



# ACCC review of the LNG netback price series: Issues Paper

## CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>2</b>
<b>INTRODUCTION.....</b>	<b>8</b>
<b>THE AUSTRALIAN UPSTREAM OIL AND GAS INDUSTRY .....</b>	<b>8</b>
<b>A BROADER CONTEXT FOR THE ACCC REVIEW: THE INDUSTRY HAS SUPPORTED ECONOMIC GROWTH DURING THE COVID-19 RECESSION AND CAN SUPPORT THE ROAD TO RECOVERY .....</b>	<b>10</b>
THE CHALLENGES FACING THE INDUSTRY AND PROSPECTS FOR A RETURN TO GROWTH .....	11
ECONOMIC DIVIDENDS FROM SECURING A NEW WAVE OF AUSTRALIAN OIL AND GAS DEVELOPMENT .....	11
<b>GENERAL COMMENTS ON THE ACCC'S ISSUES PAPER .....</b>	<b>12</b>
<b>COMMENTS ON SPECIFIC ASPECTS OF THE ACCC'S ISSUES PAPER .....</b>	<b>15</b>
CHAPTER 1. INTRODUCTION .....	15
CHAPTER 2. ACCC LNG NETBACK PRICE SERIES .....	16
CHAPTER 3. WHY IS THE ACCC REVIEWING LNG NETBACK PRICES? .....	18
CHAPTER 4. ISSUES THE ACCC IS SEEKING INFORMATION ON.....	21
<b>CONCLUSIONS/NEXT STEPS.....</b>	<b>24</b>



## EXECUTIVE SUMMARY

### Introduction

- APPEA welcomes the opportunity to provide comment on the *ACCC review of the LNG netback price series Issues Paper* (the Issues 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 decisions the ACCC makes around its LNG netback price series 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.

### The industry has supported economic growth during the COVID-19 recession and can support the road to recovery

- Australia's oil and gas industry has helped shield the country from more damaging economic fallout from COVID-19 by supporting jobs, preserving energy security and delivering important export income.
- However, even before the onset of the COVID-19 pandemic, oil prices had begun to fall and this was exacerbated by the global pandemic. The task the industry, and Australia more broadly, now faces is how to restore confidence, encourage investment and return to sustained growth.
- Our ability to secure the next wave of investment in oil and gas exploration and production has strong foundations but faces intense challenges. The investment landscape is riskier, with higher hurdle rates, and global competition for mobile capital is fierce. There is heightened risk that undue regulatory and tax imposts deter long-term investment.
- The economic dividends from securing a new wave of oil and gas developments are large. EY's November 2020 report, *Australia's oil and gas industry: kickstarting recovery from COVID-19*, finds that if we can secure the key projects, under a "high growth trajectory" national economic output increases by over \$350 billion with over 220,000 jobs created over the next 20 years.
- These results are important reminders that the upstream oil and gas industry is in and of itself a major source of economic growth and employment – its contribution to the Australian economy is far more widespread, and important, than a narrow view of the role it plays in supplying natural gas to a subset of Australian manufacturing.
- Significant caution needs to be exercised when considering regulatory interventions that risk the attractiveness of Australia as a destination for upstream oil and gas industry investment and send worrying signals to both domestic and international investors and major trading partners. These include investors and trading partners with whom the Australian industry has spent a generation building relationships.



## General comments on the ACCC Issues Paper

**The ACCC's calculation methodology for its LNG netback pricing series is sound, and there is no need for change to the core approach taken by the ACCC in calculating the existing series.**

- Importantly, 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 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.
- 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 provides an 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 final domestic gas prices.

## Specific comments on aspects of the ACCC Issues Paper

### Chapter 1. Introduction

#### *Why we publish an LNG netback price*

- The Issues Paper asserts existing east coast gas markets are thinly traded and do not necessarily provide representative data for gas prices. This assertion would benefit from a recognition that the Australian Government has commenced a work program, informed by industry consultation, to establish Wallumbilla as Australia's Gas Hub.
- It is also the case that a wide range of information is already available, through the ACCC's gas market inquiry interim reports and the wide-ranging work underway on regulatory amendments to increase transparency in the gas market. This is in addition to the existing range of information already available to gas market participants through regulatory bodies and a range of commercial providers.
- The Issues Paper also asserts that a significant information asymmetry exists between gas suppliers and users with respect to gas pricing. Whether this is genuinely the case or whether this represents an information asymmetry that cannot be overcome, is an open question.
  - For a counterparty to a commercial transaction worth as much as a long-term gas supply agreement (GSA), the search costs that would be incurred to ensure that counterparty is well informed by one or more of the numerous and readily available commercial netback price series (and, in addition, the range of information already available on gas prices and gas market developments through regulatory agencies and commercial providers) are not substantial. A range of market information is also obtained during a GSA negotiation, even if that negotiation does result in the parties agreeing a GSA.



### *Why is the ACCC reviewing the LNG netback price series?*

- The Issues Paper notes that the Australian Government recently announced that it had signed a new Heads of Agreement (HoA) with the east coast LNG producers and the HoA notes that LNG netback prices, based on Asian LNG spot prices, play a role in influencing domestic gas prices, with the ACCC's LNG netback price series explicitly referenced. This is of course but one aspect of the HoA. The HoA also recognised the realities of the gas market on the east coast to deliver competitive gas supply outcomes for customers and continue to encourage more investment in new supply by producers.

### Chapter 2. ACCC LNG Netback Price Series

#### *The ACCC's current approach to calculating LNG netback prices*

- The ACCC has based the prices in the LNG netback price series on the Japan Korea Marker (JKM), which is a measure of Asian LNG spot prices. This remains the appropriate measure for Asian LNG spot prices, reflecting the market to which Australia's east coast LNG exports are destined and the location to which LNG spot cargoes are sold.
- It reflects the commercial relationships between the LNG facilities and our Asian trading partners and our proximity to these key LNG export markets, that have underpinned the development of Australia's LNG success story.

#### *Deducting avoidable costs*

- The ACCC's approach to deducting avoidable costs is appropriate and tied to the opportunity cost concept that underpins LNG netback pricing, that is, the costs associated with producing and shipping LNG that would be avoided, or not incurred, by LNG producers if excess gas that would otherwise be exported as LNG were instead supplied to the domestic market.
- This approach is consistent with the conceptual underpinning for an LNG netback pricing calculation and the opportunity cost approach outlined. This approach should be maintained by the ACCC.

#### *What does the ACCC's LNG netback price series represent?*

- The Issues Paper highlights a key assumption asserted to be relevant to the netback calculation, that is, that LNG producers have produced 'excess' gas beyond the amount required to meet their long-term contracts, and that this excess gas is actually produced and is not stockpiled in storage. It is important to note that, unlike coal or iron ore, natural gas cannot be stockpiled for any significant period.

### Chapter 3. Why is the ACCC reviewing LNG Netback Prices?

#### *Global liquefaction capacity, and LNG supply, continues to grow*

- Australia's oil and gas industry has spent a generation building a reputation as a reliable supplier of LNG. This is a vital component of the industry's competitiveness and has been a key factor in the industry's ability, across Australia, to establish stable long-term relationships with customers and to attract investment into the industry, necessary for ongoing production and development, in a fiercely competitive global environment.



- The billions of dollars invested in Australian in developing these projects has also directly benefitted the domestic market. Often overlooked is that the LNG industry is and will remain a very large supplier of domestic gas to the east coast gas market.
- One of the major challenges to the industry's continued growth and contribution to Australia is maintaining Australia's international competitiveness in the face of growing global competition. This is true for both domestic and export-focussed investments.
- The industry and governments, including through the outcomes of the ACCC's review, must do everything possible to ensure new projects continue to be developed.
- To the extent convergence in global gas prices occurs, the timeframe over which such developments take place remain very uncertain. Nor is it clear to which price marker LNG prices would converge, if indeed some kind of global convergence emerges. Regardless, if convergence is to occur then it should be market driven, not intervention driven.

#### *LNG spot market trade is increasing*

- While LNG spot markets have increased in importance over the last decade, it remains the case, however, that over 75 per cent of total Australian LNG exports are sold under long-term contracts. It is also unclear, given the long-term nature of these contracts, the extent to which LNG spot markets can grow beyond their current levels, at least in the short-term.

#### *The ACCC's recent work on pricing strategies suggests other factors may also influence domestic prices*

- The Issues Paper asserts that the ACCC has "... observed disparity between prices offered in the east coast gas market and expected future LNG netback prices." However, this does not appear to align with the analysis contained in the ACCC's *January 2021 Gas Market Interim Report*, which finds that the difference between domestic prices and the netback price was \$1/GJ but that disparity is largely attributable to a number of higher-priced offers made for delivery at locations other than Wallumbilla, which may involve additional transport costs. The pricing of offers made at Wallumbilla, or at locations close to Wallumbilla, were closer to LNG netback price expectations.
- On this basis, there seems to be some difference between the comments provided by the ACCC in this Issues Paper and the content of the Interim Report itself.
- In addition, and in relation to the Southern states, the Interim Report found "...by late 2019 and early 2020, falling expected 2021 LNG netback price expectations resulted in most producer price offers being close to or above the buyer alternative. Prices offered by producers subsequently fell significantly, which resulted in producer offers being **well below** the buyer alternative ..."

#### Chapter 4. Issues the ACCC is seeking information on

##### *LNG netback price methodology*

- *The influence of international gas markets on pricing in the east coast gas market:* International gas markets can, in some circumstances, have an influence on pricing in the east coast market. However, a range of other factors related to local demand and supply conditions and commercial and other arrangements also play a role, and, particularly in southern gas markets, are the overwhelming influence, with international gas market trends, and LNG netback pricing, playing little, if any, role.



- *The relevance of different international LNG and gas price markers for LNG pricing in key LNG export markets and the east coast gas market:* An Asian-focussed 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.
  - This makes 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.
  - Calls to move to a Henry Hub-based price marker appear to be based on a misunderstanding of what a netback price is and the relevance of the US domestic gas market to the 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.
- *Whether the relevance of different LNG and gas price markers, for the LNG netback price series, is likely to change over time:* A response to this question involves significant speculation. It may be that the relevance of different markets will become clearer over time and could be the subject of a future review. In any event, the market should be allowed to operate to determine the outcome. This is similar to approach taken in the Issues Paper in relation to the potential influence of any import terminals that may, or may not, be developed on the east coast.
- *Whether the ACCC should consider additional methodological approaches, such as averaging, to account for the impact of price volatility of price markers on calculated LNG netback prices:* APPEA sees little need for additional methodological approaches, such as averaging.

#### *Conversion to \$A/GJ*

- *Whether the ACCC's current approach to converting FOB LNG prices to \$AUD/GJ is appropriate:* The ACCC's approach appears appropriate.

#### *LNG plant costs*

- *Whether the ACCC's current approach to deducting LNG plant and liquefaction costs is appropriate; How LNG plant and liquefaction costs should be accounted for when calculating the LNG netback price series; Whether different approaches to LNG plant costs should be used for different reference price markers; Whether different approaches to LNG plant costs should be used for short-term and longer-term LNG netback prices; Any other issues that should be considered when accounting for LNG plant and liquefaction costs:* The ACCC's approach to deducting avoidable costs is appropriate and tied to the opportunity cost concept that underpins LNG netback pricing, that is, the costs associated with producing and shipping LNG that would be avoided, or not incurred, by LNG producers if excess gas that would otherwise be exported as LNG were instead supplied to the domestic market.
- Very importantly, this means that the approach appropriately "... does not deduct any costs that are fixed over the short-term, nor any of the capital costs incurred by the LNG producers to build the LNG facilities, since costs that cannot be avoided in the short-run would not be expected to be



*taken into account when making short-run commercial decisions. That is, it would be expected that when an LNG exporter is deciding whether to sell excess gas to the domestic market or for export, it would do so on the basis of a comparison between the effective price that would be received for an LNG spot cargo and the domestic gas price.” This is the correct approach, consistent with the conceptual underpinning for an LNG netback pricing calculation and the opportunity cost approach. This approach should be maintained by the ACCC.*

### **Conclusions/next steps**

- APPEA and its members would welcome the opportunity to meet with you to further discuss these and any other relevant issues. APPEA looks forward to the release of the ACCC’s draft position paper scheduled for June 2021 and to further constructive engagement with the ACCC as the review proceeds.





## 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 more than 120 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](http://www.appea.com.au).

APPEA welcomes the opportunity to provide comment on the *ACCC review of the LNG netback price series Issues Paper* (the Issues Paper) released by the ACCC on 18 March 2021. In addition to this APPEA submission, a number of APPEA members have made individual submissions on the Discussion Paper. This response should be read in conjunction with submissions from individual APPEA members.

APPEA's submission addresses specific aspects of the Issues Paper, focussing on those areas that are particularly important for the upstream oil and gas industry.

## THE AUSTRALIAN UPSTREAM OIL AND GAS INDUSTRY

It is important to place our views on the issues raised by the Issues Paper 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.

Our abundant natural gas resources in particular, place Australia in an enviable position to maintain long-term, cleaner and lower greenhouse gas emissions energy security domestically and internationally.

Natural gas makes it possible for Australia to meet the world's growing energy needs over the coming decades while incorporating a strategy to curb emissions and address the risks posed by climate change.

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 2010<sup>1</sup>.

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<sup>1</sup> See Wood Mackenzie (2020), *Australian Oil and Gas Industry Outlook Report*, page 4 (available at [appea.com.au/wp-content/uploads/2020/06/Australia-Oil-and-Gas-Industry-Outlook-Report.pdf](http://appea.com.au/wp-content/uploads/2020/06/Australia-Oil-and-Gas-Industry-Outlook-Report.pdf)).





- 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 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 oil and gas industry<sup>2</sup>.
- Contributed around 4 per cent of Gross Domestic Production (GDP) in 2019-20, an increase from 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 COVID-19 recession.

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 recent falls in the price of LNG, volumes have been maintained and continue to supply export revenue for Australia.

As prices recover, this contribution will also recover. The growth outlook and key competitive pressures facing the Australian LNG industry, one of Australia's economic success stories, are considered further later in this submission.

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. This is shown in Figure 1. The industry has invested \$US20 billion-\$US55 billion (around \$A26 billion-\$A72 billion at current exchange rates) every year since 2010, and at times during this period, was directly responsible for nearly half of Australia's economic growth<sup>3</sup>.

No other single industry has made this contribution to Australia's growth and investment during the last decade.

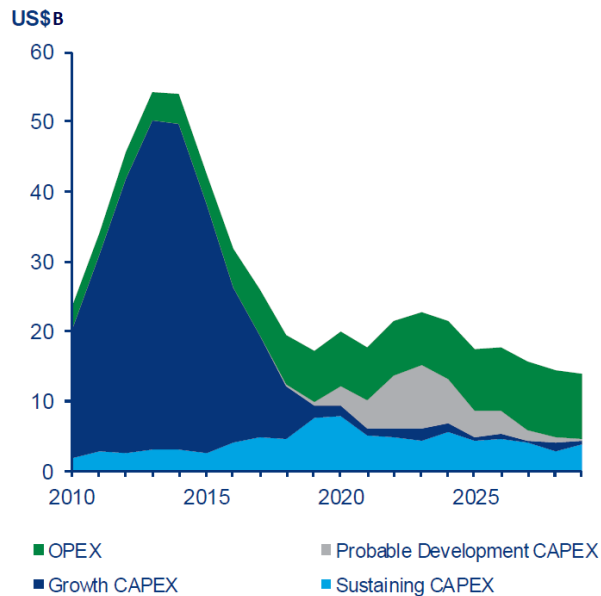
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<sup>2</sup> As an example, work for APPEA by Lawrence Consulting, released in 2019 found the natural gas industry contributed around \$55 billion to Queensland's economy over a seven year period. Almost \$5 billion was spent on wages state-wide during the period 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, the report found. See [www.appea.com.au/all\\_news/natural-gas-powering-queenslands-economy](http://www.appea.com.au/all_news/natural-gas-powering-queenslands-economy) for more information.

<sup>3</sup> 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 [www.rba.gov.au/publications/smp/2017/aug](http://www.rba.gov.au/publications/smp/2017/aug), page 33 for more.



**Figure 1. Oil and gas investment in the Australian economy since 2010**



Source: Wood Mackenzie (2020).

In 2020, Australian LNG was exported to ten different destinations (Japan, China, South Korea, Malaysia, Singapore, Taiwan, Thailand, United Arab Emirates and Other Asia-Pacific). Many of these nations are also significant investors in Australian LNG projects and in contrast to domestic manufacturers, therefore, carry significant project risk. Each of these nations are also observing closely policy and regulatory developments in Australia.

The continued expansion of Australia's oil and gas industry provides incredible opportunities to all Australians. The economic advancement in our region is overwhelmingly positive for the nation, playing to our comparative advantages as a secure and reliable energy exporter.

This means that the stakes are high in realising the industry's potential benefits. The decisions 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.

**A BROADER CONTEXT FOR THE ACCC REVIEW: THE INDUSTRY HAS SUPPORTED ECONOMIC GROWTH DURING THE COVID-19 RECESSION AND CAN SUPPORT THE ROAD TO RECOVERY**

Australia's oil and gas industry has helped shield the country from more damaging economic fallout from COVID-19 by supporting jobs, preserving energy security and delivering important export income.

Our ability to secure the next wave of investment in oil and gas exploration and production has strong foundations but faces intense challenges. The investment landscape is riskier, with higher hurdle rates, and global competition for mobile capital is fierce. Many producers are now focusing on smaller, incremental projects.



This means there is an urgency to address Australia's competitive position through effective and nationally cohesive policy settings. There is heightened risk that undue regulatory and tax imposts deter long-term investment.

## THE CHALLENGES FACING THE INDUSTRY AND PROSPECTS FOR A RETURN TO GROWTH

Even before the onset of the COVID-19 pandemic, oil prices had begun to fall and this was exacerbated by the global pandemic. The shutdown of industry and businesses the world over and billions of people living in lockdown significantly reduced demand for oil and gas.

Oil prices fell more than 75 per cent in the first four months of 2020. While prices have recently returned to pre-pandemic levels, with much of the world still grappling with the virus, capital markets remain volatile. Investor confidence is relatively low and the capital needed to kickstart new oil and gas projects is in relatively short supply.

The result is a 'triple whammy', impacting the industry's appetite for the new investments that are needed to support Australia's COVID recovery.

Challenging market conditions remain. The task the industry, and Australia more broadly, now faces is how to restore confidence, encourage investment and return to growth.

## ECONOMIC DIVIDENDS FROM SECURING A NEW WAVE OF AUSTRALIAN OIL AND GAS DEVELOPMENT

The economic dividends from securing a new wave of oil and gas developments are large. Economic analysis prepared by EY as part of their report, *Australia's oil and gas industry: kickstarting recovery from COVID-19*, finds that if we can secure the key projects which are in the industry pipeline, then under their "high growth trajectory"<sup>4</sup> scenario national economic output is estimated to increase by over \$350 billion with over 220,000 jobs created over the next two decades<sup>5</sup>.

These results are important reminders that the upstream oil and gas industry can be in and of itself a major source of economic growth and employment – its contribution to the Australian economy is far more widespread, and important, than a narrow view of the role it plays in supplying natural gas to a subset of Australian manufacturing.

This means that as the industry grapples with challenging market conditions and fierce competition for scarce investment capital, regulations which suppress the industry's potential to develop Australia's resources can impose heavy economic costs. The economic efficiency losses of

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<sup>4</sup> See EY (2020), *Australia's oil and gas industry: kickstarting recovery from COVID-19*, page 7 (available at [www.appea.com.au/all\\_news/oil-and-gas-industry-continuing-to-support-australias-economic-recovery-from-covid-19](http://www.appea.com.au/all_news/oil-and-gas-industry-continuing-to-support-australias-economic-recovery-from-covid-19) and [www.appea.com.au/wp-content/uploads/2020/11/EY-Report-Australias-oil-and-gas-industry-Kickstarting-recovery-from-COVID-19.pdf](http://www.appea.com.au/wp-content/uploads/2020/11/EY-Report-Australias-oil-and-gas-industry-Kickstarting-recovery-from-COVID-19.pdf)). The report's "high growth trajectory" scenario encompasses investment and production for oil and gas projects that are under development or have a high level of investor commitment and capital expenditure to sustain existing facilities and fields. In addition, the scenario includes oil and gas investments and associated production yields for projects that are considered prospective, but which have higher development uncertainty and have not yet secured firm commercial commitments. It highlights a visible frontier of resource development and industry expansion that could be realised under "favourable policy and market conditions".

<sup>5</sup> As noted above, EY will be adding to this work in the context of this review to consider the economic impacts of any changes to LNG netback calculations or their broader use by policymakers.



regulations which prevent the industry's investment pipeline from being realised could far exceed those from Australia's worst performing taxes.

The gains from reinvigorated activity in the oil and gas industry have the potential to spread throughout the economy, providing a kickstart for Australia's industrial base, boosting demand for services, and generating wealth for all Australians.

Australia's reputation as a reliable supplier of LNG is a vital component of the industry's competitiveness and has been a key factor in the industry's ability, across Australia, to establish stable long-term relationships with customers and to attract investment into the industry in a fiercely competitive global environment. In addition, investment by the industry in domestically-focused exploration and production depends crucially on an investment environment that encourages such activity and does not place unnecessary policy and regulatory roadblocks that risk impeding those investments.

Decisions flowing from the ACCC's review of the LNG netback pricing series need to be considered within this context.

The real challenge – and the real opportunity – is how to return the industry to growth so that it can be the enabler for Australia's broader economic recovery.

## GENERAL COMMENTS ON THE ACCC'S ISSUES PAPER

**The ACCC's calculation methodology for its LNG netback pricing series is sound, and there is no need for change to the core approach taken by the ACCC in calculating the existing series.**

Importantly, 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<sup>6</sup>, 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 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 8 of the Issues Paper:

*It reflects the price that 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 (all other things equal). This is because it is a measure of the value foregone, or opportunity cost, of supplying gas to the domestic market compared to the alternative of exporting it as LNG.*

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<sup>6</sup> As can be often overlooked, this 'option' is not constant through time and will depend on a range of factors, including whether there is capacity at the relevant LNG facilities. For example, if the facilities are running at 100 per cent capacity, then that option may not exist. This can break the linkage between LNG netback and the domestic price.



**The opportunity cost concept, which underpins the netback price calculation methodology, is the key prism through which to consider alternatives to the basic approach used by the ACCC and set out in the Issues Paper.**

For example, if a change to calculation methodology is inconsistent with the “... *opportunity cost, of supplying gas to the domestic market compared to the alternative of exporting it as LNG ...*” then it provides little value to the calculation or use any price series that might be calculated – in essence, the series that would then be derived is not a genuine LNG netback prices series but rather some artificial series of little value or use.

The Issues Paper also notes on page 8:

*The ACCC began publishing the LNG netback price series in 2018 to provide information to the market (including gas users) on the opportunity costs to gas suppliers of supplying gas to the domestic market, rather than export markets.*

While the ACCC’s publication of a netback pricing series provides a readily available series (through the ACCC’s website<sup>7</sup>) that has the ACCC’s “backing”, it should be recognised that a range of commercially available netback pricing series have long been readily available to the market, published by commercial providers such as Argus (and Platts) and analysts such as Credit Suisse or Macquarie Bank, to name just a few<sup>8</sup>.

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: for example, 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 not in a matter of days but 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 have a different view 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 cannot be captured in a netback methodology.

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<sup>7</sup> At [www.accc.gov.au/regulated-infrastructure/energy/gas-inquiry-2017-2025/lng-netback-price-series](http://www.accc.gov.au/regulated-infrastructure/energy/gas-inquiry-2017-2025/lng-netback-price-series).

<sup>8</sup> This means APPEA would dispute whether the publication of the ACCC’s series addresses a genuine information asymmetry in the market. For a counterparty to a commercial transaction worth potentially as much as a long-term gas supply agreement (GSA), the search costs that would be incurred to ensure that counterparty is well informed by a readily available commercial netback price series (and the range of additional gas price information published by regulatory agencies and commercial providers) are not substantial. A range of market information is also obtained during a GSA negotiation, even if that negotiation does result in the parties agreeing a GSA.



As the ACCC itself notes on page 18 of the Issues 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 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.
- The presence, considered further below, of a range of domestically-focused producers who face a range of different factors in their domestically-focused 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<sup>9</sup>.

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<sup>9</sup> See also [www.appea.com.au/industry/policy/policy-positions/netback-pricing](http://www.appea.com.au/industry/policy/policy-positions/netback-pricing) for further information.



## COMMENTS ON SPECIFIC ASPECTS OF THE ACCC'S ISSUES PAPER

The following sections consider each of the four chapters of the Issues Paper and provide comments on various parts of those chapters. As noted above, APPEA's submission addresses specific aspects of the Issues Paper, focussing on those areas that are particularly important for the upstream oil and gas industry and in addition to this APPEA submission, a number of APPEA members have made individual submissions on the Discussion Paper. This response should be read in conjunction with submissions from individual APPEA members.

### CHAPTER 1. INTRODUCTION

#### Why we publish an LNG netback price

The Issues Paper notes on page 9:

*While the east coast gas market has a number of short-term trading markets and gas supply hubs that publish information on gas prices, these are relatively thinly traded and prices in these markets are not necessarily representative of gas commodity pricing for longer-term GSAs.*

This observation would benefit from a recognition that the Australian Government has commenced a work program, informed by industry consultation, to establish Wallumbilla as Australia's Gas Hub<sup>10</sup>. This work program has the stated aim to:

*... deliver an open, transparent and liquid gas trading system through the Hub to ensure it can act as a truly effective price benchmark, improve gas consumers' ability to purchase gas at a fair price, and improve investment across the gas market.*

This means to the extent it is the case that gas in these markets is "... relatively thinly traded and prices ... are not necessarily representative of gas commodity pricing for longer-term GSAs ...", this situation is likely to change over time as the Government works constructively with the industry on Hub development.

It is also the case that through the ACCC's gas market inquiry interim reports and the wide-ranging work commenced by the COAG Energy Council and now underway through the Energy National Cabinet Reform Committee (ENCRC) and the Energy Ministers' Meeting (EMM), on consultation on draft regulatory amendments to increase the level of gas market information provided by gas producers<sup>11</sup>, in addition to the existing range of information already available to gas market participants (through regulatory bodies such as the ACCC, AEMC, AER and AEMO and a range of commercial providers), that there already exist a wide range of information about gas commodity pricing available to market participants.

In addition, the Issues Paper notes on page 9:

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<sup>10</sup> See [www.pm.gov.au/media/gas-fired-recovery](http://www.pm.gov.au/media/gas-fired-recovery), [www.energy.gov.au/government-priorities/energy-markets/gas-markets](http://www.energy.gov.au/government-priorities/energy-markets/gas-markets) and [consult.industry.gov.au/energy/gas-fired-recovery-plan](http://consult.industry.gov.au/energy/gas-fired-recovery-plan) for more information.

<sup>11</sup> See [energyministers.gov.au/publications/consultation-draft-regulatory-amendments-increase-transparency-gas-market-0](http://energyministers.gov.au/publications/consultation-draft-regulatory-amendments-increase-transparency-gas-market-0) for more information.





*Second, the ACCC identified significant information asymmetry between gas suppliers and users with respect to gas pricing. In comparison to gas users, gas suppliers are likely to receive significantly more information on gas pricing, as part of the numerous negotiations they are party to. In contrast, gas users may negotiate for gas supply with limited suppliers and only when they are seeking to renew their supply arrangements.*

As noted above, APPEA would dispute whether this is genuinely the case or whether this represents an information asymmetry that cannot be overcome. For a counterparty to a commercial transaction worth potentially as much as a long-term GSA, the search costs that would be incurred to ensure that counterparty is well informed by one or more of the numerous and readily available commercial netback price series (and, in addition, the range of information already available on gas prices through regulatory agencies and commercial providers) are not substantial. A range of market information is also obtained during a GSA negotiation, even if that negotiation does result in the parties agreeing a GSA.

### **Why is the ACCC reviewing the LNG netback price series?**

The Issues Paper also notes on page 10:

*... the Australian Government [and the east coast LNG exporters<sup>12</sup>] recently announced that it had signed a new Heads of Agreement with the east coast LNG producers. Under this Heads of Agreement, the LNG producers have committed to offer uncontracted gas to the domestic market first on internationally competitive terms. Moreover, the Heads of Agreement notes that LNG netback prices, based on Asian LNG spot prices, play a role in influencing domestic gas prices, with the ACCC's LNG netback price series explicitly referenced in the Heads of Agreement.*

This is one aspect of the HoA. It also recognised the realities of the gas market on the east coast to deliver competitive gas supply outcomes for customers and continue to encourage more investment in new supply by producers. The HoA reflects the industry's ongoing commitment to the domestic market but importantly recognises the investment scale afforded by international contracts. The east coast domestic market, including the southern states, has benefited from the \$70 billion investment in the economy that has underpinned these LNG developments, with the gas flowing from these developments providing Australia with the benefit of export income as well as domestic gas supply.

## CHAPTER 2. ACCC LNG NETBACK PRICE SERIES

**The ACCC's calculation methodology for its LNG netback pricing series, as outlined in Chapter 2, is sound, and there is no need for change to the core approach taken by the ACCC in calculating the existing series.**

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<sup>12</sup> See [www.appea.com.au/all\\_news/australias-oil-and-gas-industry-continues-commitment-to-domestic-market-under-new-heads-of-agreement](http://www.appea.com.au/all_news/australias-oil-and-gas-industry-continues-commitment-to-domestic-market-under-new-heads-of-agreement) for more.



### The ACCC's current approach to calculating LNG netback prices

As the Issues Paper notes on page 14, the ACCC has based the prices in the LNG netback price series on the Japan Korea Marker (JKM), which is a measure of Asian LNG spot prices. This remains one of the appropriate measures for Asian LNG spot prices, reflecting the market to which Australia's east coast LNG exports are destined and the location to which LNG spot cargoes are sold.

In addition, it has remained the case that east coast LNG producers have, in aggregate, produced quantities of gas in excess of the quantities required to satisfy their long-term LNG contractual obligations. This excess has provided a valuable source of gas to the domestic market and, consistent with the three HoAs agreed since October 2017, any excess that has been sold into the international market has been sold into the Asian LNG spot market.

This reflects, as the Issues Paper notes (in part), the commercial relationships between the LNG projects and our Asian trading partners and our proximity to these key LNG export markets. These factors have helped underpin Australia's LNG success story.

As EnergyQuest's *March 2021 Quarterly Report*<sup>13</sup> shows, in the December quarter 2020, all of the exports from Australia's east coast LNG facilities were destined for Asia, with the destinations for Queensland LNG cargoes in the fourth quarter of 2020 being China (4.2 Mt), Korea (1.0 Mt), Japan (0.6 Mt), Malaysia (0.4 Mt) and Singapore and India (1 cargo each of just under 0.1 Mt).

Exports from Gladstone, for example, continue to be important to China. In the fourth quarter of 2020, 22 per cent of all of China's LNG imports were supplied from Gladstone.

As such, the ACCC's use of Asian LNG prices as a reference price for the LNG netback price series remains entirely appropriate and, if anything, has been reinforced since the series commenced publication in October 2018 (only 2½ years ago).

### Deducting avoidable costs

The ACCC's approach to deducting avoidable costs, set out on pages 15-16 of the Issues Paper, is appropriate and tied to the opportunity cost concept that underpins LNG netback pricing outlined above, that is, the costs associated with producing and shipping LNG that would be avoided, or not incurred, by LNG producers if excess gas that would otherwise be exported as LNG were instead supplied to the domestic market. Very importantly, this means that the approach correctly:

*... does not deduct any costs that are fixed over the short-term, nor any of the capital costs incurred by the LNG producers to build the LNG facilities, since costs that cannot be avoided in the short-run would not be expected to be taken into account when making short-run commercial decisions. That is, it would be expected that when an LNG exporter is deciding whether to sell excess gas to the domestic market or for export, it would do so on the basis of a comparison between the effective price that would be received for an LNG spot cargo and the domestic gas price.*

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<sup>13</sup> EnergyQuest (2021), *March 2021 Quarterly Report*, page 124 (see also [www.energyquest.com.au/another-australian-lng-export-record-in-2020](http://www.energyquest.com.au/another-australian-lng-export-record-in-2020)).



**This approach is consistent with the conceptual underpinning for an LNG netback pricing calculation and the opportunity cost approach considered above. This approach should be maintained by the ACCC.**

These points are reinforced, again appropriately, in the Issues Paper on page 17:

*LNG plant costs represent an estimate of the short-run marginal costs to produce LNG – that is, the costs an LNG producer incurs to convert excess gas to LNG. This includes the value of the gas that is consumed as fuel during the liquefaction process, as well as LNG plant operating expenditure.*

*The costs that are deducted are limited to those that would be incurred by the LNG producer if it decided to export excess gas, rather than supplying that gas on the domestic market. Given the LNG plants have excess capacity, these costs do not include the capital costs of constructing the LNG plants, or the costs of enhancing their capacity.*

### **What does the ACCC's LNG netback price series represent?**

The Issues Paper on page 18 highlights a key assumption asserted to be relevant to the netback calculation, that is, that LNG producers have produced 'excess' gas beyond the amount required to meet their long-term contracts, and that this excess gas is actually produced and is not stockpiled in storage. It is important to note that, unlike coal or iron ore, natural gas cannot be stockpiled for any significant period.

## **CHAPTER 3. WHY IS THE ACCC REVIEWING LNG NETBACK PRICES?**

The Issues Paper's discussion on pages 19-24 of the global LNG market highlights a number of issues relevant to the review (and more broadly).

### **Global liquefaction capacity, and LNG supply, continues to grow**

Australia's oil and gas industry has spent a generation building a reputation as a reliable supplier of LNG to key Asian markets. This is a vital component of the industry's competitiveness and has been a key factor in the industry's ability, across Australia, to establish stable long-term relationships with customers and to attract investment into the industry in a fiercely competitive global environment.

The billions of dollars invested in Australia in developing these projects has also directly benefitted the domestic market. Often overlooked is that the LNG industry is and will remain a very large supplier of domestic gas to the east coast gas market.

The scale of investment required to commercialise onshore gas developments on the east coast, particularly onshore developments which do not have the liquids to cross subsidise the production of gas and which have helped underpin the economics of shale gas development in the US, and the relatively small size of the domestic market, has meant – as is the case for so many Australian industries – an export path to market was always required to develop these resources.

Implicit in much of the criticism of LNG exports is a presumption that if this gas was not developed for export, it would have been developed for the domestic market. This is the wrong counterfactual. Without an export market to commercialise these resources, they would in many cases have



remained in the ground because the Australian domestic market is simply not large enough to warrant the investment necessary for economically sustainable resource development. In that circumstance, the east coast market would today be facing a different and more challenging situation, without this investment and the benefits that have flowed from it to the domestic market.

One of the major challenges to the industry's continued growth and contribution to Australia is maintaining Australia's international competitiveness in the face of growing global competition. This is true for both domestic and export-focussed investments. In the case of LNG, a relatively high-cost local environment and the emergence of new LNG competitors in North America, East Africa and Russia and increasing competition from existing competitors such as Qatar and elsewhere will make it much harder to win market share and attract future investment.

The industry and governments, including through the outcomes of the ACCC's review, must do everything possible to ensure new projects continue to be developed.

Some impacts on current and future investment, such as exchange rates or global oil prices, are largely beyond the ability of industry to influence. However, other key challenges must be addressed. Australia's perception as a welcoming destination for investment has declined, including for petroleum investment. It is vitally important the outcomes from the ACCC's review do not add to these challenges.

In considering the growth in US projects on pages 22-23, the Issues Paper asserts:

*The substantial increase in US liquefaction capacity, in recent years, has also been reflected in an increase in flexibility in LNG markets, as a result of the more flexible approach to LNG contracting adopted by US LNG projects.*

*Traditionally, LNG supply and purchase agreements contained clauses that limited the degree of flexibility that customers had to redirect cargoes away from the import terminals specified in their contracts.*

While the US approach may be more 'flexible', at least in that one aspect of LNG contracting, the more relevant point is that the commercial arrangements, including LNG contracting arrangements, that the Australian industry has spent a generation building, have underpinned the more than \$300 billion investment in Australian LNG developments (around \$70 billion of which has been in eastern Australia) and associated the benefits for the east coast domestic gas market, that was highlighted above, and underpins similar multi-billion investments in Australia's trading partners.

These arrangements have served Australia well, including during the significant market disruptions that characterised much of 2020 as the global energy system dealt with the impact on demand and price arising from the COVID-19 global pandemic. They helped ensure the Australian oil and gas industry, throughout the entirety of this ongoing global pandemic, has maintained vital energy supplies to domestic and industrial customers and met all of its export contract obligations.

In addition, in providing a brief overview of the US LNG developments, the Issues Paper asserts on page 23:

*These developments, along with increasing US liquefaction capacity, have the potential to increase the importance of Henry Hub gas prices for LNG price formation in Asia. This*



*suggests that the US, at times, may act as the marginal supplier of LNG into Asia, and particularly into the Asian spot market.*

It is not at all clear from evidence presented that this is the case. To the extent convergence in global gas prices occurs, the timeframe over which such developments may take place remain very uncertain. Nor is it clear to which price marker LNG prices would converge, if indeed some kind of global convergence emerges. In any event, convergence, if it does occur, should be driven by the market.

### **LNG spot market trade is increasing**

While LNG spot markets have increased in importance over the last decade, it remains the case, however, that over 75 per cent of total Australian LNG exports are sold under long-term contracts. It is also unclear, given the long-term nature of these contracts, the extent to which LNG spot markets can grow beyond their current levels, at least in the short-term.

### **The ACCC's recent work on pricing strategies suggests other factors may also influence domestic prices**

The Issues Paper on page 27 asserts:

*In 2020, the ACCC obtained and reviewed documents related to the pricing strategies of key suppliers in the east coast gas market. This was motivated by the observed disparity between prices offered in the east coast gas market and expected future LNG netback prices.*

The final sentence in the quote above does not appear to align with the analysis contained in the ACCC's *January 2021 Gas Market Interim Report*, particularly the analysis on pages 59-61 of that report, which finds that the difference between domestic prices offered by July and August 2020 and netback price was \$1/GJ but, as noted on page 59 of the Interim Report:

*... the \$1/GJ disparity observed in mid-2020 is largely attributable to a number of higher-priced offers made for delivery at locations other than Wallumbilla, which may involve additional transport costs for suppliers. The pricing of offers made at Wallumbilla, or at locations close to Wallumbilla, were on average closer to LNG netback price expectations.*

On this basis, there seems to be some difference between the comments provided by the ACCC in this Issues Paper and the content of the *January 2021 Gas Market Interim Report* itself.

In addition, and relation to the Southern states, the Interim Report found:

*... prices offered by both producers and retailers in the southern states have fallen from being clustered around the buyer alternative level in late 2019 and early 2020, to being between expected 2021 LNG netback prices and the buyer alternative in mid-2020.*

*...by late 2019 and early 2020, falling expected 2021 LNG netback price expectations resulted in most producer price offers being close to or above the buyer alternative. Prices offered by producers subsequently fell significantly, which resulted in producer offers being well below the buyer alternative by August 2020.*



In addition, while as considered above, there are a range of factors other than LNG netback pricing that influence domestic price outcomes, particularly in southern markets, with the LNG netback price has little relevance. This means the statement of one producer, reported on page 28 of the Issues Paper, around the relation between JKM spot and long-term contract prices, does not form a large sample. It is also the case, as noted above, this observation does not support an either/or decision around whether the current approach or an alternative approach is necessary.

#### CHAPTER 4. ISSUES THE ACCC IS SEEKING INFORMATION ON

Drawing on the comments above, APPEA is pleased to provide information in response to some the issues raised in Chapter 4 of the Issues Paper, as follows.

##### **LNG netback price methodology**

###### *7. The influence of international gas markets on pricing in the east coast gas market.*

As was considered in detail above, international gas markets can, in some circumstances, have an influence on pricing in the east coast market.

As was also noted above, a range of other factors related to local demand and supply conditions and commercial and other arrangements also play a role, and, particularly in southern gas markets, are the overwhelming influence, with international gas market trends, and LNG netback pricing, playing little, if any, role.

###### *8. The relevance of different international LNG and gas price markers for LNG pricing in key LNG export markets and the east coast gas market.*

As the ACCC itself notes in several places in the Issues Paper, an Asian-focussed 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 predominantly sold, established supply chains and connections with buyers in these markets.

This makes 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.

Calls to move to a Henry Hub-based price marker, as noted in the Issues Paper on page 30, appear to be based on a misunderstanding of what a netback price is and the relevance of the US domestic gas market to the east coast domestic gas market<sup>14</sup>.

The fundamentals of the US gas market, particularly on the supply side, are vastly different given that the gas is largely a by-product of significant liquids development compared to very dry onshore gas developments in Queensland, with onshore developments occurring without producing any oil or other liquids. This means the commercial underpinnings of developments are significantly different.

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<sup>14</sup> In a similar way, European gas hub pricing (such as the Dutch Title Transfer Facility (TTF) gas hub) is not required as a netback marker, as it already is demonstrating linkages to the Asian LNG spot price, so this already represents that market in terms of LNG sales and differentials between basins. Further, Europe is not a target market for Australia LNG exports.



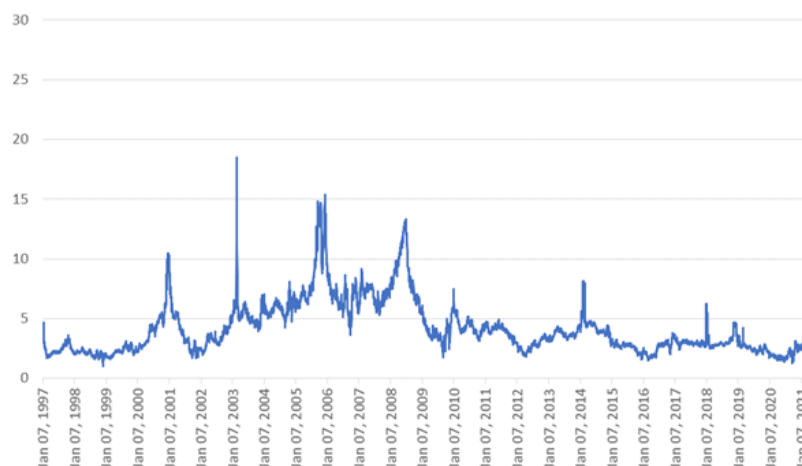
The markets also operate on a significantly different scale. The Henry Hub services a population of 330.1 million people at 34 people/km<sup>2</sup>, compared to Australia's population of 25.7 million at 3.3 people/km<sup>2</sup>. The Henry Hub is surrounded by an extensive network of infrastructure, serviced by more than 485,000 kilometres of pipeline, which offers access not only in the US but stretching to Canada and Mexico, compared to Australia's around 40,000km of pipelines. The Henry Hub infrastructure offers interconnections into nine intrastate and four interstate pipelines that provide an artery of supply to the rest of the country, while direct connections into three storage caverns add further flexibility, allowing gas to be traded. The US domestic market also has the benefit of enormous scale, being around fifty times the size of Australia's east coast domestic gas market.

In addition, prices at the Henry Hub are subject to local, that is, US demand and supply conditions, that have little to do with market conditions in Asian LNG markets or in domestic markets in Australia.

A recent example comes from February 2021, when unprecedented cold weather in Texas saw prices soar to US\$1,250/MMBtu in the central US as supply was significantly disrupted. The supply tightness was reflected in Henry Hub cash prices, reaching a record US\$23.86/MMBtu on 17 February, as illustrated in Figure 2. This illustrates very starkly that far from being a 'perfect' market, the reality is US gas prices can also be volatile in response to local demand or supply conditions. For example, it is not clear why weather conditions in Texas should have an influence on domestic gas prices in Queensland or Victoria, some 14,000 kilometres distant and operating in a different season of the year.

Figure 2 shows Henry Hub natural gas spot prices (\$US/MMBtu) since 1997. The volatility of the market, and the price rise in February, are clearly illustrated.

**Figure 2. Henry Hub natural gas spot price ((\$US/MMBtu), January 1997-February 2021**



Source: US Energy Information Administration ([www.eia.gov/dnav/ng/hist/rngwhhdD.htm](http://www.eia.gov/dnav/ng/hist/rngwhhdD.htm)).

Compared to other world commodities the global LNG market is more segmented. Markets are heavily influenced by characteristics such as country openness to global LNG trade, transportation and weather which drive price factors.





The nature of the Asia-Pacific gas market relative to other markets means that hub pricing points are less meaningful and hence continue to be negotiated linked to the price of crude oil.

The combination of growing demand from the Asian continent, increasing global supply of LNG, the increasing proportion of LNG being traded on international spot markets and the increasing liquidity of JKM futures may see pricing in these markets converge further over the coming decade.

However, there is a limit to which these markets can fully converge due to the cost of shipping from US to Asia and the possibility that future production costs of US LNG capacity may be higher than initial projects.

Reflecting this segmentation, 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.

*10. Whether the relevance of different LNG and gas price markers, for the LNG netback price series, is likely to change over time.*

A response to this question involves a significant amount of speculation. It may be that the relevance of different markets will become clearer over time and could be the subject of a future review. As noted above, the relevance of the JKM, or a JKM-like, price marker appears have grown over time, with all of the Australia's east coast gas exports destined for Asian in the most recent quarter. This is similar to approach taken on page 10 of the Issues Paper in relation to the potential influence of any import terminals that may, or may not, be developed on the east coast:

*The ACCC notes that there are a number of proposed LNG import terminals for the east coast of Australia. However, we will consider the development of an import parity price separate to this review, once it becomes clearer if an import terminal will commence operation on the east coast and the arrangements that will apply to its commercial operations.*

*11. Whether the ACCC should consider additional methodological approaches, such as averaging, to account for the impact of price volatility of price markers on calculated LNG netback prices.*

APPEA sees little need, at this time, for additional methodological approaches, such as averaging.

### **Conversion to \$A/GJ**

*16. Whether the ACCC's current approach to converting FOB LNG prices to \$AUD/GJ is appropriate.*

The ACCC's approach, including the methodology applied and referring to a publicly available and transparent exchange rate series, such as that published by the Reserve Bank of Australia, appears appropriate.

### **LNG plant costs**

*19. Whether the ACCC's current approach to deducting LNG plant and liquefaction costs is appropriate.*



20. *How LNG plant and liquefaction costs should be accounted for when calculating the LNG netback price series.*
21. *Whether different approaches to LNG plant costs should be used for different reference price markers.*
22. *Whether different approaches to LNG plant costs should be used for short-term and longer-term LNG netback prices.*
23. *Any other issues that should be considered when accounting for LNG plant and liquefaction costs.*

As noted in detail above, the ACCC's approach to deducting avoidable costs, set out on pages 15-16 of the Issues Paper, is appropriate and tied to the opportunity cost concept that underpins LNG netback pricing outlined above, that is, the costs associated with producing and shipping LNG that would be avoided, or not incurred, by LNG producers if excess gas that would otherwise be exported as LNG were instead supplied to the domestic market. Very importantly, this means that the approach appropriately:

*... does not deduct any costs that are fixed over the short-term, nor any of the capital costs incurred by the LNG producers to build the LNG facilities, since costs that cannot be avoided in the short-run would not be expected to be taken into account when making short-run commercial decisions. That is, it would be expected that when an LNG exporter is deciding whether to sell excess gas to the domestic market or for export, it would do so on the basis of a comparison between the effective price that would be received for an LNG spot cargo and the domestic gas price.*

**This is the correct approach, consistent with the conceptual underpinning for an LNG netback pricing calculation and the opportunity cost approach considered above. This approach should be maintained by the ACCC.**

These points are reinforced, again appropriately, in the Issues Paper on page 17:

*LNG plant costs represent an estimate of the short-run marginal costs to produce LNG – that is, the costs an LNG producer incurs to convert excess gas to LNG. This includes the value of the gas that is consumed as fuel during the liquefaction process, as well as LNG plant operating expenditure.*

*The costs that are deducted are limited to those that would be incurred by the LNG producer if it decided to export excess gas, rather than supplying that gas on the domestic market. Given the LNG plants have excess capacity, these costs do not include the capital costs of constructing the LNG plants, or the costs of enhancing their capacity.*

## CONCLUSIONS/NEXT STEPS

To conclude, the ACCC's calculation methodology for its LNG netback pricing series is sound, and there is no need for change to the core approach taken by the ACCC in calculating the existing series.

APPEA and its members would welcome the opportunity to meet with you to further discuss these and any other relevant issues. APPEA looks forward to the release of the ACCC's draft position paper scheduled for June 2021 and to further constructive engagement with the ACCC as the review proceeds.