Objection to the Narrabri Gas Project

Joseph Fernandez

I wish to lodge an objection to the Narrabri Gas Project.

Natural gas is a fossil fuel

We are long past the time in history when natural gas could be described as “a fuel for the future providing clean energy”.

Natural gas is acknowledged as a fossil fuel that contributes to carbon dioxide emissions when it is burnt and is the source of the much more deadly methane in the process of extraction.

Recent research by Dr Benjamin Hmiel and his colleagues at the University of Rochester indicates the amount of methane from fossil fuel extraction has been underestimated to date, possibly by 25-40%. [Reference 1]

Methane has been rated to have a Global Warming Potential of between 21 and 63 times that of carbon dioxide, depending on whether a 20 year or 100 year time frame is used. [References 2, 3]

More recently there have been attempts to reposition natural gas as a transition or bridge fuel, to be used in the short term until the world fully adopts renewable energy sources.

To counter this myth, we refer to the study “Burning the Gas “Bridge Fuel” Myth” [Reference 4].

As documented in this report:

- Extraction of gas will make it impossible for the world to meet the Paris agreement target that is essential to save the world from climate catastrophe
- Even if the well known problem of methane leakage can somehow be addressed to the point where methane leakage is completely eliminated (highly unrealistic), the emissions from burning gas will take us beyond the targets
- There have been dramatic decreases in prices in renewable energy sources – wind and solar technologies are being adopted and deployed by business at a rate that will make gas non-competitive
- Battery storage technology is developing dramatically to the point where it is clear that it will take the place of gas in any back up for the grid
- The developers of new gas facilities will need to recover their very large sunk costs in the construction phase through the less costly phase of long term operation – which means continued carbon pollution from burning gas for a long period, inconsistent with meeting the Paris targets.

Further evidence of an accelerating trend for power generation to transition directly from coal to renewable energy sources is provided by the transition plans announced by several major US power utilities, reported by the Institute for Energy Economics and Financial Analysis [Reference 5]

Santos focus on low cost operational model

The claim that the company is focused on a "disciplined low cost operational model" is a source of considerable concern to me.

In earlier times it was commonplace for companies to highlight the large numbers of employees that they had, the concomitant provision of livelihoods to many thousands of employees, and the sense of shared responsibility to customers, permanent employees, and the community at large.

The share market, on the other hand, seems to value minimization of operational costs, most commonly achieved by reduction of the numbers of permanent employees, a high degree of automation, and casualization of the remaining minimal workforce.

The COVID-19 crisis has brought home the devastating long term effects of such a strategy to Australian society.

Groundwater model developed to assess impact

The Great Arterial Basin, the largest and deepest arterial basin in the world, is one of NSW's most critical water resources. The Pilliga sandstone aquifer is part of the Great Arterial Basin.

The Santos submission refers to CSIRO reviewing the groundwater model developed to assess the project's impact.

The paper by CSIRO researchers Sreekanth et al describes results from the model [Reference 6].

The authors note:

> ***The report does not reproduce the expected depressurisation of the Narrabri Gas Project in the Gunnedah Basin but, rather, provides results from a broader generalised case of coal seam depressurisation as an independent assessment of the range of potential impacts on GAB aquifer recharge.***
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> ***Groundwater flow models can be used to gain quantitative understanding of the groundwater system changes and impacts caused by external stresses.***
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> **….**
>
> ***Such an approach should also help to integrate emerging knowledge from multiple lines of evidence and determine the key structural and parameter uncertainties that have a significant impact on predictions. Only this allows to, subsequently collect additional data that contain most information to progressively increase confidence in the prediction of CSG impacts on GAB flow.***

Given these caveats that the authors correctly provide, I wonder how it can be concluded with any reasonable degree of confidence that the project would have a negligible impact on existing water users, who I understand constitute a significant rural community in NSW.

The authors conclude:

> ***The results indicated that coal seam depressurisation could potentially induce an increase in flux from the Pilliga Sandstone to the deeper formations due to the lowering of groundwater pressure in the coal seams due to gas and water extraction.***

Given the caveats that the authors have provided, given this conclusion, and given the critical importance of the Great Arterial Basin, should a 99th percentile not be used as the baseline figure of simulated maximum flux loss in risk assessment?

COVID-19 has changed the way we all work and live

I completely agree with the statement from Santos that:

> *As we come out of the health crisis and the economy emerges from hibernation, it is more important than ever to back job-creating and investment-driving projects.*

Since the IPC is being asked to consider job creation and investment driving in the light of COVID-19, I refer the IPC to the McKinsey report "How a post-pandemic stimulus can both create jobs and help the climate" [Reference 7] which states:

> *The tragedy of the COVID-19 crisis has taken much attention away from the threat of climate change, as institutions devoted themselves to protecting lives and livelihoods.*
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> *Important as it is to repair the economic damage, a swift return to business as usual could be environmentally harmful, as the world saw after the 2007–08 financial crisis. The ensuing economic slowdown sharply reduced global greenhouse-gas emissions in 2009. But by 2010, emissions had reached a record high, in part because governments implemented measures to stimulate economies, with limited regard for the environmental consequences. The danger now is that the same pattern will repeat itself—and today the stakes are even higher. The period after the COVID-19 crisis could determine whether the world meets or misses the emissions goals of the 2015 Paris Agreement, which were set to limit global warming to 1.5°C to 2°C.*
>
> *Achieving those goals is a distinct possibility. A low-carbon recovery could not only initiate the significant emissions reductions needed to halt climate change but also create more jobs and economic growth than a high-carbon recovery would. Our analysis of stimulus options for a European country suggests that mobilizing €75 billion to €150 billion of capital could yield €180 billion to €350 billion of gross value added, generate up to three million new jobs, and enable a carbon-emissions reduction of 15 to 30 percent by 2030. Such a package need not involve economic compromises. A recent survey of top economists shows*

that stimulus measures targeting good environmental outcomes can produce as much growth and create as many jobs as environmentally neutral or detrimental measures. But a high-carbon recovery could make it hard to meet the goals of the Paris Agreement, and heavy relief and stimulus spending might leave governments too debt-strapped to pay later for emissions cuts.

…..Although the COVID-19 crisis has brought sickness and economic hardship to countless households, the urgency of responding to the pandemic is arguably matched by the urgency of addressing climate change.

The McKinsey report shows that government spending on renewable energy and energy efficiency creates 75 or 77 jobs respectively compared to 27 jobs for the same government spending on oil, gas or coal.

Australia, with its abundant sources of renewable energy, is in fact much better positioned to benefit from this than the European countries.

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