

To: The Chair, Independent Planning Commission

Re: Narrabri Gas Project, additional submission relating to [new information received from the Applicant and Department](#).

This submission is made by me, Richard Clarke (address shown below, NOT for publication) in response to the additional information provided by the applicant, Santos, to the Commission after the close of public submissions.

I thank the Commission for doing the logical and fair thing by allowing public submissions in response. I have examined their submission document as published on the IPC website, entitled "*Narrabri Gas Project (SSD 6456) Submission to IPC following public hearing*" and make the following response, with a short summary, followed by a more detailed response to the issues raised.

SUMMARY

I object to the proposed gas project.

The substance of the late Santos submission

In essence, Santos is proposing additional justification on the basis of:

1. economic benefit, and
2. additional gas supply to the domestic market, and
3. a nominal response to the previous public submissions.

Critique in summary:

1. **Economic benefit** - it is virtually impossible to put a dollar value on what is at risk from the gas project's toxic processes. If aquifers are damaged or poisoned, that damage is permanent, and the poison will remain in the system for hundreds of years. No amount of profit to a corporation can be worth that. So the hastily remodelled economic benefit makes no impression on the balance sheet of ecological value to the nation's groundwater resource.
2. **Additional gas supply** - promises such as this are easily made but notoriously rarely kept and almost impossible to enforce. Santos does not have a pristine record when it comes to such dealings - if they have failed to honour undertakings in the past, why would we trust them now? Additionally, their gas export volumes are currently less than they had planned, a fact not mentioned in the ACIL-Allen modelling report, probably because it was deliberately excluded from their brief. This does nothing to assuage concerns over Santos' future intentions.
3. **Response to public submissions** - the response is heavy on rhetoric and reiteration, without detailed explanation. This adds little or nothing to the discussion other than gainsaying.

The Department's responses to the IPC's queries

DPIE response to the IPC's queries is less than convincing, as follows.

4. **Ecologically sustainable development** - The NSW Government has made commitments to sustainable development that are inconsistent with approval of the Narrabri Gas Project, specifically in relation to climate change.

5. **Net Zero Plan:** DPIE acknowledges the Net Zero Plan in their response but provide no detail on “*how the Net Zero Plan Stage 1: 2020-2030 relates to the Narrabri Gas Project.*” Without such detail, the Net Zero Plan is effectively window dressing and nothing more than greenwash.
6. **Chief Scientist's recommendations:** DPIE says the Government has “responded to” 15 of the 16 recommendations of the Chief Scientist. The last recommendation, on cost recovery, is still being worked out. But worryingly, the Dept reckons the scale of the CSG industry in NSW too small to justify the creation of the state-wide Risk Management and Prediction Tool, or regional scale models, or the standing expert advisory body. This is both an inadequate response, and a clear signal that the risks will not be managed.
7. **Salt waste:** DPIE has not provided complete information on the storage or any beneficial use of salt waste in Queensland. The IPC must obtain all the details from DPIE and allow time for its review by community and experts.

DETAILED EXAMINATION OF THE SANTOS RESPONSE

8. Gas price, demand and project justification

- 8.1. Santos has claimed a specific price impact of the project. This had not been part of previous submissions, and one cannot help seeing a cynical link between it and the current political discussions around gas price policy. They engage in two contradictory arguments, that...
 - 8.1.1. Santos has got high international contract prices of A\$12/GJ this year in spite of the oil price collapse, but at the same time,
 - 8.1.2. Narrabri gas will lower gas prices in Sydney by 4-12% over 10 years, or possibly less (3-9%) if some of the gas is consumed by local industry.
- 8.2. The ACIL Allen modelling assumed gas prices would increase over the next 10+ years, and would remain above \$9/GJ between 2030-40, with or without Narrabri. This undermines any argument that closure of coal and ‘essential demand’ for gas power justifies the project.
 - 8.2.1. AEMO recently released the *Integrated Systems Plan 2020* report on future energy grid options, which shows that gas prices would need to be \$4/GJ after 2030 to be competitive with battery-supported renewable energy.
- 8.3. Santos’ articulation of the real need is mainly based on rhetoric. ACIL Allen’s new report states “Gas Power Generation demand is likely to decline from 92 PJ/a in 2020 to 30PJ/a by 2028” in the eastern Australian gas market, rising again after 2030 when more coal power stations close.
 - 8.3.1. AEMO’s analysis shows this will happen only if the gas price is no more than half of that used in ACIL Allen’s forecast. AGL’s recent announcement of a grid-scale battery to replace Liddell Power Station reinforces this forecast.

8.4. The whole supposition that residential gas demand will remain flat or increase is false. In my work in building design I am witnessing a distinct and increasing trend away from gas for cooking, water and space heating. The increasingly preferred technologies are induction cooking, heat pump hot water, and reverse cycle air conditioning. Consumers consider these to be more user friendly, responsive, easier to clean with lower maintenance, and now cheaper to run.

8.4.1. It is therefore almost certain that demand for gas will fall, especially with renewable energy driving retail electricity costs down, and with rooftop solar's uptake allowing homeowners to run their own appliances. This weakens Santos' argument that the Narrabri project is essential for meeting future demand.

9. Climate change and transition

9.1. Santos denies the fact that gas is no longer just competing with coal: it is competing with renewable energy in both Australia and internationally. Santos claim to support limiting global overheating to less than 2°, but do not explain how the Narrabri project fits with that goal. They do not explain at all with Professor Penny Sackett's information that puts Narrabri's greenhouse gas contribution in the context of Australia's greenhouse commitments, or a carbon budget consistent with the 2° target.

9.1.1. Modelling for the *World Energy Outlook 2018* quoted by Santos under its "Sustainable Development Scenario" shows global gas demand growing by 14% by 2040 compared to 2016. This fails to state that growth in gas demand since 2016 has already exceeded this amount.

9.1.2. Therefore under WEO 2018's Sustainable Development Scenario, gas demand would contract by 3.4% on 2018 levels. WEO 2018 states that "A three-way race is underway among coal, natural gas and renewables to provide power and heat to Asia's fast-growing economies." So far renewables are the fast mover in that race, and accelerating.

10. Santos acknowledges Stage 1 of NSW's *Net Zero Plan*, but there is no mention its goal of having 10% of NSW's gas network made up of hydrogen. Instead they reference the "Memorandum of Understanding – NSW Energy Package" signed between the state and Federal governments in early 2020.

10.1. This MoU set a non-binding target of an additional 70/year to the NSW market. But no mention is made by Santos of two other projects in the MOU as potentially meeting this target, one of which already has development consent.

11. Santos states the CO₂ content of produced gas is a lot less than the CO₂ content of the gas underground because of "different desorption rates". The information to back up this contentious claim is withheld on the grounds of commercial confidentiality. The lack of verification does not encourage credibility.

12. Insurance

12.1. Santos reduces this to public liability cover for landholders who host Santos' infrastructure. That is only a portion of the risk issue.

12.2. Most submissions that discussed insurance gaps were concerned about uninsured environmental harm in the public forest, and damage to water affecting downstream water users.

13. Salt waste

13.1. Santos's response does not address the issues raised here. As Lock The Gate have stated: "The problem is not that the Waste Classification Guidelines "do not apply" to salt, but that for solid waste that becomes liquid upon contact with water, application of those guidelines without further specifications and constraints creates the risk of serious and irreversible environmental harm, in the form of groundwater leaching."

13.1.1. Santos suggest landfill design features to mitigate this risk, but offer no definite solutions - and the problem of salt and its risks are so great that a definite solution must be provided. Are any existing or proposed landfill sites that have such features available and willing to take the huge volumes of salt produced? - the inability to provide a definitive answer to this question alone is reason enough to reject the proposal.

14. Water licences

14.1. Section 9.1 contains Santos' information on "average volume traded" in water sources since 2017 as proof it will easily acquire water licences. This does not specify what type of water trading it will be.

14.1.1. Water trading was originally intended to be used for agricultural purposes, and any use for mineral or gas extraction is a corruption of the purposes, and ecologically detrimental.

14.1.2. Putting the spirit of the legislation aside, the NSW water market provides temporary and permanent trades. A temporary trade would not be appropriate for a water take that occurs over decades or centuries. The IPC should require more information about permanent transfer trading or Water Access Licence trading in each of the affected water sources.

15. Gunnedah Oxley Basin water users

15.1. Santos attempts to assure Gunnedah-Oxley Basin water users that the project's impacts "can be adequately managed through monitoring and adaptive management as prescribed in the recommended conditions of consent which allow for early detection of drawdown effects in the Gunnedah Basin".

15.1.1. This is simply not credible. The advice from DPIE Water that Santos' proposed groundwater monitoring network in the GOB is not adequate to achieve this.

16. Groundwater

16.1. Santos says calibrating the groundwater model to Class 2 or 3 confidence "may, at best, take decades to achieve."

16.1.1. This is absolutely critical to the the precautionary principle that the IPC's must use. The argument is as ridiculous as it is circular: that the impact on the

groundwater hydrology of the area would have to be irreversible before it could be understood. Once again - more than reason enough to reject the proposal.

16.1.2. Santos acknowledges GISERA's groundwater modelling uncertainty analysis allowed water production volumes to range of between 4.4GL to 107GL. At the higher end of the range extraction, CSIRO estimates 2,299ML/year peak induced flux from the Pilliga Sandstone.

16.1.3. Santos said two key parameters gave the higher rate: greater proportion of exploitation of the Hoskissons seam than they intend, and greater take of water extraction than the conditions of consent allow. Both suggest lack of control, arising from the simple fact that remote underground drilling and further fracturing of strata by chemical injection is by definition hard to control precisely.

16.1.4. The Namoi alluvium discrepancy in the volume of flux in the GAB recharge to the Namoi alluvium in Santos' modelling is stated as being "insignificant". If that is true, why did they not use the existing model's figure for this parameter? This undermines their position, which in itself raises questions the credibility of their whole submission.

17. Spills

17.1. Santos says "in Queensland, no regulatory enforcement action has been required in a period where up to 8,000 CSG wells have been operating and all spills greater than 5m³ in volume must be reported to the regulator".

17.1.1. This contradicts Santos' 2015 Sustainability Report which acknowledged two fines for the release of produced water onto land in the company's Queensland CSG operations.

18. Bushfire risk

18.1. Santos claims its application of a Fire Danger Index (FDI) rating of 120 (catastrophic) means it has accounted for the impact of climate change. However there is nothing about the increased frequency of this FDI during the 25 year life of the gasfield, as a result of climate change.

18.1.1. The original risk assessment this assurance is based on used ambient atmospheric temperature of 25° and average relative humidity from the 2008-12 climate data sets. They state that the 1 in 70 year fire likelihood is that *any* fire will be caused onsite, not the likelihood of fire moving beyond the project site. Now they claim that for an "ignition scenario impacting beyond the site boundary, the cumulative likelihood would be considered in the order of 1 in 2,600 years". There is no explanation of the method by which this event likelihood was calculated.

19. Other issues

19.1. Santos did not engage with the arguments on social impacts, biodiversity survey effort, and offsetting indirect impacts. Their response just reiterated what they submitted previously, and relied on rhetoric rather than detailed explanation. This supports the view that the proposal is light on rigour. It should be rejected.

For these reasons, I object to the proposal as in my previous submission.

Richard Clarke

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