



**Economic Regulation Authority**

# 2022 Gas Rate of Return Instrument Update

Explanatory note

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# 1. Introduction

The gas rate of return instrument ('gas instrument') is required under the National Gas Law (NGL) as implemented in Western Australia by the *National Gas Access (WA) Act 2009*. The gas instrument sets out the methods the ERA will use to estimate the allowed rate of return and value of imputation credits for gas transmission and distribution service providers. These regulated gas pipelines include the Dampier to Bunbury Natural Gas Pipeline, the Goldfields Gas Pipeline and the Mid-West and South-West Gas Distribution Systems.

The rate of return is an important factor used in determining regulated revenues and provides a business with funds to service the interest on its loans and give a return to shareholders. The ERA reviews the gas instrument every four years. The ERA published its 2022 final gas instrument and accompanying explanatory statement on 16 December 2022.

The ERA utilises different data sources for calculating market returns and information in implementing the gas instrument. One of the prescribed sources was the Reserve Bank of Australia's (RBA) F16 Statistical Table, "Indicative Mid Rates of Australian Government Securities". This statistical table was used in the processes of estimating the equity risk free rate and expected inflation, and it was also used to source trading days for an averaging period.

On 31 March 2023 the RBA ceased publishing new F16 data and has only provided a historical copy for the years 1992 to 2008 and 2009 to 2013.<sup>1,2</sup> The statistical table is longer provided due to "commercial reasons".<sup>3</sup>

Accordingly, this statistical table can no longer be used for the purposes of the gas instrument. As the F16 Statistical Table is no longer available, the ERA is not able to calculate the interpolated yields over the trading days which are necessary for the equity risk free rate and expected inflation estimates for gas network resets during access arrangement determinations.

The gas instrument did not have a contingency or alternative source for the F16 Statistical Table.

Given these circumstances, and after consultation, the ERA has amended the gas instrument by providing for alternative data sources and contingencies to be used. The ERA considers that these amendments allow for the gas instrument to be implementable in a robust manner over the term of the gas instrument for the relevant access arrangement determinations.

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<sup>1</sup> RBA, *Indicative Mid Rates of Australian Government Securities – 1992 to 2008 – F16*, available [online](#).

<sup>2</sup> RBA, *Indicative Mid Rates of Australian Government Securities – 2009 to 2013 – F16*, available [online](#).

<sup>3</sup> RBA, *Changes to Statistical Tables*, March 2023, available [online](#).

## 2. Process and procedure to amend the Gas Rate of Return Instrument

The NGL as implemented in Western Australia provides for the ERA to make an instrument. The NGL also provides for the power to amend or repeal instruments.<sup>4</sup>

The ERA considers that the situation regarding the RBA statistical table is unforeseen and creates issues in applying the gas instrument given that it refers to a publication that no longer exists.

The ERA further considers that the gas instrument should be amended such that it can be capable of achieving its purpose under the NGL.

The ERA notes that the use of the RBA F16 Statistical Table was not disputed by stakeholders during the consultation process for the 2022 gas instrument. The need for amendment is driven by a change in circumstances that was not foreseen by the ERA, gas networks or other stakeholders. Accordingly, the ERA considered that a focused consultation was appropriate.

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<sup>4</sup> *National Gas Access (WA) Act 2009*, WA National Gas Law text ('NGL') Schedule 2, clause 20.

### 3. Consultation

On 28 June 2023 the ERA published a consultation paper for proposed amendments to the 2022 gas rate of return instrument.

On 10 July 2023 the ERA held a workshop with gas pipelines on the data source cessation and required amendments to the gas instrument.

The ERA invited stakeholder submissions by 24 July 2023.

The ERA received five submissions regarding the proposed amendments to the gas rate of return instrument from:

- Three gas pipelines (the Australia Gas Infrastructure Group (AGIG), Goldfields Gas Transmission (GGT) and ATCO).
- Two energy businesses (Synergy and Alinta Energy).

Overall, the ERA's proposed approach received support from the majority of stakeholders.

Most stakeholders agreed with the use of Bloomberg as an alternative data source to RBA data for the gas instrument:

- AGIG acknowledged that there was little choice in the matter given the cessation of the data with no available contingencies in the gas instrument and agreed with the suggestion to replace the RBA's F16 Statistical Table with Bloomberg data in the first instance, then with Yieldbroker data.<sup>5</sup> Additionally, AGIG made the following submissions:
  - The comparative analysis should be described as comparing the published RBA F16 Statistical Table data instead of Yieldbroker.<sup>6</sup>
  - Agreed that it was desirable to source all the data from the same source.
- GGT considered that the criteria used by the ERA when considering alternative options was appropriate, which also supported the ERA's proposal to use Bloomberg pricing as particularly meeting the criteria of consistency, transparency and basing calculations on reliable bond data.<sup>7</sup>
  - GGT also considered that the ERA demonstrated that Bloomberg pricing was sufficiently accurate as a proxy for the F16 Statistical Tables.
- ATCO supported the ERA's proposed amendments, considering them to be a pragmatic response due to the circumstances resulting in the cessation of the RBA F16 Statistical Table.<sup>8</sup>
  - While supporting the use of Bloomberg pricing data for the calculation of the equity risk free rate and expected inflation, ATCO submitted that the Bloomberg settings be published.

<sup>5</sup> AGIG, *Response to ERA's consultation regarding the 2022 Gas Instrument*, July 2023, p. 1.

<sup>6</sup> AGIG, *Response to ERA's consultation regarding the 2022 Gas Instrument*, July 2023, p. 1.

<sup>7</sup> GGT, *GGT's response to the ERA's consultation on amending the 2022 gas Rate of Return Instrument - RBA ceasing publication of the F16 data series*, July 2023, pp. 1-2.

<sup>8</sup> ATCO, *Re: 2022 Gas Rate of Return Instrument proposed amendments*, July 2023, p. 1.

Two submissions questioned the use of Bloomberg as an alternative data source:

- Alinta Energy suggested that a Yieldbroker subscription would be preferable unless the cost differential between the options was material.<sup>9</sup>
- Synergy suggested that there should be a nationally consistent approach in relation to rate of return instruments.<sup>10</sup> Synergy noted that the Australian Energy Regulator (AER) was undertaking a parallel process which considered a possibility that the F16 data could be made available again and designed an amendment for this contingency. However, Synergy generally supported the data sources and their preferred order, with a preference for the RBA F2 Statistical Table.<sup>11</sup>

Most stakeholders agreed with the manner and form of the amendments.

- AGIG largely agreed with the updated proposed amendments, but suggested the new proposed paragraphs be avoided due to the required renumbering of the gas instrument. AGIG also made the following submissions:<sup>12</sup>
  - That paragraph 99 be modified to give effect to new paragraphs for both the equity risk free rate and expected inflation (without the need for an additional different paragraph for the expected inflation section).
  - That observed yields and the linear interpolation methodology should be re-iterated in the amended paragraph.
  - That additional specifications be provided to the Bloomberg and Yieldbroker data sources, along with any future successor to the RBA F16 Statistical Tables.
  - That the proposed footnotes reference the RBA F2 Statistical Tables, along with a contingency in the amended paragraph in case the F2 data also becomes unavailable.
- ATCO largely agreed with the updated proposal paragraphs and suggested the following:<sup>13</sup>
  - Amending footnotes 3 and 4 of the gas instrument, but specifying that the RBA F2 Statistical Table be used instead of the general phrase of RBA Statistical Tables.
- Synergy supported in principle the addition of the paragraphs regarding the list of allowed data sources and the proposed amendments to the footnotes.<sup>14</sup> However, Synergy considered that the list should be specific, with the procedure to be applied in determining the preferred data source to be described in the gas instrument.<sup>15</sup>

Other matters raised by stakeholders included the following:

- AGIG proposed that the ERA make a clear statement of intent regarding how changes to the binding instrument will be made in the future.<sup>16</sup>

<sup>9</sup> Alinta Energy, *2022 Gas Rate of Return Instrument Update*, July 2023, p. 1.

<sup>10</sup> Synergy, *Proposed Amendments – 2022 Gas Rate of Return Instrument (GRORI)*, July 2023, p. 1.

<sup>11</sup> Synergy, *Proposed Amendments – 2022 Gas Rate of Return Instrument (GRORI)*, July 2023, p. 1.

<sup>12</sup> AGIG, *Response to ERA's consultation regarding the 2022 Gas Instrument*, July 2023, pp. 1-2.

<sup>13</sup> ATCO, *Re: 2022 Gas Rate of Return Instrument proposed amendments*, July 2023, p. 1.

<sup>14</sup> Synergy, *Proposed Amendments – 2022 Gas Rate of Return Instrument (GRORI)*, July 2023, p. 2.

<sup>15</sup> Synergy, *Proposed Amendments – 2022 Gas Rate of Return Instrument (GRORI)*, July 2023, p. 2.

<sup>16</sup> AGIG, *Response to ERA's consultation regarding the 2022 Gas Instrument*, July 2023, p. 2.

## 4. Gas Rate of Return Instrument Amendment

The ERA has considered the stakeholder feedback provided through the consultation process and finds that there is majority support for the updated amendment approach.

Throughout the 2022 gas instrument review process, the methodology for the calculation of the equity risk free rate and expected inflation was not contentious.

The RBA F16 Statistical Table has been widely used for Australian regulatory determinations and its cessation was not expected by market participants. The ERA considers that this situation was unforeseen and renders the gas instrument unusable given that it cannot be applied as it refers to a publication that no longer exists.

The ERA considers that a gas instrument which is unusable is not capable of achieving the National Gas Objective to the greatest extent possible as required under the NGL. Accordingly, the ERA considers it appropriate to amend the gas instrument such that it can be capable of achieving its purpose under the NGL.

The ERA notes that the AER faces similar issues and has undertaken a parallel process to determine its response to the change in circumstances.<sup>17</sup> The AER proposed that the RBA F2 Statistical Tables be adopted, with an amendment to their Rate of Return Instrument that allows for multiple contingency positions if the F16 Statistical Tables were to return in some fashion.<sup>18</sup> The AER amended its Rate of Return Instrument in August 2023.<sup>19</sup>

While the ERA has considered other regulatory practices and approaches, they are not determinative and as an independent regulator the ERA makes decisions based on its obligations and functions in Western Australia. Accordingly, while Synergy submitted that a national approach be adopted for rate of return matters, it is not possible for the ERA to consider the adoption of the RBA's F2 Statistical Table because there is no five-year indexed bond available for the purposes of calculating expected inflation.

Accordingly, the ERA must consider data sources that provide the complete set of individual bond yields for both the purposes of calculating the equity risk free rate and expected inflation. The ERA considers that a data source should be chosen that can provide for all the required bond yields, where the ERA considers that it is undesirable to mix data sources. This position had support amongst stakeholders.

The majority of stakeholders supported the move to Bloomberg pricing as the alternative data source. There were two submissions that supported an alternative source which is discussed below.

Synergy submitted that the RBA F2 Statistical Table be used as the replacement for the F16 Statistical Table. The ERA considers that while the RBA F2 Statistical Table can provide for estimates of the equity risk free rate, it cannot be used to calculate expected inflation due to the lack of a five-year indexed bond. Furthermore, the F2 Statistical Table does not provide yield data on specific bonds, rather it provides a third party interpolated number.

<sup>17</sup> AER, *Rate of Return Instrument Amendment - Consultation paper*, June 2023.

<sup>18</sup> AER, *Rate of Return Instrument Amendment - Consultation paper*, June 2023, p.3.

<sup>19</sup> AER, *Rate of Return Instrument Amendment – Explanatory Note*, August 2023.



Alinta Energy submitted that Yieldbroker be considered as the alternative source. The ERA investigated the cost and availability of a Yieldbroker subscription through the Bloomberg terminal during June 2023. The subscription model is such that access to the required data feeds would need to be established and would impose additional costs on stakeholders in order for them to reproduce the ERA's calculations. The ERA currently considers that requiring stakeholders to subscribe for Yieldbroker to be a material incremental cost for stakeholders. The gas instrument already requires access to Bloomberg and therefore the use of Bloomberg data requires no incremental cost.

The ERA examined how close the alternative data sources were to the RBA's historical F16 yields that were available from an archival copy maintained by the ERA, along with the corresponding estimates for the equity risk free rate and inflation. This revealed that the in-sample yields and estimates of the expected equity risk free rate and inflation were within a few basis points of the ones using the past stated F16 yields. This was the case not only for the bonds necessary for the required estimates, but also across the entire series of Commonwealth Government Bonds just in case those results occurred by chance. Further analysis revealed that the Bloomberg pricing estimates were all historically close to the past F16 yields with no obvious upward or downward bias. When the ERA calculated an out-of-sample equity risk free estimate using Bloomberg pricing, it was able to compare this estimate to one using the current RBA F2 Statistical Table as a point of comparison. The ERA's out-of-sample estimate exhibited similar performance to the in-sample results, where the equity risk free rate estimate was within a few basis points of the one using the current F2 yields. These results provide some assurance that Bloomberg pricing as an alternative data source is likely to maintain closeness to the previous method and results if the F16 Statistical Table were still available.

Given the unexpected nature of the RBA F16 Statistical Table becoming unavailable, the ERA considers that a robust approach to amendment is necessary to create contingencies in case data sources become unavailable during the term of the 2022 gas instrument. The ERA considers that in calculating the equity risk free rate and expected inflation, only one data source should be chosen that has the complete set of necessary bond yields for the calculations required.

This requirement is in addition to the order of preference, which will be included in the gas instrument as the RBA, Bloomberg or Yieldbroker (in order of preference).

The RBA has priority as a data source as this recognises the possibility that the F16 Statistical Table may return in some form in the future during the term of the 2022 gas instrument. The ERA considers that if the RBA F16 Statistical Tables were to be published in a form that provided all the data required for the calculations of the equity risk free rate and expected inflation, then the amended gas instrument would allow it to be used as the preferred data source. However, in its absence the next data source would be Bloomberg, followed by Yieldbroker.

For the definition of a trading day, the ERA considers that the past reference to the RBA F16 Statistical Table could be directed towards another RBA statistical table that publishes capital market yields. Stakeholder consultation supported an approach of directly referring to a statistical table, which the ERA has determined to be either (in order of preference) the F2 or F1 Statistical Table. This provides an additional contingency if the F2 Statistical Table becomes unavailable during the term of the 2022 gas instrument.

The ERA recognises AGIG's submission regarding guidance towards how changes to the gas instrument may occur in the future. The ERA considers that the unexpected and uncontroversial nature of the proposed amendments in this instance has arisen in a unique manner. Accordingly, this amendment cannot be generalised beyond the circumstances of this situation and should not be taken as providing guidance for future matters.

## 5. Amendments for the Gas Rate of Return Instrument

The ERA initially proposed that the gas instrument as published on 16 December 2022 be amended in the following manner:

1. Amend the 2022 gas instrument as described below.
2. Prepare a list of preferred data sources for market rates and information as described below.

The ERA proposed amending the 2022 gas instrument with the following changes:

Insert a new paragraph 26:

26. Market rates and returns are to be sourced from a list maintained by the ERA and according to the described procedure for choosing amongst data providers if applicable.

Amend footnotes 3 and 4:

Trading days are defined as days that Australian Commonwealth Government Security ~~mid-rate~~ data is available in the RBA's ~~F16~~ statistical table for capital market yields, or from a source in the list referred to in paragraph 26.

Additionally, the ERA proposed the creation of a list of data sources:

**List of allowable data sources for the 2022 Gas Instrument**

The following is the list, in order of preference, of data sources for determining market rates and returns for the purposes of the 2022 Gas Instrument.

1. The Reserve Bank of Australia.
2. Bloomberg.
3. Yieldbroker.
4. Any Australian federal, state, or territorial government department, agency, instrumentality, public body, or any entity established by a written law for a public purpose without limitation.
5. Any other data source reached in consultation with covered gas pipelines.

The ERA conducted a stakeholder consultation on the proposed amendments. Stakeholders provided feedback on the proposed amendments and suggested the removal of data sources that do not currently exist.

The ERA has considered this feedback on the amendments and its final amendments to the gas instrument are as follows:

For the equity risk free rate, a new paragraph 100A inserted after paragraph 100:

- 100A. The data required to calculate the risk free rate for equity are the relevant individual bond yields and not an interpolated yield from another party. This data is to be sourced from (in order of preference) the Reserve Bank of Australia, Bloomberg or Yieldbroker. The data source chosen must be the one

that has the complete set of information for the calculations necessary for the interpolation and averaging process. The data source must also be consistent across the methods for the equity risk free rate and the expected inflation rate.

For the expected inflation rate, a new paragraph 131A inserted after paragraph 131:

131A. The data required to calculate the expected inflation rate are the relevant individual bond yields and not interpolated yields from another party. This data is to be sourced from (in order of preference) the Reserve Bank of Australia, Bloomberg or Yieldbroker. The data source chosen must be one that has the complete set of information for the calculations necessary for the interpolation and averaging process. The data source must also be consistent across the methods for the equity risk free rate and the expected inflation rate.

Amended footnotes 3 and 4:

Trading days are defined as days that Australian Commonwealth Government Security data is available in the RBA's statistical tables for capital market yields (in order of preference, of the F2 and then F1 Statistical Tables).

Accompanying this explanatory note, is a marked-up version of the gas rate of return instrument that incorporates these changes.