WA DOMESTIC GAS POLICY

Improving the effectiveness of the policy

Submission by the DomGas Alliance to the Parliamentary Inquiry of the Economics and Industry Standing Committee

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Introduction

The DomGas Alliance (DGA or The Alliance) supports the WA Domestic Gas Policy. It is well structured, in that it requires 15% of gas reserves for liquefied natural gas (LNG) projects to be made available and delivered to the domestic market in timeframes agreed with Government, and underpins this State's economic and social development, as well as being critical to the transition to net zero emissions. The policy, however, only works on the basis of "good faith" compliance and there is clear evidence in the current market that when parties do not adhere to the policy in good faith, there is no mechanism to enforce it and ensure that gas is delivered to the domestic market in accordance with the 15% target.

The DomGas Alliance welcomes the inquiry by the State Parliament's Economics and Industry Standing Committee into the WA Domestic Gas Policy. The policy is the envy of policymakers around the country who are currently grappling with soaring gas prices as a result of a lack of gas supply to their domestic markets. With demand also beginning to outstrip the supply of gas in WA, it is critical changes are made to ensure the intent of this policy is adhered to by all gas suppliers and that the 15% of gas reserved for the domestic market is in fact delivered.

The DomGas Alliance welcomes the inquiry by the State Parliament's Economics and Industry Standing Committee into the WA Domestic Gas Policy.

DomGas Alliance's role

The DomGas Alliance is a member-driven industry body representing large gas users in Western Australia, with members including Adbri, Alcoa of Australia, Coogee, Wesfarmers Chemicals, Energy and Fertilisers, and Yara Pilbara.

Formed in 2006 in response to a serious shortage of gas supply for new developments in WA, DGA seeks to ensure a reliable, affordable, and diverse supply of natural gas for industry in Western Australia.

DGA works closely with State and Federal Governments and other industry stakeholders to promote initiatives and debate to ensure sustainable domestic gas supplies.

WA Domestic Gas Policy

The WA Domestic Gas Policy was formalised in 2006 but the initial policy began in 1979 with the then WA Government helping underwrite the North West Shelf (NWS) LNG project. The State, together with Alcoa, provided the NWS developers with certainty by contracting to purchase large volumes of gas for domestic consumption over a long period.

In addition, the State Energy Commission of Western Australia (SECWA) funded the construction of the Dampier to Bunbury pipeline in order to take the gas to industrial and residential users in the south west of the State.

The State's intervention enabled the NWS LNG project to go ahead and also signalled, in a policy sense, that LNG exports would be supported providing there was a commitment to supply gas to the domestic market for the economic and industrial development of the State.

The website of the Department of Jobs, Tourism, Science and Innovation (JTSI) outlines the official policy:

LNG projects must demonstrate their ability to make domestic gas available by:

- *Reserving 15% of LNG production from each LNG export project;*
- *Developing and obtaining access to the necessary infrastructure (including a domestic gas plant, associated facilities, and offshore pipelines) to meet their domestic gas commitments as part of the approvals process; and*
- *Showing diligence and good faith in marketing gas to the domestic market.*

While the official policy describes the obligations of LNG exporters, it lacks a number of critical components essential to any policy, such as a clear objective and mechanisms to ensure the policy is being implemented and adhered to (Appendix 1).

The DomGas Alliance has always been supportive of the policy but, has at the same time, advocated for changes to make it more effective and to ensure it meets the original intention – delivering a secure gas supply to the domestic market to underpin the State's economic and social development.

The importance of gas to the WA economy needs to be well understood by the community and policymakers. In 2018, the Alliance commissioned ACIL Allen to do a study on how gas underpins the WA economy, and the results have been recently updated to include the latest data, summarised below.

Figure 1: Economic Importance of Gas to Western Australia, 2021-22

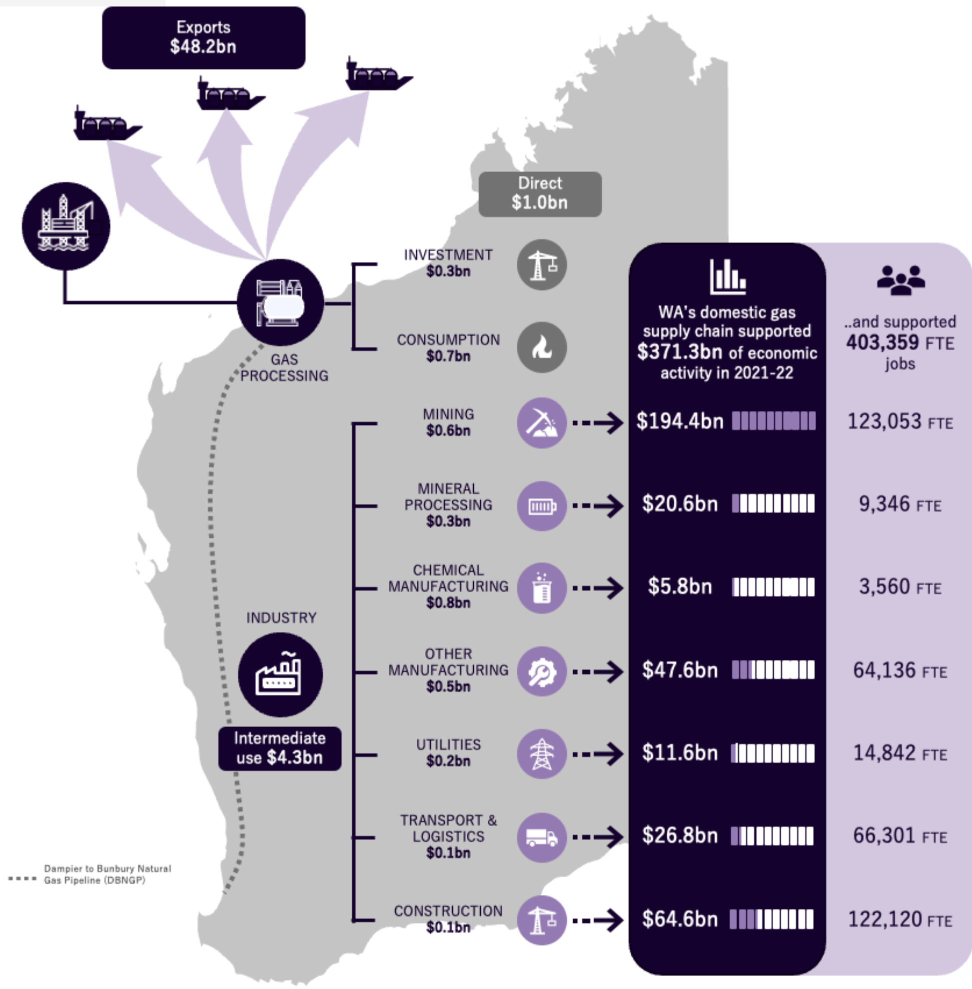
The gas industry is a significant driver of the growth and development of the WA economy. ACIL Allen estimates that in 2021-22, gas exports alone contributed $48.2 billion to WA's export income and the industries it fuels were responsible for 54.4% of total economic activity in Western Australia in 2021-22, supporting 403,359 full-time equivalent jobs.

While these direct impacts are significant and visible, the gas industry plays an equally important role in facilitating the growth and development of other industries and the domestic economy more broadly.

The gas industry supplies gas to a number of important industries across the State, which together purchased some $4.3 billion in gas as a critical input into their operations.

The largest consumer of domestic gas in 2021-22 was the manufacturing and material processing sector ($1.7 billion in purchases), of which the largest sub-sectors were chemical manufacturing ($0.8 billion), other manufacturing ($0.5 billion) and mineral processing ($0.3 billion). The other largest consumers of domestic gas were from the mining ($0.6 billion), utilities ($0.2 billion), transport and logistics ($0.1 billion) and construction ($0.1 billion) sectors. There are other sectors that consume gas but have been excluded from this analysis on account that gas is only a minor input into its activities.

Together, these industries generated $371.3 billion of economic activity, accounting for more than half of the State's total economic activity in Western Australia in 2021-22, and supported 403,359 full-time equivalent jobs.



ACIL ALLEN

Source: ACIL Allen Report "Domgas in WA," 2018, updated 2023

In addition to the significant economic benefits to the State, the policy has served to keep the price of gas for WA's one million residential users lower than would otherwise be the case – until recently. This can be evidenced by the soaring prices of gas that households on the east coast are borne with at present – the gas reservation policy of WA has been touted as the reason why the same has not ocurred till now in this State.

Comparatively lower residential prices historically are probably linked to the generally held view in Western Australia that gas companies are doing the right thing by the State by ensuring 15% of the gas they produce is available for domestic use.

Already in WA, wholesale gas prices have risen to levels that are a major concern to large consumers, and that will flow through to residential gas prices and wholesale electricity prices, as happened on the east coast. The answer to these rising prices is to make the domestic gas policy work as it should. If all DMO suppliers delivered 15% of their LNG production to the domestic market, there would be no gas shortfall now.

If the public becomes aware that some gas suppliers are not delivering 15% and are withholding available gas from the market – when WA prices are at an all time high and in this current climate of concern about the continued use of gas as we seek to transition to net zero – it could well threaten the social licence to operate that those gas suppliers are currently afforded. Social licence is a tenuous thing and faced with community backlash, legislators may be forced to take heavier-handed action than they would otherwise consider.

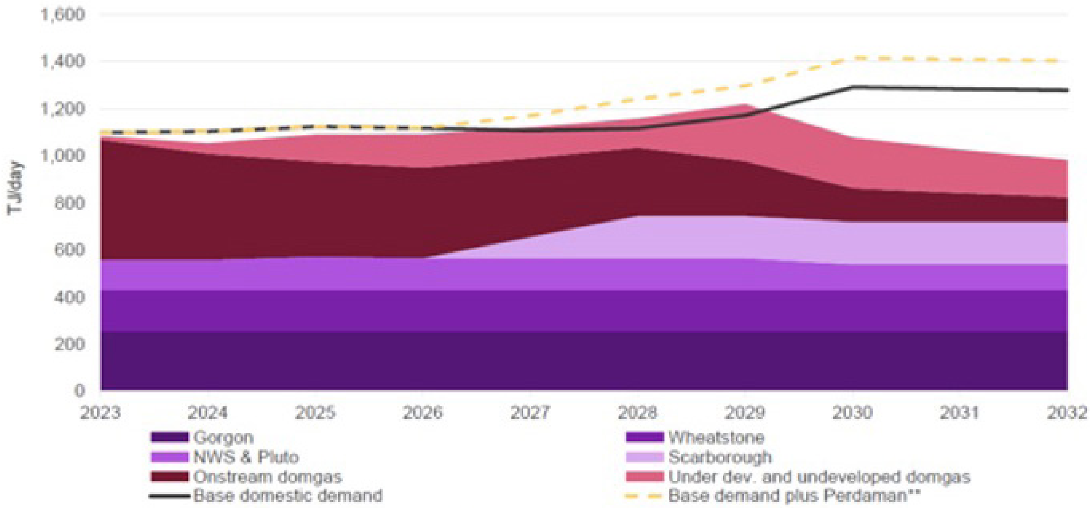
WA gas supply challenges

The Western Australian Domestic Gas Policy, first formalised in 2006 and further clarified in 2012 and 2020, has generally served this State well, ensuring secure, stable, and affordable energy for Western Australian industry and households.

We are now facing new challenges in the energy landscape, simultaneously: declining reserves in traditional domestic gas supplying fields, a fast transition to renewable energy, coal supply constraints, , and an increased linkage between the WA gas and electricity systems. The linkage will increase further over time, the need for an overarching long-term vision of energy supplies for WA and the role of natural gas is obvious.

AEMO's 2022 Gas Statement of Opportunities (GSOO) reflects these challenges, forecasting a gas shortfall in this State from this year to 2026, peaking at about 50TJ/d in 2024, and a large deficit from 2030 onwards with shortfalls of 300TJ/d, representing over 16% of demand each year.

Figure 2: Current and prospective online gas versus domestic demand



*Includes prospective gas supply projects: no FID but expected to be developed during the outlook period given forecast LNG/domestic gas prices
** For this illustration, we have assumed Perdaman comes online in mid-2027 at 125 TJ/day

Source: JTSI

The 2022 GSOO notes that the WA domestic gas reservation policy is the cornerstone to ensuring that supply can meet demand in the next decade and states that it assumes the 15% of gas committed to reservation by suppliers for domestic use is actually being delivered to the market – which it is not. It goes on to say while there is a "large volume of undeveloped gas that could supply the WA domestic market during the outlook period, many of these resources are currently too speculative to be included in the potential supply forecasts."

Some LNG producers that are not currently meeting the clear intent of the policy to deliver 15% of their gas reserves to the market, need to be required to meet the policy, including making up for historical shortfalls.

In January 2023, as a result of disruptions to domestic supplying facilities, domestic users of gas, including DomGas Alliance members, incurred significant commercial losses due to some LNG suppliers not making gas available to the market. While some LNG producers did the right thing by increasing domestic supplies in the emergency, one major LNG producer continued to load and ship spot LNG taking advantage of high prices globally while domestic industry had to curtail production due to a lack of gas. This again shows how fragile the social licence is for gas producers.

It is clear that gas will continue to play a vital role in WA's economy into the next decade and beyond. Demand will increase for the rest of this decade as coal generation is shut down and new gas-consuming projects are developed, many of which are focused on providing the world with materials for the clean energy sector.

This is an important point. WA has some of the world's best deposits of critical minerals which are essential for use in manufacturing batteries, solar PV panels, wind turbines and in high technology applications. Extracting and processing these minerals requires large amounts of energy and heat which, in the short to medium term, can only be provided economically and reliably by gas.

The recent Critical Minerals Strategy 2023-2030 released by the Federal Government highlights that States like WA, with rich geological reserves, extraction expertise and a known reliable exporter of energy and resources, could share in a potential $71.2 billion increase in GDP and in excess of 100,000 new jobs, if we grow our critical minerals industry to align with growing global demand driven by the energy transition. Further investment in Australia's downstream processing capability to refine these critical minerals will add further value and potential for increased export earnings – however, affordable energy will be required to fuel this.

Natural gas provides not only energy but a source of heat which is essential to a number of mineral processing functions, such as for production of alumina. As well, it is used as a feedstock for chemical and fertiliser production, and again, there are no economic substitutes available to replace gas. WA is a significant global manufacturer of ammonia applied in fertiliser and civil explosives' production, using gas as feedstock. Ammonia has great potential as shipping fuel and in power generation. The civil explosives are critical to the WA mining industry. Fertilisers are necessary to sustain food production for a growing world population.

WA has been fortunate to have good gas resources, as well as valuable minerals, and our economic growth over the last few decades has been built on a sustainable supply of gas, underpinned by the policy. Our economic growth over the next few decades will be hampered if the policy is not implemented in line with its original intent.

In 2018 the Alliance commissioned Wood Mackenzie to do a study on the future supply and demand for gas as the State transitions to net zero carbon emissions. The study was undertaken to understand the role gas would play going forward as more renewable energy came into the grids and what would be the impact on demand.

The study showed that gas demand would actually increase in the short to medium term in WA because the first steps in decarbonisation would include the closing down of the State's coal-fired power stations and the transition away from diesel in regional areas – both fuels producing much more carbon dioxide than gas.

The Wood Mackenzie WA Gas Market Strategic Development Report states: *"All things considered, the immediate outlook for domestic gas demand in WA is likely to still see growth, particularly over the period 2025 to 2030, before entering into a demand decline thereafter."*

"This is driven by gas' role in supporting the faster incorporation of renewable energy into the WA economy, but which will eventually push it towards longer-term gas demand destruction. Near-term domestic gas demand growth (between 2021 and 2030) therefore remains compatible with the WA Government's net zero emissions aspirations by 2050".

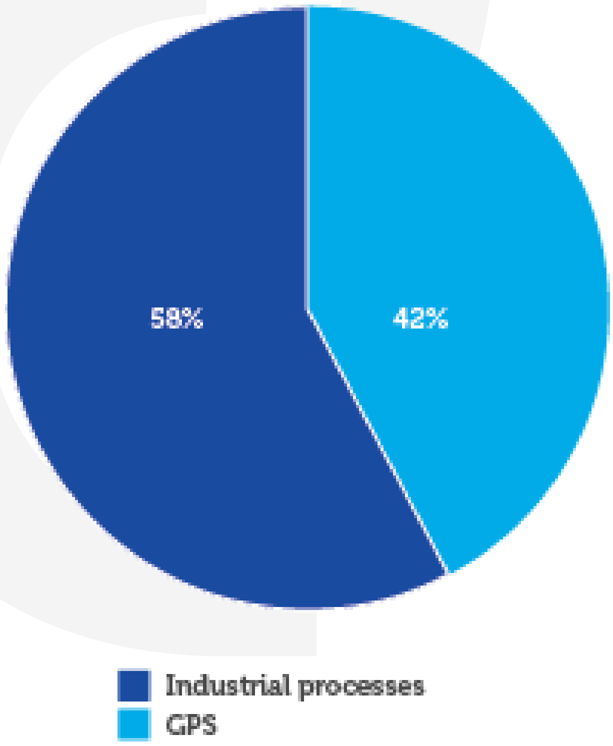
The study also showed that the State used more gas as industrial feedstock (60%) than for power generation (40%) – Figure 3 below. Bearing in mind that it is going to be a lot harder to transition to cleaner substitutes for gas as (heat)/feedstock, gas will continue to be used in these industrial sectors for some time to come. Also, as mentioned above, this sector is growing with the addition of new critical minerals, such as lithium being processed in WA, which require additional supplies of gas for their development.

"Gas can provide security and reliability to power supply (grid and distributed power), supporting the uptake of renewable energy and displacing higher carbon emissions coal in generation. Over the medium to longer term, this can continue to contribute to emission intensity reduction, as gas is displaced in power generation by renewable energy." – Wood Mackenzie, WA Gas Market Strategic Development Report.

"Gas will continue to play an important role in supplying WA mining and grid-power operations, although demand is expected to decline over time. Gas-fired power generation (GPG) has the flexibility to operate at variable utilisation levels and can therefore respond to fluctuations in demand (and variable renewable generation supply) across an hourly, daily, or seasonal basis. Through this grid-firming role, GPG can support the changing energy mix as renewable energy grows and displaces coal generation in the South West Interconnect System (SWIS)." – Wood Mackenzie, WA Gas Market Strategic Development Report.

AEMO's 2022 GSOO confirmed the analysis of Wood Mackenzie and forecast an increasing demand for gas well into the next decade before it begins to plateau and then decline, as more renewable energy is introduced, and alternative clean fuels become more economic.

Figure 3: Use of gas in WA: industrial processes vs gas powered generation (GPG)



Source: Wood Mackenzie: WA Gas Market Strategic Development, Dec 2021

What is evident is that WA's Domestic Gas Policy has helped underpin the State's mining and minerals processing sector as well as enabling the State to develop an advanced industrial base using gas as feedstock for chemical, fertiliser and other uses.

The objective of the policy, and the role it plays in WA's economic and social development, is mentioned briefly on the JTSI website, but it would assist all parties, and the community at large, if the Committee took this opportunity to revisit the policy outline on the website, and describe in more detail the aims, objectives and benefits of the policy as part of a short but informative document that also includes the obligations and oversight mechanisms for the policy.

Recommendation 1

As an outcome of this inquiry, a new stand-alone document should be published, which outlines the policy, including its history, the elements currently on JTSI's website (Appendix 1), and which also includes an updated objective of what the policy is trying to achieve, its economc context, and proposed compliance mechanisms. Importantly, the document should codify the principles for the policy, based on learnings obtained over time, so that future Agreements are made under clear guiding principles known in advance. These principles will include improvements taken up by government as a result of this inquiry.

Also, importantly, there should be no "exemptions" or "exceptional circumstances" language in the policy document.

The document should be made available to industry, the media and community at large to help educate the public on the benefits of WA's gas reservation policy, how that has underpinned our economic development, and how it will be applied going forward.

Adequacy of the WA Domestic Gas Policy

Inquiry Terms of Reference:

1. The adequacy of mechanisms to ensure:
a. Timely delivery of gas into the domestic market; and
b. Transparency of supply and prices of gas available to the domestic market.

Timely delivery of Domestic Market Obligation (DMO) gas and compliance

Topics summary

1. Pluto and North West Shelf (NWS) late;
2. Increased risk of untimely delivery: no protection against LNG arbitrage and failure of good faith marketing;
3. Supply concentration and lack of competition call for more supply side regulation through enforcement of timely delivery of volumes;
4. No flexibility in Domestic Market Obligation (DMO) delivery to address short/medium term local requirements;
5. Looking forward: most current agreements leave reserves risk to the WA market and reserve upside to the LNG producers; and
6. JTSI lacks resourcing and power.

Pluto and North West Shelf (NWS) late

The Alliance is satisfied that, in general terms, the WA Domestic Gas Policy has delivered long term gas supply security to the State of Western Australia by ensuring the ongoing domestic reservation obligation applies to LNG projects which process their gas in Western Australia.

This is key to building trust with the LNG industry and providing long term visibility and security. There are currently seven operating agreements (see Appendix 2).

While Gorgon and Wheatstone gas projects have met or are scheduled to meet their commitments in full, the following projects are under-delivering:

1. Pluto domestic gas commitments have been delivered to the market at a fraction of the initial obligation and the AEMO's GSOO does not anticipate any increase in the rate of delivery of this obligation in its forecast (see Appendix 3 Pluto Case Study); and
2. The *North West Shelf Gas Development (Woodside) Agreement Amendment Act 2015* has been delivering well below its expected rate and is forecast to continue to underdeliver in the GSOO.

These LNG producers have clearly not met their obligations under the policy, in terms of timely delivery of DMO gas, and have stalled negotiations with Government to provide domestic supply at a time when the market is short on gas and forecast to get worse.

One key issue is the lack of clarity of how the delivery rate for each obligation is calculated, and whether that changes over time to match the rate of export of LNG. JTSI's website seems to indicate that the rate of domestic delivery should increase if LNG exports increase. This is a critical point and it shows how the policy has evolved over time.

The earlier agreements had a fixed volume of gas reserved based on anticipated LNG production, but that approach has been changed more recently to link domestic commitments to actual LNG exports, such as under the Scarborough Agreement. This is a much better method and avoids the reserve risk being borne by the consumer.

However, in general, the terms of the current policy lack flexibility and enforceability to ensure it is used to address gas supply security concerns over shorter to medium-term horizons. There is no feedback to the LNG producers from the market being in shortfall to trigger an ability to increase DMO supply, or conversely, if the market is in oversupply to hold back DMO gas for a short period until the market gets close to balance again.

Nor is there any means of rectifying under delivery of DMO against the commitment, which is the major issue in the current shortfall.

For example, to date, DMO gas under the *Pluto Domgas Arrangements* has been delivered to the market at a fraction of the indicative rate set out on JTSI's website and AEMO's 2022 GSOO does not anticipate any increase in the rate of delivery of this obligation in its forecast (See Appendix 3 *Pluto Case Study*).

JTSI, which is responsible for enforcing State Agreements with gas suppliers, has confirmed that there is not an enforceable State Agreement underpinning the Pluto deal, including a commercial viability test, and that there has been insufficient delivery of gas to the local market. JTSI's states on its website: *"The State continues discussions with Woodside about when and how it will meet the 2006 (Pluto) commitment. In the meantime, Woodside is reserving gas against the commitment."*

Further detail on this can be found in Appendix 3.

Respected energy commentator Peter Milne reported in 2020 that had the 15% obligation been enforced as per the intent of the policy, Pluto would have already delivered an additional 184 PJ of gas to the domestic market – enough to supply the whole State for about six months.

Equally, *the North West Gas Development (Woodside) Agreement Amendment Act 2015* has been delivering well below its expected rate and is forecast to continue to underdeliver in the GSOO. Other DMO gas suppliers, such as Chevron, have met – or are scheduled to meet – their commitments in full. Nevertheless, there is no mechanism in place to adjust deliveries in order to address shortfalls in the market.

This is despite a State Parliamentary inquiry highlighting these very issues and recommending changes in 2011.

The report from the inquiry by the Economics and Industry Standing Committee in 2011 into gas prices and availability in WA stated:

"The Committee strongly supports the Reservation Policy but argues that it needs to be delicately handled to ensure the State derives the optimal economic benefit from its gas resources. The current flexibility in the policy is endorsed to ensure that there remains an adequate incentive to encourage further exploration and development. This will lead to a greater diversity of supply, more upstream competition, and lower prices. To ensure the appropriate amount of gas is supplied to the market under domestic reservation obligations, and to improve the current operation of the domestic market, the Committee recommends the establishment of an independent Gas Market Monitor."

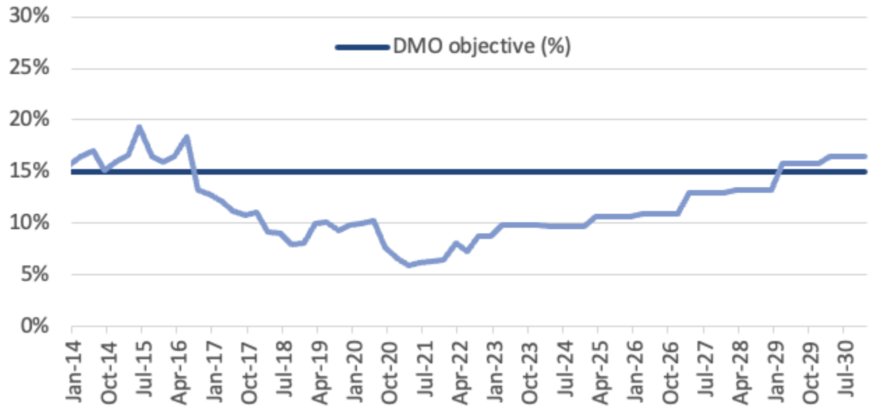
The inquiry's findings and recommendations which relate to this flaw in the existing policy are below. It should be noted that the then Barnett Government did not implement the recommended changes.

Excerpts from the 2011 inquiry report:

- **Finding 19:** The Domestic Gas Reservation Policy is an essential policy instrument for ensuring that an appropriate level of gas is supplied into the local market to achieve reasonable price outcomes. This instrument should be part of a suite of policy responses, the primary aim of which should be to improve the overall level of liquidity, competition, and transparency in the Western Australian domestic gas market.

- **Recommendation 4:** The Government establishes an independent Gas Market Monitor to oversee the operation of the local wholesale gas market.

Figure 4: WA DMO gas versus actual supply



- This graph shows actual delivery of Domestic Market Obligation (DMO) gas versus the target 15%.
- Sources are DMIRS, the WA Gas Bulletin Board and AEMO's 2022 GSOO.
- LNG export data excludes Ichthys and Prelude as they are excluded from the WA Domestic Gas Reservation policy.

Source: DomGas Alliance, compiled from public data above.

The above graph has been compiled by the Alliance from publicly available data, primarily using information from AEMO's GSOO, the Department of Mines Industry Regulation and Safety (DMIRS) and the Gas Bulletin Board. The graph shows that delivery of DMO gas began to drop below 15% from about 2016-17 reflecting declining supply from the NWS project and only small deliveries of domestic gas from Pluto despite LNG production beginning in 2012.

In this period, at least up until recent years, the overall domestic supply was kept largely in balance, however, mainly as a result of gas being traded by companies like Synergy and CITIC which had excess contracted supply. With those excess contracted supplies depleting more recently, the overall domestic balance is now in deficit and will remain so until Scarborough is commissioned and Waitsia is scheduled to deliver domestic gas at the end of the decade.

Increased risk of untimely delivery

Most LNG projects have State Agreement Acts which include specified domestic gas obligations broadly in line with the policy. The obligation to "market in good faith" is loose and open to interpretation. The obligation under the second pillar of the policy to construct and maintain domestic natural gas processing capacity to supply the domestic market obligation may be thought of as a commercial incentive to market the gas obligations steadily, however, this fails to offer protection to the WA gas market in instances of:

- Depreciated and oversized processing capacity such as the Karratha gas plant (620TJ/d for an obligation of 70-90TJ/d); and
- Surplus LNG production capacity, such as the Karratha gas plant, offering LNG/domestic gas market arbitrage opportunities to obligation holders.

Without a clear and enforced obligation to deliver 15% of exported LNG volumes in a timely manner, the WA domestic market risks being offered less domestic volumes when LNG prices rise, and more when LNG prices decline.

Furthermore, untimely delivery of domestic obligations exposes the state of Western Australia to the risk of receiving less than 15% DMO gas, particularly when reserves are downgraded late in the field's life. Recent reserves downgrades for Pluto, Wheatstone and Waitsia exemplify this risk.

Regulating supply to offset lack of competition

The upstream gas market is characterised, generally, by a lack of competition, and this has been made worse recently by the merger of BHP Petroleum with Woodside. A similar situation exists on the east coast, where the ACCC has taken the view that lack of upstream competition requires regulatory intervention to ensure consumers are not disadvantaged. The Australian Domestic Gas Security Mechanism (ADGSM) is a heavy-handed regulatory tool, which is used, or threatened to be used, in order to ensure LNG exporters supply gas domestically to avoid shortfalls in the market.

In WA, we have relied on the gas reservation policy to ensure long term domestic supply, but as evidenced in this submission, the policy works effectively only when key parties show good faith in complying with it.

The ACCC has not intervened in the WA market to date, but informal feedback indicates it has some concerns about the reduced level of competition in supply in the WA market. The Alliance is not advocating for the introduction of the ADGSM in WA, but given the reduced level of updtream competition, further regulatory compliance mechanisms are warranted to limit the effect of market power – see Recommendation 5.

Importantly, though, prior to establishing a compliance mechanism, the policy principles should be clearly articulated to give guidance to any regulator and to ensure future agreements conform with best practice policy which has been developed over time, taking into account learnings from past practice.

No flexibility in delivery to address shortfalls

The terms of the current policy lack flexibility and enforceability to ensure it is used to address gas supply security concerns over short to medium-term horizons. There is no mechanism in place to make adjustments on deliveries in order to address shortfalls in the market. Without a tool of this nature there is no measure available to Government to enforce supply to the domestic market in accordance with the policy.

In the east coast, the ADGSM can be triggered whenever there is a forecast gas shortfall in the domestic market – provided by AEMO and other regulatory bodies. The mechanism allows the Federal Government to order that export gas be curtailed in order to prioritise supply to the domestic market. The mechanism can target specific LNG projects to redirect supply to the domestic market.

As indicated above, the Alliance is not recommending use of the ADGSM in WA, but the State Government needs to have the ability to adjust the delivery rate of DMO gas to avoid domestic gas shortfalls. This does not mean increasing the overall 15% DMO target, but there should be an ability to adjust the ongoing delivery targets to aim for a supply/demand balance.

Recommendation 2

The Minister should have the ability to order DMO suppliers to adjust their delivery of DMO gas into the domestic market if he/she is advised by the body responsible for compliance of the policy that any DMO supplier is underdelivering against their commitment.

Reserves risks

A number of older Agreements are likely to be on a fixed commitment volume which over the project's life will have delivered substantially less than 15% of LNG exports. These include Gorgon, Wheatstone, and Pluto.

Instead, as highlighted earlier, the State faces the risk of reserves downgrade and delayed delivery of domestic gas across the Waitsia and Pluto agreements.

The most recent Scarborough State Agreement more appropriately reflects the principles of the domestic gas policy on delivery timing and linkage to export volumes of LNG.

The table below shows each LNG project's obligations, and highlights how some of them put at risk under delivery of the target 15% domestic supply because they are spelled out as obligations based on fixed volume reserves. As mentioned previously, there have been a number of recent downgrades to field reserves which put at risk the project's ability to meet its domestic supply commitments.

This means that the LNG projects can prioritise their exports and fulfill those contracts (and spot sale opportunities) because the "reserves risk" is borne by the domestic consumer.

Table 1: Commentary on individual project domestic gas obligations

Contract	Reserves (2P 2022) (PJ)	Cumulative production (PJ)	DMO (PJ)	Share at end of life (%) DMO / (2P + Past production)	Comments
Gorgon	32,780 (at 1.1GJ/mscf)	Unknown	2,000	<7% (to be calculated)	Gorgon agreement struck at 2000 PJ. Likely 15% of the then-identified 2P reserves, but now likely to be less than 7% at end of project life. Agreement will be delivered in 15 years at current rate. What after? Why project would not continue to be subject to the headline 15%?
Wheatstone	8,470 (at 1.1GJ/mscf)	Unknown	1,600	<15%	This agreement is confidential but is understood to be struck for a fixed 1600 PJ. Likely to abe less than 15% at end of project life. Agreement delivered in 19 years. What after?
Pluto	2,500 (at 1GJ/mscf)	Unknown	456	~15% if imple-mented.	This agreement is not public however, JTSI information leads to believe that it is based on a fixed volume. The subse-quent Acceleration deals are. Should it be implemented, it will not have delivered Non-compliant and as time slips, WA is exposed to the decline in Pluto reserves as Woodside continues and expands LNG production of Pluto gas.
NWS	Based on 86 mt of LNG ex-ports or 4500 PJ LNG	Not relevant	660	~15%	Agreement properly linked to LNG production.
Waitsia	800 (at 1GJ/mscf)	Not relevant	62	~15%	Agreement granted 7.5mt of LNG exports to Waitsia, or 400 PJ, as an exception to the WA domestic gas policy which prevents export of WA pipeline gas. Furthermore, while the commited volumes reflect the headline 15%, reserves downgrade continue to expose WA over LNG sales.
Scarborough				15%	This agreement defines the domgas obligation as being 15% of the then-relevant LNG production profile. This is a good strict implementation of the Policy.

Source: JTSI for DMO volume data, commentary by DomGas Alliance

JTSI resourcing and power

The Department of Jobs, Trade, Science and Innovation (JTSI)) oversees the the performance of the LNG producers under the State Agreement Act. It has limited resources and in general terms is not a regulatory body, unlike the ACCC which has oversight of the east coast gas market and compliance issues associated with the ADGSM.

In most of the Agreements while the Minister has similar powers to the ADGSM for non-performance under the Agreement, in practice those powers have never been used, given the reluctance of successive Governments to use such measures.

It is more appropriate that any compliance mechanism should be separate from the administration of the State Agreements, given the Agreements are generally seen as a policy tool for the development of the LNG projects.

The Alliance is not advocating that the ACCC should become the body overseeing compliance with the WA domestic gas policy but that there should be consideration given to a separate body in WA having the responsibility for compliance and monitoring. This could be a separate group, reporting to the Ministers for Energy and State Development, or potentially the Economic Regulation Authority (ERA), which has the regulatory skill sets and expertise.

The ERA currently has a regulatory role in relation to gas supply in this State, administering access arrangements to the regulated gas pipelines, enforcing and monitoring compliance with the non-scheme gas pipeline information disclosure and arbitration framework in Western Australia and administering the gas licensing regime. Extending its role to include compliance and enforcement in relation to the WA Domestic Gas Policy, should be considered, rather than the establishment of a new layer of bureaucracy like that recommended by the 2011 Parliamentary Inquiry into gas.

The ERA could make recommendations to the Minister to determine whether gas suppliers should be prevented from exporting the 85% of Western Australian gas reserves they are permitted to access, if they are unable to meet their commitments in relation to the 15% of gas to be made available to the local market.

Gas suppliers should be required to report to the ERA on a quarterly basis to ensure compliance without that information being made public. This would address some concerns that have been raised by DomGas members about the stifling of commercial decisions due to public disclosures in relation to gas supply now required at a federal level.

It should be noted that the 2011 Parliamentary inquiry into gas supply and prices in Western Australia made a similar recommendation (outlined above) but Government inaction means this continues to be an issue 13 years on.

There is a view among gas consumers in WA that the Federal policy, which covers the east coast where there has been no reservation policy, is too heavy-handed and is stifling investment and innovation, and that the WA policy's lighter touch approach is preferable for WA, but with some additional measures to improve its effectiveness.

Recommendation 3

The policy obligation to "market gas in good faith" should be changed to a new policy principle of "making gas available to the market in accordance with delivery obligations as agreed with Government and published publicly". This will ensure that consumers have confidence that the DMO suppliers will make available 15% of their reserves to the market in accordance with schedules agreed with Government and that this information will be public.

Recommendation 4

A policy principle should be that delivery of domgas is no lower on a yearly basis than 15% of LNG production to avoid the risk of domgas prices pairing to LNG netback and the risk of reserves downgrade. Producers which haven't met their obligations according to those schedules should be required to make up for the historical shortfall.

Recommendation 5

A compliance mechanism should be developed by government to ensure the commitments are adhered to, and that the information on performance is publicly available. The responsibility for monitoring compliance should be a body separate from JTSI, such as the ERA, given that it would be better for accountability and good governance that the responsible body has independence from the administration of State Agreement Acts. Consideration should be given to putting in place a more formal regulatory framework to ensure accountability and compliance. This may require new legislation or may be possible under existing legislation, such as the *Coordination of Energy Act*, and by having the ERA, for example, formally advise the responsible Minister of actions that need to be taken.

Transparency of information

Topics summary:

1. Lack of transparency of existing Agreements affecting the short to medium-term WA gas balance -affecting buyers and sellers of gas;
2. Lack of transparency on the policy principles affecting investment decisions; and
3. To some extent, need for transparent coordination of energy and carbon policies across the State which ultimately influence gas demand.

Lack of transparency in existing Agreements and their application

Much of the focus of the policy, in its current form, is about reserving a certain volume of gas – nominally about 15% of LNG exports – and then marketing that gas “in good faith”. While this is then calculated in indicative TJ/d, there is no oversight of the actual delivery, except on an annual basis by JTSI.

The paucity of information on the delivery of DMO gas is a concern. Markets cannot operate efficiently when there is an asymmetry of information, and it is extremely difficult for large buyers of gas to plan ahead for their purchases when they have no information on when certain volumes of DMO gas will become available.

This has translated into inaccurate forecasts from the main independent market operator AEMO over several years, in regards to:

- Pluto DMO;
- Gorgon Tranche 2 start date; and
- NWS 2015 agreement application.

This is an unacceptable outcome against the Gas Services Information (GSI) rules, administered by AEMO.

AEMO manages the Gas Bulleting Board, which provides up-to-date information on gas being delivered to the Dampier to Bunbury Pipeline. AEMO’s annual GSOO provides a picture of historic and forecast supply and demand for gas in WA, but has suffered from the provision of unreliable information as shown above. However, the lack of clear understanding, even within the government, of DMO policy obligations, and how they translate into deliverable gas, makes it difficult for AEMO to keep the market informed of prospective supplies.

A balance needs to be applied here to ensure that the delivery of this information does not impede investment decisions which could impact the long-term availability of gas to the market. Nevertheless, it is important that accurate information on DMO gas deliveries is provided to the responsible authority and then made publicly available by AEMO.

Recommendation 6

Each LNG producer covered by the policy – those with onshore processing facilities – should be required to inform the relevant authority (e.g the ERA) and AEMO of its delivery of DMO gas to the market on a quarterly basis and if they have not met their domgas obligation, to explain why not. AEMO should then publish that information so that the whole market can understand which LNG producers are fully meeting their obligations on an ongoing basis and which have reserves that need to be made available.

Lack of transparency of policy principles

Other unclear policy settings:

In regards to the restrictions on LNG exports of WA pipeline gas (“domestic only” gas):

It is evident that the Waitsia LNG export exemption has generated hopes for other Perth Basin producers to seek equal rights. This may have delayed their development plans for gas production and their commitment to domestic buyers to bring their gas to market. This domgas policy item must be clarified once and for all and it is Domgas Alliance’s view that gas with access to WA pipelines should not be exempted from export under any circumstances.

Recommendation 7

There should be no further exemptions for gas that have access to the WA gas pipeline network under any circumstances, and this should be publicly stated by the Government to ensure domestic-only gas developers and producers clearly understand the policy position. There should also be no exemptions to the policy principles for LNG exporting projects.

In regards to the replacement of gas obligations with other energy from alternative sources:

While not being applied to date, it is unclear under which process and which agreements a commitment holder may seek this alternative. In the future, it is likely to translate into the proposal for green electricity in place of natural gas supply to the State. However, in Domgas Alliance's view, this has two major drawbacks:

- It offers these participants an exclusive and subsidised opportunity to invest in green electricity which is, in many cases, not their core business, and may therefore result in inefficient capital allocation; and
- The very development of this energy source further exacerbates Western Australia's reliance on natural gas as a firming source of energy, which, if withdrawn as a result of this Domgas policy mechanism, defeats the State's objective to transition away from fossil fuels to renewable energy.

In regards to the impact of decarbonization of LNG production:

The LNG industry, under the safeguard mechanism, will need to abate carbon emissions to 2050. This industry consumes significant volumes of natural gas for power generation today: 1,019TJ/d, a volume which approximately equates the domestic gas market.

Table 2: Carbon emissions from LNG projects

Plant	Emissions 2021-22 (mtpa)	Implied gas consumption (TJ/d)**	Implied power generation (MW base)***
Wheatstone	3.907	181	733
NWS	6.418	318	1,286
Gorgon*	8.319	412	1,667
Pluto	1.943	96	389

* Assuming net after sequestration.

**Assuming 52kg CO2eq/GJ gas and subtracting 0.2% of methane emissions (by energy quantity) at a greenhouse impact of 28 x CO2 equivalent, and 0.5% for flaring, and ~6% CO2 content in the natural gas.

***Assuming 35% HHV efficiency.

Decarbonisation of this electricity generation may well include:

- Carbon capture and sequestration of high purity stream CO_2; and
- Renewable generation of power requirements. As an example, Woodside is currently proposing a 50 to 500MW solar farm in Karratha to decarbonize Pluto. It has also pushed for the network integration of the NWIS which will facilitate its purchase of back-up power supply in the future.

Renewable generation poses risks and opportunities:

- **Worst risk:** the LNG producers connect to the North West Interconnected System (NWIS), build solar generation capacity and free up fuel gas for sale into the LNG market. They manage the intermittency of renewable energy generation from the NWIS and effectively consume domestic gas for the purpose of LNG fuel gas.
- **Other risk:** The fuel gas translating into additional LNG sales does not attract additional domgas obligation as many underlying State Agreements are based on a fixed domgas obligation. The domestic market misses out on this gas supply.
- **Opportunity:** decarbonization of the LNG industry is an "easy" decarbonization pathway. The fuel gas freed up should translate into restoring a healthy supply/demand balance in the WA gas market for the longer term considering the current market deficit and the amount of domestic gas demand, which is hard to abate.

Recommendation 8

Any gas saved as a result of LNG producers using alternate clean energy sources to provide power to their LNG processing facilities should be shared between export opportunities and domestic gas commitment and a priority should be to restore a healthy supply/demand balance in the WA gas market.

Transparency of overall energy coordination

The recent tightening of the WA gas market undeniably, in addition to gas supply issues, also results from the decline in coal generation's contribution to the South West Electricity System. The Governmment has announced plans to close State-owned coal-generated power stations and is consulting on the introduction of a carbon adjustment mechanism across the State.

Such impactful energy policy decisions cannot be considered without mindfulness of the state of the gas supply/demand balance in the State. The domestic gas policy, if adjusted for flexibility of delivery, should certainly be steered in coordination with transparent and consulted outlooks for wider energy use and generation in the State.

State Government's role in ensuring future gas supplies

Inquiry Terms of Reference;

2. The State Government's role in ensuring adequate availability of domestic gas into the future, particularly over the short to medium term.

Topics summary:

1. Standardisation of the Domgas policy;
2. Ensuring gas is not warehoused in a concentrated upstream gas sector; and
3. Supporting approval process.

Standardisation of the Domgas policy

The Domestic Gas Policy applies to offshore gas when the gas is processed onshore for LNG to be exported. It also prohibits, except in exceptional circumstances, the export of domestic-only gas, that is onshore gas which has access to the gas transportation network.

There are a number of prospective onshore gas fields in both the Perth Basin and Canning Basin. These fields can provide a good source of domestic gas in both the short and medium term, and should be supported wherever possible by Government.

The benefit of the policy is that it spells out up front to gas field developers the regulatory environment for project development. The east coast gas market has suffered from poor policy in that the LNG projects using coal seam methane were developed without any domestic reservation requirements. The consequences have been disastrous for for both gas and electricity markets on the east coast as gas shortages have sent prices skyrocketing.

So, in WA, any new offshore LNG project would be expected to comply with the Domestic Gas Policy. Unfortunately, more recent projects like Pluto, which don't have a State Agreement Act, have domestic gas commitments which are, at best, rubbery. New projects should have gas reservation obligations that have firm commitments on meeting the 15% target, timing of delivery, and provision of information and are subject to oversight and compliance monitoring.

Browse is the major LNG project which could provide a secure supply of domestic gas for the next 20 years, given its size. It is critical that if Browse is developed that it should have obligations to reserve and deliver 15% of LNG production under these terms indicated above and articulated in recommendations in this submission. Given the spare capacity available in the Karratha Gas Plant, there is also no reason why Browse cannot begin delivering domestic gas at the same time it commences delivering LNG exports.

So, in WA, any new offshore LNG project would be expected to comply with the Domestic Gas Policy. The Scarborough State Agreement domestic obligation is a better model than the Pluto agreement which is, at best, loose.

Recommendation 9

All new LNG export projects should have gas reservation obligations which are clearly disclosed publicly and have firm commitments on targeting 15% of export volume, timing of delivery, provision of information, and are subject to oversight and compliance monitoring in accordance with the revised policy principles.

Ensure competition in upstream gas

Competition in upstream access to gas can be improved to assist in making more gas available for both export and domestic use. This can be achieved by:

- Providing transparency of geological data at a faster rate;
- Ensuring acreage holders abide by work plans
- Government challenges delays in bringing gas production online; and
- Returning acreage to market in instances of portfolio optimisation/lack of response to market signals by acreage holders, i.e. "use it or lose it".

Collaboration with the Commonwealth will be important to work to an aligned regulatory position that ensures that new gas (whether onshore or offshore in Commonwealth waters) is brought to market in a way that supports domestic demand and is not banked.

There is informal feedback that the Commonwealth is supportive of these principles and has cooperated with the State in trying to ensure Retention Lease holders have to demonstrate their intent to commercialise the reserves rather than "banking" them.

Recommendation 10

The State Government, in collaboration with the Commonwealth, reviews current management of Retention Leases with a view to ensuring they are more effectively regulated to enable earlier commercialisation of the gas field developments.

Support approval processes

There are a number of prospective gas fields in the Perth and Canning Basins that could supply the domestic market in the short term and well into the future.

Their experience to date has been that they have been bogged down in approvals processes. While the Alliance is not advocating any shortcuts for these projects, it believes the projects should be given high priority by agencies such as JTSI and DMIRS to manage approvals in a coordinated manner and assist where possible in getting the fields developed.

The State's recent initiative to coordinate Strike Energy's approvals for its Perth Basin gas fields is a good example of what should be applied to all similar projects.

Recommendation 11

Existing and future gas projects, both onshore and offshore, should be assisted by Government in securing environmental and other approvals to ensure they can be developed as soon as possible in order to begin delivering gas to the domestic market.

Conclusion

It is worth restating that the DomGas Alliance strongly supports the WA Domestic Gas Policy. Its value has been shown over the last three decades in underpinning the WA economy which is heavily dependent on gas for mining, minerals processing and chemical and industrial processes, and will continue to be so during the transition to net zero emissions.

It is clear that gas will continue to play a vital role in WA's economy into the next decade and beyond. Demand for gas will increase for the rest of this decade as coal is shut down and new gas-consuming projects are developed, many of which are focused on providing the world with materials for the clean energy sector.

To ensure the continued supply of gas from WA projects to support our economic growth, DomGas Alliance recommends a number of reforms to the policy, based on our observation over a long period, based on first-hand experience of how it operates in practice, and how it needs to be improved to ensure it works as per the original intent of the policymakers.

The policy works not just for buyers of gas, but for producers too. In turn, it underpins the future economic growth of this State. It gives the LNG producers a clear social licence to operate in WA, and this then translates into community acceptance of gas as an energy form that benefits the State, not just those exporting LNG. If action is not taken to address the lack of compliance with the policy, this could threaten the suppliers' licence to operate, threatening future projects which are critical to the industry, and the State, into the future.

The Alliance thanks the Committee for the opportunity to make a submission to this inquiry and is more than willing to further brief members and respond to any questions.

It is clear that gas will continue to play a vital role in WA's economy into the next decade and beyond.

Appendix 1

WA Domestic Gas Policy

(Updated August 2021: from JTSI)

Overview of Western Australia's Domestic Gas Policy

Around 90% of Australia's estimated recoverable conventional gas reserves are located in the Carnarvon and Browse basins in the State's northwest. These gas fields support WA's liquefied natural gas (LNG) export industry, as well as the State's domestic gas market.

The WA Government's domestic gas policy aims to secure the State's long-term energy needs and ongoing economic development by ensuring that LNG export project developers also make gas available to the domestic market. The policy seeks to make gas equivalent to 15% of exports available for WA consumers.

LNG exporters' domestic gas commitments complement supply from domestic-only projects using the WA gas pipeline network. Gas in the WA pipeline network is not for export.

The WA Domestic Gas Policy

The WA Government applies the policy, outlined below, in a flexible manner. LNG projects must demonstrate their ability to meet the policy as a condition of project approval.

LNG projects will commit to making domestic gas available by:

- Reserving domestic gas equivalent to 15% of LNG production from each LNG export project;
- Developing and obtaining access to the necessary infrastructure (including a domestic gas plant, associated facilities, and offshore pipelines) to meet their domestic gas commitments as part of the approvals process; and
- Showing diligence and good faith in marketing gas to the domestic market.

LNG exporters are required to report on their efforts and are subject to independent review. Their obligations, progress on how they are being met, and gas supplied and available for local consumers will be transparent to the market.

Projects are required to undertake these actions to ensure domestic gas is available to coincide with the start of LNG production. The timing may vary depending on project circumstances. Prices and contracts for domestic gas will be determined by the market. Any unsold gas must be reserved and made available in support of new economic and industrial development.

Projects may propose to offset their domestic gas commitment by supplying gas or other energy from alternative sources, rather than supplying gas from their LNG projects. Offsets must provide a net addition to the State's domestic energy supply.

The policy is given effect through long-term contractual arrangements between developers of LNG export projects and the WA Government. These agreements are struck at project inception in order to provide certainty for LNG project developers and allow for a sustained supply of gas into the local market.

The Department will communicate any agreed changes to contractual arrangements with LNG exporters to the market as they arise. Clarifications on the application of the policy, including for exporters contemplating using gas from the WA pipeline network, are noted below.

Development of the Policy

Successive WA Governments have maintained a domestic gas policy since helping underwrite the North West Shelf LNG project in 1979. The policy was formalised in 2006 and clarified in 2012.

The policy has been given effect through domestic gas agreements struck with LNG project developers. The nature, specifics and confidentiality of the agreements have varied over time.

Domestic gas supply commitments with the Gorgon (2003) and Wheatstone (2011) LNG projects are now replacing longstanding historical supply from the North West Shelf. Further supply from the North West Shelf has also been secured through a 2015 agreement.

Information on domestic gas agreements struck with the State, progress on the implementation of the agreements and recent developments relating to the policy is here.

Closer integration between domestic and export gas markets in Western Australia and on the east coast is affecting local gas supply. The Western Australian Government has made a number of clarifications on the application of the policy, noted below, in order to preserve the integrity of the policy and local gas market.

Export via the WA domestic gas pipeline network

The WA gas market relies on LNG exporters' WA Domestic Gas Policy commitments and gas from domestic-only producers. Gas in the WA pipeline network is readily accessible to local consumers and needs to support the State's economic and industrial development.

The Western Australian Government will not agree to the export of gas via the WA pipeline network other than in exceptional circumstances.

Other forms of gas export

Domestic gas is for WA consumers. Supply of gas to markets on the east coast, whether via an LNG import terminal or a pipeline connection to east coast gas markets, is an export for the purposes of the policy.

LNG used in international shipping is also an export. Marine fuel is a substantial market opportunity for the LNG industry and the WA Government is supporting the development of ship fuelling infrastructure in the Pilbara.

Appendix 2

LNG Projects Domestic Gas Agreements

Agreement (LNG project, operator, date)	Reserves 2P, 2021[1]	LNG Export Capacity	Indicative Domgas Commitment	Domgas Supplied to end-2020
Barrow Island Act 2003 (Gorgon, Chevron, 2003)	39.3 TCF	15.6 mtpa	300 TJ/day (2,000 PJ)	221 PJ[2]
Pluto Domgas Arrangements (Pluto, Woodside, 2006)	2.9 TCF	4.9 mtpa	115 TJ/day[3] (390 PJ[4])	9 PJ
Pluto Acceleration Domestic Gas Commitment Agreement (Pluto, Woodside, 2021)		0.5 – 1.0 mtpa (3 mt total)	18 TJ/day (25 PJ)	N/A
Additional Domestic Gas Commitment Agreement (Woodside, 2021)	From NWS gas reserves	N/A	25 TJ/day (45.6 PJ[5])	N/A
Ashburton North State Development Agreement (Wheatstone Project) (Wheatstone, Chevron, 2011)	10.8 TCF	8.9 mtpa	200 TJ/day (1,530 PJ)	81 PJ
Waitsia Joint Venture Domestic Gas Commitment Agreement (Waitsia, Mitsui E&P, Australia[7], 2020)	0.8 TCF	1.5 mtpa (7.5 mt total)	20 TJ/day (62 PJ)	2.4 PJ
North West Gas Development (Woodside) Agreement Amendment Act 2015 (NWS, Woodside, 2015)	7.6 TCF	16.9 mtpa	90 TJ/day[6] (660 PJ)[6]	76 PJ[6]

Appendix 3

Underdelivered domgas: Pluto case study

Pluto has significantly underdelivered domgas vs the 15% target

Pluto is yet to deliver on its 115TJ/d notional commitment from 2006, for which volumes were to commence in 2017. WA Government website information notes that *"The State continues discussions with Woodside about when and how it will meet the 2006 commitment. In the meantime, Woodside is reserving gas against the commitment."*

JTSI's website also refers to an "arrangement" rather than an "agreement" having been reached for Pluto in 2006. It is not clear how enforceable this may be.

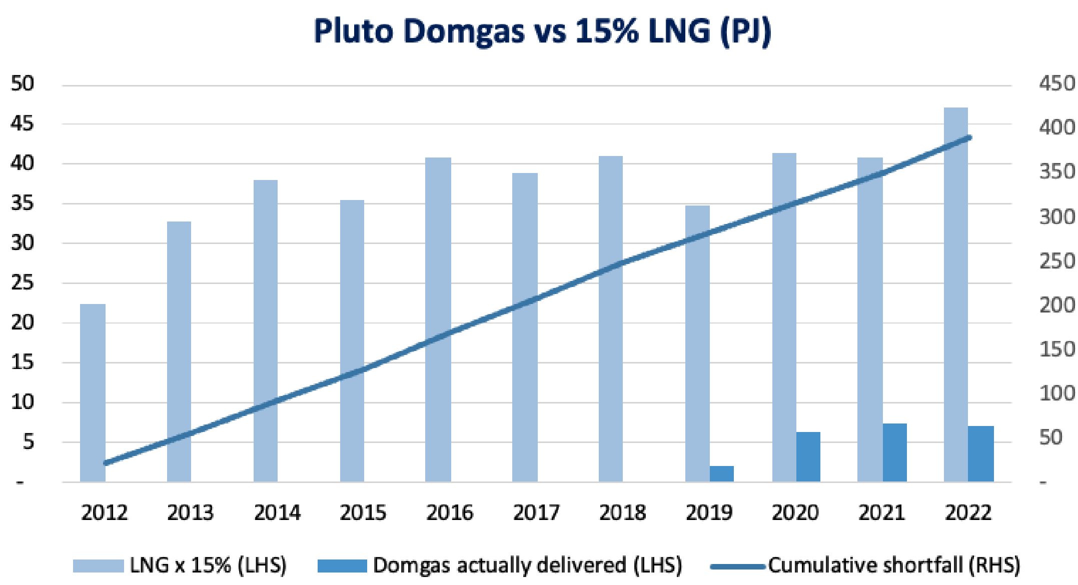
As the chart below shows, the lag versus application of a 15% domgas requirement from Pluto startup implies a cumulative domestic gas shortfall of almost 400PJ. This is a **year's supply of WA domestic gas**.

Pluto's domestic gas production facility has a direct connection to DBP of 25TJ/d (in addition to Pluto's 15TJ/d of trucked LNG).

However, Woodside's public information releases imply **ample available capacity on the Pluto-NWS interconnector**. In turn, the NWS Karratha gas plant has an available domestic gas capacity of approximately 550TJ/d (see schematic below).

WA Government website information States that 18TJ/d of domestic gas is being supplied to the Karratha gas plant on Pluto's behalf. There is no technical limitation on this amount being increased to acquit Pluto's backlog and bring ongoing production up to the 115TJ/d rate.

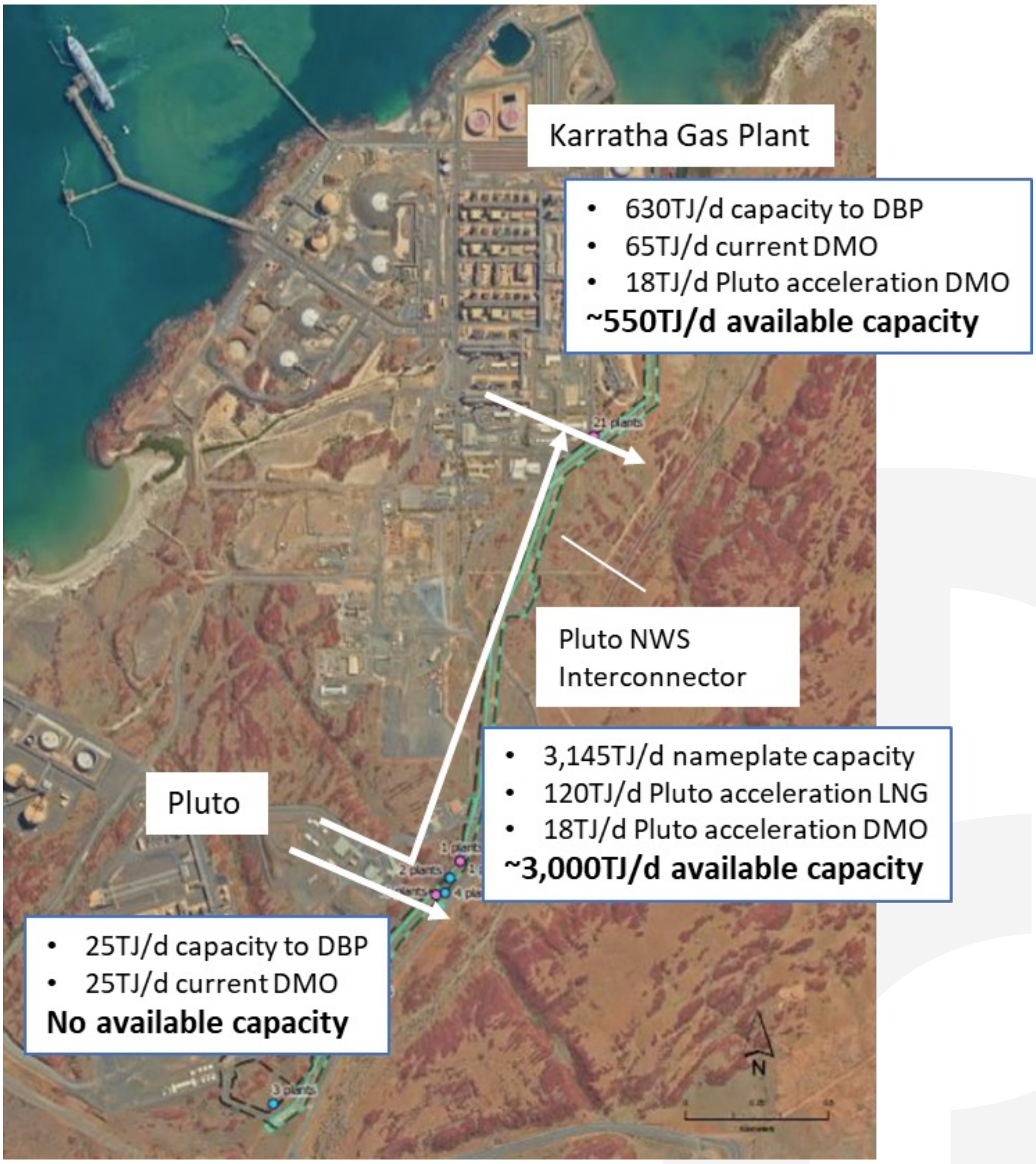
Technical capacity is available to accelerate Pluto DMO and provide gas supply security to the State ahead of the Perth Basin developments and the end of the Waitsia Joint Venture LNG export period (December 2028).



Source: Woodside ASX quarterly reports, AEMO Gas Bulletin Board, DGA analysis

Pluto – NWS Interconnector

Capacity exists for further production at Karratha Gas Plant



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