# Wholesale gas reserves price assumption report:

Insights into the gas reserves price assumptions reported to the AER covering calendar year 2024

**April 2025** 



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# **Contents**

1	Exec	Executive summary			
	1.1	Key insights	1		
	1.2	Compliance observations	2		
2	Rese	Reserves and resources reporting context			
	2.1	Reform vision to enhance gas market transparency	3		
	2.2	Reporting requirements for field owners	3		
	2.3	The AER's reporting role	4		
	2.4	The AER's compliance role	4		
3	Analysis of gas reserve price assumptions				
	3.1	Our analysis methodology and approach	6		
	3.2	Prices for contracted gas reserves	8		
	3.3	Prices for uncontracted gas reserves	10		
	3.4	Volume estimates for 2P reserves	12		
4	Monitoring and enforcing compliance				
Аp	pendi	x: PRMS reserves and resources classification system	17		

# 1 Executive summary

This is the second report by the Australian Energy Regulator (AER) on price assumptions used by field owners to prepare their annual gas field reserve estimates. The AER is required to report on these prices assumptions at least annually under Part 17 of the National Gas Rules (NGR), following the introduction of the *National Gas Amendment (Market Transparency) Rule 2022*.

This report examines the contracted prices and uncontracted gas reserve price assumptions reported to the AER for the 2024 calendar year and aims to provide meaningful insights and increased transparency on the prices used to establish East Coast gas reserves estimates and year on year comparisons. Our analysis explores the drivers affecting reserves estimates and influencing changes in the data.

Additionally, the report underscores the AER's compliance role, ensuring that price forecasts used to determine reserve estimates meet defined criteria and they are independently verified. Through its monitoring, the AER seeks to promote the integrity of reported data and ensure that market participants can have confidence in the information published by the Australian Energy Market Operator (AEMO) on the Gas Bulletin Board (GBB).

# 1.1 Key insights

Our analysis found that the median contracted reserve price for 2025 was \$10.44 per GJ with a range from \$10.43 per GJ to \$10.86 per GJ for the 5-year period from 2025 to 2029.<sup>2</sup> For the same period the median uncontracted reserve price assumptions were higher at approximately \$12 per GJ.<sup>3</sup>

Both contracted and uncontracted prices showed year-on-year increases of approximately 4% largely reflective of the Consumer Price Index (CPI) although, for contracted prices it was also influenced by large field-level price variations with some fields reporting year-on-year price changes exceeding 25%.

Location based analysis of uncontracted prices indicated the average price for southern basins is higher than northern basins with the price differential increasing across the 5-year period from approximately \$1 per GJ in 2025 to over \$3 per GJ in 2029. Noting the increased reliance on northern gas to meet southern demand, the higher southern price expectations possibly reflect a competitive pricing once the transportation cost for moving gas from the north is considered.<sup>4</sup>

Approximately half of the gas fields that reported reserve volume estimates to AEMO have indicated that these estimates are sensitive to a 10% change in prices. For a 10% increase in the underlying gas price assumptions 2P volumes are estimated to increase by 370 PJ, while conversely for a 10% decrease in prices, 2P volumes are estimated to decrease by 510 PJ.<sup>5</sup>

<sup>&</sup>lt;sup>1</sup> The purpose of this report and AER's role is discussed in more detail in *Chapter 2*, p 3.

<sup>&</sup>lt;sup>2</sup> The contracted reserve price analysis is discussed in more detail in *Chapter 3*, p 8.

<sup>&</sup>lt;sup>3</sup> The uncontracted reserve price analysis is discussed in more detail in *Chapter 3*, p 10.

<sup>&</sup>lt;sup>4</sup> The location-based analysis is discussed in more detail in *Chapter 3*, p 11.

<sup>&</sup>lt;sup>5</sup> The price sensitivity of 2P reserve volume estimates are discussed in more detail in *Chapter 3*, p 12.

# 1.2 Compliance observations

Since the inception of the rules, we have observed a notable improvement in field owners' compliance with reporting obligations, indicating a better understanding of reporting requirements and a stronger commitment to accurate and timely reporting. The AER has been identifying and responding to potential non-compliance as well as providing guidance to field owners through ongoing engagement and publishing a number of compliance guidance bulletins. Further work is required from some field owners to improve compliance.

# 2 Reserves and resources reporting context

## 2.1 Reform vision to enhance gas market transparency

The *National Gas Amendment (Market Transparency) Rule 2022* was made on 23 June 2022,<sup>6</sup> and through a staged commencement, gave effect to a package of gas transparency measures endorsed by Australian Energy Ministers.<sup>7</sup> These reforms introduced requirements for field owners to report reserves and resources data to AEMO and the AER annually.

The reserves and resources reporting by field owners is designed to overcome opaqueness in the field operator segment of the supply chain and to remove information gaps which lead to market participants and government policy makers not having a transparent view of the gas supply outlook.<sup>8</sup> The importance of timely, transparent and complete reporting in this sector was highlighted in the Energy Council's 2014 Australian Gas Market Vision:

'An important contributor to informed decision making about the future value of gas is transparent information on reserves, resources, production, forecasts and well drilling rates. The COAG Energy Council expects that timely and improved reporting of this type of information to the market will help inform the market.<sup>9</sup>

## 2.2 Reporting requirements for field owners

Since 15 March 2023, *Bulletin Board (BB) reporting entities* have been required to submit reserves and resources information annually to AEMO, within 40 business days of the reporting date (*the reserves reporting year*) nominated by themselves at registration, and simultaneously submit their reserve price assumptions to the AER at field level. In practice, the only BB reporting entities submitting reserves and resources information to the AER and AEMO are field owners.

Field owners are required to prepare information in accordance with the Petroleum Resources Management System (PRMS) developed by the Society of Petroleum Engineers (see Appendix A)<sup>10</sup> and submit their reserves and resources information to AEMO for all gas fields where there are:

- 1P reserves, meaning proved reserves;
- 2P reserves, meaning the sum of proved and probable reserves; or
- 3P reserves, meaning the sum of proved, probable and possible reserves; or
- 2C resources, meaning the best estimate of contingent resources.

This includes the reporting of anticipated changes in 2P reserve volumes, ensuing from a 10% change up or down in the price assumptions underpinning the estimates.

It also includes commentary on the barriers to commercial recovery of contingent resources. AEMO publishes this information on the GBB.<sup>11</sup>

<sup>&</sup>lt;sup>6</sup> National Gas Amendment (Market Transparency) Rule 2022, 23 June 2022.

<sup>&</sup>lt;sup>7</sup> Measures to Improve Transparency in the Gas Market - Decision, COAG Energy Council, 24 March 2020.

<sup>&</sup>lt;sup>8</sup> Measures to Improve Transparency in the Gas Market - regulation impact statement for decision, COAG Energy Council, p 54, 24 March 2020.

<sup>&</sup>lt;sup>9</sup> https://www.energy.gov.au/energy-and-climate-change-ministerial-council/working-groups/gas-working-group/gas

<sup>&</sup>lt;sup>10</sup> SPE, Petroleum Reserves and Resources Definitions, Society of Petroleum Engineers, accessed 15 March 2024.

<sup>&</sup>lt;sup>11</sup> AEMO, <u>Reserves Resources Reporting and Facility Developments</u>, Australian Energy Market Operator, accessed 18 March 2025

Gas price assumptions must be reported to the AER for both contracted and uncontracted reserves and must be verified by an independent qualified gas industry professional.

# 2.3 The AER's reporting role

The policy rationale for the AER's reporting role was that transparency of gas price assumptions imposes discipline on producers to adopt reasonable assumptions when estimating their gas reserves. This is intended to provide market participants and policymakers with confidence in the reserve estimates published on the GBB.<sup>12</sup>

In producing this report, the AER is fulfilling its statutory obligation to publish information on gas reserve price assumptions. This Report has been guided by the following objectives:

- Improve the quality of price information in the East Coast Gas Market by enhancing understanding of the upstream supply outlook, premised on the contracted prices and price forecasts for uncontracted gas reported by field owners.
- Complement the AER's reporting on wholesale gas market outcomes.
- Complement reserves and resources information published by AEMO on the GBB.
- Inform future reporting on reserve price assumptions through ongoing analysis and stakeholder feedback.

# 2.4 The AER's compliance role

The AER plays an essential role in overseeing market participant adherence to the requirements of the reserves and resources reporting framework:

- We monitor field owner compliance with reserves and resources reporting requirements. This
  includes ensuring reporting meets defined criteria and is timely, as well as providing guidance to
  industry on how to report.
- We are required to report on gas reserve price assumptions whilst protecting commercial confidentiality by aggregating and anonymising the data in our reports.
- Under the NGR, we can direct field owners to conduct independent audits of the reserves and
  resources information that they provide to AEMO. This power helps to ensure that reserves and
  resources information meets defined criteria and that the reserve price assumptions provided to
  the AER correctly underpin the gas reserve volumes reported to the Gas Bulletin Board.
- Under the NGR, we receive and assess statements from independent qualified gas industry professionals, verifying that gas reserve price assumptions submitted to the AER by field owners fall within an acceptable range of gas price forecasts. These statements help to ensure that:
  - realistic price assumptions are being used to prepare gas reserve estimates.
  - our reporting on gas reserve price assumptions has integrity and provides reliable information for gas market participants, including gas buyers.

<sup>&</sup>lt;sup>12</sup> ACCC <u>Framework for the consistent reporting of natural gas reserves and resources</u>, Australian Competition and Consumer Commission, p 49, 13 June 2019.

# 3 Analysis of gas reserve price assumptions

Our analysis focuses on all gas price assumptions underpinning reserves estimates reported during 2024.<sup>13</sup> Field owners submitted their contracted and uncontracted price assumptions, at field level, across gas basins on the East Coast (Figure 1).

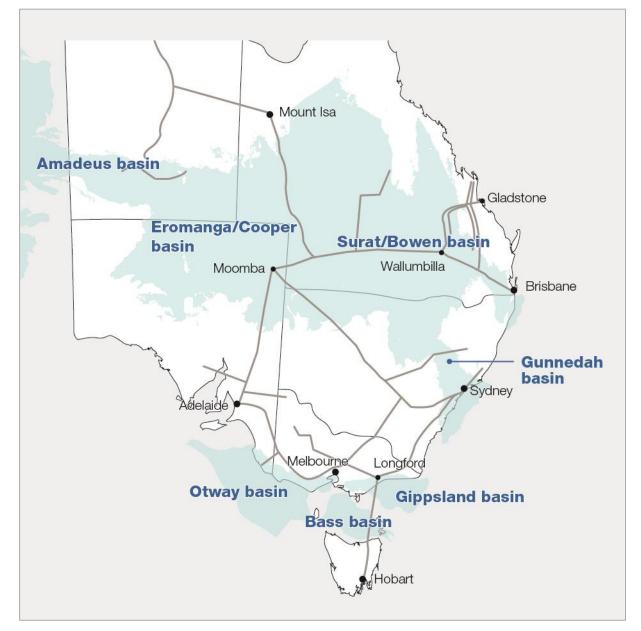


Figure 1: Basins reported against by field owners

Notes: Northern basins include the Bowen, Surat, Eromanga/Cooper and Amadeus basins. Southern basins include the Bass, Otway, Gippsland and Gunnedah basins.

<sup>&</sup>lt;sup>13</sup> All gas price assumptions reported against a nominated annual reporting date between 1 January 2024 and 31 December 2024 were included in the analysis.

# 3.1 Our analysis methodology and approach

#### Our analysis methodology aims to balance insights with confidentiality

Through our analysis we seek to:

- aggregate and report reserve price assumptions in a manner that ensures confidentiality.
- provide meaningful insights into the distribution of gas reserve price assumptions for both contracted and uncontracted reserves.
- provide qualitative information related to the different gas reserve price assumption methodologies used by field owners.
- provide insights into factors driving changes in the gas reserve price assumptions being reported year on year.
- apply recommendations for future reporting from our 2024 report, particularly for investigating reporting prices at a more localised level in line with stakeholder feedback.<sup>14</sup>

Field owners were required to report their contracted and uncontracted gas reserve price assumptions in real terms, based on the first-year price assumption data provided at the field level using our reporting template.<sup>15</sup>

Table 1 lists the number of field owners and the number of fields within each basin for which we received contracted and/or uncontracted gas reserve price assumptions.

Table 1: Field owners reporting by basin

Basin	Number of field owners reporting <sup>16</sup>	Number of fields with contracted gas reserve price assumptions	Number of fields with uncontracted gas reserve price assumptions
Amadeus	1	3	3
Bass	2	2	1
Bowen	11	98	92
Cooper/Eromanga	4	429	441
Gippsland	4	73	73
Gunnedah	1	0	1
Otway	3	4	4
Surat	8	110	39
Total	22 unique <sup>17</sup>	719	654

Source: AER analysis using gas reserve price assumptions data.

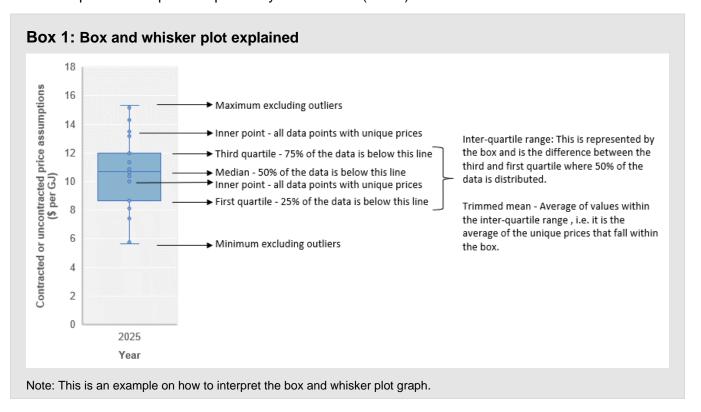
<sup>&</sup>lt;sup>14</sup> AER, Wholesale Gas Reserve Price Assumptions Report, Australian Energy Regulator, accessed 17 March 2025.

<sup>&</sup>lt;sup>15</sup> For example, if a field owner reported price assumptions between 2025 and 2030, they were required to express all future year prices in 2025 real terms. When submitting price assumptions information to the AER field owners use the AER's <u>reporting template</u>. This template has been updated for future reporting alongside the publication of this report.

<sup>&</sup>lt;sup>16</sup> This list of field owners only includes those that have reported price assumptions data to the AER and does not reflect all owners that might have an interest in the different gas fields.

<sup>&</sup>lt;sup>17</sup> Across all the basins 22 field owners reported gas price assumptions data to the AER.

We used box plots to analyse and represent the distribution of the contracted and uncontracted gas reserve price assumptions reported by field owners (Box 1).



The following methodology was used to aggregate and anonymise the gas reserve price assumptions data for inclusion in the box and whisker plot analysis:

- we included in the box and whisker plot analysis each set of unique gas reserve price assumptions data reported for individual fields or group of fields within each basin by each field owner.<sup>18</sup>
- we aimed for at least 20 unique sample points per calendar year for that year to be included in the box and whisker plot analysis.<sup>19</sup>
- all reports received within a reporting year were grouped by calendar year.<sup>20</sup>

For this second report, additional analysis examines the effect of basin location on uncontracted gas price assumptions. The following methodology was used to aggregate and anonymise the gas reserve price assumptions data for inclusion in the location-based analysis:

- Basins were grouped into a northern or a southern region relative to the Queensland

  New South
  Wales border.
  - Northern basins include the Bowen, Surat, Cooper–Eromanga and Amadeus basins.
  - Southern basins include the Bass, Otway, Gippsland and Gunnedah basins.

<sup>&</sup>lt;sup>18</sup> For example, if a field owner reports in the same basin 3 different sets of price assumptions for different fields there will be 3 sets of price assumptions data included in the box and whisker plot analysis. On the other hand, if a field owner reported the same price assumptions data in 2 different basins there will be 2 sets of price assumptions data included in the box and whisker plot analysis.

<sup>&</sup>lt;sup>19</sup> For both contracted and uncontracted price assumptions reported we only had sufficient sample data to report prices for 2025 to 2029.

<sup>&</sup>lt;sup>20</sup> For example, if reporting was received for a financial year ending 30 June 2024 it was included in the analysis as part of calendar year 2024 reporting.

 We calculated an average for northern and southern prices and a price differential between them. The average was chosen as the metric rather than the median in this analysis to maximise price anonymity.

Field owners are also required to report to AEMO an estimate of the change in their 2P reserves estimate arising from a 10% increase or decrease in the underlying gas price assumptions used to prepare those estimates. We used the following methodology to analyse the impact on reported 2P reserve estimates related to changes in the underlying gas price assumptions:

- We matched gas fields that reported reserve price assumptions to the AER with the volume and price sensitivity data provided to AEMO.
- Only field interests where the total 2P reserves (developed and undeveloped) were more than 0 PJ were included.
- A field interest was deemed to be price sensitive if an increase and/or decrease in 2P volumes was reported (other than zero).
- We analysed year-on-year volume changes for price sensitive fields and correlated those with changes in gas price assumptions reported to us between 2023 and 2024.
- A minimum threshold of 5 field owners reporting year-on-year gas price assumptions changes greater than 10% were required for the analysis to be reported.

## 3.2 Prices for contracted gas reserves

#### Median price is largely unchanged for contracted gas reserves

Approximately 75% of the contracted gas reserve price assumptions reported for 2025–29 were below \$12 per GJ (Figure 2). Some of these price assumptions reflect longstanding historical contract arrangements, including contracts to sell gas both for domestic and LNG export purposes.

The estimated median price for contracted reserves in 2025 was \$10.44 per GJ, with the medians for the 5-year reporting period ranging between \$10.43 per GJ and \$10.86 per GJ. On average, median prices increased less than \$0.10 per GJ from values reported last year. However, the distribution shows a general upward trend of approximately 4% in the trimmed mean when comparing year on year submissions.<sup>21</sup> This partly reflects annual price inflation but is also influenced by large field-level price variations with some fields reporting year-on-year price changes exceeding 25%.

The median contracted gas price assumptions are lower compared to the volume weighted average prices (\$13.56 per GJ for 2025, \$14.25 per GJ for 2026) reported for short-term gas supply contracts in our Q4 2024 wholesale markets quarterly report.<sup>22</sup>

<sup>&</sup>lt;sup>21</sup> The trimmed mean was determined by averaging the middle 50% of data. It is the average of the unique prices that fall within the box in the box-and-whisker plot, thereby removing the effect of outliers on the calculation.

<sup>&</sup>lt;sup>22</sup> This analysis related to short-term transactions reported to the Gas Bulletin Board for contracts up to and including a year in length. AER, <u>Wholesale markets quarterly Q4 2024</u>, Australian Energy Regulator, accessed 30 January 2025.

18 16 Contracted Price Assumptioin (\$ per GJ) 14 12 10 8 6 4 2 0 2025 2026 2027 2028 2029 Year

Figure 2: Contracted gas reserve price assumptions distribution

Notes: Contracted prices reflecting make-up gas arrangements have been excluded from the analysis. Inner points are displayed between the minimum and maximum and represent all the unique prices reported.<sup>23</sup>

2023 Price Assumptions 2024 Price Assumptions

Contracted price assumptions data for 2023 were only reported for 2024 to 2028.

Source: AER analysis using gas reserve price assumptions data.

The interquartile range (represented by the box on the graph) resembles last year's data with 50% of prices falling within a band that varies by \$3.30 per GJ on average. The full range of data (represented by the whiskers) averages approximately \$8 per GJ, a reduction of approximately \$2 per GJ from last year.<sup>24</sup> If outliers are included, we no longer find a noticeable change from last year's data, when no outliers were identified.

Overall, there is little change to the shape of this year's distribution compared to last year. This suggests that the historical market view represented by contracted price assumptions has not significantly shifted from last year. Contracted reserve price assumptions typically reflect a volume weighted average price based on existing gas contracts and include both long term and near-term contracts. These contracts often incorporate price escalation mechanisms reflecting the Consumer Price Index and can be linked to oil prices, or to a futures index like the JKM.<sup>25</sup>

<sup>&</sup>lt;sup>23</sup> For example, if 5 data points at \$12 per GJ were included in the analysis the box and whisker plot will only show one inner point at \$12 per GJ.

<sup>&</sup>lt;sup>24</sup> Sample points regarded as outliers are not included in this analysis. Outliers are defined as data points that are located outside the maximum and minimum displayed in the box and whisker plot.

<sup>&</sup>lt;sup>25</sup> JKM is the Northeast Asian spot price index for LNG delivered ex-ship to Japan, South Korea, China and Taiwan, assessed by S&P Global Platts.

## 3.3 Prices for uncontracted gas reserves

# Uncontracted gas reserves price distributions suggest an upward shift in future price expectations

The median uncontracted gas reserve prices for 2025–29 are largely unchanged from last year at approximately \$12 per GJ (Figure 3) within a narrow range of \$12.00 per GJ to \$12.07 per GJ. This price likely reflects the use of a \$12 per GJ reasonable price provision in the mandatory Gas Market Code.<sup>26</sup>

Despite no year-on-year change to the median, the centre of the distribution of uncontracted price assumptions has shifted upward by slightly less than 4% as determined by the trimmed mean of the data. This shift is similar to what was observed for contracted price assumptions. The box and whisker plot shows a change in distribution shape with prices below the median compressing upward while the values above the median have stretched.<sup>27</sup> For example, 75% of prices in 2023 fell below roughly \$13 per GJ and trended downward in the long term. Data collected for this year's report has seen the 75% point rise to just over \$14 per GJ. This indicates an upward shift in expectations for future gas contract pricing.



Figure 3: Uncontracted gas reserve price assumptions distribution

Notes: Outliers in the data are not displayed on the box and whisker plot. Inner points are displayed between the minimum and maximum and represent all the unique prices reported.

Uncontracted price assumptions data for 2023 were only reported for 2024 to 2028.

Source: AER analysis using gas reserve price assumptions data

Compared to last year's report, fewer data points appear as outliers which fall outside the whiskers shown in the box and whisker plot.<sup>28</sup> In the short term, the spread of price assumptions being

<sup>&</sup>lt;sup>26</sup> ACCC, Gas Market Code, Australian Competition and Consumer Commission, accessed 17 March 2025.

<sup>&</sup>lt;sup>27</sup> Note the upward shift in both the displayed minimum and maximum values. Also note the reduction in size of the bottom of the box in conjunction with the increase in size of the top half of the box for values above the median.

<sup>&</sup>lt;sup>28</sup> Outliers are defined as data points that are located outside the maximum and minimum displayed in the box and whisker plot.

reported by field owners for uncontracted gas reserves is slightly less than that seen for contracted gas reserves, particularly for 2025 where values fall within a narrow \$5 per GJ band excluding outliers. This spread widens beyond 2028, possibly reflecting increased uncertainty of estimating prices further in the future.

Whereas contracted reserve prices are influenced by a combination of long-term and near-term contracts, uncontracted reserves prices reflect the long-term gas price view of field owners, which can be highly variable. Uncontracted gas reserve price assumptions better reflect market dynamics and are often influenced by factors such as spot market prices, oil prices, regional LNG netback prices, domestic market assumptions, foreign exchange forward curves or a combination of these. The choice of methodology reflects the interplay of market dynamics, regional supply and demand, the field owner's available options and their strategic decisions.<sup>29</sup>

Changes in price assumptions of uncontracted gas reserves year-on-year can impact the commerciality of those reserves. For example, if lower gas prices are expected in the future, this could result in some reserves being considered commercially unrecoverable and classified as a contingent resource, rather than as reserves. The impact of changes in uncontracted price assumptions on the reserve estimates of field owners over time is something we will continue to explore as part of our monitoring function.

# Location based analysis of uncontracted prices shows the north-south price differential widening over time

Further analysis of the distribution in uncontracted price assumptions indicates that it is related to different price assumptions reported for northern versus southern basins (Figure 4).

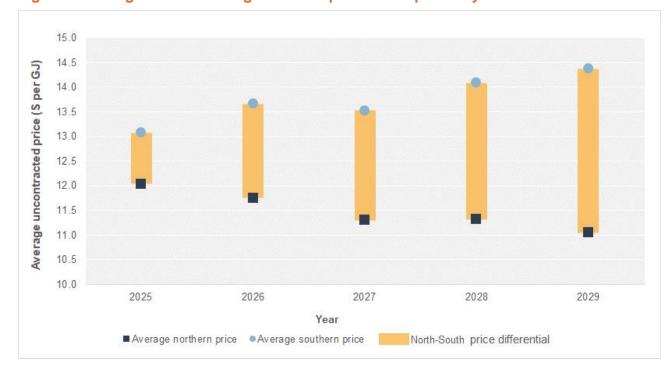


Figure 4: Average uncontracted gas reserve price assumptions by basin location

Notes: Northern basins include the Bowen, Surat, Cooper–Eromanga and Amadeus basins. Southern basins to include the Bass, Otway, Gippsland and Gunnedah basins.

Source: AER analysis using gas reserve price assumptions data

<sup>29</sup> When reporting uncontracted gas price assumptions to the AER, the price assumptions must fall within an acceptable range of price forecasts used for reserve estimation purposes and participants must have independently verified the use of a range domestic spot prices, oil prices and global spot prices or a combination of price methodologies.

11

While the median price remained constant around \$12 per GJ across the 5 years reported, the average uncontracted price assumption for northern basins is lower than that for southern ones. Furthermore, the northern–southern average price differential across the 5-year period increases from approximately \$1 per GJ in 2025 to over \$3 per GJ in 2029. Largely, this is due to a combination of decreases in uncontracted price assumptions for northern basins and increases in uncontracted price assumptions for southern basins.

The higher uncontracted gas price assumptions in the south may reflect the transportation cost for moving gas from the north to the south given increasing reliance on northern gas to meet southern demand. For comparison, a transport price of \$2.26 per GJ was reported by the ACCC in 2023 for moving gas from Wallumbilla to Culcairn.<sup>30</sup> AEMO also noted in the 2025 Gas Statement of Opportunities (GSOO) that there are potential seasonal supply gaps from 2028 with annual shortfalls in the south anticipated from 2029 onwards.<sup>31</sup> As such, southern pricing estimates would be based on a competitive estimate of northern supply prices plus transport to the south.

#### 3.4 Volume estimates for 2P reserves

#### Half of gas fields with 2P reserves volumes are price sensitive

When reporting gas reserve (2P) price assumptions to the AER, field owners must also submit volume estimates for reserves and resources to AEMO. As part of this submission, participants indicate how much of their 2P reserve volumes would change if there was a 10% increase or decrease in the underlying gas price assumptions used to prepare the reserves estimate. AEMO publishes its own 2P reserve sensitivity statistics on the GBB.<sup>32</sup> These are calculated in accordance with the Bulletin Board Aggregation Methodology.<sup>33</sup> For the 2024 submission year, 463 gas field interests reported 2P reserve volumes above zero.<sup>34</sup> Of these gas fields, 46% were identified as being price sensitive (i.e. they reported a non-zero change in their 2P volumes should prices increase or decrease by 10%).

In the event of a 10% increase to their underlying gas prices assumptions, 189 gas fields reported an expected increase to their 2P reserves, with a median volume change of 5%. Individual volume increases for price sensitive fields ran as high as 7%, with a total estimated volume increase of 370 PJ. For a 10% decrease in the underlying gas price assumptions, 211 price sensitive fields also reported a median decrease of 5%. Individual fields reported volume decreases up to 13%, with a total estimated volume decrease of 510 PJ. These volumes are relatively small when compared to the total 2P reserves of 31,969 PJ reported by AEMO in the 2025 GSOO.<sup>35</sup>

Beyond their annual production changes, field owners indicated to the AER a range of reasons why their 2P volumes may have changed from 2023. These included the drilling of new wells, changes to performance of existing wells, modelling updates and new exploration discoveries. Price was not noted explicitly as a reason for change in reserve volumes.

<sup>&</sup>lt;sup>30</sup> ACCC, Gas inquiry January 2023 interim report, Australian Competition and Consumer Commission, accessed 24 March 2025.

<sup>&</sup>lt;sup>31</sup> AEMO, <u>2025 Gas Statement of Opportunities</u>, Australian Energy Market Operator, accessed 20 March 2025.

<sup>&</sup>lt;sup>32</sup> AEMO, <u>Reserves Resources Reporting and Facility Developments</u>, Australian Energy Market Operator, accessed 25 March 2025.

<sup>&</sup>lt;sup>33</sup> AEMO, <u>BB Aggregation Methodology v1.3</u>, Australian Energy Market Operator, accessed 25 March 2025.

<sup>&</sup>lt;sup>34</sup> This includes both developed and undeveloped 2P reserve volumes.

<sup>&</sup>lt;sup>35</sup> AEMO, <u>2025 Gas Statement of Opportunities</u>, Australian Energy Market Operator, accessed 20 March 2025.

A component of our analysis aimed to confirm this by looking for correlations between year-on-year volume changes for price sensitive fields reported to AEMO and changes in the gas price assumptions reported to us between 2023 and 2024. We sought to identify where these price changes were substantial in driving changes in reserves volumes reported after accounting for production. We did not identify a large enough set of gas fields where volume changes were clearly correlated to price changes between 2023 and 2024. This finding is in line with our observations that the medians of uncontracted gas price assumptions were unchanged and that the trimmed mean has increased by 4% since last year. Both statistics fall below the 10% price sensitivity for reporting volume changes in reserve estimates to AEMO.

To perform this analysis we matched gas fields that reported gas price assumptions to the AER with the volume and price sensitivity data provided to AEMO. As we continue to build a more comprehensive year on year dataset, we will look at ways to enhance this analysis further including to inform our monitoring function.

# 4 Monitoring and enforcing compliance

# Gas transparency measures continue to be a compliance and enforcement priority

The AER sets and publishes annual compliance and enforcement (C&E) priorities to guide our surveillance focus, indicating areas where we deem focus is warranted and where we will be paying closest attention to market participant compliance behaviours. This has included focus on new areas of participant reporting under the Gas Market Transparency Measures. Compliance with these measures was established as an AER C&E priority for the 2023–24 financial year and was extended as a priority for the 2024–25 financial year (Figure 5).<sup>36</sup>

Figure 5: Compliance with gas transparency reform



Notes: This priority encompasses all reporting requirements under the Gas Transparency Measures, with a focus on new reporting areas, including reserves and resources reporting by field owners.

#### We have observed improvement in the level of compliance

March 2025 marks the second year of required reporting for field owners, following the commencement of reporting to the Gas Bulletin Board under the National Gas Amendment (Market Transparency) Rule 2022. In comparison to 2023, we have noted improvements in overall field owner compliance with reporting obligations. Key observations include:

- Compliance with registration requirements: In 2023, several field owners missed the 1 December 2022 deadline for AEMO registration for Gas Bulletin Board reporting. All known field owners are now registered<sup>37</sup>.
- Compliance with reporting requirements: There has been a notable improvement in compliance with reporting deadlines and information requirements. In 2023 we identified 36 instances of late and/or incomplete reporting of reserves and resource information by 25 field owners compared to 14 breaches and 12 field owners in 2024.

As part of the submission of uncontracted gas prices field owners also provide a verification statement confirming that the prices submitted to the AER is falling within an acceptable range of gas price forecasts. All verification statements received for 2024 submissions were found to meet the requirements set out in the NGR. This is an improvement from 2023 where some field owners were unclear on the requirements of the verification statement and in some cases provided this late.

Improvement in compliance has lessened the need for the AER to engage with field owners for clarification, indicating an improved understanding of reporting obligations among field owners and a stronger commitment to accurate and timely reporting.

<sup>&</sup>lt;sup>36</sup> AER, AER Compliance and Enforcement Priorities 2024-25, Australian Energy Regulator, accessed 18 March 2025.

<sup>&</sup>lt;sup>37</sup> Field owners are required to register as a *BB reporting entity* if they hold a net revenue interest in a field where the field has 1P, 2P or 3P reserves, or 2C resources of processable gas.

• Reporting no change of their reserves and resources: Some field owners reported no changes to their reserves and resources from the previous year and questioned the need for repeated submissions. We emphasise that field owners are required, under Rules 171A, 171B and 171C of the NGR, to submit reserve and resource information to AEMO and reserve price assumptions to the AER at least annually. While the AER does not expect that all field owners will make new reserves and resources assessments every year, field owners maintain an obligation to submit information to AEMO. If there is no change from previous submissions, field owners can provide the same information provided the previous year.

Where applicable, the AER may accept previous price assumptions and verification statements but will assess each case individually. However, given that price forecasts change yearly and uncontracted reserves based on old price forecasts can become outdated, it is crucial to distinguish between outdated and current forecasts. Field owners must update information if it is no longer accurate, and they should seek advice from the AER if they are uncertain on how to report.

- Persistent non-compliance: Despite overall improvements, we have observed that some field owners have failed to submit required information to AEMO and/or the AER within 40 business days of their nominated reporting date for the second consecutive year. Additionally, some field owners stated they were uncertain which energy body (the AER or AEMO) they were required to report to. We emphasise that field owners are required to submit
  - o to AEMO, their field interest details and reserves and resources information (see the template in AEMO's Gas Bulletin Board Field Interest Registration form);<sup>38</sup> and
  - to the AER, their gas reserve price assumptions.

Furthermore, some field owners have been unresponsive to the AER and AEMO communications regarding their reporting obligations, despite multiple follow-ups.

We remind field owners of their obligations to provide timely reporting to meet the obligations. In circumstances where potential non-compliance is identified we encourage field owners to self-report to the AER. The AER may take enforcement action for non-compliance where it deems appropriate.

#### We have updated our reserve price assumptions template

Based on previous submissions and stakeholder feedback, we have updated our reserve price assumptions submission template to assist participant navigation and AER use of the data for reporting. Most notably, we only require price assumptions data be reported for up to 10 years into the future.<sup>39</sup> The template also includes a new data submission guide and the ability to provide additional voluntary information to assist the AER in evaluating year-on-year changes in the underlying gas price assumptions. The <u>updated template</u> has been published alongside this report.

<sup>&</sup>lt;sup>38</sup> AEMO, <u>Gas Bulletin Board Field Interest Registration</u>, Australian Energy Market Operator, accessed 15 March 2024.

<sup>&</sup>lt;sup>39</sup> We have observed some field owners reporting gas price assumptions data up to 50 years into the future. With limited ability to anonymise and aggregate the data we request field owners to only report up to 10 years into the future.

#### We will continue to monitor for compliance

The AER is required to monitor market participant compliance with the NGR. Through our monitoring of field owner compliance with reserves and resources reporting obligations, we ensure the integrity and reliability of AEMO's and the AER's published data.

After 2 years of reserves and resources reporting, the AER expects that reporting obligations are now well understood by field owners. Following the commencement of reporting, we accommodated field owner adjustment to the requirements of the gas transparency reforms, responding to misreporting and advising field owners on how the reporting requirements apply to their specific circumstances. We are now more likely to regard a recurrence of misreporting as reflective of a poor compliance culture. Persistent breaches by field owners will trigger a regulatory response from the AER that may include enforcement options.

#### Our next report

The AER anticipates publishing its next gas reserve price assumptions report in April 2026. We welcome feedback from interested parties on the content of reports and direct readers to the AER contact details provided in this publication.

#### **AER contact details**

The AER encourages a strong market participant compliance culture, including self-reporting of potential non-compliance. Gas market participants, looking to self-report, can do so via this link.<sup>40</sup>

AER staff are available to respond to queries on compliance and other reporting issues. Staff are also interested in receiving feedback on this gas reserve price assumptions report and the make-up of future reports. A stakeholder consultation questionnaire can be forwarded to interested parties on request.

Queries and feedback can be directed to AERGasMarketsBB@AER.gov.au.

<sup>&</sup>lt;sup>40</sup> AER, <u>AER Guidance note - Submitting wholesale energy self-reports to the AER</u>, Australian Energy Regulator, 23 February 2022.

# Appendix: PRMS reserves and resources classification system

The PRMS is a widely recognised framework used for classifying and reporting oil and gas resources and forms the framework in the NGR against which field owners report on their reserves and resources. The PRMS provides guidelines for evaluating and reporting petroleum reserves and resources in a consistent and transparent manner.

Reserves represent commercially recoverable quantities of gas and resources encompass all potential sources of gas, including those with varying levels of commercial certainty. Numbers across the 'Range of Uncertainty' represent the probability that the quantities recovered will at least equal the estimate e.g.: 1P (90%), 2P (50%) and 3P (10%). These terms serve as classifications within the petroleum industry, providing a basis for assessing the availability of natural gas and the economic viability of its extraction.

The PRMS classification framework is summarised in Figure 6.

PRODUCTION COMMERCIAL **RESERVES FOTAL PETROLEUM INITIALLY-IN-PLACE (PIIP)** Low High **Best Estimate** 1P 2P 3P DISCOVERED PIIP P1 P3 Proved Probable Possible SUB-COMMERCIAL **CONTINGENT RESOURCES** Increasing Chance of Commerciality 2C 3C 1C C1 C2 C3 UNRECOVERABLE PROSPECTIVE RESOURCES i UNDISCOVERED PIIP **1U 3U** 2U P90 P50 P10 **UNRECOVERABLE** Range of Uncertainty Not to scale

Figure 6: PRMS reserves and resources classification framework

Source: The Society of Petroleum Engineers, Petroleum Resources Management System revised June 2018