Summer 2021 Market Review

April 2021

Key Messages for summer 20/21

- QLD LNG demand hit record levels, leading to an increase in gas demand (+10 PJ vs summer[1] 19/20) more than offsetting a large decrease in GPG.
  - QLD LNG +21 PJ due to QCLNG (+9.6 PJ), GLNG (+6 PJ) and APLNG (+5.5 PJ),
  - GPG demand down 13 PJ
  - Non GPG demand was up 2.5 PJ due to higher industrial demand.
- Victorian supply benefited the most +6.9 PJ
  - Longford in particular saw a large increase +7.4 PJ
  - SA supply saw a small decrease -0.5 PJ
  - QLD supply increase +6.4 PJ, mostly driven by GLNG (+6.1 PJ), non QLD LNG production (+1.7 PJ) and QCLNG (+1.4 PJ)
  - For the second season in a row APLNG supply was down -2.8 PJ
- Gas prices in the southern states were lower, but QLD prices have increased to become the highest priced state
  - Average $6.20/GJ compared to $6.23/GJ in Summer 19/20
  - Brisbane became the highest priced region in Spring 2020 and this continued in Summer
  - Increase supply from Victoria and record LNG export volumes have contributed to this
- Day Ahead Auction usage almost doubled due to large increases on EGP, MSP and SWQP
- GSH volumes rebounded slightly from Spring, but down -2.6 PJ compared to last summer

[1] *Summer = Dec to Feb*

Gas Market Prices

	Average Price ($/GJ)		Movement
	Summer 2020/21	Summer 2019/20	
DWGM	5.62	6.34	11% ▼
ADL STTM	6.22	6.91	10% ▼
SYD STTM	6.12	6.27	2% ▼
BRI STTM	6.62	5.69	16% ▲
GSH	6.42	5.92	9% ▲

- Southern markets saw lower prices assisted by low GPG demand.
- Brisbane and GSH have become the highest priced markets, influenced by higher QLD LNG demand and an increase in supply from southern regions

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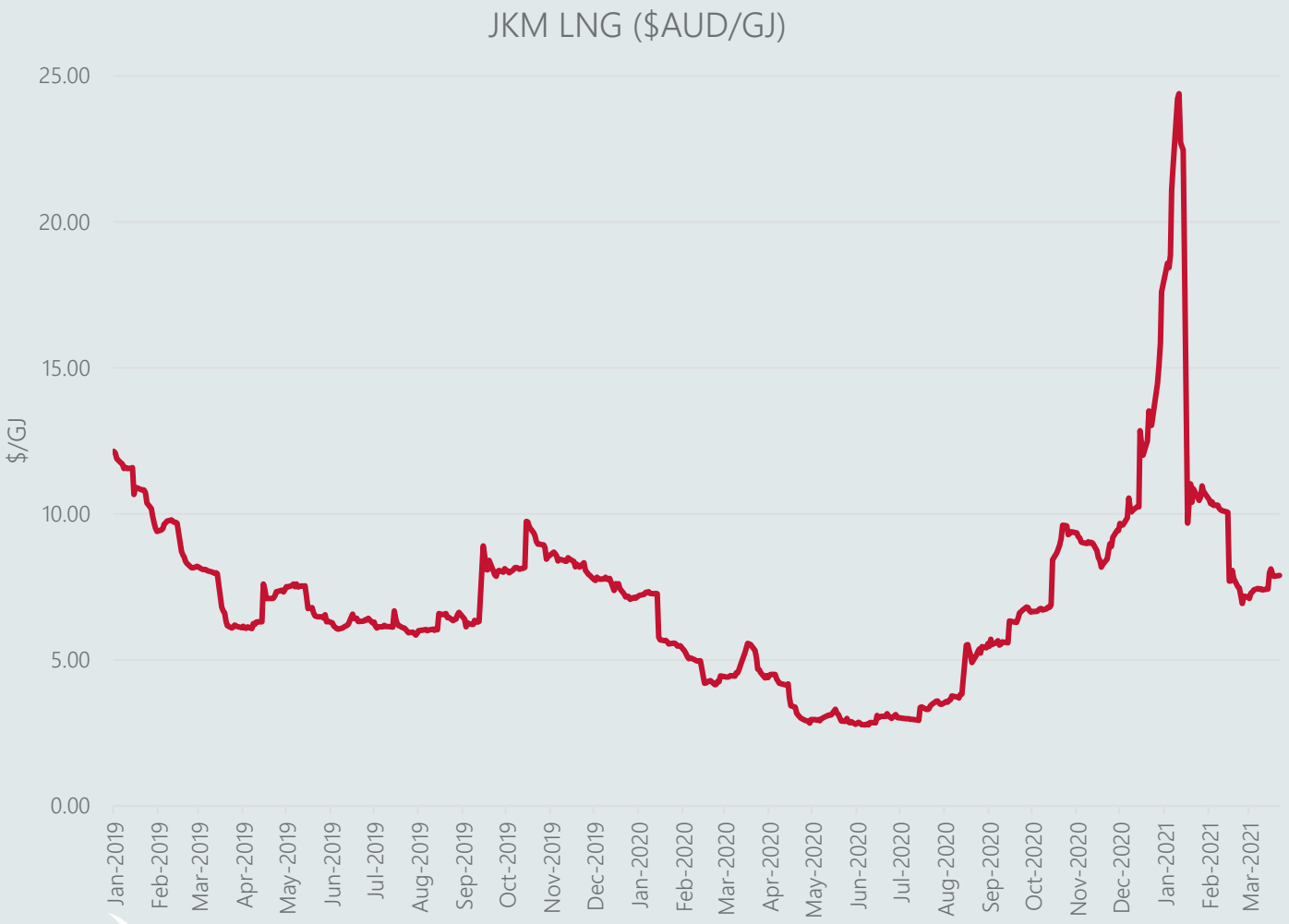
International Prices Spike to Record Levels in January



- Prices hit record levels due to February cargo shortages, transportation bottlenecks, supply outages and record winter temperatures
- Jan 11 set a record for largest JKM price rise in a single day
- Along with higher imports from southern regions, this is contributing to higher spot prices in QLD

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System Demand

Demand Region	System Demand (PJ)				Max Demand (TJ)
	2020/21	2019/20	Move		2020/21
Brisbane	6.8	5.4	27%	▲	91
Sydney	17.4	16.5	5%	▲	233
Victoria	28.4	28.3	0.3%	▲	485
Adelaide	3.6	3.5	3%	▲	51
Domestic Total	56.2	53.7	1%	▲	
QLD LNG	35.1	22.0	6%	▲	4,314

- Demand increases across all markets due to higher industrial demand
- QLD LNG exporting at another record level. Biggest increase from QCLNG

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GPG

Demand Region	Total State GPG (PJ)			DWGM/STTM GPG (PJ)		
	2020/21	2019/20	Move	2020/21	2019/20	Move
QLD	11.6	13.3	13% ▼	2.7	3.1	13% ▼
NSW	1.2	2.5	52% ▼	-	-	-
VIC	0.8	5.6	86% ▼	0.5	1.9	74% ▼
SA	8.3	13.5	39% ▼	-	-	-
TAS	0.04	0.2	77% ▼	-	-	-
∑GPG	21.9	35.1	37% ▼	3.2	5.0	36% ▼

- Large GPG decreases across all regions, particularly in VIC and SA
- Notable decreases: SA - TIPS (-2.5 PJ) and Pelican Point (-1 PJ), VIC – Mortlake (-3.2 PJ) and Newport (-0.7 PJ)

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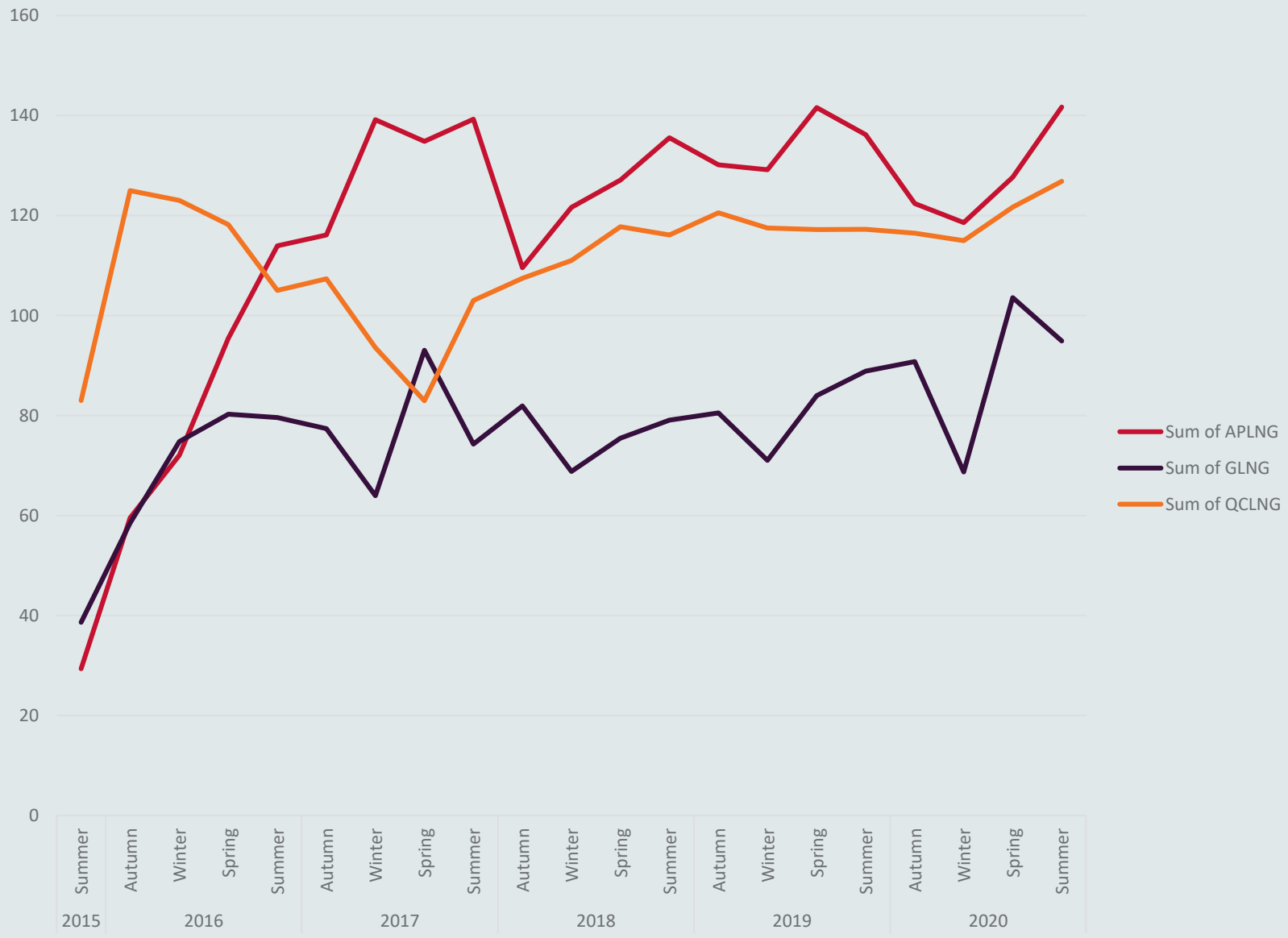
QLD LNG Demand

QLD LNG exports set another record, with increases from all 3 participants

December set a new monthly record (126.7 PJ)

Highest daily maximum flow record of 4,314 TJ on 25 December



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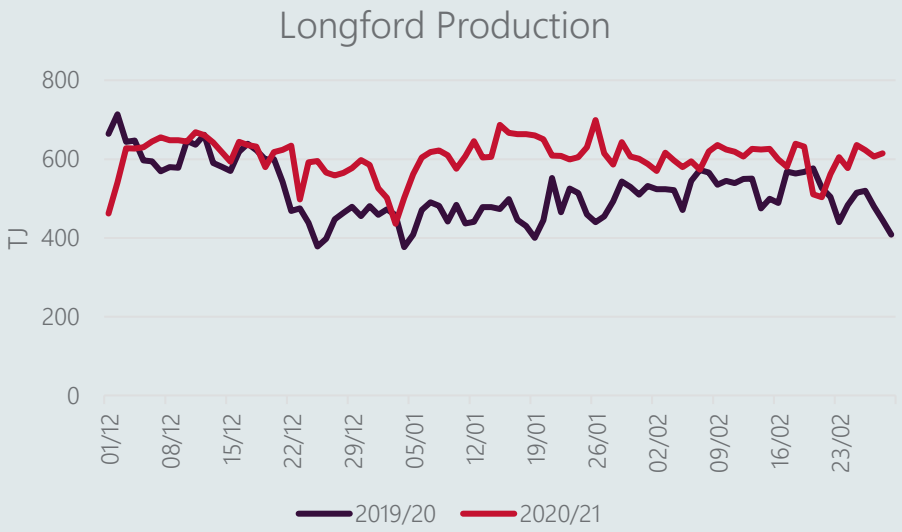
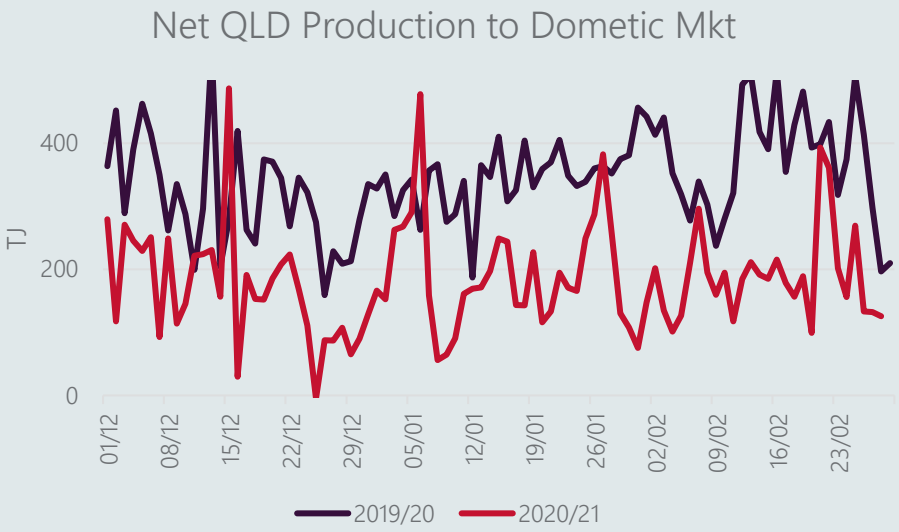
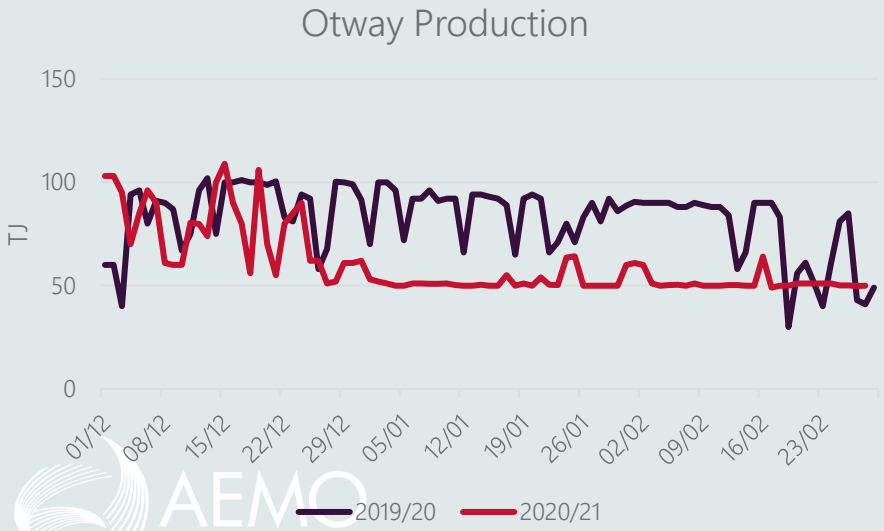
Supply

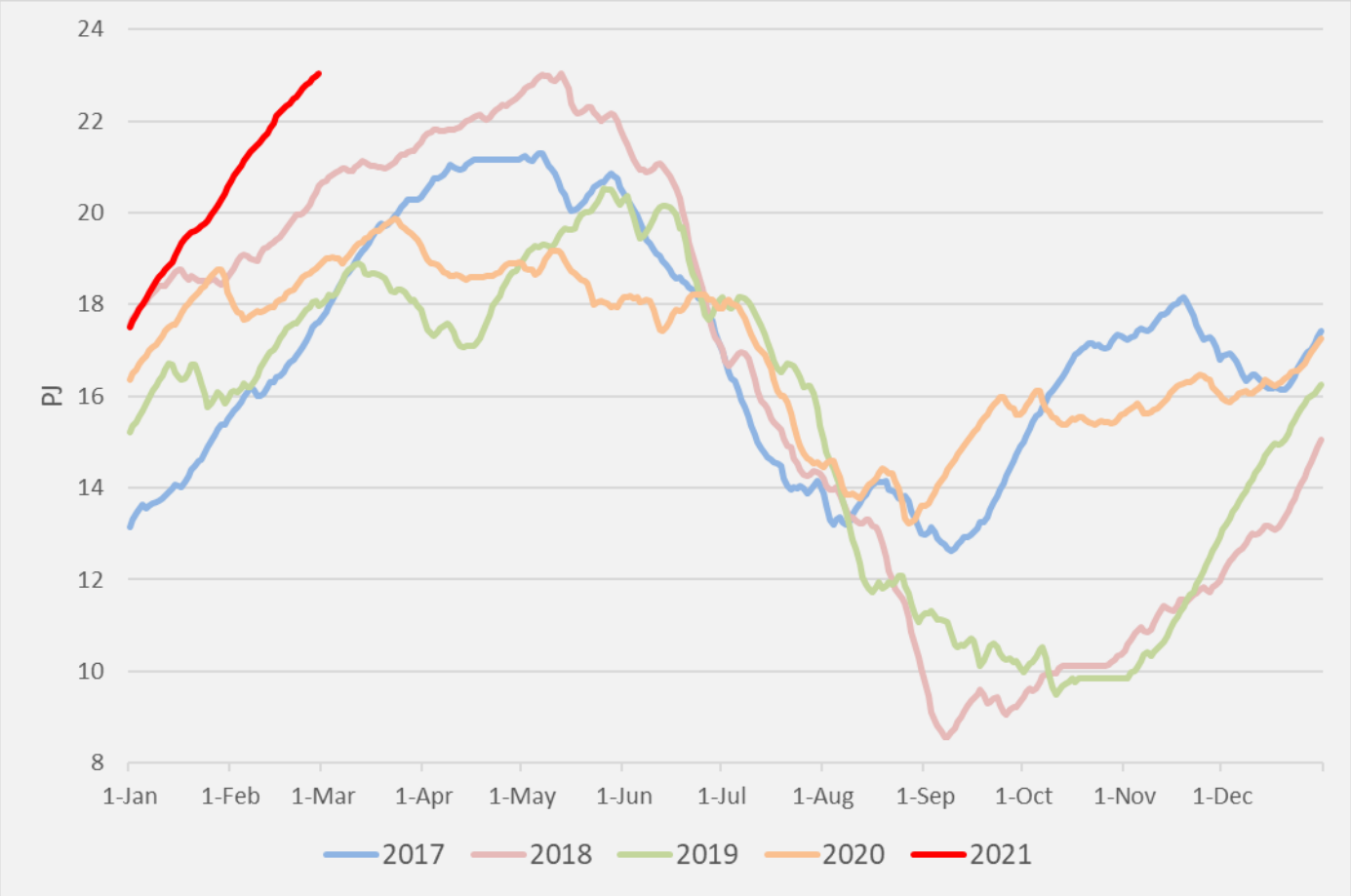






Longford production higher (+7.4 PJ)
Otway production lower (-2.1 PJ)
Bass Gas production lower (-0.9 PJ)
Orbost supplied 2.5 PJ
Moomba production lower (-0.5 PJ)
Net QLD production to domestic market lower (-15 PJ)
Northern Territory supply to QLD lower (-0.5 PJ)

Iona Gas Storage



- Iona was filling on most days over summer, leading to its highest level at end of summer since GBB began reporting volumes
- Higher storage levels assisted by lower GPG demand in VIC and SA, combined with higher Longford production

Dandenong LNG Storage

- Storage level continued to drop, ending February at 373 TJ compared to 483 TJ at start of December

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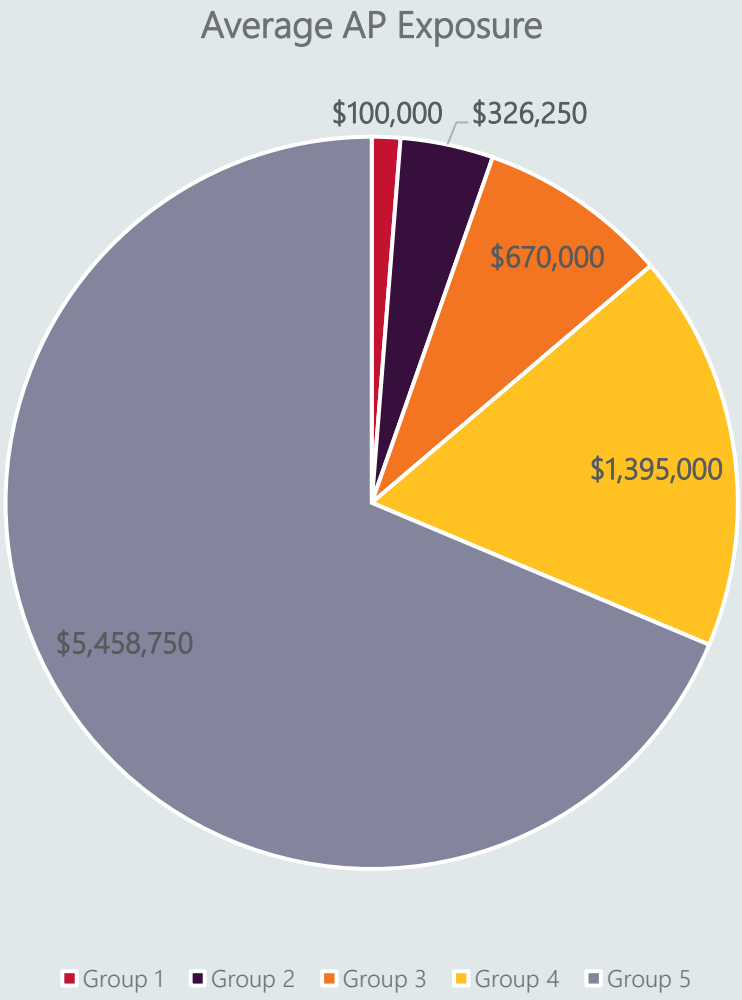
Potential AP exposure with reduced DLNG contracted



- Using 1 October 2016 for comparison (Longford plant issues caused DLNG to be scheduled out of merit order)
- Assuming 80 TJ is contracted in 2021, and 40 TJ of that is priced at $800/GJ, average participant exposure to ancillary payments would be ~$8 million
- Most would likely be attributed to surprise uplift
- This is a "back-of-the-envelope" calculation with initial estimates that exposure could be up around $20 million (or higher) – regardless of how hedged the demand-supply balance of the participant is on the day

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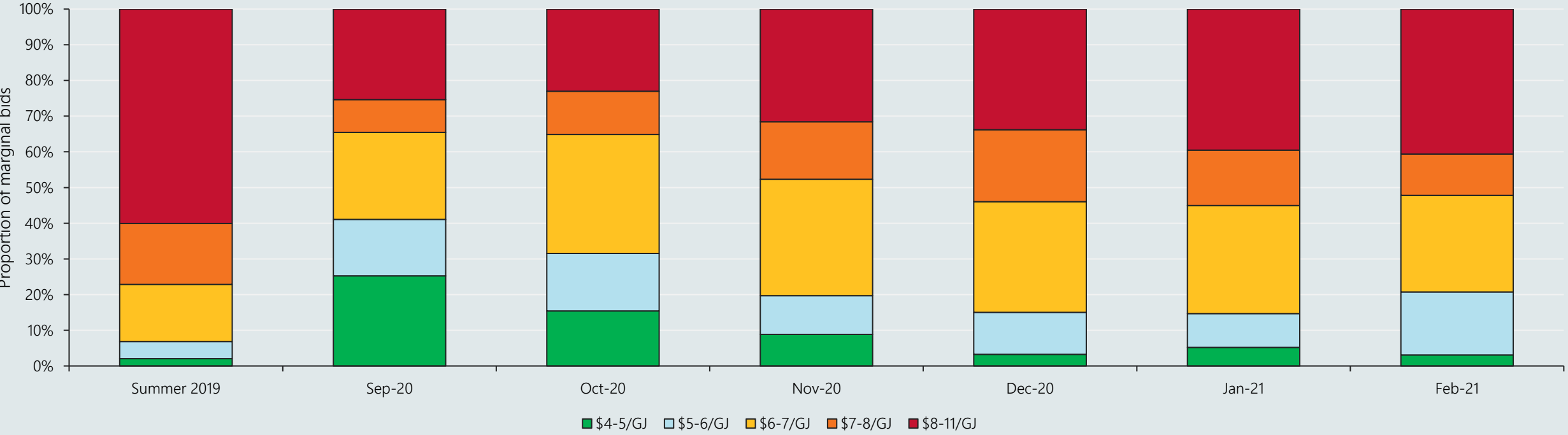
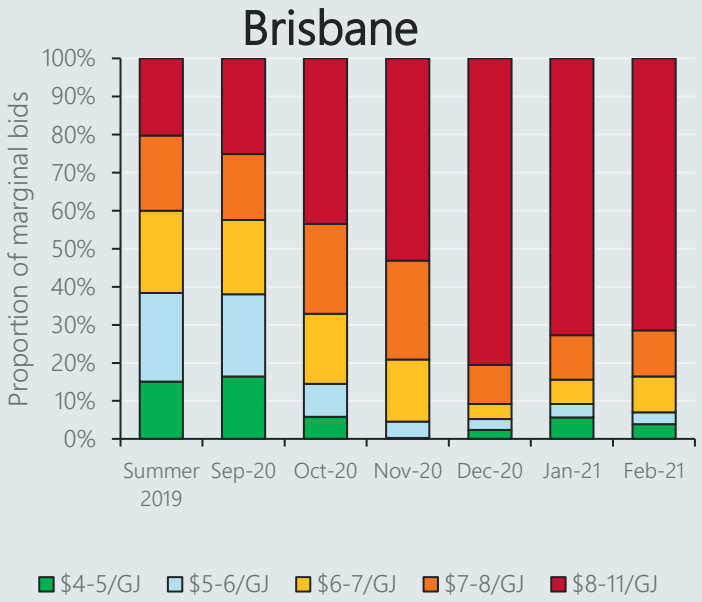
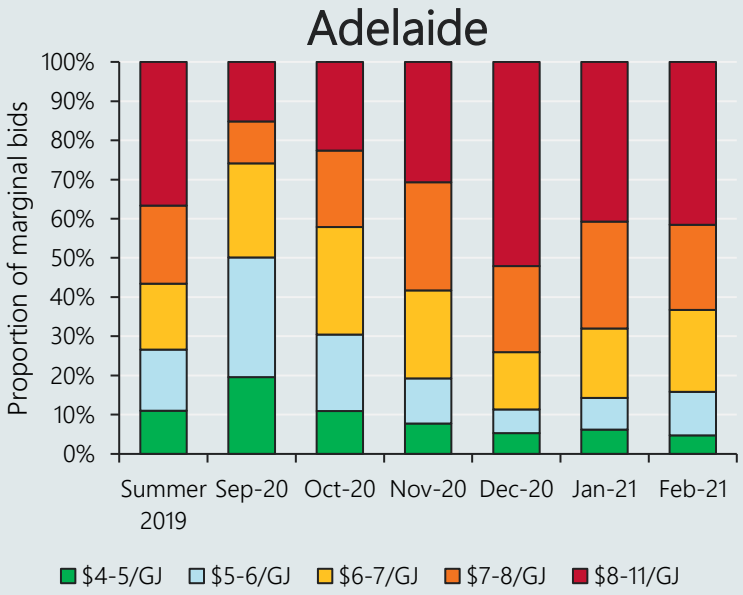
DWGM Marginal Injection Bids

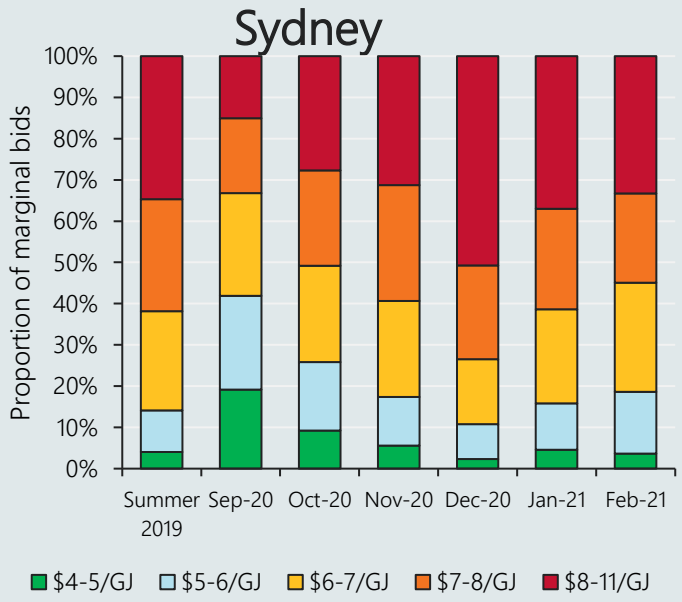


- Lower summer 2020/21 prices influenced by large increase in marginal bids priced between $5-7/GJ across all months
- February in particular saw an increase in volumes bid between $5-6/GJ

STTM Marginal Injection Bids

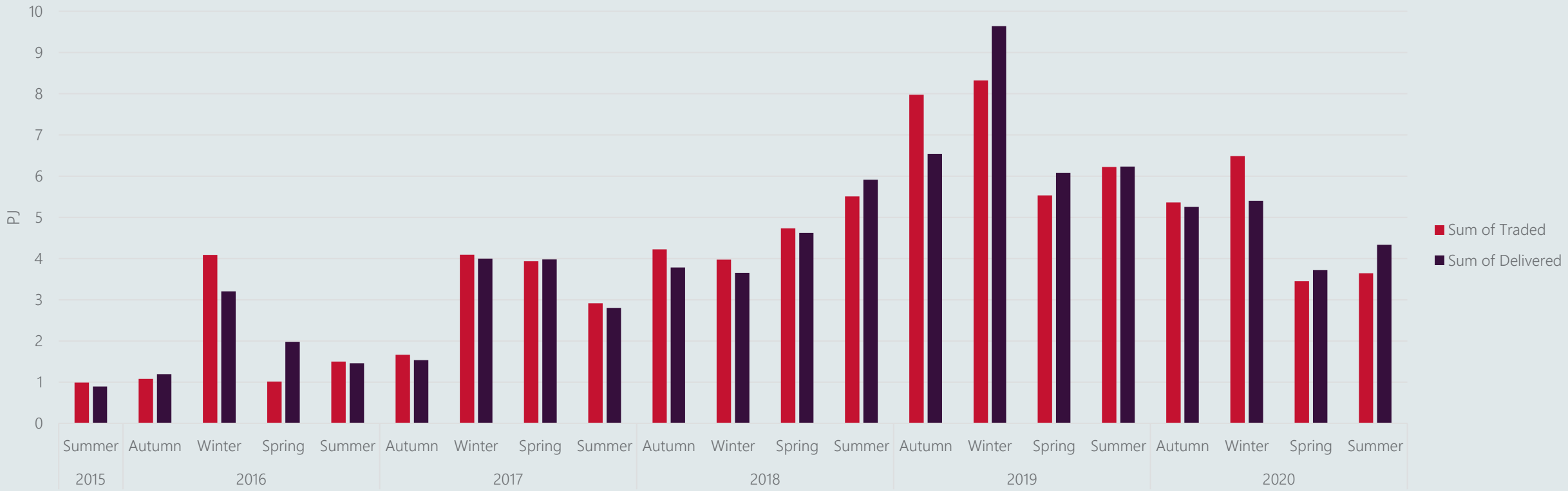






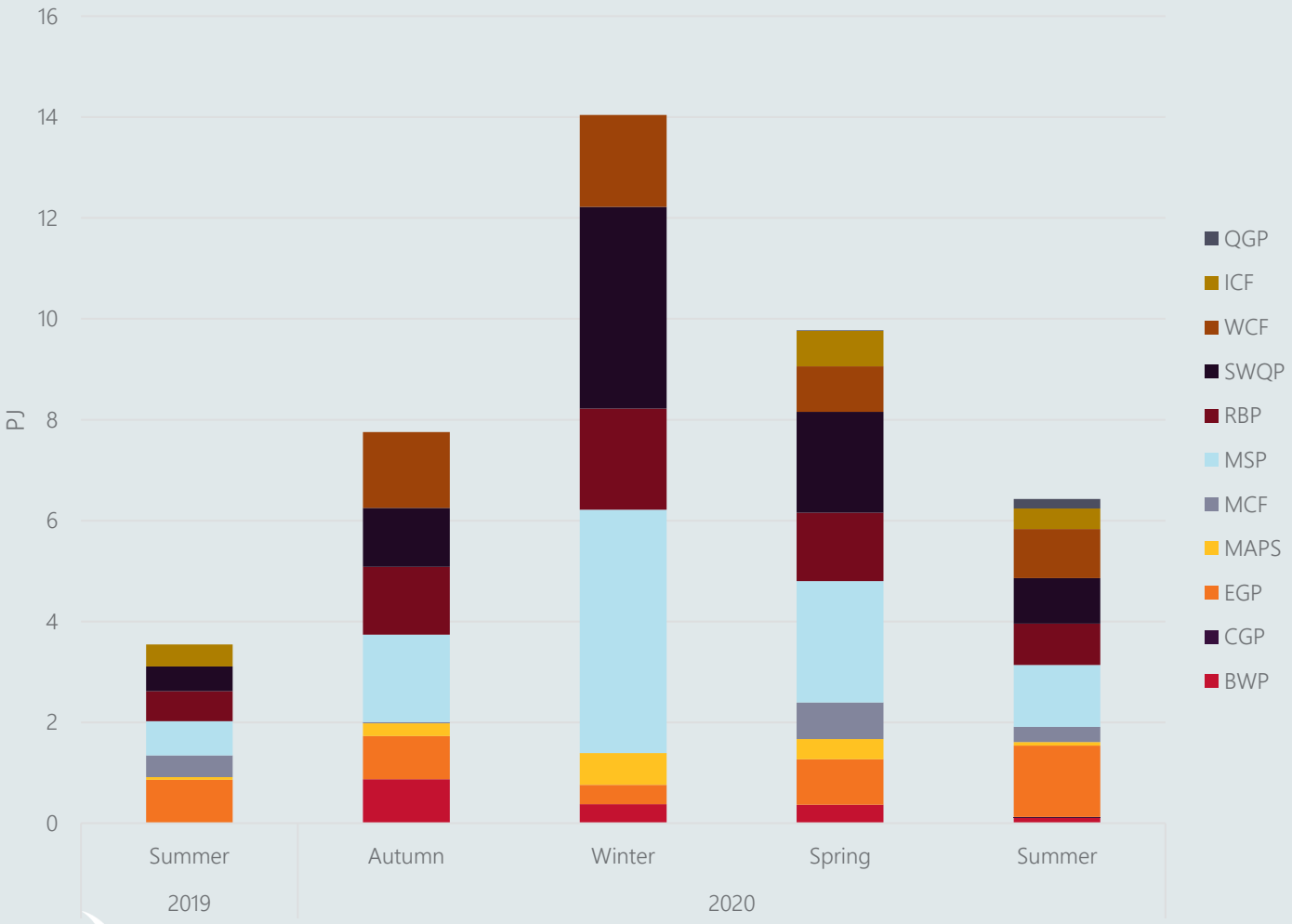
- Adelaide and Sydney followed a similar pattern to DWGM
- Brisbane however saw a stark change from last summer, with much less volumes bid below $6 and more volume priced at higher levels

Gas Supply Hub



- Volumes rebounded slightly from Spring, but were well down on summer 2019/20
- 3.6 PJ was traded across summer, with 4.3 PJ delivered

Day Ahead Auction



Summary

A Auction volumes have increased overall compared to Summer 2019/20. Increases mostly due to EGP and MSP

B EGP became the most utilised pipeline, followed by MSP. CGP was used for the first time

C Average auction clearing price on SWQP was $0.17/GJ, peaking at $0.93/GJ; EGP was $0.02/GJ. Otherwise, prices were at or close to zero

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Web Links

- Pipeline Flows, Production Flows, Capacity and GPG Data
  - https://www.aemo.com.au/energy-systems/gas/gas-bulletin-board-gbb/data-portal
- DWGM
- Gas Held in Storage
  - https://www.aemo.com.au/energy-systems/gas/gas-bulletin-board-gbb/data-portal
- Market Price (INT310), Bid Stack (INT314)
  - https://aemo.com.au/energy-systems/gas/declared-wholesale-gas-market-dwgm/data-dwgm/daily-dwgm-reports
- STTM
- Ex-Ante Market Price (INT651) & Schedule Quantity (INT652)
  - https://aemo.com.au/energy-systems/gas/short-term-trading-market-sttm/data-sttm/daily-sttm-reports
- Gas Supply Hub
- Traded Volume and Volume Weighted Average Price
  - http://nemweb.com.au/Reports/Current/GSH/GSH_Historical_Trans_Summary/

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General updates

- Day Ahead Auction submission screen
- Gas Transparency Measures

Day Ahead Auction submission screen

Summary of feedback

- Following the scheduling of facilities, there is a short window to complete (90 minutes). If there are errors it is difficult to troubleshoot the end-to-process to locate the fault
- Good insurance product to have as the generation of the file can be simple i.e. simple csv upload used by duty controller while automated solution is investigated by technical experts
- Risk of single point of failure with API connection, and operator will usually not have the technical knowledge on how to resolve API disconnection
- Facility operators face potential financial penalties, non-compliances and reputational risk
- Reduced risk of delays or Auction cancellation
- Smaller shippers are able to get certainty by 4.30pm
- Cost of after-hours technical support can be minimised

All responses showed support for a backup screen to be built. Responses were received from APA, Jemena, Lochard, SEA Gas and Origin.

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Day Ahead Auction submission screen

Next steps

- Captured as a potential project with an estimated cost of ~$40k.
- There is currently no timing for delivery, or certainty that it will proceed as a project.
- Alternative approach could be for facility operators to fund this directly, though this has it's own potential complexities.
- Following GWCF, AEMO will reach out to facility operators to get input on how to progress
- The last auction delay was just over 6 months ago, but there has been close calls.

Gas transparency measures

New stakeholders and high-level information requirements

- Large user facilities (including GPG) – daily flow data, nameplate capacities
- LNG facilities – daily flows and nominations, capacity outlooks, shipment data, export transactions.
- Gas sellers – provision of short term gas transactions
- Gas field operators – reserve and resources to be provided
- Facility developments – expansions of existing facilities and proposed new facilities

Gas transparency measures

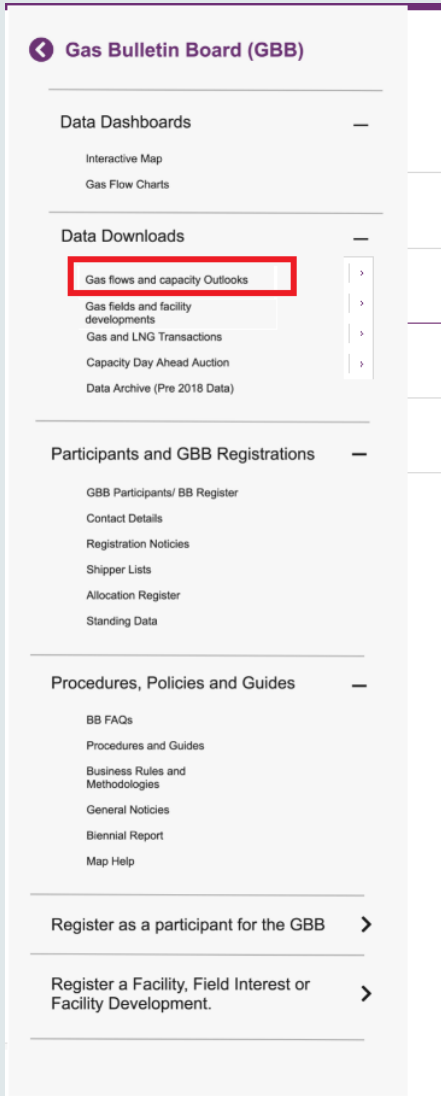
Other changes

- FTP submissions to be removed
  - API and Market Portal to be maintained
- Consultation to be conducted on both Capacity Trading and Auction Procedure, Gas Bulletin Board Procedures and new GSOO procedure
- Data portal being reviewed. Target state
  - Data downloads
  - Data dashboard

Data downloads

Simpler approach replacing the existing Data Portal.

Data to be separated into smaller files, downloadable as csv



Data - Gas Flow and Capacity Outlooks

Reports for the GBB's key data points, including gas flow and storage, capacity, secondary capacity and network information, including gas flow and storage, capacity, secondary capacity and network information.

Forecast and Actual Gas Flows

- Actual Flow and Storage (10,000 KB, csv)
  This report displays the actual historical flows, gas production and gas held in storage for BB facilities aggregated by Location. All values are expressed as terajoules per day (TJ/day).
- Pipeline Connection Flow (10,000 KB, csv)
  This report displays the actual historical flows, gas production and gas held in storage for BB facilities aggregated by Location. All values are expressed as terajoules per day (TJ/day).
- Nomination and Forecast Flow (10,000 KB, csv)
  This report displays the actual historical flows, gas production and gas held in storage for BB facilities aggregated by Location. All values are expressed as terajoules per day (TJ/day).
- Archived Data
  Link to older data not displayed in the files above.

Facility Capacity Outlooks

- Short Term Capacity Outlook (10,000 KB, csv)
  This report text goes here describing the report (TJ/day).
- Medium Term Capacity Outlook (10,000 KB, csv)
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- Uncontracted Capacity Outlook (10,000 KB, csv)
  This report text goes here describing the report (TJ/day).
- Linepack Capacity Adequacy (10,000 KB, csv)
  This report text goes here describing the report (TJ/day).
- Connection Point Nameplate Rating (10,000 KB, csv)
  This report blah blah text goes here describing the report (TJ/day).
- Nameplate Rating (10,000 KB, csv)
  This report text goes here describing the report (TJ/day).
- Archived Data
  Link to older data not displayed in the files above.

Compliance Reports

- Missing Actual Flow and Storage (10,000 KB, csv)
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- Missing Nomination and Forecast (10,000 KB, csv)
  This report text goes here describing the report (TJ/day).
- Late Actual Flow and Storage (10,000 KB, csv)
  This report text goes here describing the report (TJ/day).
- Late Nomination and Forecast (10,000 KB, csv)
  This report text goes here describing the report (TJ/day).
- Connection Point Nameplate Rating (10,000 KB, csv)
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- Pipeline Nil Quality Submission (10,000 KB, csv)
  This report text goes here describing the report (TJ/day).
- Archived Data
  Link to older data not displayed in the files above.

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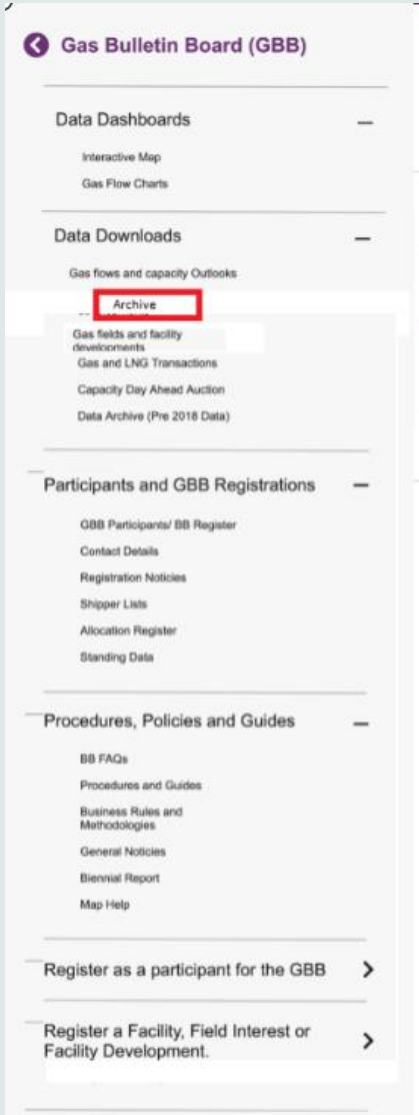
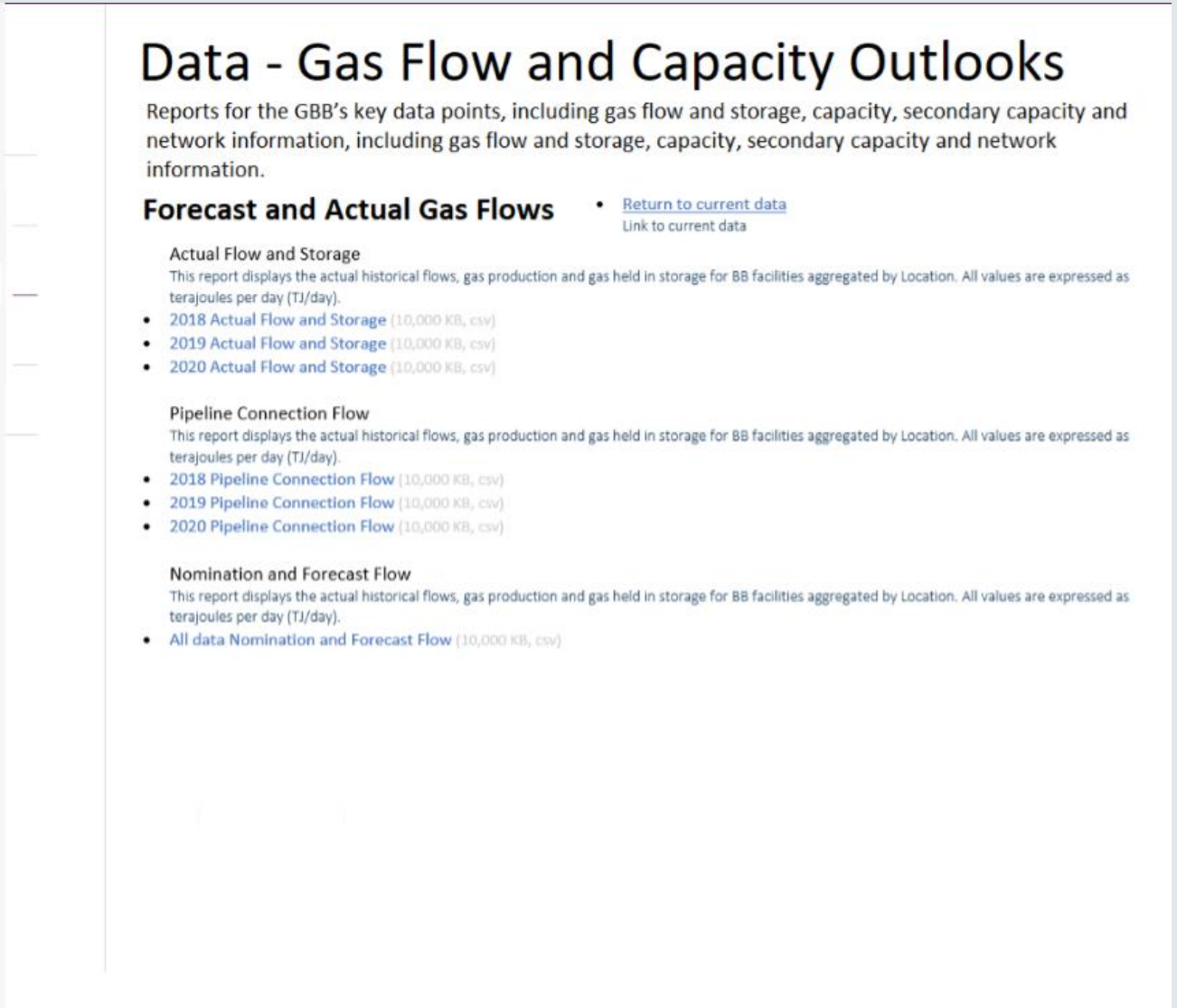
Data downloads

Archive files updated daily with any updated historical information, available to downloaded in one or more zip files





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