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PESA Production and Development Year in Review

APPEA Conference May 2024

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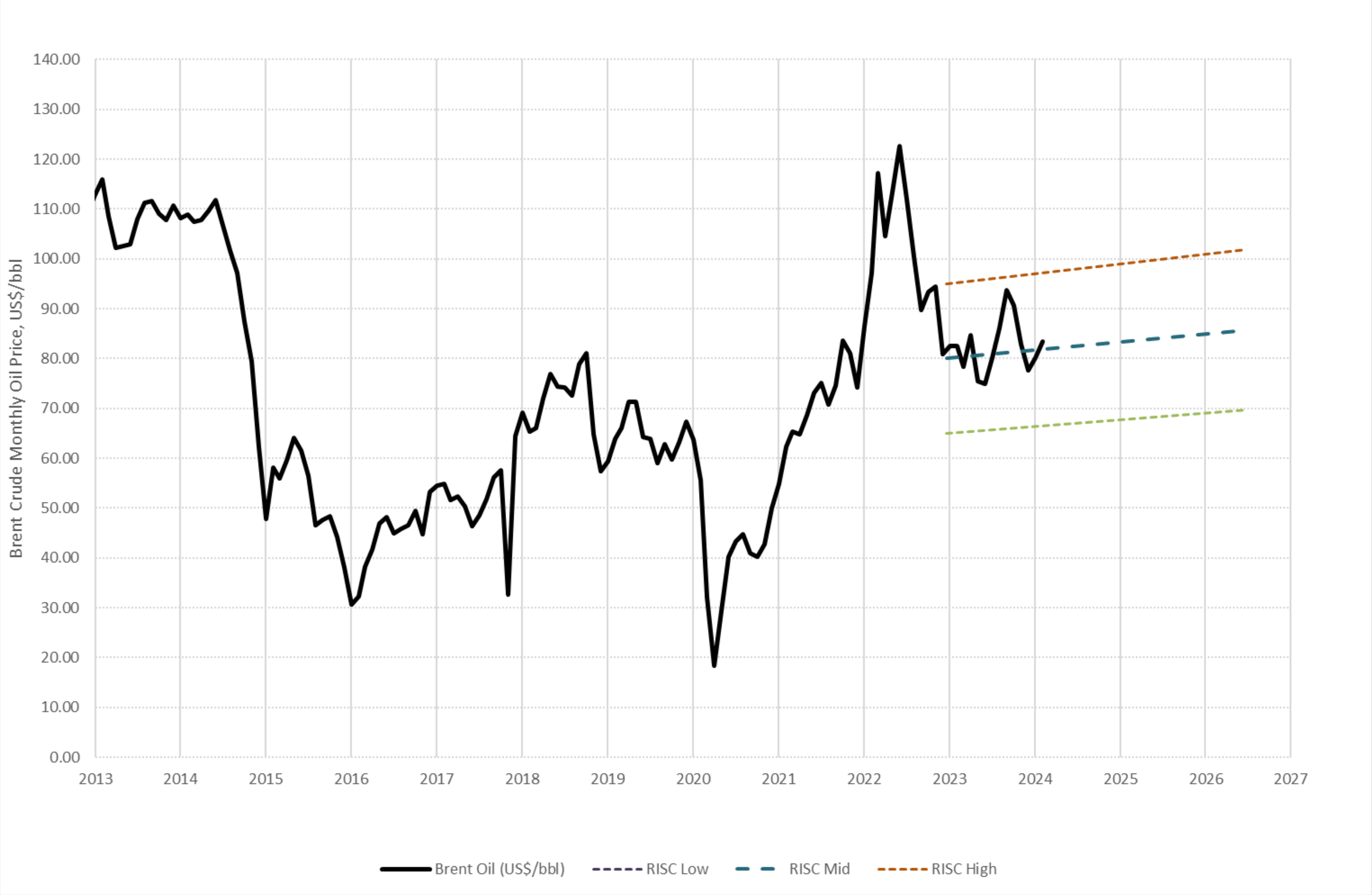
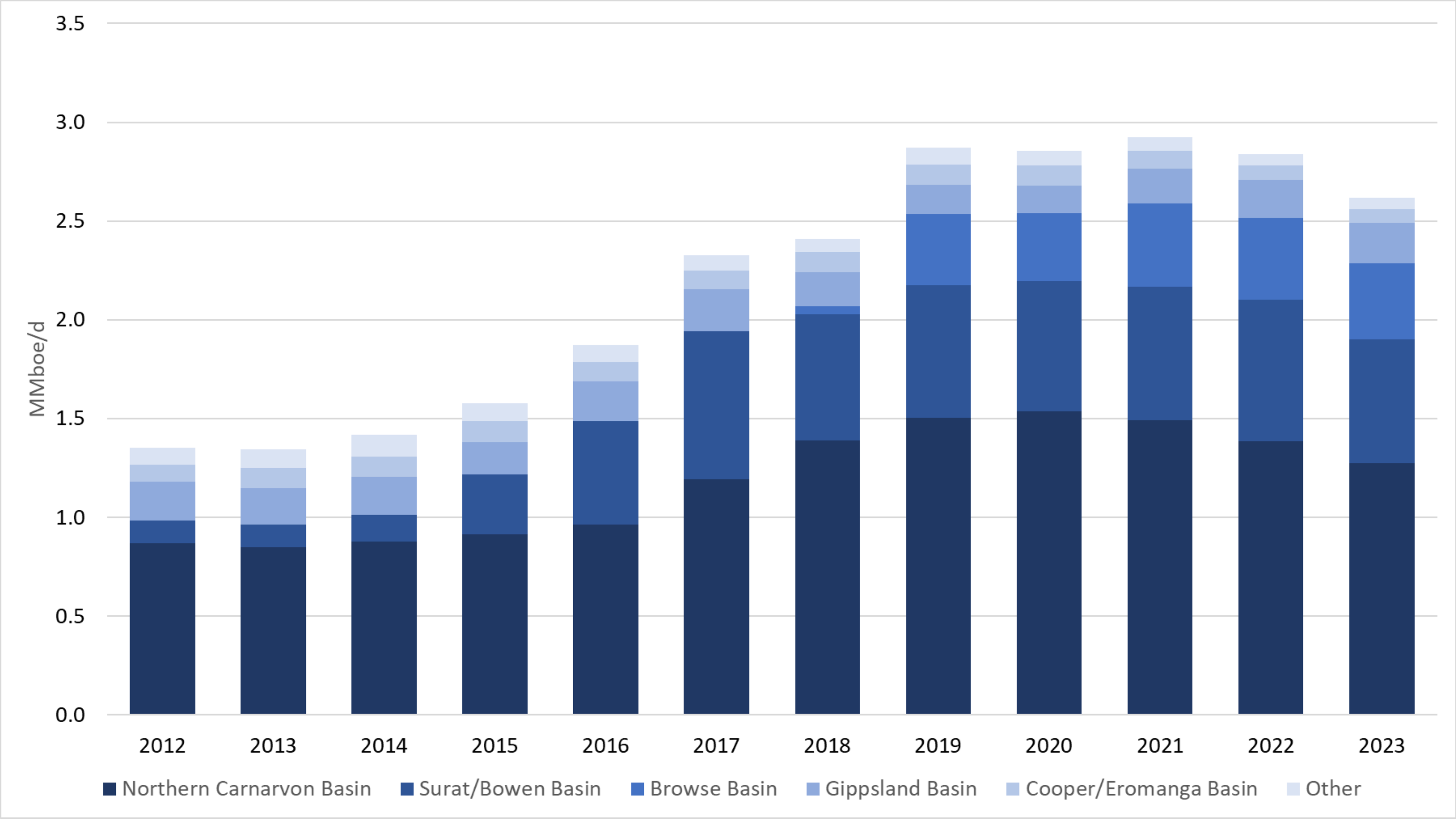
We acknowledge the support and assistance of GlobalData and their data gathering and compilation, without which this review would not have been possible.

- Production data obtained from GlobalData under licence.
- Production data obtained from AEMO Gas Bulletin Board.
- Emissions data sourced from the Clean Energy Regulator.

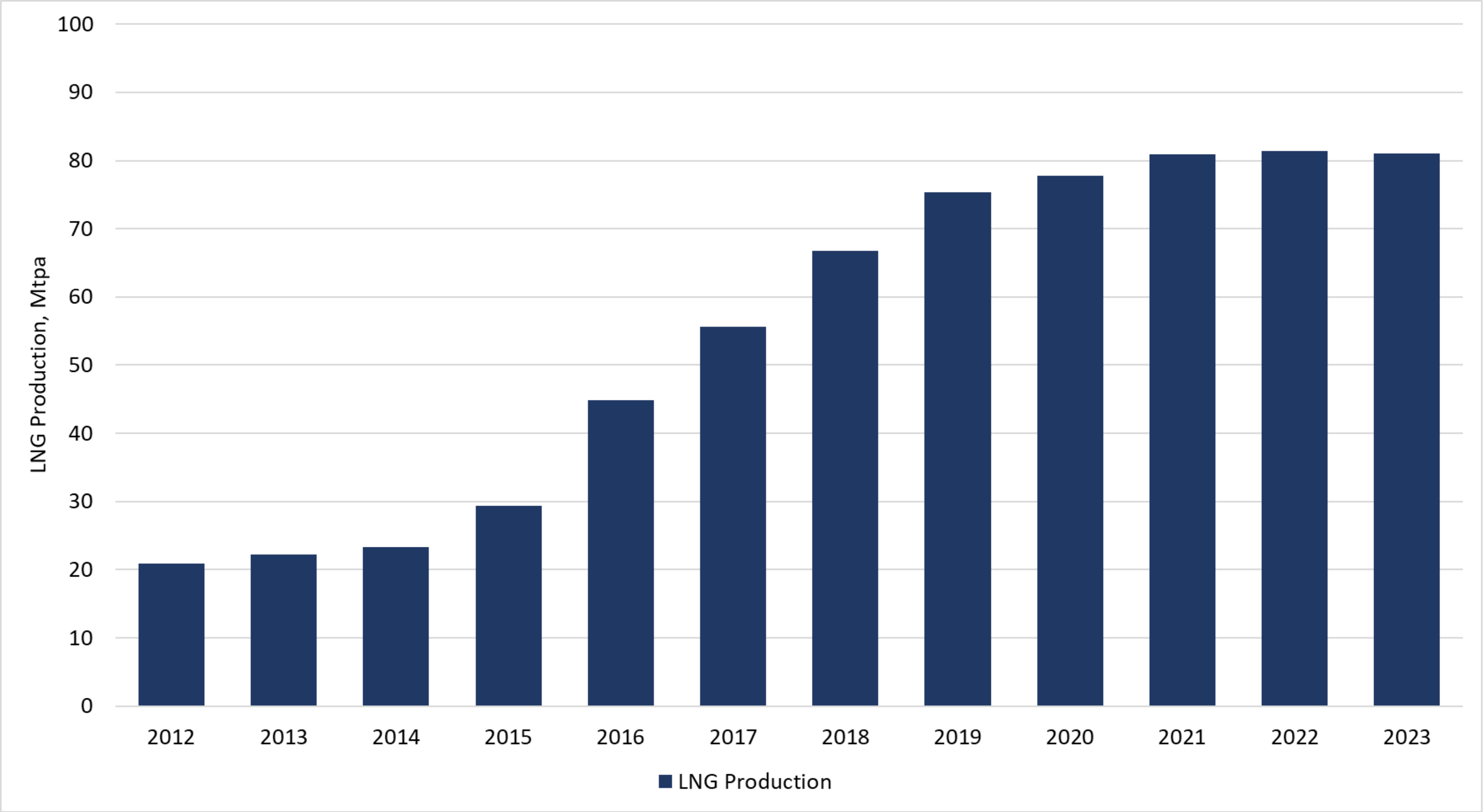
Oil price remained remarkably steady in 2023



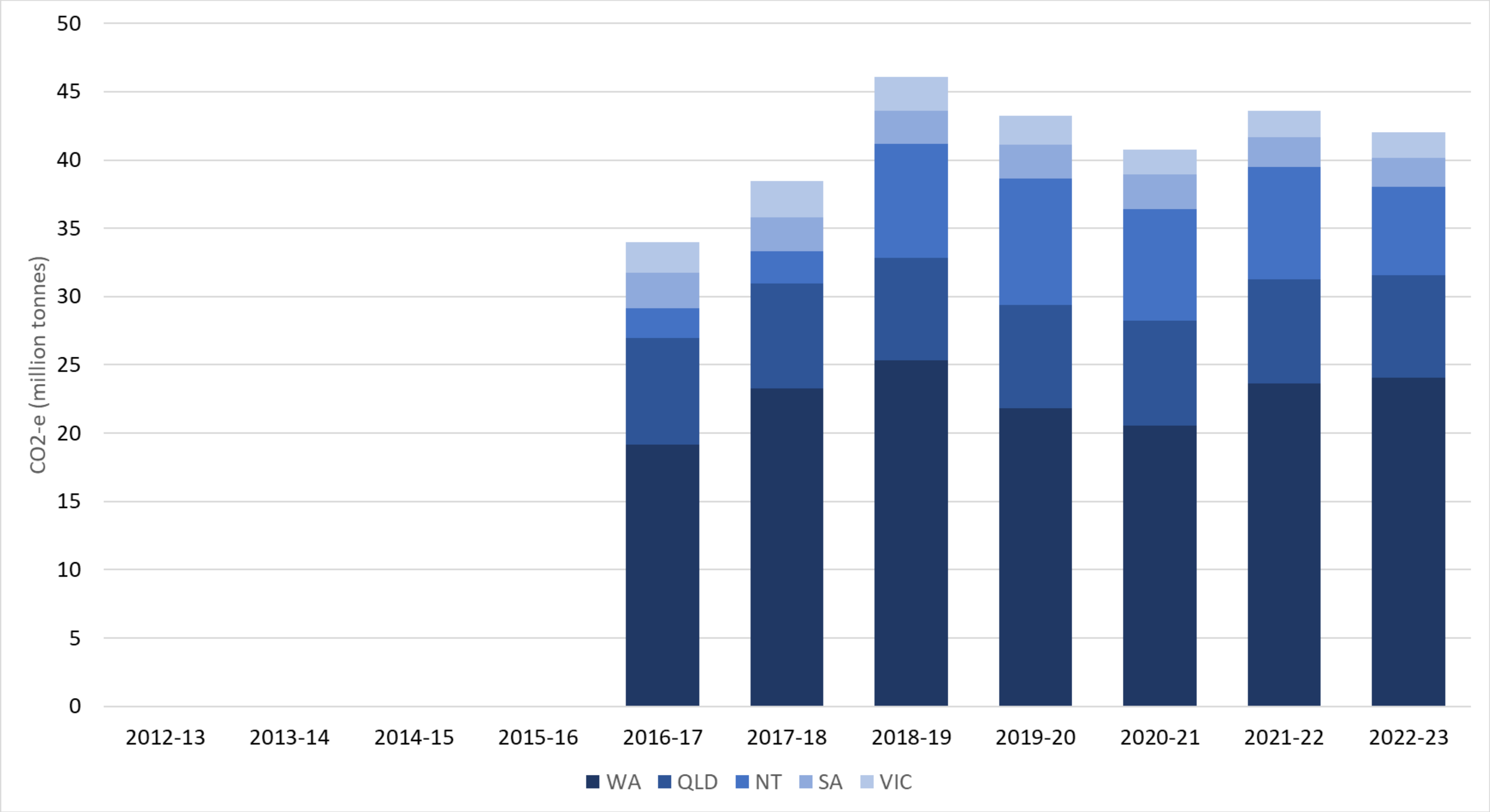
LNG still dominates overall production which is in decline



LNG Production narrowly missed the 2022 record



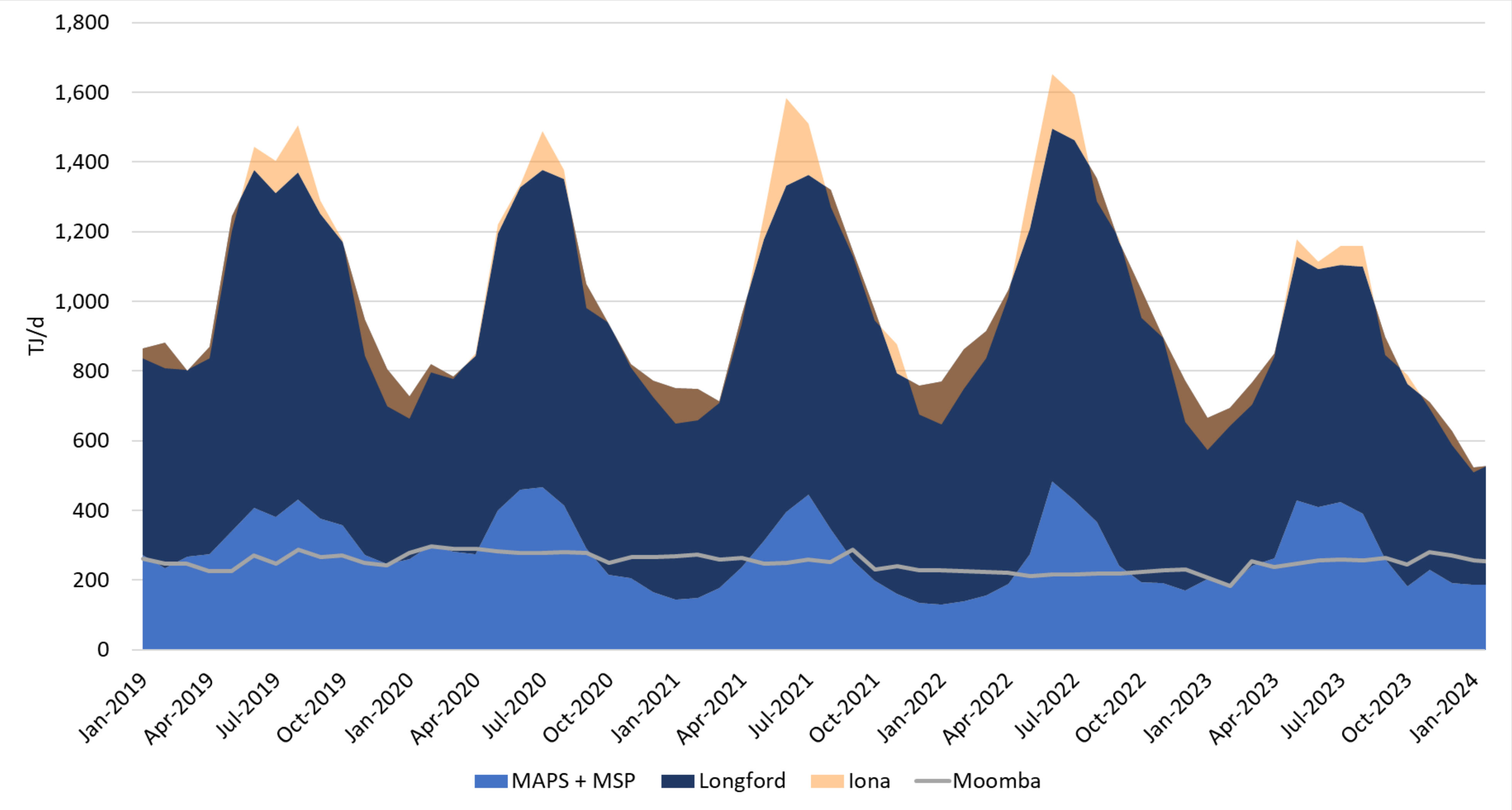
Emissions



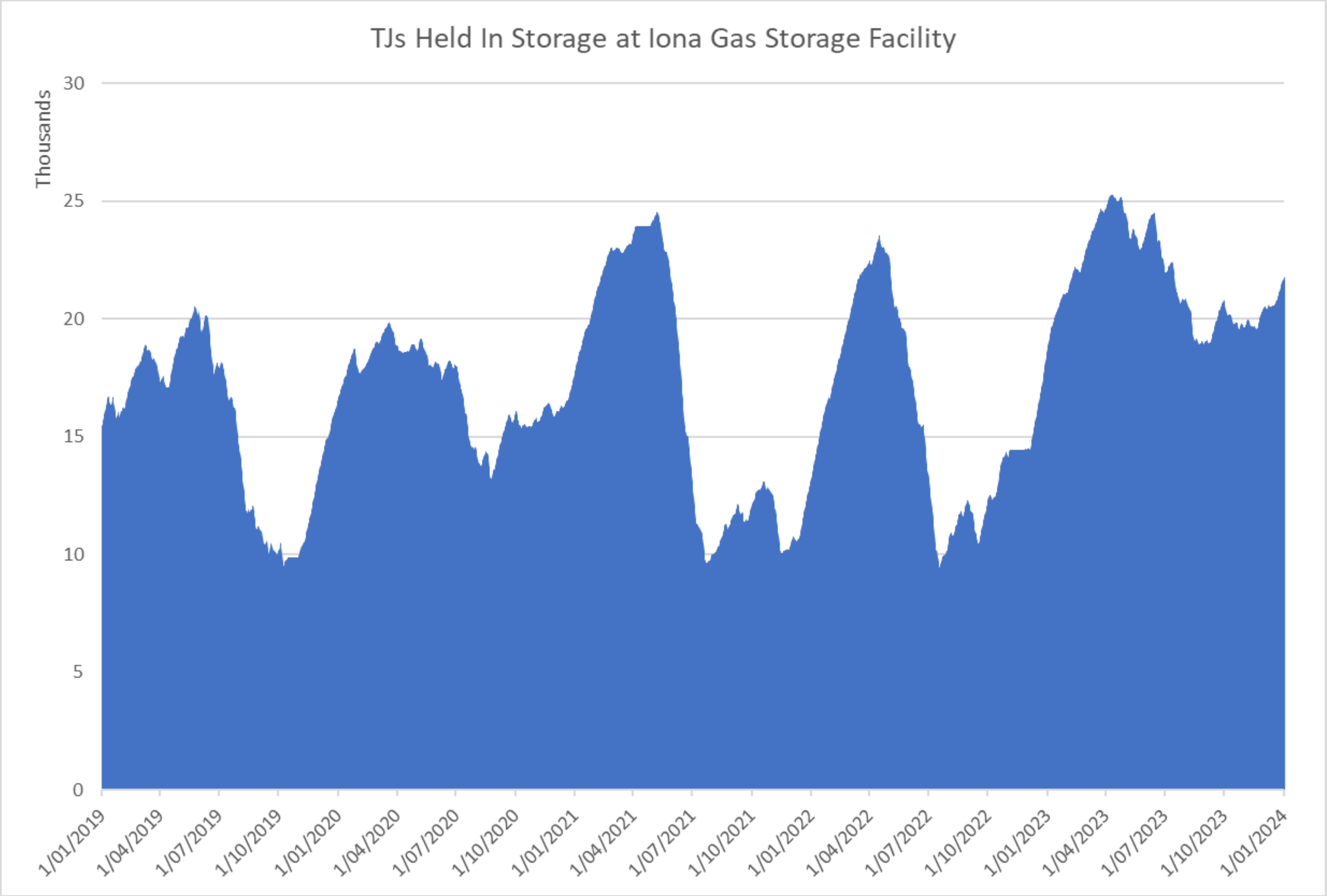
50
45
40
35
30
25
20
15
10
5
0
CO2-e (million tonnes)
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
2020-21
2021-22
2022-23
WA
QLD
NT
SA
VIC

Southeast Supply

R!SC



Iona reached record end of year storage level in 2023



Is our message finally being heard?

- This slide was repeated 5 times in the AEMO “Draft 2024 Integrated System plan” presentation in December 2023.

AEMO

> “*Renewable energy connected with transmission, **firmed with storage and backed up by gas-powered generation** is the lowest cost way to*

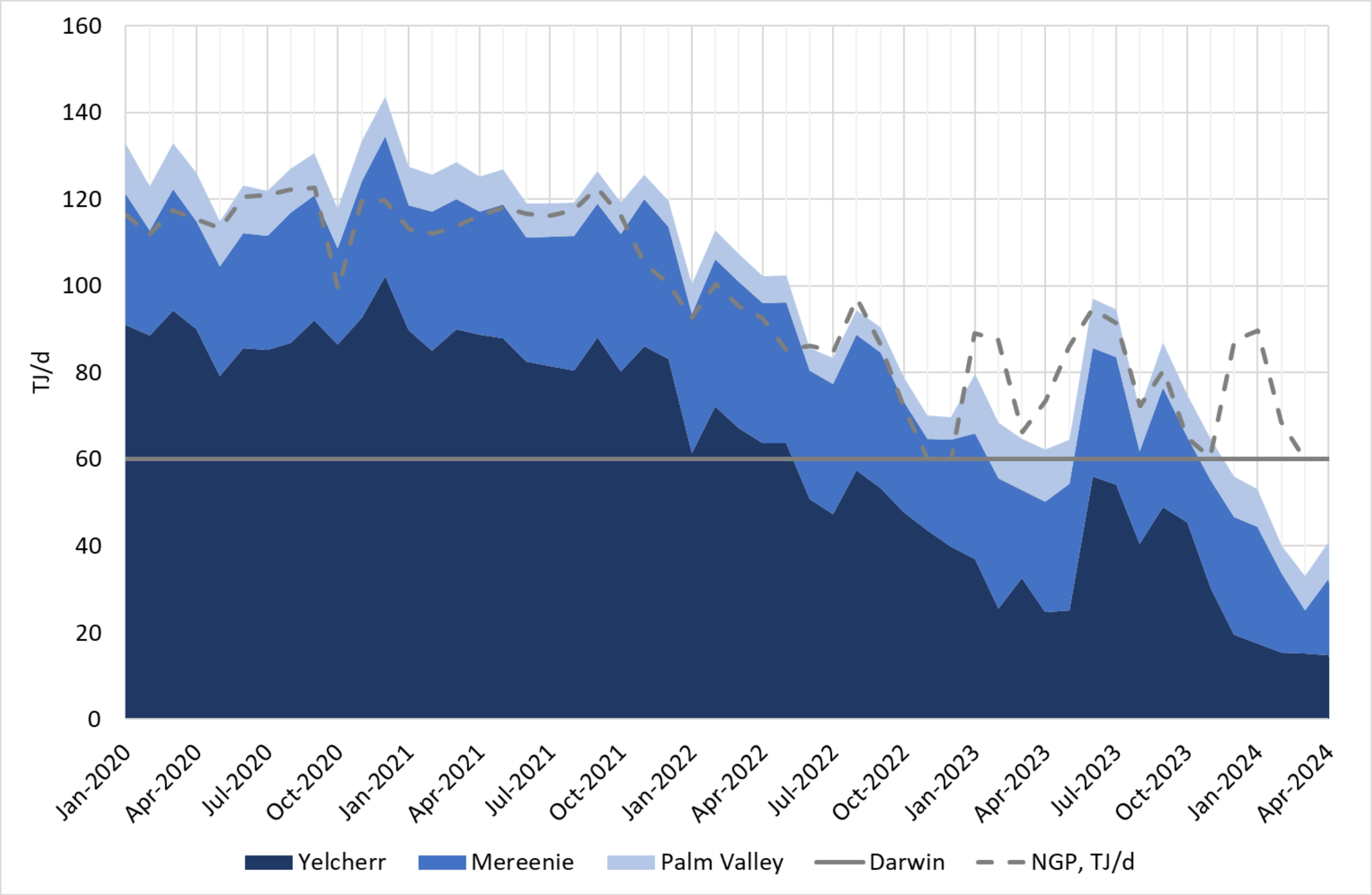
- This is the conclusion from a presentation entitled “Repositioning Gas in the Energy Mix” that RISC presented at APPEA in 2018.

Conclusions

- Gas generation produces approximately half the emissions of coal generation, so simply switching from coal to gas generation has a material impact on emissions (as seen in the USA)
- Gas generation is a natural companion to renewables as it can be turned on and off an ramped up and down as the renewables generation changes.
- Gas generation is, and should be recognised as, an enabler for the integration of renewables into the grid
- Gas needs to be positively promoted as a partner for renewables
  - Maintains stability of system (intermittency of VRES)
  - Minimises emissions (Coal emits twice as much CO_2 as gas fired generation, and is not as flexible)

Promotion of a future energy mix based on renewables and gas is likely to lead to the lowest cost and least disruptive way of maximising emission reductions

NT Gas Supply situation



Production issues and challenges, and significant project development achievements and issues during 2023

Production:

Several fields faced production interruptions or restrictions during the year:

- Prelude problems persisted with only 6-7 months production over the year.
  - A fire in December 2022 shut the facility until late January 2023.
  - A process trip caused a shut down again in May 2023.
  - In August it shut down for extended maintenance and repair and didn’t re-start until December.
- Gorgon CCS - pressure management issues continued to reduce injection capacity.
- Darwin LNG stopped production in October 2023

- Gas Demand in Southeast dropped significantly
  - Iona reached record inventory levels at year end
  - GBJV production dropped significantly (and plans to close GP1 in 2024)

- Blacktip – efforts to re-instate production were only temporarily successful production continued to decline.

Project Development:

- Q1
  - NOPSEMA direction to stop the Barossa pipeline project in early January.
  - Problems at Waitsia following Clough entering administration.
  - APA completes Stage 1 upgrades to SWQP (50TJ/d) and MSP (30TJ/d) (March)
- Q2
  - Iona hits record storage level of 25.2 PJ (April)
  - APA announces Stage 2 upgrades to SWQP (~60TJ/d) and MSP (~90TJ/d) (May)
- Q3
  - Legal challenge halts Woodside’s seismic campaign at Scarborough
  - Walyering project start-up (September)
- Q4
  - Woodside removes the Nganhurra RTM form the Enfield field.
  - Narrabri SAP revoked, Santos delays FID to 2025.
  - Woodside gets approval to continue with seismic and drilling at Scarborough.

Lookahead

East Coast:

Continued tight supply, and pain expected, in the east coast market.

- Gippsland, Otway and Bass basins - efforts will continue to extend the life of existing assets
- Cooper Basin – continued drilling program to maintain production
- Bowen-Surat Bain – continued CSG drilling and expansion of upstream activities to keep LNG plants at plateau.
- Infrastructure upgrades to pipelines and storage.

- LNG imports – commercial arrangements?

Northern Territory:

- LNG facilities becoming the only reliable source of supply for Darwin.
- Delivery of Barossa and re-start of DLNG
- Beetaloo Basin – continued support for activity, but commercial production still a long way off

West Coast:

Domgas:

Discovery and development of low-cost gas:

- Delivery of Waitsia Stage 2
- Development of West Eregulla
- Understanding the impact of CPG and other demand closures and recent new GPG announcements.

LNG:

- Delivery of Scarborough
- Opportunities to backfill NWSV
- Backfill of Gorgon

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