. Some of this information is published as raw data (such as production by Facility). Other information (such as consumption and linepack) is aggregated, either to ensure confidential information is not made public, or to meet AEMO's reporting obligations under the GSI Rules.

Under Division 2 of Part 4 of the GSI Rules, AEMO must publish certain information on the GBB. AEMO is required to aggregate certain Facility data by designating various geographic locations into 'Zones' under rule 82 of the GSI Rules. Currently, each Zone includes specified GBB Pipelines (or part of a GBB Pipeline) and all Receipt Points and Delivery Points connected to those GBB Pipelines or parts of GBB Pipelines. The current Zones and a description of each are shown in the infographic on page 14 and in Table 1.

² For the purpose of the report, GBB refers to the WA Gas Bulletin Board only. The GBB for all other states and territories is outside the scope of this review.

Table 1 GBB Zone List

Zone name	Zone code	Description
Dampier	DM	The Dampier to Bunbury Natural Gas Pipeline (DBNGP) upstream of compressor station (CS) 7, the Burrup Extension Pipeline and the Wheatstone Ashburton West Pipeline.
Metro	MT	The DBNGP from CS7 to CS10.
Parmelia	PR	The Parmelia Gas Pipeline.
South West	SW	The DBNGP downstream of CS10.
Karratha	KA	The Pilbara Energy Pipeline.
Telfer	TL	The Telfer Pipeline and Nifty Lateral Pipeline.
Pilbara	PI	The portion of the Goldfields Gas Pipeline (GGP) upstream of, and including, the Delivery Point connecting the GGP to the Newman Lateral and the Fortescue River Gas Pipeline.
Goldfields	GO	The portion of the GGP downstream of the Newman Lateral to, and including, the Leonora Delivery Point.
Mid-West	MW	The Midwest Pipeline.
Kalgoorlie	KG	The portion of the GGP downstream of the Leonora Delivery Point and the Kalgoorlie to Kambalda Interconnect Pipeline.

AEMO must publish the GBB Zone List on the GSI Website in accordance with sub-rule 82(3) of the GSI Rules. Under sub-rule 82(10) of the GSI Rules, AEMO may review the Zones from time to time as required, and must review the Zones at least once every five years. AEMO’s last review under sub-rule 82(10) was undertaken in 2015³.

This draft report details AEMO’s approach to, and draft findings of the 2020 review of the Zones. Any amendment to the Zones must be carried out in consultation with Gas Market Participants and gas industry groups in accordance with sub-rule 82(11) of the GSI Rules.

The scope of this review was to consider the appropriateness of the current Zones in relation to whether they continue to:

- facilitate the achievement of the GSI Objectives; and
- provide an appropriate breakdown to represent the present, and near to mid-term future gas landscape in the state.

1.4 Approach

AEMO’s approach to the review is as follows.

- **Draft report** – AEMO has prepared this draft report, which summarises the purpose of the GBB, outcomes of the previous (2015) review, and any changes to the GBB Zone List since the previous review. AEMO does not propose any changes to the GBB Zone List in this draft report.

³ The IMO conducted the first review of the GBB Zone List in May 2015 (2 years after commencement) to consider the impact of and the changes required due to the introduction of the new Fortescue River Gas Pipeline, the Eastern Goldfields Gas Pipeline, and the Gorgon and Wheatstone domestic gas Production Facilities. The IMO Final Report on the 2015 GBB Zones review is available at https://www.aemo.com.au/-/media/Files/Stakeholder_Consultation/Consultations/Gas_Consultations/WA_GSI_Consultation_Documents/imo-final-report-on-the-2015-gas-bulletin-board-zones-review.pdf.

- **Formal consultation** – AEMO has published this draft report for public consultation and invites public submissions over a four-week period. AEMO will review submissions and implement changes to the draft report as necessary following the formal consultation. AEMO will hold a forum to discuss the findings of the draft report on Thursday 15 October 2020. Interested parties may use this opportunity to provide feedback on the proposals in the draft report. AEMO will be accepting feedback on the draft report until 5:00PM (AWST) on Friday 23 October 2020.
- **Final report** – AEMO will prepare a final report that summarises all feedback received from stakeholders. The final report may include any recommended changes to the GBB Zone List that emerge via consultation.
- **Implement recommendations** – The final recommendations may include a proposed change to the GBB Zone List. If so, this will be implemented by following the process described in the GSI Rules.

1.5 Structure of this report

This report provides the following information:

- Chapter 1 – background
- Chapter 2 – analysis and findings on the appropriateness of the current Zones and use of zonal data
- Chapter 3 – draft recommendations and key questions for stakeholder consultation
- Chapter 4 – next steps

2. Analysis and Findings

This section provides an overview of:

- information currently published on the GBB;
- changes in the WA gas landscape since the last review; and
- AEMO's view on whether any modification to the granularity of GBB data is warranted as a result of these changes.

2.1 Data Provision and Publication

The current GBB Zone List is outlined in Table 1. The Zones provide a way of aggregating gas production and flows in the state for reporting purposes. The data that AEMO must collect and publish on the GBB is outlined in the GSI Rules, specifically rules 83 to 91 (see Appendix A of this report). Data currently published on the GBB includes a network map and a series of reports that relate to the flows of gas aggregated by Zone.

2.1.1 Network map

Under rule 91 of the GSI Rules, AEMO must maintain a map that displays the various GBB Pipelines and Zones. AEMO publishes an interactive map of the state with a visual delineation between Zones and GBB Pipelines⁴. The map allows users to select particular Zones to view which connection points are located in these Zones. This map also provides daily indications of which connection points are withdrawing gas, injecting gas, storing gas, or performing a combination of these functions. Further to this, a breakdown of the Consumption Category (distribution, electricity generation, minerals processing, mining, industrial/manufacturing, other) of gas consumption is provided (see infographic on page 14).

The map functions as a quick reference for users as to the status of each GBB Pipeline and Zone, by outlining the Capacity Outlook, the Nominated and Forecast Flow Data, and the linepack capacity adequacy flags (LCA Flags). Users can identify the status of the Zones by using the map and observing if there are any discrepancies with normal operation.

Under rule 83 of the GSI Rules, AEMO must publish the network representation (or topology of the gas network) on the GBB⁵. This is a list aggregated by GBB Pipelines and Zones, which catalogues the connection points and identifies which Facilities are withdrawing/injecting/storing gas from which GBB Pipeline at these connection points. This information provides a comprehensive list of the identifying codes of the connection points, so that users can correlate the topology with published reports.

2.1.2 GBB Reports

Part 3 of the GSI Rules specifies a range of gas capacity, flows, consumption and end user information that Registered Participants must provide and AEMO must publish on the GBB. AEMO meets these requirements by publishing granular information, whilst preserving any confidentiality requirements, provided by Registered Participants in reports. The reports published by AEMO are summarised in the following table from the GSI Procedure – Operation of the GBB and EMF⁶:

⁴ GBB map can be accessed at: <https://gbbwa.aemo.com.au/#home>.

⁵ GBB topology can be accessed at: <https://gbbwa.aemo.com.au/#topology>.

⁶ GSI Procedure – Operation of the GBB and EMF can be accessed at <https://aemo.com.au/energy-systems/gas/wa-gas-bulletin-board-wa-gbb/procedures-policies-and-guides>

Table 2 Reports published on the GBB

Report name	Description	Timeframes
Capacity Outlook	The 7-day Capacity Outlook for all GBB Pipelines, GBB Storage Facilities and GBB Production Facilities from Gas Day D to Gas Day D+6 inclusive. [subrule 85(a)]	Initial Report: Daily between 6:00 AM on Gas Day D-1 and the start of Gas Day D. Update: As soon as possible following the receipt of updated data.
Linepack capacity adequacy outlook	The LCA Flag for each GBB Pipeline or parts of a GBB Pipeline in a Zone and each GBB Storage Facility for Gas Day D to D+2 inclusive. [subrule 85(b)]	Initial Report: Daily between 6:00 AM on Gas Day D-1 and the start of Gas Day D. Update: As soon as possible following the receipt of updated data.
Nominated and Forecast Flow Data	For each Zone [subrule 86(1)(a) and (b)] and each GBB Storage Facility [subrule 86(1)(c)]: The aggregated quantity of gas nominated for all Receipt Points Gas Day D and forecast for each of Gas Day D+1 to D+6 inclusive. The aggregated quantity of gas nominated for all Delivery Points for Gas Day D and forecasts for each of Gas Day D+1 to D+6 inclusive.	Initial Report: Daily between 6:00 AM on Gas Day D-1 and the start of Gas Day D. Update: As soon as possible following the receipt of updated data.
Actual Flows	For each Zone [subrules 87(1)(a) and (b)]: The actual flow of gas aggregated for all Receipt Points and aggregated for all Delivery Points for each Gas Day D. For each Gate Station [subrule 87(1)(c)]: The aggregated actual flow of gas each Gas Day D. For each GBB Storage Facility [subrule 87(1)(d)]: The actual gas flow into the storage and out of the storage facility for each Gas Day D. For each GBB Production Facility [subrule 87(1)(e)]: The actual gas out of the production facility for each Gas Day D.	Report: Daily between 2:00 PM and 6:00 PM on Gas Day D+2. Update: As soon as possible following the receipt of updated data for a Production Facility.
Daily Actual Consumption Data by Zone	Aggregate (by Zone) actual gas consumption of Large User Facilities for each Gas Day D. [subrule 89(1)(a)] Aggregate (by Zone) actual gas quantity injected into the Distribution System (excluding Large User Facilities) for every Zone for each Gas Day D. [subrule 89(1)(b)] Aggregate (by Zone) actual gas consumption excluding Large User Facilities and Distribution System for every Zone for each Gas Day D. [subrule 89(1)(c)]	Report: Daily between 2:00 PM and 6:00 PM on Gas Day D+2.
Large User consumption information	Actual gas consumption for each Large User Facility for every Gas Day D. [subrule 88(3)] Actual gas consumption, aggregated by Zone and Consumption Category for each Gas Day D. [subrule 88(1)]	Report: Daily between 2:00 PM and 6:00 PM on Gas Day D+7.
Gas Specification Data	Gas Specification Data for PIA Pipelines and PIA Production Facilities (and Non-PIA Gas Production Facilities which are obliged to submit Gas Specification Data) for every Gas Day D. [rule 90]	Report: Daily between 2:00 PM and 6:00 PM on Gas Day D+8.
Medium Term Capacity Outlook	Planned Service Notifications (or maintenance reports) for all upcoming capacity constraints of all Registered Facilities during the next 12 calendar months (M to M+11 inclusive). [subrule 85(c)]	Initial Report: Monthly between 6:00 AM and 8:00 AM on the first day of each calendar month M. Update: As soon as practicable where an update is submitted.

From Table 2, it can be ascertained that the following published information is aggregated by Zone:

- Linepack capacity adequacy outlook;
- Nominated and Forecast Flow Data;
- Daily Actual Flow Data;
- Daily Actual Consumption Data of Large User Facilities and Distribution Systems; and
- Large User Facility consumption.

Whilst the GBB functions as a method of delivering as much information as possible to those invested and interested in the WA gas industry, there is a risk that providing information with too much granularity can compromise confidentiality. Aggregating the publication of data by Zones mitigates this risk, as it does not present confidential Facility-specific information. Instead, it provides an aggregated snapshot of the information for a specific region. In any review of the GBB Zone List, AEMO's view is that the confidentiality of business-critical information should be maintained, including in accordance with the requirements of the GSI Act and GSI Rules, unless justified otherwise.

Conversely, aggregation of data by Zones poses the risk of not publishing data to an adequate level of transparency. The GSI Rules and GBB reports mitigate this risk by publishing a suite of reports that present aggregated information and then publishing reports at a later date that present the information at a greater level of granularity. These reports include production quantities by Facility, Medium Term Capacity Outlook (7-day to 1-year outlooks) and short-term Capacity Outlooks (7-day outlooks), Facility-based consumption (receipt and deliveries), and Large User based consumption information. All flow information published on the GBB is published as a daily quantity in TJ/day.

2.2 Changes to the gas landscape since the previous review

This section presents a view of the current WA gas landscape using current information held on the GBB, and an assessment of what has changed since 2015. A summary is shown in the infographic on page 14.

2.2.1 Participant and Facility Changes

As of September 2020, there are 93 Gas Market Participants registered on the GBB. This is an increase of 17 Registered Participants since July 2015. The new Gas Market Participants include an additional 11 Shippers, three Registered Facility Operators, and three Gas Market Participants that are both Shippers and Registered Facility Operators.

Facility changes since July 2015 include:

- the introduction of the Tubridgi Storage Facility located in the Dampier Zone, which has contributed to an additional 60,000 TJ of storage capacity in the state. Storage Facilities can act as an additional resource for injecting gas into a pipeline, should linepack capacity adequacy become an issue.
- an additional three Large User Facilities (Perth Energy Kwinana GT1, Cape Lambert Power Station, and South Hedland Power Station), primarily electricity generation facilities;
- the introduction of the Wheatstone Ashburton West Pipeline (WAWP) in the Dampier Zone; and
- three Production Facilities (Gorgon, Wheatstone⁷, and Pluto) located in the Dampier Zone and one new Production Facility (Xyris) in the Parmelia Zone.

Additionally, in a recent media statement, the State Government announced an amendment to the WA Domestic Gas Policy to allow the Waitsia Gas Project in the Mid-West to fill available capacity at the Karratha Gas Plant Production Facility and export some of its gas as LNG for a short period of time.⁸

⁷ Wheatstone changed from a Large User Facility to a Production Facility in December 2018.

⁸ More information is provided in the media statement available at: <https://www.mediastatements.wa.gov.au/Pages/McGowan/2020/08/Revised-policy-to-secure-domestic-gas-supply-and-create-jobs.aspx>.

2.2.2 Changes to the flows of gas

The Dampier Zone remains the primary source of production, making up 99% (an increase of 1% from July 2015) of the gas injected into GBB Pipelines. The remaining 1% of production comes from the Xyris and the Beharra Springs Production Facilities, both located in the Parmelia Zone.

The majority of consumed gas is located in the south-west of the state, with 64% of consumption in the Metro, South-West and Parmelia Zones. Additional consumption is primarily from mining and industrial use in the Dampier Zone (14%), and Large Users for mining in the Kalgoorlie and Goldfields Zones (13%).

The Zones provide a useful way of aggregating information on a geographic basis within the state. Despite this aggregation and as shown in Table 2, users are able to identify how consumption and production flows have changed on a Facility basis through the Daily Actual Flow Data reports for individual connection points that are GBB Storage Facilities, GBB Production Facilities, or Large User Facilities. Other connection points do not have sufficient injection or withdrawal volumes to meet the 10 TJ/day registration threshold.

2.3 Consideration of 2015 review recommendations

As part of the 2015 GBB Zones review, the former Independent Market Operator⁹ (the IMO) engaged Marsden Jacob Associates Pty Ltd (Marsden Jacob), an independent consultant. Marsden Jacob's draft report made four recommendations:

1. Remove the definition of the Zones from the GSI Rules and instead include it in a GSI Procedure.
2. Publish Nominated and Forecast Flow Data for individual Facilities.
3. Capture Large User Facility data connected to non-GBB pipelines.
4. Adopt new guidelines for adding Facilities to the Zones and/or modifying the Zones and these guidelines should also be included in a GSI Procedure.

Recommendations 1 and 4 are both about the removal/modification of Zones, or information contained within the Zones, and should be considered together. The IMO (AEMO's predecessor in WA) accepted these recommendations and proceeded to propose the necessary changes to the GSI Rules in a rule change (GRC_2018_01)¹⁰, which commenced on 1 March 2019. The changes included removing the definition of the Zones from rule 82 of the GSI Rules, and adding requirements to rule 82 that provide the process by which AEMO can add and/or modify the Zones. Prior to this rule change, if an addition or an amendment to the GBB Zone List was needed, a rule change would have needed to be progressed.

The aim of recommendation 2 was to enhance the level of information provided on the GBB. The IMO initially intended to adopt this recommendation and gave further consideration to publishing outage warnings at the Facility level, as well as Nominated and Forecast Flow Data. However, this matter was deprioritised and was not progressed by the IMO or the Gas Advisory Board (GAB) due to concerns regarding commercially sensitive information. Therefore, AEMO intends to close this recommendation. If stakeholders support reviving this recommendation, AEMO suggests it is raised for discussion at the GAB, rather than through this review, as it does not relate to the GBB Zones.

Recommendation 3 was not progressed, as the current GBB design will capture withdrawals through a non-GBB pipeline from a connection point on a GBB Pipeline. AEMO regularly reviews the consumption at all connection points to capture any changes in withdrawals, including from non-GBB pipelines that necessitates Large User Facility Registration. Since this time, the matter of withdrawals by consumers for LNG trucking has been under consideration by the GAB.¹¹ Therefore, this recommendation will be closed and is considered to be superseded by recent discussions at the GAB on LNG trucking.

⁹ The IMO functions in relation to the operation of the GBB were transferred to AEMO in 2015.

¹⁰ More information is available at: https://www.erawa.com.au/cproot/20171/2/GRC_2018_01%20--%20Final%20Rule%20Change%20Report.pdf.

¹¹ See GAB Meeting 2020_03_12 Minutes, Item 6: https://www.erawa.com.au/cproot/21102/2/GAB-2020_03_13---Meeting-Papers.pdf

Therefore, AEMO is satisfied that the recommendations from the 2015 review have been addressed, or can be closed because they will not be progressed.

GBB (WA) Zones Review - 2020

A snapshot of the data currently held on the GBB (WA) and the changes to the GBB (WA) landscape since July 2015.

94

Participants registered to the GBB (WA) as of July 2020

31

Exclusive Shippers

28

Exclusive Facility Operators

35

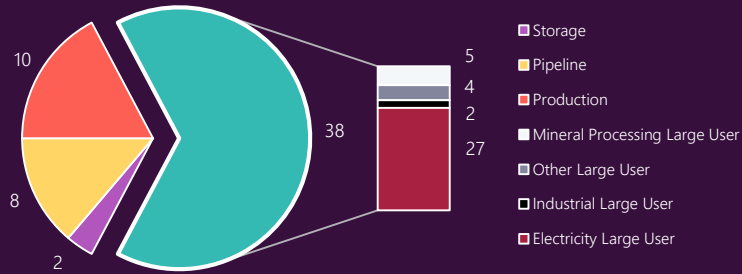
Both Shippers & Facility Operators

99%

of Production remains in the Dampier Zone

Of GBB's total consumption, **Metro, South-West and Parmelia** make up **64%**

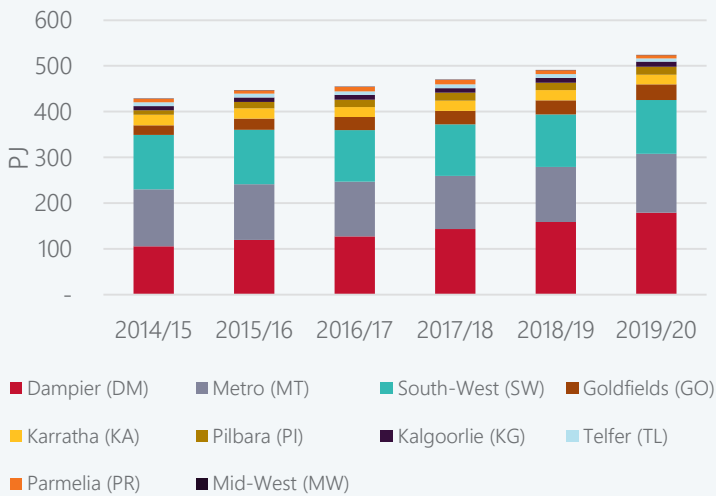
Registered Facility Breakdown in 2020



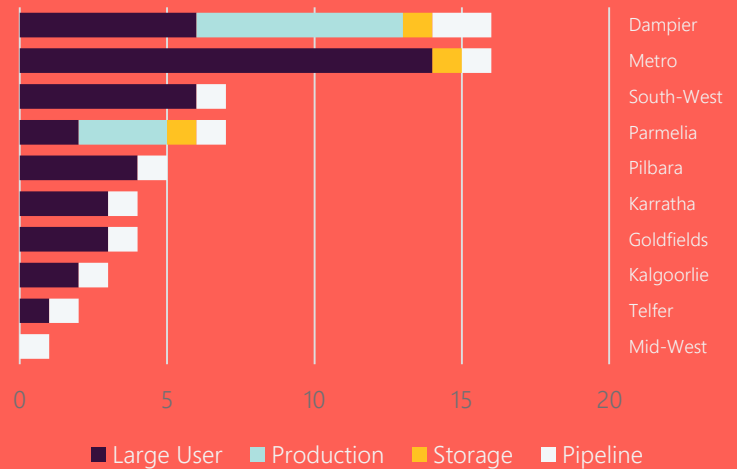
Registration Changes Since 2015



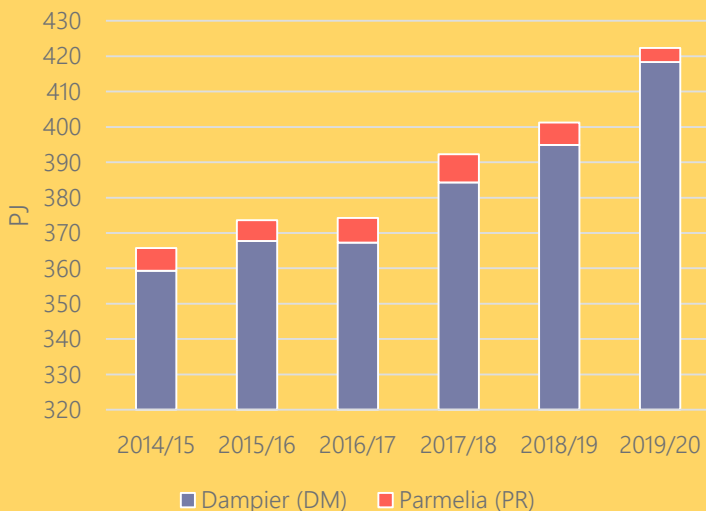
End User Consumption by Zone



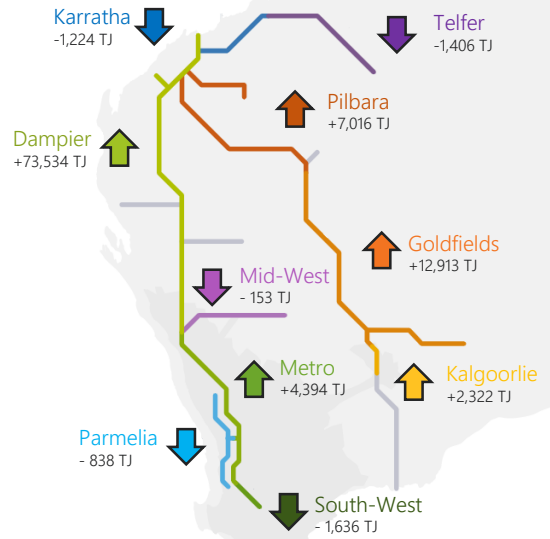
Type of Facility by Zone in 2020



Production by Zone



Consumption Variance between 2014/15 and 2019/20



3. Findings and Recommendations

3.1 Preliminary Findings

AEMO's preliminary finding is that the current level of data provision meets the requirements and objectives of the GSI Rules.

The reports currently published in relation to the Zones, provide a reasonable balance between preserving a level of confidentiality, and allowing sufficient granularity to allow users to interrogate information on the near to mid-term future gas landscape in the state. Additionally, the volume and variety of Zone reports and other published complementary documents (such as the GSOO) means the current Zone division does not inhibit the transparency of data available to users.

AEMO encourages interested parties to consider the usefulness of the current Zone division and to submit any proposals that may improve the representation of Zone data on the GBB.

AEMO observes that:

- There have been some registration changes since the 2015 review, in the form of additional Production Facilities, additional Storage Facilities, a new GBB Pipeline, and new Shippers. However, these additions do not require changes to Zone-aggregated data because the impact of these registration changes is captured sufficiently in the various reports AEMO publishes alongside the GBB.
 - The introduction of the WAWP does not extend into a geographic region outside of the Dampier Zone. The WAWP is currently featured as an additional GBB Pipeline in the Dampier Zone and functions as a source of gas production from the Wheatstone Production Facility, and gas storage from the Tubridgi Storage Facility. Therefore, the WAWP does not significantly change the use and distribution of gas in the Dampier Zone to warrant a change. The GBB captures and reports data at the Facility level, and therefore, the aggregation of the WAWP into the Dampier Zone does not impede transparency of data published to the GBB.
 - The introduction of the three Large User Facilities and four Production Facilities do not warrant changes to the Zones for similar reasons. No significant changes to flows throughout the Zones have been observed as a result of these additions.
- The recent change to the WA Domestic Gas Policy will see the addition of a new Production Facility. However, the necessary information will be adequately captured within the existing Zones. AEMO considers the current Zones are adequate in accommodating the Waitsia Gas Project. As the GBB captures injections and withdrawals at the connection point, information in relation to this project will not be obscured by the aggregation of data by Zones. In addition to data aggregated by Zone, AEMO publishes information for individual Production Facilities – this will capture the Waitsia facility. Thus, no change to the Zones is considered necessary in relation to this policy change.
- There has been no distinct change in flow patterns, as:
 - the majority of gas continues to be produced almost wholly in the Dampier Zone;
 - consumption remains largely focused to the south-west of the state (Metro, South-West, and Parmelia Zones), with additional consumption supplied to mining users in the Kalgoorlie, Goldfields, and Dampier Zones and industrial users in the Dampier Zone; and
 - Zones with diverse gas use are not geographically large (e.g. Metro Zone), and Zones with uniform gas use (Pilbara, Goldfields and Kalgoorlie Zones) are divided based on geographic regions.

- Where users wish to find out more about the location, production or consumption of these new Facilities, this information is available in the various Facility-level reports currently published by AEMO. AEMO publishes aggregated consumption by zone on Gas Day D+2. This information remains aggregated until AEMO publishes consumption at the granularity of a Large User Facility level on Gas Day D+7. Large User Facility consumption is considered business critical information, as it may indicate, in the short-term, how these Facilities (such as gas-fired generators) intend to operate in other markets (such as the Wholesale Electricity Market (WEM)). The aggregation of consumption data by Zone, therefore, provides useful information in relation to the GSI Objectives under rule 2 of the GSI Rules, without disclosing business critical information precipitously.
- The publication of zonal data remains useful to provide a sense of how different regions may have changed over time. Users can access Facility data to determine how the zonal changes have occurred.

Therefore, AEMO considers that the changes to the gas landscape in WA since the previous review do not warrant changes to the GBB Zone List.

3.2 Preliminary Recommendations

AEMO's preliminary recommendation is that the current GBB Zone List is retained, and that no changes to the current GBB Zone List are made.

AEMO makes this recommendation on the basis that:

- the current Zones division and provision of information available via the GBB satisfies the requirements of the GSI Rules and the GSI Objectives;
- the addition of new Production Facilities, Large User Facilities, and GBB Pipelines has not materially impacted the existing Zone boundaries or aggregation of data;
- AEMO publishes Large User Facility and Production Facility level data in a series of reports to the GBB, in addition to Zone reports, which provide sufficient publicly available information to allow visibility of the current and forecast status of natural gas supply, transmission, and storage in WA, without the need to alter the GBB Zone List;
- there have been no distinct changes in flow patterns; the majority of gas continues to be produced almost wholly in the Dampier Zone, and consumption remains focused in the Metro, South-West and Parmelia Zones; and
- data on the addition of the new Production Facility at Waitsia (as signalled by the recent State Government announcement on the WA Domestic Gas Policy), will be captured adequately within the existing Zones and associated reports.

If stakeholders have any recommendations that may improve the quality of Zone data representation on the GBB, AEMO encourages them to submit those recommendations as part of this review. Recommendations will be considered following the publication of this draft report until Friday 23 October 2020.

Recommendations may require changes to the GSI Rules. If so, recommendations will be discussed at relevant GAB meetings. Recommendations may include, but are not limited to:

- the addition or aggregation of Zones;
- a request for provision of more or different data by Zone;
- a request for the aggregation of specific data by Zone; and
- a request for the disaggregation of certain data by Zone.

4. Next steps

4.1 Stakeholder engagement

The Zones should present aggregated data and information relating to the security, reliability, and availability of the supply of natural gas in WA. The Zones should aggregate/segregate this information in an effective and meaningful manner. This review is conducted under sub-rule 82(10) of the GSI Rules and is designed to consider whether the current presentation of the Zones and aggregation of data is appropriate and promotes the GSI Objectives.

To help inform this review, AEMO would like stakeholders to consider the following questions:

1. Does the information aggregation/segregation of the current Zones provide meaningful information?
2. How could the presentation of Zone data be improved?
3. Are there any future gas developments that may impact the accuracy/granularity of information provided by the current Zone classification?

AEMO also welcomes feedback on the level of analysis provided in this draft report, and any other analysis stakeholders consider would be useful as part of this and future GBB Zone reviews.

AEMO invites written submissions on the above questions, which should be emailed to wa.operations@aemo.com.au by 5:00PM (AWST) on Friday 23 October 2020. AEMO will also consider any information provided by stakeholders during the forum to be held on Thursday 15 October 2020.

4.2 Review process

AEMO will consider submissions and make any required changes in its final report. AEMO reiterates that the scope of this review is limited to the GBB Zone List and interested parties should ensure their feedback, comments, questions, and suggestions remain relevant to the scope of the review.

AEMO will review all suggestions from the public consultation and produce a final report with final recommendations. The final report developed by AEMO will address the same matters as this draft report, with an updated summary of the feedback received at the throughout the consultation process.

Abbreviations

Abbreviation	Expanded term
AEMO	Australian Energy Market Operator
CS	Compressor station
DBNGP	Dampier to Bunbury Natural Gas Pipeline
GAB	Gas Advisory Board
GBB	Gas Bulletin Board (WA)
GGP	Goldfields Gas Pipeline
GSI	Gas Services Information
GSOO	Gas Statement of Opportunities
IMO	Independent Market Operator (AEMO's predecessor)
LCA	Linepack Capacity Adequacy
WAWP	Wheatstone Ashburton West Pipeline
WEM	Wholesale Electricity Market of Western Australia

Appendix A – GSI Rules 83 to 91 (GBB information provision)

Division 2 AEMO to publish certain information on GBB

83 Network representation (Zone) information

- (1) AEMO must publish the following network representation information on the GBB for each Zone:
 - (a) the GBB Pipelines that are located wholly or partly in the Zone;
 - (b) Receipt Points and Delivery Points, including Gate Stations, which are included in the Zone;
 - (c) GBB Production Facilities that supply gas to the Zone and the Receipt Points through which that gas is injected;
 - (d) GBB Storage Facilities that are connected to a GBB Pipeline in the Zone and the associated Receipt Points and Delivery Points;
 - (e) GBB Large User Facilities that can take gas from the Zone and the Delivery Points through which that gas is delivered; and
 - (f) each Receipt Point or Delivery Point in the Zone that provides a connection to another GBB Pipeline, and the corresponding Delivery Point or Receipt Point on that other GBB Pipeline.
- (2) AEMO must update the GBB when the network representation information is modified, or when required as a result of a change to Facility Data.

84 Publication of general information on GBB

AEMO must publish the following general information on the GBB:

- (a) a list of all Registered Participants;
- (b) Contact Information;
- (c) a list of all Registered Facilities;
- (d) a list of all Receipt Points, Delivery Points and Gate Stations;

- (e) a list of Delivery Points in relation to which information provided under rule 61(1);
- (f) PIA Summary Information; and
- (g) Nameplate Capacity Data for all Registered Facilities.

85 Publication of capacity outlook information on GBB

AEMO must publish the following capacity outlook information on the GBB:

- (a) the Capacity Outlook details provided by Registered Pipeline Operators, Registered Storage Facility Operators and Registered Production Facility Operators under rules 57, 65 and 72;
- (b) the LCA Flags provided by Registered Pipeline Operators and Registered Storage Facility Operators under rules 58 and 66; and
- (c) Medium Term Capacity Outlooks provided by Registered Pipeline Operators, Registered Storage Facility Operators and Registered Production Facility Operators under rules 56, 64 and 71.

86 Publication of nominated and forecast flow information on GBB

(1) AEMO must publish the following nominated and forecast flow information on the GBB:

- (a) Nominated and Forecast Flow Data for Receipt Points provided under rule 59, aggregated by Zone and Gas Day;
- (b) Nominated and Forecast Flow Data for Delivery Points provided under rule 59, aggregated by Zone and Gas Day; and
- (c) for each Gas Day, the Nominated and Forecast Flow Data for each GBB Storage Facility provided under rule 67 or, where a Registered Storage Facility Operator has been granted an exemption under subrule 67(3), the information provided under rule 59 for the relevant Receipt Points and Delivery Points, aggregated by:
 - (i) all Delivery Points at which gas is withdrawn from one or more GBB Pipelines for injection into the storage facility; and
 - (ii) all Receipt Points at which gas withdrawn from the storage facility is injected into one or more GBB Pipelines.

(2) AEMO may publish on the GBB the following information:

- (a) where a GBB Pipeline is injected with gas from another GBB Pipeline located in another Zone, the nominated and forecast flow from one GBB Pipeline into the other GBB Pipeline, by Gas Day; and
- (b) for each GBB Pipeline, a residual amount representing the difference between nominated and forecast flows of the gas to be injected into the pipeline and withdrawn from the pipeline, by Gas Day.

87 Publication of actual flow information on GBB

- (1) AEMO must publish on the GBB the following actual flow information:
 - (a) Daily Actual Flow Data for Receipt Points provided under rule 60, aggregated by Zone and Gas Day;
 - (b) Daily Actual Flow Data for Delivery Points provided under rule 60, aggregated by Zone and Gas Day;
 - (c) for each Gas Day, the Daily Actual Flow Data for each Gate Station provided under rule 60;
 - (d) for each Gas Day, the Daily Actual Flow Data for each GBB Storage Facility provided under rule 68 or, where a Registered Storage Facility Operator has been granted an exemption under subrule 68(2), the information provided under rule 60 for the relevant Receipt Points and Delivery Points, aggregated by:
 - (i) all Delivery Points at which gas is withdrawn from one or more GBB Pipelines for injection into the storage facility; and
 - (ii) all Receipt Points at which gas withdrawn from the storage facility is injected into one of more GBB Pipelines; and
 - (e) for each Gas Day, the Daily Actual Flow Data for each GBB Production Facility provided under rule 73 or, where a Registered Production Facility Operator has been granted an exemption under subrule 73(2), the information provided under rule 60 for the relevant Receipt Points, being the aggregate of all Receipt Points at which gas produced by the facility is injected into one or more GBB Pipelines.
- (2) AEMO may publish on the GBB the following information:
 - (a) where a GBB Pipeline is injected with gas from another GBB Pipeline located in another Zone, the actual flow from one GBB Pipeline into the other GBB Pipeline, by Gas Day; and
 - (b) for each GBB Pipeline, a residual amount representing the difference between gas injected into the pipeline and withdrawn from the pipeline, by Gas Day.

88 Publication of GBB Large User Facility consumption information on GBB

- (1) AEMO must publish on the GBB for each Zone for each Gas Day, the information provided under rule 78 or, where a Registered Large User has been granted an exemption under subrule 78(2), the information provided under rule 60 for the relevant Delivery Points, aggregated by the following Consumption Categories:
 - (a) consumption in the mining industry, including electricity generation for mining;
 - (b) consumption for other electricity generation;
 - (c) consumption for minerals processing;
 - (d) consumption for other manufacturing processes, including industrial consumption of gas as a raw material; and
 - (e) other GBB Large User Facility consumption.

- (2) Where a GBB Large User Facility consumes gas supplied directly from more than one Zone and it is not possible to apportion the consumption of the facility across the relevant Zones, AEMO may publish information under subrule (1) in any one of the relevant Zones and must endeavour to do so on a consistent basis over time.
- (3) AEMO must publish on the GBB for each GBB Large User Facility and each Gas Day, the information provided under rule 78 or, where a Registered Large User has been granted an exemption under subrule 78(2), the information provided under rule 60 for the relevant Delivery Point.
- (4) AEMO may publish the information referred to in subrule (1) aggregated for all Zones.

89 Publication of other end user consumption information on GBB

- (1) AEMO must publish on the GBB for each Zone for each Gas Day, the following information:
 - (a) aggregate Daily Actual Consumption Data by GBB Large User Facilities;
 - (b) distribution network connected consumption, being aggregated daily flow for Delivery Points (excluding any GBB Large User Facilities) into Distribution Systems; and
 - (c) other consumption that is neither GBB Large User Facility consumption or distribution network connected consumption.
- (2) Where distribution network connected consumption is for gas supplied directly from more than one Zone and it is not possible to apportion the consumption across the relevant Zones, AEMO may publish information under subrule (1)(a) in any one of the relevant Zones and must endeavour to do so on a consistent basis over time.

90 Publication of gas specification information on GBB

AEMO must publish on the GBB the following gas specification information:

- (a) Gas Specification Data provided by all PIA Pipeline Operators under rule 61;
- (b) Gas Specification Data provided by all PIA Production Facility Operators under rule 74; and
- (c) Gas Specification Data provided by Gas Market Participants under rule 75.

91 Publication of map on GBB

- (1) AEMO must maintain a map on the GBB which displays GBB Pipelines and Zones.
- (2) The map published on the GBB must show the following current Gas Day information:
 - (a) Capacity Outlook information for each GBB Pipeline, GBB Storage Facility and GBB Production Facility;
 - (b) Nominated and Forecast Flow Data referred to in rule 86; and
 - (c) LCA Flags for:

- (i) each GBB Pipeline in each Zone; and
- (ii) each GBB Storage Facility.