



LNG netback review: draft decision paper

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EXECUTIVE SUMMARY

Introduction

- APPEA welcomes the opportunity to provide comment on the ACCC's *LNG netback review draft decision paper* (the draft decision paper).

The Australian upstream oil and gas industry

- Reliable, secure and competitively priced energy is crucial to our everyday lives in Australia. Within this framework, oil and gas plays a key role in meeting many of our energy needs. Our abundant natural gas resources in particular, place Australia in an enviable position to maintain long-term, cleaner energy security domestically and internationally.
- Maintaining and enhancing this contribution will be vital as Australia looks to its economic recovery from COVID-19.
- This means that the stakes are high in realising the industry's potential benefits. The final decision(s) the ACCC makes on its LNG netback price series in September 2021 will play an important role in determining whether the industry can realise its potential and whether or not the Australian economy benefits from new upstream oil and gas investment opportunities.

General comments on the ACCC draft decision paper

- **The ACCC's draft decision is sound and should be confirmed in its final decision in September 2021.**

- As the draft decision paper reinforces, a netback price is not an actual price in the gas market. It is a concept about how a business may set different prices for different products sold to different customers. In situations where liquefaction capacity is available, an LNG producer can sell gas to a local buyer or convert that gas into LNG for export.
 - A netback price is a calculated price that reflects the price a gas supplier would therefore expect to receive from a domestic buyer to be indifferent between supplying gas to the domestic market or to export markets (that is, that the opportunity cost of supply to one or the other is the same).
 - While calculating a netback price is not simple, the methodology to calculate a netback price and its underlying principles are well established.
- This "opportunity cost" concept, which underpins the netback price calculation methodology, is the key prism through which to consider any alternatives to the core approach used by the ACCC.
- In addition, as the ACCC itself has noted many times, there are numerous factors other than LNG netback prices that influence the final prices paid by domestic gas users. The Review's final decisions provide another important opportunity to remind all stakeholders what the ACCC's LNG netback prices series does, and perhaps more importantly, does not represent. LNG netback prices are not – and should never be viewed as – a benchmark for domestic gas prices.



Specific comments on aspects of the ACCC Issues Paper

The length of the forward LNG netback price series

Is the ACCC's draft decision to continue publishing a 2-year forward LNG netback price series appropriate? Should the ACCC continue to publish a 2-year forward LNG netback price series?

- Yes. The ACCC's draft decision is consistent with the recommendations made by APPEA in our April 2021 submission to the Issues Paper.
- APPEA endorses the ACCC's draft decision to continue publishing a 2-year forward LNG netback price series as appropriate and recommends the ACCC continue to publish a 2-year forward LNG netback price series.

Is the ACCC's draft decision to publish additional longer-term forward LNG netback prices appropriate? Should the ACCC publish additional longer-term forward LNG netback prices?

- APPEA would welcome the opportunity to discuss further with the ACCC the most appropriate calculation of a longer-term forward LNG netback price series (calculation methodology, data sources, expert advice from consultants and so on) so that it can be of genuine value to stakeholders.

LNG price markers to calculate the LNG netback price series

Is the ACCC's draft decision to continue using JKM to publish historical and short-term forward LNG netback prices appropriate?

- Yes. As APPEA noted in its April 2021 submission to the ACCC, an Asian-focussed price marker – such as JKM – is and remains the most relevant price marker.

Is the ACCC's draft decision to use consultant estimates of an appropriate percentage, or slope, of the oil price to calculate longer-term forward LNG netback prices appropriate?

- As noted above, APPEA would welcome the opportunity to discuss further with the ACCC the most appropriate calculation of a longer-term forward LNG netback price series, including the appropriate consultant to use to provide estimates of an oil price slope.

Export costs deducted to calculate the LNG netback price series

Is the ACCC's draft decision to use its current approach to deducting liquefaction costs to calculate additional longer-term forward LNG netback prices appropriate?

- Yes, APPEA supports this draft decision and recommends it be reflected in the final decision in September 2021.
- In addition, as the draft decision paper notes, this approach is also appropriate for longer-term forward LNG netback prices, as the costs of liquefying uncontracted gas to service an LNG strip contract are likely to be the same as the costs of liquefying uncontracted gas for spot sales.



What other issues should be considered when estimating and deducting LNG liquefaction costs?

- APPEA endorses the ACCC's (and Wood Mackenzie's) rejection of the assertion that the ACCC not deducting capital costs from LNG netback prices means they contribute, at least in part, to the recovery of LNG plant capital costs.
- This rejection should be confirmed and reinforced in the final decisions in September 2021.

Reviewing the LNG netback price series in 2024

Is the ACCC's draft decision to undertake another review of the LNG netback price series in 2024 appropriate?

- While APPEA has no specific comment on this draft decision, we will look forward to our involvement in a future review.



INTRODUCTION

The Australian Petroleum Production & Exploration Association (APPEA) is the peak national body representing Australia's oil and gas exploration and production industry. It has more than 60 full member companies. These are oil and gas explorers and producers active in Australia. APPEA members account for around 95 per cent of the nation's petroleum production. APPEA also represents around 140 associate member companies that provide a wide range of goods and services to the upstream oil and gas industry.

APPEA works with Australian governments to help promote the development of the nation's oil and gas resources in a manner that maximises the return to the Australian community and industry. APPEA aims to secure regulatory and commercial conditions that enable member companies to operate safely, sustainably, and profitably. Further information about APPEA can be found on our website, at www.appea.com.au.

APPEA welcomes the opportunity to provide comment on the *LNG netback review: Draft decision paper* (the draft decision paper) released on 1 July 2021. This submission follows APPEA's April 2021 submission to the *ACCC Review of the LNG netback price series: Issues Paper*¹ (the Issues Paper) and our participation in the Roundtable held on 20 July 2021.

In addition to this submission, a number of APPEA members have made individual submissions on the draft decision paper. This response should be read in conjunction with submissions from individual APPEA members.

APPEA's submission addresses specific aspects of the draft decision paper and the Wood Mackenzie preliminary report to the ACCC, focussing on those areas that are particularly important for the upstream oil and gas industry.

THE AUSTRALIAN UPSTREAM OIL AND GAS INDUSTRY

As was the case with the APPEA submission to the Issues Paper, it is important to place our views on the issues raised in the draft decision within the context of the current state and potential future contribution of the upstream oil and gas industry to the Australian economy and to the welfare of all Australians.

Reliable, secure and competitively priced energy is crucial to our everyday lives in Australia. Within this framework, oil and gas plays a key role in meeting many of our energy needs. Australia's oil and gas industry is a key and ongoing contributor to the Australian economy. The industry:

- Invested an estimated \$473 billion in the Australian economy, including around \$305 billion invested in Australian LNG projects, since 2010².

¹ Available at [Contents \(acc.gov.au\)](http://Contents(acc.gov.au)).

² See Wood Mackenzie (2020), *Australian Oil and Gas Industry Outlook Report*, page 4 (available at [Australia-Oil-and-Gas-Industry-Outlook-Report.pdf \(appea.com.au\)](http://Australia-Oil-and-Gas-Industry-Outlook-Report.pdf(appea.com.au))).



- This investment will deliver returns for Australia for decades to come, through increased gas supply for Australian customers, export revenue, jobs, royalties and taxes.
- Supports around 80,000 jobs directly and indirectly in Australia and hundreds of thousands more in the manufacturing sector rely upon natural gas.
- Paid more than \$5.3 billion in wages to direct employees in 2016-17. The industry's average wages are more than double the national average.
- Supports a vast supply chain of businesses in manufacturing, services and construction.
 - This is in addition to the hundreds of thousands of jobs in electricity generation, manufacturing, transport and other industries which rely on our outputs.
 - Businesses ranging from national firms to local cafés all share in the economic benefits generated by the upstream oil and gas industry³.
- Contributed nearly 4 per cent of Gross Domestic Product (GDP) in 2019-20, an increase from around 3 per cent in 2018-19.

Maintaining this ongoing and multi-billion dollar contribution will be vital as Australia looks to its ongoing recovery from the economic and social challenges posed by the COVID-19 global pandemic.

Liquefied natural gas (LNG) is now one of Australia's largest commodity exports, with export revenue of around \$51 billion in 2018-19 and \$48 billion in 2019-20. While export revenue is expected to decline on the back of falls in the price of LNG in 2020-21, volumes have been maintained and continue to supply export revenue for Australia. The Department of Industry, Science, Energy and Resources expects exports earnings to increase to \$49 billion in 2021-22⁴.

The contribution of Australia's oil and gas industry to the Australian economic, and to the economic welfare of all Australians is illustrated by the investment made into the Australian economy by the industry since 2010. The industry has invested between \$US20-\$US55 billion (around \$A26-\$A72 billion at current exchange rates) every year over the period 2010-2020, and at times during this period, was directly responsible for nearly half of annual Australia's economic growth⁵.

As APPEA noted in our Issues Paper submission, no other single industry has made this contribution to Australia's growth and investment during the last decade.

In 2020, Australian LNG was exported to ten different destinations (China, Japan, South Korea, Malaysia, Singapore, Taiwan, Thailand, United Arab Emirates and Other Asia-Pacific)⁶, with, as is

³ As an example, work for APPEA in 2019 by Lawrence Consulting found the industry contributed around \$55 billion to Queensland's economy over a seven-year period. Almost \$5 billion was spent on wages state-wide with the industry employing around 4,600 full-time employees, according to the *Economic Impact of Queensland's Petroleum and Gas Sector 2011-18* report. The industry spent around \$50 billion on goods and services from local community contributions and payments to local government as well as royalties, stamp duty and tax. See [Natural gas powering Queensland's economy | APPEA](#) for more information.

⁴ See [Resources and Energy Quarterly \(industry.gov.au\)](#) (page 64) for more information.

⁵ For example, in its August 2017 *Statement on Monetary Policy*, the RBA found: "LNG exports are expected to contribute almost ½ a percentage point directly to annual GDP growth", confirming how significant LNG exports are to sustaining economic growth in Australia. See [Statement on Monetary Policy – August 2017 | RBA](#), page 33 for more.

⁶ See [Statistical Review of World Energy | Energy economics | Home \(bp.com\)](#) for more information.



considered further below, the overwhelming majority of those exports to our Asian trading partners.

Many of these nations are also significant investors in Australian LNG projects and therefore, in contrast to domestic manufacturers, therefore, carry significant project risk in the development of Australia's oil and gas resources. Each of these nations are also observing closely policy and regulatory developments in Australia.

This means that the stakes are high in realising the industry's potential benefits. The final decision(s) the ACCC makes in its review of the LNG netback pricing series will, along with the other reform processes currently under development, play an important role in determining whether the industry can realise its potential and whether or not the Australian economy benefits from new upstream oil and gas investment opportunities.

GENERAL COMMENTS ON THE ACCC'S DRAFT DECISION PAPER

The ACCC's draft decision is sound and should be confirmed in its final decision in September 2021.

APPEA notes the ACCC's draft decision, as set out on page 8 of the draft decision paper, is to:

- *continue to publish historical and short-term forward LNG netback prices extending to 2 years based on JKM spot prices*
- *publish longer-term forward LNG netback prices extending to 5 years based on an oil index.*

The ACCC will source from a consultant an estimate of the appropriate percentage, or slope, to apply to oil indexes no less frequently than on an annual basis, to calculate longer-term forward LNG netback prices.

In addition, the ACCC notes:

Our draft decision is to maintain our current approach to estimating export costs in calculating LNG netback prices.

Longer-term LNG freight cost estimates will be sourced from a consultant no less frequently than on an annual basis.

The ACCC's draft decision (with the possible exception of the draft decision to publish longer-term forward LNG netback prices extending to 5 years based on an oil index, which is considered further below) is consistent with the recommendations made by APPEA in our April 2021 submission to the Issues Paper.

As such, APPEA endorses the ACCC's draft decision on these matters and recommend they carry through unchanged to the ACCC's final decision, due in September 2021.



Most importantly, the draft decision paper confirms that a netback price is not an actual price in the gas market. It is a concept about how a business may set different prices for different products sold to different customers.

In situation where liquefaction capacity is available, an LNG producer can sell gas to a local buyer or convert that gas into LNG for export. This means, as the draft decision paper confirms, a netback price is a calculated price that reflects the price a gas supplier would expect to receive from a domestic buyer to be indifferent between supplying gas to the domestic market or to LNG export markets (that is, that the opportunity cost of supply to one or the other is the same). While calculating a netback price is not simple, the methodology to calculate a netback price and its underlying principles are well established. As the ACCC notes on page 21 of the draft decision paper:

An LNG netback price represents the opportunity cost to LNG producers of supplying uncontracted gas to the domestic market rather than exporting into international LNG markets. It is the price for uncontracted gas an LNG producer will expect to receive from domestic buyers to be indifferent to supplying that gas to the domestic market or overseas markets.

LNG netback prices reflect the commercial options available to LNG producers for their uncontracted gas. They can sell it domestically, into international markets or, where feasible, divert it into storage or delay production. Because of this, an LNG netback price is inherently calculated from the perspective of a gas seller, LNG producers in this case, rather than that of a gas buyer.

The opportunity cost concept, which underpins the netback price calculation methodology, remains the key prism through which to consider alternatives to the approach used by the ACCC and confirmed in the draft decision paper.

For example, if a change to calculation methodology is inconsistent (as were a number of the proposals put to the ACCC in submissions in response to the Issues Paper) with the “... *opportunity cost, of supplying gas to the domestic market compared to the alternative of exporting it as LNG ...*” then, as the ACCC has found in the draft decision paper, it provides little value to the calculation or use any price series that might be calculated.

In addition, while the ACCC netback pricing series provides useful information, and as is considered further through this submission, its methodology has solid underpinnings, it has its limitations. For example, there are significant differences between the global LNG spot market and the east coast gas market: contract terms, risks and pricing are different. Accounting for all these differences in a single number — a netback price — is challenging:

- Spot LNG sales are significantly different to the terms for domestic gas sales. For example, a typical single cargo of LNG is ~3.5 to ~4 petajoules (PJ) of gas to be delivered over two days, with the buyer required to take the full cargo (100 per cent take or pay). Gas sales to local buyers are typically for smaller quantities to be delivered over months or years. The longer the



contract, the more risk and uncertainties for both buyer and seller, often requiring more complex contract terms to be negotiated and pricing of this risk into the final contract price.

- Market players are likely to have different views of commodity forecasts (for example, LNG spot and oil pricing). Any forecast is subject to market swings such as volatility in the Asian LNG reference price, changes in LNG shipping costs, variable liquefaction and transport costs and exchange rate movements.
- Each LNG exporter has different cost structures and long-term contracts which affect business decisions but are challenging to capture in a netback methodology.

As the ACCC itself confirms on pages 24-25 of the draft decision paper, there are numerous factors other than LNG netback prices that influence the final prices paid by domestic gas users, including:

- Non-price terms and conditions — such as take-or-pay levels, daily swing allowances, and GSA quantity and duration.
- A historical preference by domestic gas customers for \$A denominated, CPI-linked GSAs, rather than international floating price markers.
- Transportation costs — the price the buyer is required to pay for gas at a location other than Wallumbilla may also reflect additional transportation costs incurred by the supplier. The ACCC has estimated, for example, that shipping gas from Wallumbilla to Melbourne can add as much as 25 per cent to the wholesale price.
- Retail costs – if the gas is purchased by a retailer, the retailer will need to cover its costs and make a return. Small businesses, residential customers and many industrial businesses buy gas from a retailer or aggregator.
- Hedging costs — these costs may be passed onto gas buyers if suppliers incur additional costs to hedge against currency or commodity price movements.
- Domestic short-term trading markets: prices in GSAs might be explicitly linked to prices in one or more of the domestic short-term markets.
- The presence of a range of domestically focussed producers who face a range of different factors in their domestically focussed GSA negotiations.

These are among the reasons the ACCC notes – and should continue always to note – including on the website containing the netback pricing series:

*An LNG netback price is **not** the sole factor that influences domestic prices in the east coast gas market. Individual prices paid by gas users will also reflect other factors that may be relevant to their circumstances, including the terms and conditions of their gas supply and any applicable transportation or retailer charges.*

*The prices shown are for information only and **do not** represent the ACCC:*

- *setting a level of gas prices in the east coast gas market or any other market in Australia*
- *forecasting international or domestic gas prices*
- *forecasting any of the inputs used in the calculation of the LNG netback prices, or*
- *providing an endorsement of the price reporting agencies or the specific methods adopted by those agencies.*



These important caveats are too often overlooked or ignored in the consideration of and reporting on this ACCC series. The Review provides an important opportunity to remind all stakeholders what the ACCC's LNG netback prices series represents, and perhaps more importantly, what it does not represent.

LNG netback prices are not – and should never be viewed as – a benchmark for final domestic gas prices.

With that in mind, APPEA welcomes the explicit acknowledgement of this by the ACCC in draft decision paper, where on page 21 the ACCC notes:

By publishing LNG netback prices, the ACCC is providing information to the market on the commercial realities faced by LNG producers when supplying the domestic market. The ACCC is not providing a view on what level of gas pricing is 'fair' to either sellers or buyers, or trying to provide a 'bottom up' reference price that applies a margin to gas production costs.

COMMENTS ON SPECIFIC ASPECTS OF THE ACCC'S DRAFT DECISION PAPER

The following sections consider each of the questions raised by the ACCC in the draft decision paper.

As noted above, APPEA's submission addresses specific aspects of the draft decision paper, focussing on those areas that are particularly important for the upstream oil and gas industry. As such, APPEA has not provided an answer to every question posed in this section of the draft decision paper.

Also as noted above, in addition to this APPEA submission, a number of APPEA members have made individual submissions on the draft decision paper. The responses set out below should be read in conjunction with submissions from individual APPEA members.

THE LENGTH OF THE FORWARD LNG NETBACK PRICE SERIES

1. Is the ACCC's draft decision to continue publishing a 2-year forward LNG netback price series appropriate? Should the ACCC continue to publish a 2-year forward LNG netback price series?

Yes. As noted above, the ACCC's draft decision is consistent with the recommendations made by APPEA in our April 2021 submission to the Issues Paper.

APPEA endorses the ACCC's draft decision to continue publishing a 2-year forward LNG netback price series appropriate and recommends the ACCC continue to publish a 2-year forward LNG netback price series.



The ACCC's draft decision and the analysis from the ACCC, Wood Mackenzie in its independent expert advice to the ACCC and submissions from APPEA and APPEA members also means that the ACCC should continue to reject the misplaced assertion that an additional price series should be introduced to somehow reflect the situation facing domestically focused producers.

2. Is the ACCC's draft decision to publish additional longer-term forward LNG netback prices appropriate? Should the ACCC publish additional longer-term forward LNG netback prices?

APPEA would welcome the opportunity to discuss further with the ACCC the most appropriate calculation of a longer-term forward LNG netback price series (calculation methodology, data sources, expert advice from consultants and so on) so that it can be of value to stakeholders.

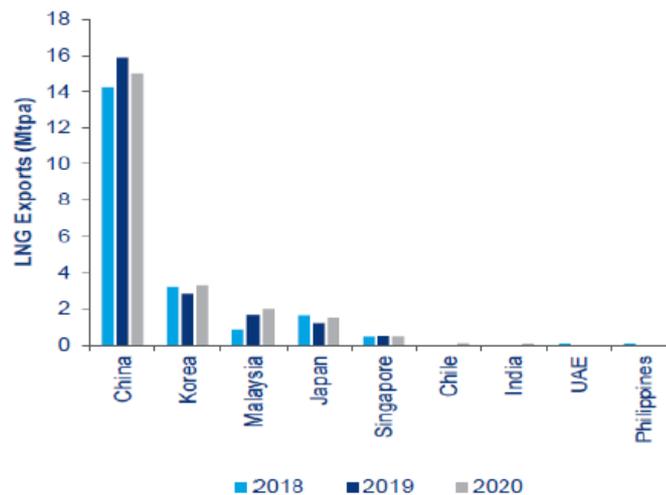
LNG PRICE MARKERS TO CALCULATE THE LNG NETBACK PRICE SERIES

5. Is the ACCC's draft decision to continue using JKM to publish historical and short-term forward LNG netback prices appropriate?

Yes. As APPEA noted in its April 2021 submission to the ACCC, an Asian-focused price marker – such as JKM – is and remains the most relevant price marker.

The use of a JKM price marker reflects the destination for almost all of Australia's LNG exports and the market to which spot cargoes are sold. It also reflects established supply chains and connections with buyers in these markets. For example, as Wood Mackenzie found (based on Gladstone Ports Corporation data) in its independent expert advice to the ACCC, 98 per cent of LNG exports from Gladstone in 2020 were bound for China, Korea, Malaysia, Japan and Singapore.

Figure 1: Queensland LNG exports by country, 2018-2020



Source: Wood Mackenzie (2021), based on Gladstone Ports Corporation data.

This makes, as the draft decision paper finds, the JKM and the associated spot prices for LNG in Asia the best measure of the opportunity cost facing a producer of supplying gas to the domestic market compared to the alternative of exporting it as LNG.



In addition, as the ACCC has recognised in its draft decision paper, and as Wood Mackenzie has concluded based on its independent expert analysis for the ACCC, calls to move to a Henry Hub-based price marker are based on a misunderstanding, or misrepresentation, of what a netback price is and the relevance of the US domestic gas market to the Australian east coast domestic gas market.

- The fundamentals of the US gas market, particularly on the supply side, are vastly different and this means the commercial underpinnings of developments are also significantly different.
- The spot price quoted by the Henry Hub remains less relevant to the Asia-Pacific market than the JKM which is determined by the regional market structure, its geography and infrastructure constraints. By contrast, the Asian LNG spot price has a physical and regional linkage to Australian LNG supply exported, and in turn, opportunity costs between Australian gas exported via spot LNG to Asia or Australian gas sold domestically.

8. Is the ACCC's draft decision to use consultant estimates of an appropriate percentage, or slope, of the oil price to calculate longer-term forward LNG netback prices appropriate?

As noted above, APPEA would welcome the opportunity to discuss further with the ACCC the most appropriate calculation of a longer-term forward LNG netback price series, including the appropriate consultant to use to provide estimates of an oil price slope, so that any series published by the ACCC can be of value to stakeholders.

EXPORT COSTS DEDUCTED TO CALCULATE THE LNG NETBACK PRICE SERIES

13. Is the ACCC's draft decision to use its current approach to deducting liquefaction costs to calculate additional longer-term forward LNG netback prices appropriate?

Yes, APPEA supports this draft decision and recommends it be reflected in the final decision in September 2021. As the draft decision paper notes:

LNG producers incur additional operating costs and need to use additional fuel gas to liquefy uncontracted gas for export. These costs therefore affect the net value to a producer of exporting additional uncontracted gas.

In addition:

Wood Mackenzie's expert advice also suggests that our current approach remains appropriate.

As the draft decision paper notes, this approach is also appropriate for longer-term forward LNG netback prices, as the costs of liquefying uncontracted gas to service an LNG strip contract are likely to be the same as the costs of liquefying uncontracted gas for spot sales.

In addition, as APPEA noted in its April 2021 submission, any alternative approach (for example, deducting capital costs when calculating LNG netback prices) is not consistent with the opportunity



cost framework that underpins the LNG netback price series, meaning any series calculated would not be a netback price, and would not be a price at which producers would be indifferent between supplying the domestic market and exporting LNG.

14. What other issues should be considered when estimating and deducting LNG liquefaction costs?

APPEA also endorses the ACCC's (and Wood Mackenzie's) rejection of the assertion that the ACCC not deducting capital costs from LNG netback prices means that domestic customers somehow contribute, at least in part, to the recovery of LNG plant capital costs.

As well as being incorrect, this assertion underlines a lack of understanding of the nature of the east coast gas market, the Asian LNG market and the interaction between the two.

As the ACCC notes on page 75 of the draft decision paper, eastern Australia's multi-billion dollar LNG export industry is largely underpinned by long-term LNG Sale and Purchase Agreements (SPAs) to recover these capital costs (with these contracts containing price reviews to ensure that prices paid by LNG foundation customers are sufficient for recovery of these costs). It is these LNG customers (and investors) that pay for these capital costs.

This can also mean, for a domestic gas project that features sales to both an LNG project and to domestic customers, that it is the LNG project that is contributing to the capital cost of the domestic project, helping underpin its development.

REVIEWING THE LNG NETBACK PRICE SERIES IN 2024

17. Is the ACCC's draft decision to undertake another review of the LNG netback price series in 2024 appropriate?

While APPEA has no specific comment on this draft decision, we will look forward to our involvement in a future review.