

An Inquiry into Australia's Oil and gas Reserves

Senate Standing Committee on Economics

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Summary

This submission addresses items 'b.' and 'c.' of the committee's Terms of Reference namely:

b. arrangement that could be considered to maximise benefit to the public of Australia's national oil and gas resources, cognisant of:

- i. sovereign risk,*
 - ii. existing property rights, and*
 - iii. federal and state jurisdictions; and*
- c. any related matters.*

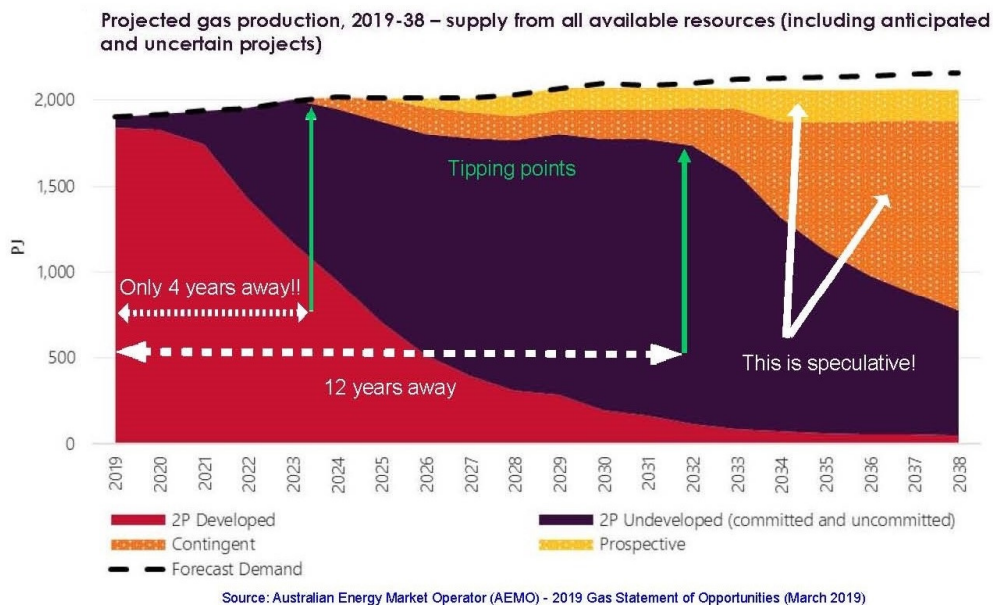
This submission discusses the following points:

1. The Energy Challenge, and its Solution, are Multi-Faceted
2. Natural Gas is a Key Part of the Solution, but there are Challenges
3. A Current Proposed Solution: Gas Reservation Policy (applied to LNG gas)
4. Make the 'Pie' Bigger
5. Drill More Exploration Wells
6. Q: Who is Best Suited to make the 'Pie' Bigger? A: Australian Junior Explorers!
7. How to Get More Wells Drilled to Find 'New' Gas
8. The Many Benefits of a 'New' Gas Policy

Discussion

The Energy Challenge, and its Solution, are Multi-Faceted

- The east coast of Australia is facing a potentially severe energy crisis in the form of a shortfall of natural gas. This can be seen in the graph below from the March 2019 Gas Statement of Opportunities report produced by the Australian Energy Market Operator (AEMO).
- If one looks at the predicted gas supply in the graph from a probability view point, then:
 - the 'red' wedge is basically guaranteed;
 - the 'blue' wedge has a reasonable probability that most of that gas will be available to local consumers;
 - the 'orange' wedge is higher risk and there is a lesser probability that all of that gas shown on the graph will be available; and
 - the 'yellow' wedge is very risky and there is a high probability that a lot of the gas shown in this wedge will not be available to the local market.



- Another way to look at it is that most of the gas indicated by 'red' and 'blue' wedges, together, is likely to be largely (but not completely) available, but the gas indicated by the 'orange' and 'yellow' wedges is highly speculative and there is no guarantee it will be available in the amount or the time frame indicated by the graph. The 'orange' and 'yellow' gas will need a lot more drilling and development work. If it does not become available in the amount and time indicated in the graph then we could see a gas supply shortfall starting to build before AEMO predict in 2023-24 followed by a potentially a massive shortfall starting several years later.
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- There is no question that Australia will move from a 'carbon dominant' present to a 'carbon free' future but how do we do this without severe economic dislocation and without serious social disorder?
- Another important question is, how do we reduce carbon emissions as soon as possible during this transition?
- A comprehensive approach is required, across all energy forms (renewable and non-renewable).

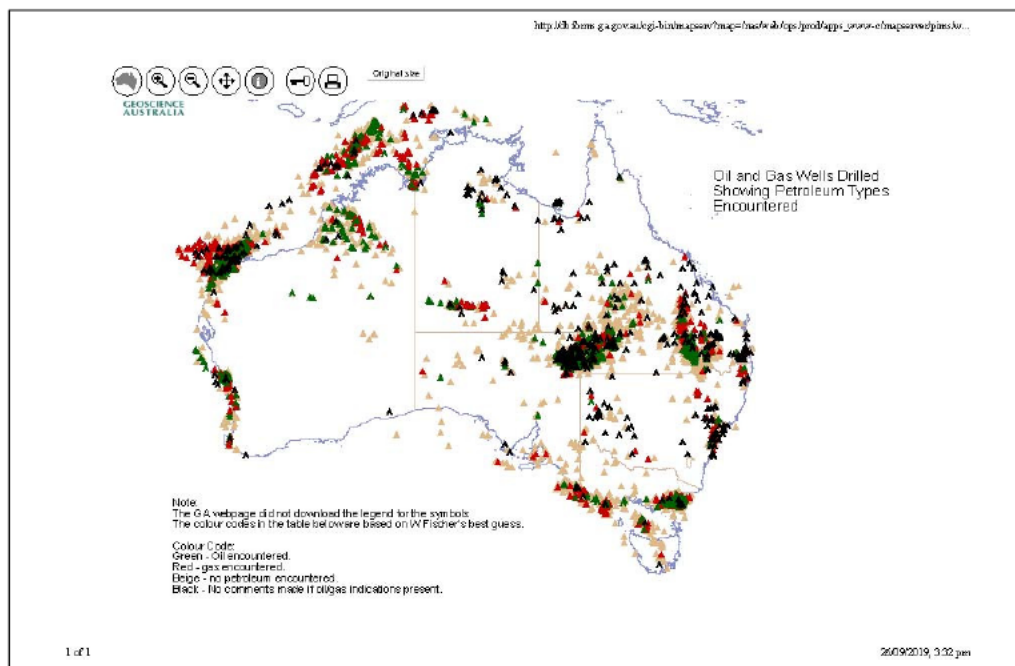
Natural Gas is a Key Part of the Solution, but there are Challenges

- Natural gas is the low (lowest) carbon transition fuel.
- Exploration history shows that Australia is gas prone and gas rich.
- BUT:
 - Sections of Australian society and politics want to go straight into non-carbon renewables, and get rid of carbon based energy. If not managed properly the transition from the 'carbon dominant' present to a 'carbon free' future is likely to cause severe economic hardship and social stress.
 - Gas producers (especially the big east coast LNG exporters) are seen as being driven by self-interest, at the expense of local consumers.

- Recent discussions have focused on a Gas Reservation Policy (GRP) being applied, especially to current eastern Australian gas reserves currently earmarked for LNG export. A GRP such as this would have several seriously negative consequences:
 - Perception of increased sovereign risk in Australia. East coast LNG producers met all the Australian regulatory requirements and yet now are being penalized.
 - Such a GRP could force LNG producers to breach their contracts with overseas customers, resulting in them seeking restitution from the Australian Government.
 - A GRP implemented in such a way now will have greater, negative, impact on junior explorers than on big oil and gas companies.
 - A GRP does not increase the gas reserves available to the east coast Australian market, and is more likely to discourage exploration for new gas.

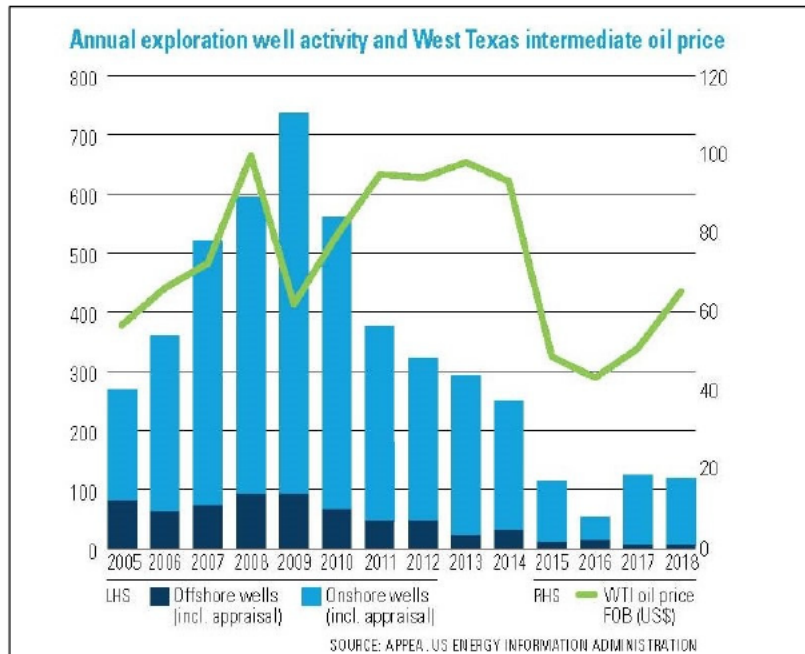
Make the 'Pie' Bigger

- The unspoken premise of the current gas supply public debate regarding LNG and gas reservation is that the size of the gas resource available in Australia (the 'pie'), basically, is fixed at the current amount of gas reserves.
- Australia is a gas prone, lightly explored, country as evidenced by the map below from Geoscience Australia which shows the location of petroleum wells in the country. The size of the 'pie' can and should be increased – by drilling more exploration wells targeting 'new' gas.



Drill More Exploration Wells

- You can't find more, 'new' gas without drilling exploration wells. The USA is a great example of this. The more exploration wells you drill, in new locations, the more gas, and oil, you find.
- Petroleum exploration drilling in Australia has been in decline for over a decade as evidenced by the graph below produced by the Australian Petroleum Production and Exploration Association (APPEA). This is especially for the offshore.



Q: Who is Best Suited to make the 'Pie' Bigger?

A: Australian Junior Explorers!

- Australian junior explorers:
 - Are more adventurous. More willing to try new ideas. More innovative.
 - Are more likely to explore in Australia versus overseas.
 - Are more willing to sell gas into the Australian market, versus international oil companies who look worldwide for opportunities and move rapidly and globally.
 - Want to get positive (production) cash flow, as soon as possible.
- Most of the time it is junior explorers that identify find new petroleum provinces. The big companies come in afterwards, with their financial strength, and help the junior explorers to develop it.
- The problem is that junior explorers' exploration is constrained by limitations accessing capital, because exploration is high risk, just like scientific research is high risk. Scientific R&D incentive schemes for investors, because (like petroleum exploration) it is high risk BUT successes lead to big payoffs.

How to Get More Wells Drilled to Find 'New' Gas

- Australia junior oil and gas explorers need exploration capital.
- For investors in junior explorers the risk of losing the investment is high in early stage/frontier exploration (i.e. places where we could find 'new' gas).
- The Commonwealth Government needs to incentivise investors to invest in Australian junior explorers through a tax incentive, like for scientific R&D tax incentives.
- Tax deductions would only be available for money invested in Australian junior explorers who use the funds to explore for 'new' gas (new targets in old and new areas). New plays to be carefully defined (with industry and Geoscience Australia input).
- The 'new' gas policy should not apply to large companies. They already have capital from production revenue.

- No tax deductibility would be available unless the investors' funds are used in pursuing a new province and the junior explorer would need to clearly demonstrate that those funds have been applied to exploration to find new provinces.
- An additional incentive would be to allow flow-through of the junior explorer's exploration expenditure tax credits to 'new' gas investors. Many junior explorers' efforts are unsuccessful and their tax credits are not used to offset against income tax, because they have no production income.
- Gas and oil found through this arrangement would supply Australian markets and customers, not overseas, so long as there is a local need.
- Start the investor incentive scheme for investors in Australian junior companies exploring offshore Australia, to avoid possible delays by having to deal with the states, as could be the case onshore.

The Many Benefits of a 'New' Gas Policy

- The more petroleum wells drilled exploring for new provinces, the greater the likelihood of finding 'new' gas.
- History shows that if you drill for gas you are likely to find more oil too, as a 'by-product', as has occurred recently in offshore Australia.
- Many benefits would flow from such a 'new' gas policy, such as:
 - Greater energy self-sufficiency and security for Australia.
 - Lower energy prices for consumers. More gas producers creates more competition which leads to downward pressure on gas prices resulting in lower energy prices for consumers. US gas prices fell by 75% with the onset of unconventional gas production resulting from explorers looking for new gas with new ideas.
 - The creation of more jobs and a bigger, more resilient Australian upstream petroleum industry.
 - More future government revenue from company and other taxes, levies and royalties.
 - More domestic 'new' gas means there would be no needs to apply a gas reservation policy to current gas earmarked for LNG, thus avoiding potential for Australia to be seen less favorably in terms of sovereign risk.
 - No need for Commonwealth Government grants or handouts to stimulate exploration for 'new' gas.

My Experience

My involvement in the Australian and overseas natural resources industry, particularly petroleum exploration and development, has spanned more than 45 years and I have held a number of senior technical and management positions during that time.

During my career I have identified attractive, early stage business opportunities, overlooked or misappraised by industry. I have a strong commercial focus and the ability to evaluate situations in their local and strategic contexts.

I am a long standing member of several natural resources industry professional associations including the Australian Institute of Company Directors, the Australian Institute of Mining and Metallurgy, the Petroleum Exploration Society of Australia, the European Association of Geoscientists and Engineers, and the American Association of Petroleum Geologists.