Gas supply disruption
6 – 12 January 2023

Presented to WA Gas Consultative Forum

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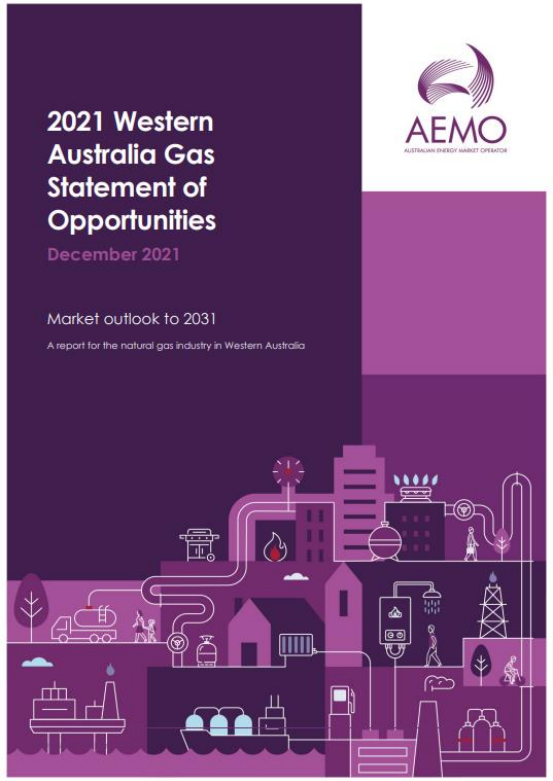
16 February 2023

Background:
AEMO's role in GSI Rules

GBB (WA)

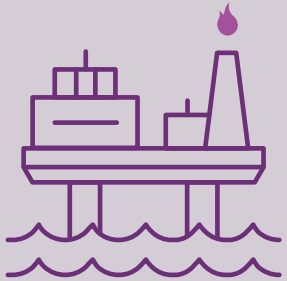
EMF

GSOO



Background:
Registered Participant Types

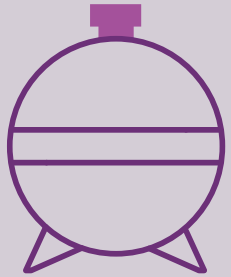
Production Facility Operators



Pipeline Operators

Gas Shippers

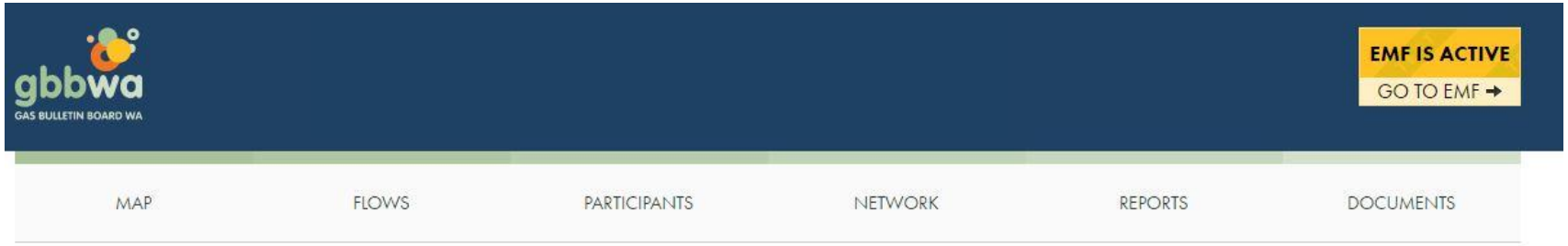
Storage Facility Operators



Large Users

Linepack Capacity Adequacy

Emergency Management Facility



- The Emergency Management Facility (EMF):
  - is an online information service that is part of the Gas Bulletin Board (GBB);
  - provides an efficient and automated means of collecting and sharing information to assist in the management of a gas supply disruption; and
  - is activated by an EMF Direction from the Coordinator of Energy*.
- In general, there are **two reasons** that lead to the **activation** of the **EMF**:
  1. There has been a gas supply disruption; or
  2. The Coordinator of Energy is conducting a **test** of the EMF in line with the GSI Rules.
- Further information on how the EMF is to be operated can be found in Part 5 of the GSI Rules.

* The Coordinator of Energy is the Hazard Management Agency for gas, liquid fuel and electricity supply disruptions. Under the Coordinator of Energy's direction, Energy Policy WA develops and maintains the State Hazard Plan and operational procedures for managing supply disruptions, and carries out regular exercises.

EMF activation

Once the direction is received, AEMO will:

1. Activate the EMF on the GBB; and
2. Issue a GBB (WA) Market Message to Registered Participants to advise of the activation and the data collection requirements.

Access to the EMF will be via the **GBB website** and a **icon** will appear on the GBB website when the EMF has been **activated**.

Gas Bulletin Board (WA)

Market Message

Dear Gas Market Participants,

Please be aware of the following message and its status mentioned below:

Time of Message

06/01/2023 17:14 WST

Information

Please be advised that the Emergency Management Facility (EMF) on the Gas Bulletin Board (GBB) (WA) has been activated at the direction of the Coordinator of Energy.

The EMF is currently active as at 06/01/2023 17:05 in response to a gas supply disruption.

Registered GBB (WA) Facility Operators must do the following:

1. All GBB (WA) Facility Operators: Check that Facility Standing Data on GBB (WA) is up to date. If not, update Standing Data in the GBB (WA) through the "Capacities" screen.

2. Pipeline Operators: until otherwise notified please provide the following information:
   - By 9:00am on Gas Day D+1: interim Daily Actual Flow data for Gas Day D.
   - By 12:00pm on Gas Day D+1: updated Daily Actual Flow data for Gas Day.
   - Please submit this data as normal through the "Submission" screen in the GBB (WA).

3. Large Users capable of using alternative fuels: until otherwise notified please provide:
   - By 9:00am: quantity and type of alternative fuel(s).
   - By 9:00am: time required to commence using alternative fuel.
   - By 9:00am: period of time that the facility can operate using alternative fuel.
   - Please submit this data to wa.operations@aemo.com.au using the template attached to this email.

Further information regarding the activation of the EMF can be found on the EMF Notice on the GBB (WA).

Support Information

If you have any queries about this notification please contact the AEMO WA Market Operations & Support team at wa.operations@aemo.com.au or on 1300 989 797, option 1.

GBB (WA) users granted access to the EMF will see this icon and can access the EMF by clicking "Go to EMF".

Visitors to the GBB site will see this icon and pop-up notice.

EMF data provision

- The GBB (WA) Market Message will advise of the **data collection requirements**.
- The GSI Rules specifies that data that must be provided by Gas Market Participants.
- The Coordinator of Energy may at any time during an active EMF **request additional ad hoc data** to be provided.

Standing Data - All GBB Facility Operators

- Check that Facility Standing Data on GBB is up to date in the GBB "Capacities" screen.

Daily Actual Flows - Pipeline Operators (GSI Rule 97(2)(b)):

- By 9:00am on Gas Day D+1: interim Daily Actual Flow data for Gas Day D.
- By 12:00pm on Gas Day D+1: updated Daily Actual Flow data for Gas Day.
- Data is submitted as normal through the "Submission" screen in the GBB.

Alternate Fuel Data - Large Users (GSI Rule 97(2)(c)):

- By 9:00am: quantity and type of alternative fuel(s), time required to commence using alternative fuel and period of time that the facility can operate using alternative fuel.
- Data is submitted by email using a prescribed excel template.

Ad Hoc Data - All GBB Participants (GSI Rule 97(2)(a)):

- At the discretion of the Coordinator of Energy.
- Examples may include amount of gas currently held in a Storage Facility, detailed planned maintenance information or information on the daily capacity outlook for >7 days
- Data is submitted by email using a prescribed excel template.

Event overview

Thursday 5 January

Afternoon:

The Wheatstone gas production facility experienced an unplanned outage.

~215 TJ/day capacity removed from the WA gas market.

Existing facility (Varanus Island / Devils Creek) technical constraints already reducing capacity by 445 TJ/day.

Evening:

Line pack on the DBNGP is approaching critical levels and deteriorating. ~14 hours of line pack remaining.

AGIG submit an Amber LCA in the GBB (WA) for the DBNGP and notify AEMO Operations.

AGIG take initial actions to reduce imbalance on pipeline.

Friday 6 January

Morning:

Linepack on the DBNGP has further deteriorated and dropping, ~10 hours remaining.

Coordinator of Energy triggers energy supply disruption hazard plan and stands up OAMT.

Afternoon:

Coordinator of Energy seeks voluntary response from gas market participants.

CoE activated the GBB (WA) EMF.

AEMO issues communications on data submission requirements and starts engaging stakeholders.

Saturday 7 January

Morning:

Linepack still critical but no longer deteriorating.

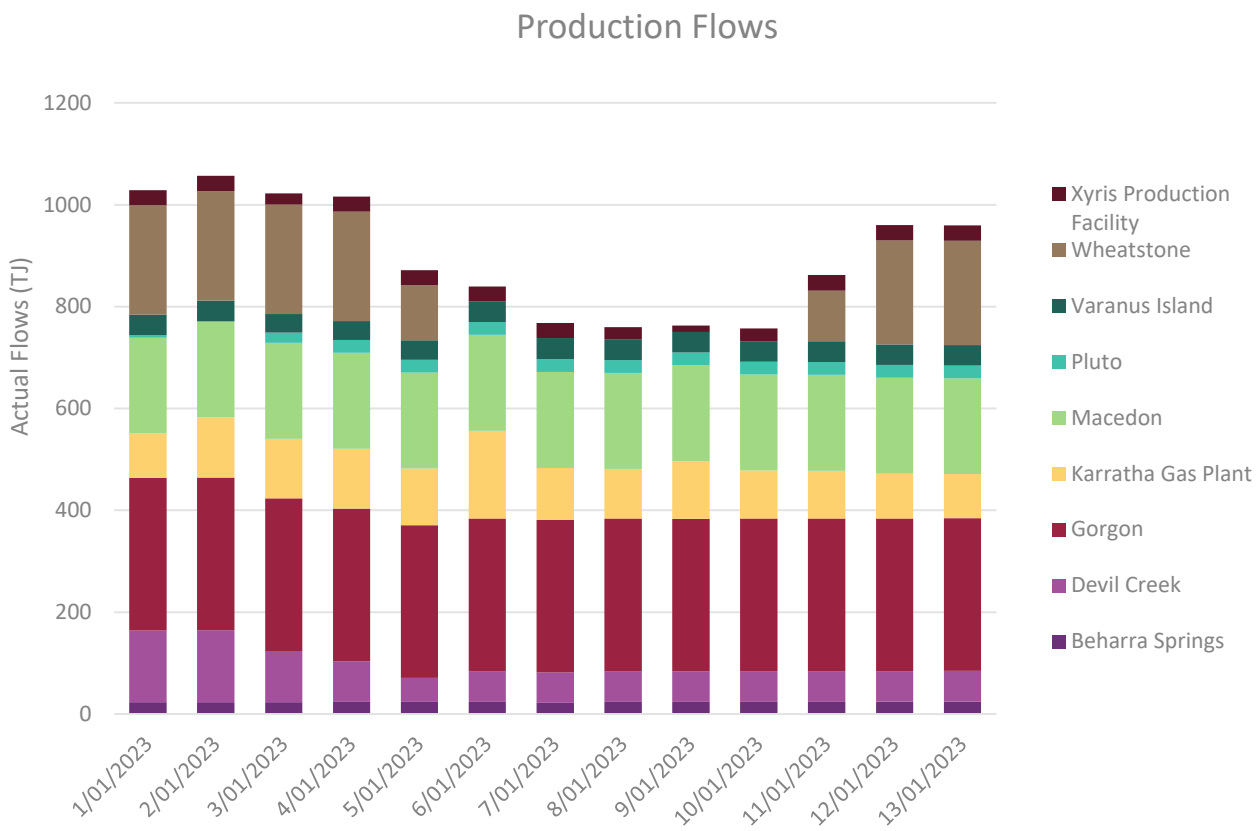
OAMT confirms further voluntary actions available to improve situation.

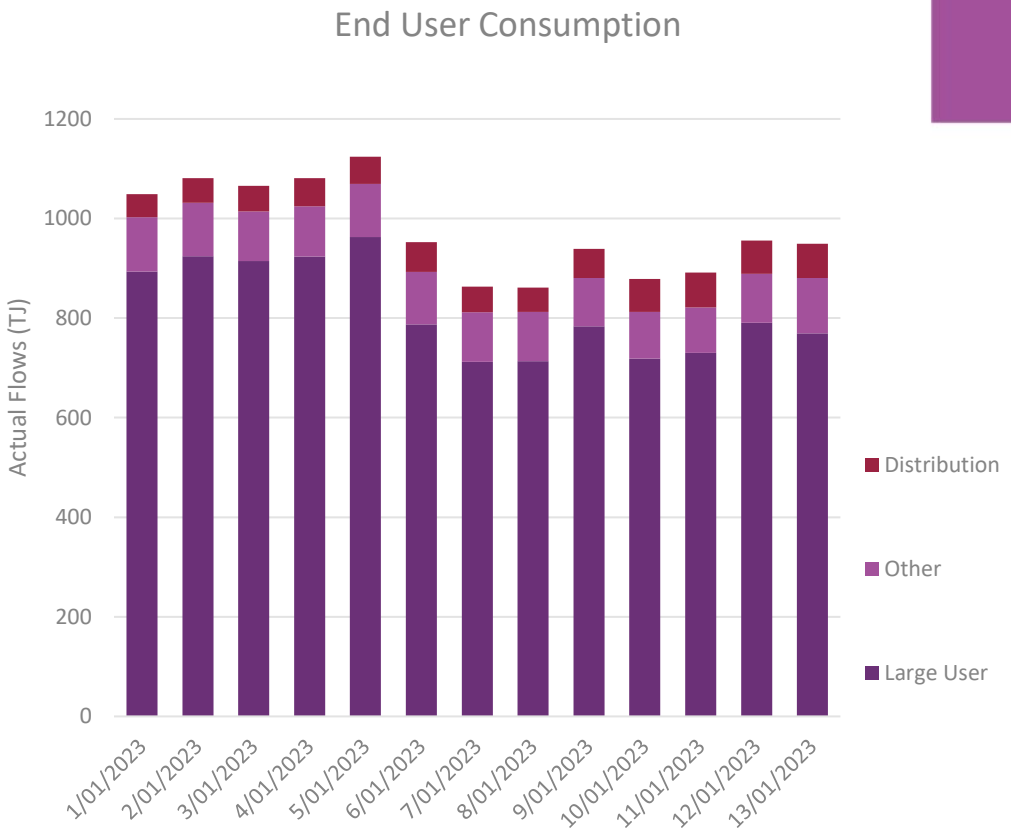
Sunday 8 January

Morning:

Linepack is improving and sufficient buffer is available to run at current rates until Wheatstone returns to service.

Production & consumption response



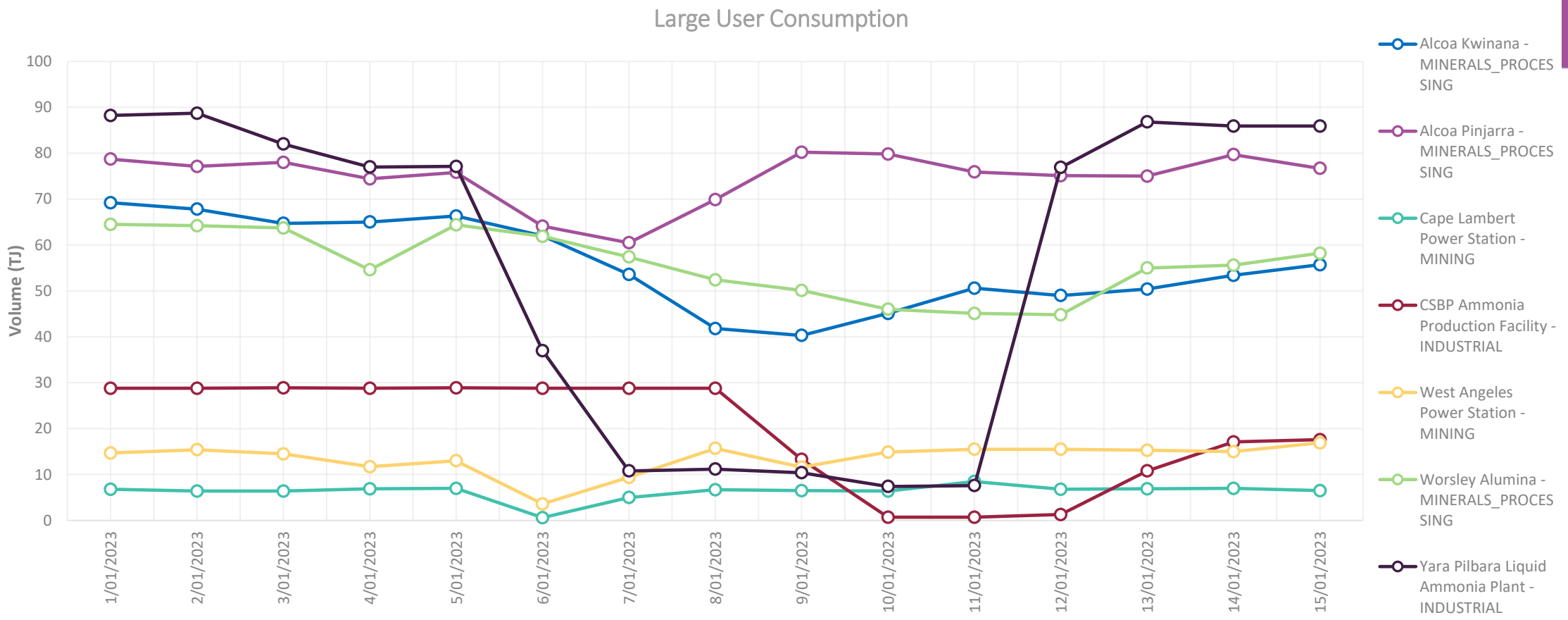


1 Wheatstone (Light Brown) outage commenced during the day of 5 January 2023, therefore showing a reduced production on this day. The facility progressively restarted, returning to full output on 13 January.

2 Production facilities such as KGP (Yellow) increased production above nominations to support the pipeline on 6 January but could not maintain output due to LNG commitments.

3 Distribution to the domestic supply network and other users remained stable across the EMF period while consumption by Large Users decreased significantly.

Production & consumption response

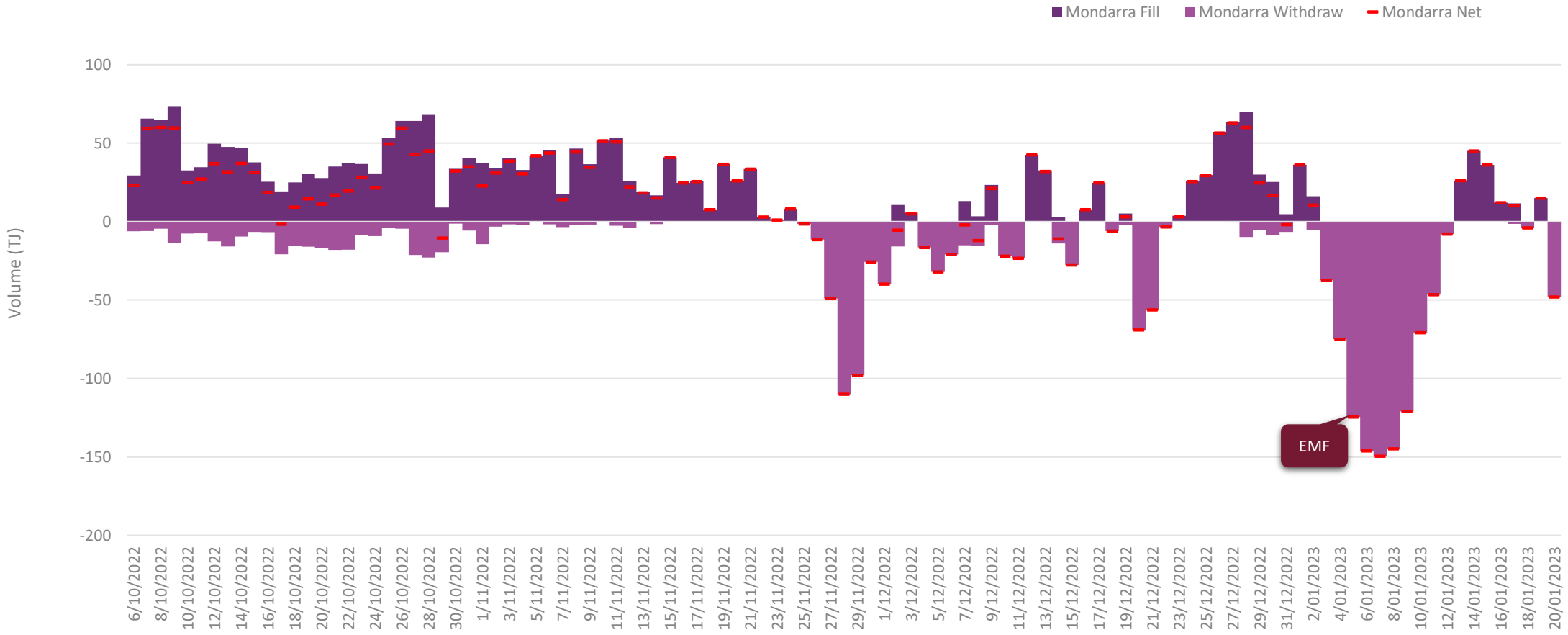


1 Yarra Pilbara Liquid Ammonia Plant responded on 6 January and significantly reduced consumption over the period by shutting down operations.

2 Alcoa Kwinana, Alcoa Pinjarra and Worsley Alumina each began to reduce consumption from 6 January by switching to alternative fuel sources. Alcoa increased consumption at a number of sites after the situation stabilised due to the high cost of running on diesel.

3 CSBP Ammonia are delayed to respond but reduce consumption to almost zero TJs.

Mondarra GSF – actual flows



1 Withdrawals from Mondarra Storage Facility begin to ramp up on the day of the Wheatstone outage and remain close to a maximum withdrawal rate (150 TJ/day) between 6 January 2023 and 8 January 2023.

2 On 13 January 2023, the day after the EMF is deactivated injections to Mondarra recommence.

Summary and debrief

The Coordinator of Energy is currently undertaking debrief sessions with key stakeholders to share learnings and findings in order to understand:

- What went well.
- What did not go well.
- What could be done better in future.

AEMO will be contributing to this review.

Highlights

- Issue escalation and ongoing communication with participants.
- Industry engagement, collaboration and information sharing.

Opportunities

- Increase industry understanding of EMF data provision requirements.

Questions and Feedback

wa.operations@aemo.com.au