

To:
Office of the Independent Planning Commission NSW
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201 Elizabeth Street
Sydney NSW 2000

From:
Stuart Murray
45 Collins St
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Subject: Submission to the Independent Planning Commission objecting to the proposed Narrabri Gas Project.

'If the science says it safe to proceed' and *'look at the science'* is a term used by pro gas supporters who argue that the project should be approved assuming that if the word science is used in any context then it adds weight to their argument. Several speakers at the IPC hearings questioned the science particularly that presented by the CSIRO, indicating the science associated with the NGP is open to conjecture.

The following information is one example of science produced by the CSIRO for the gas industry that throws doubt as to the validity of their conclusions

HOW INDEPENDENT IS CSIRO RESEARCH?

For many years, the Narrabri community has had the greatest respect for the CSIRO, its people and its achievements. Narrabri is home to many CSIRO personnel, working at such facilities as the Australian Cotton Research Institute and the Australia Telescope Compact Array and, in past years, at the solar radio-spectrograph and radio-heliograph.

However, in recent years, the highly-prized independence of CSIRO is being questioned by the community, with CSIRO now carrying out research not only directly funded by an industry (coal seam gas) but with representatives of that industry sitting on the committee/s directing that funding.

As CSIRO CEO Larry Marshall said (see <https://www.csiro.au/Vimeo/Larry-Interview-CSIRO-changes/video-transcript>):

"whoever the funder is, they're funding us to do something and they expect a deliverable, a result".

This has given rise to the perception that the CSIRO has lowered its standards of independence by having such a cosy relationship with the gas industry, and by producing material which directly benefits that industry to the detriment of the community.

On Tuesday 21st July 2020 I gave a five minute presentation to the IPC, entitled '**Santos does not have a Social Licence to Operate**'. I would now like to amplify on how the community has been misled by GISERA which, amongst other things, led me to this conclusion.

GISERA has undertaken social surveys of the Narrabri and district population, including Phase 3 of their Social Baseline Assessment Report. The survey reported on answers to questions, where participants had to rank their answers on a scale of 1 to 5. This is commonly referred to as a Likert scale, which is defined as,

A type of psychometric response scale in which responders specify their level of agreement to a statement typically in five points: (1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree.

A Likert scale assumes that the strength/intensity of an attitude is linear, i.e. on a continuum from strongly agree to strongly disagree,

However, in its report, GISERA manipulated a 1 to 5 Likert scale survey question into a two way split, purporting to show that 70% of Narrabri residents were accepting of gas. To do this, GISERA put 4 of the 5 answers into the “support” case, and only one (30% of the answers) being attributed to rejection of CSG development. This is explained in more detail below.

In November 2017 People for the Plains (P4P) along with other stakeholders were asked by CSIRO for feedback on **Phase 3** of their **Social Baseline Assessment Report**, for them to consider in the preparation of the **Final Report**. At this meeting 14/11/2017 P4P discussed our suggestions and concerns which were outlined and confirmed in a written submission.

Below are the relevant extracts from this submission.

GISERA Social Assessment Baseline Report Feedback – Sally Hunter

14th November 2017

We note that the step we are meeting here today for, is worded on Page 68 as “seek feedback from these stakeholders **to support interpretations of our results** in the final report”. We were given the impression our involvement today would have some impact on the final report, not just to support it, as it is - that our views would be taken into consideration. We continue to hope that is the case. Suggest wording change to make it at least sound like you are considering our comments.

We appreciated the use of more accurate terms such as “the proposed CSG development” throughout the document.

Our key changes we would like to see reflected that wont have any impact on the substance of the findings, simply the perceptions of those reading it:

8. Exec Summ – Figure 15. There are five categories people could choose from and there is 1-5 in the graphs. It stands to reason that the word “Tolerate” is in no way a level of acceptance.

A simple dictionary definition of tolerate is “allow the existence, occurrence, or practice of (something that one dislikes or disagrees with) without interference.” Tolerate should be grouped with Reject in all instances and not included as a level of acceptance. When grouped from five options to three Page 58 and chapter 7.3 and Figure 71 Reject and Tolerate should be one grouping, Ok should be one and Embrace and Approve should be one grouping. Where comments are made such “accepting to some extent” this can only at most include those who embrace, accept and are ok with it. See the article below on exactly who this sloppy categorisation causes incorrect reporting with a heading of “Support By The Numbers” and the comment “... Leaving the split 69.5% in support or not opposed and 30.5% opposed”.

Our main concern was that the authors had manipulated the Likert Scale survey Question 44 Page 80 into a two way split on page 58, by carefully choosing subjective words to describe the 1 – 5 choices to the question.

- 1 reject it
- 2 **tolerate** it
- 3 be OK with it
- 4 approve of it
- 5 embrace it

showing that '(70%) of Narrabri residents **were accepting** of gas to some extent (**tolerate through to embrace**)', while only' (30%) **rejected** the notion of CSG development'.

When results from the Narrabri shire are compared with two gasfield regions in Queensland, it demonstrates that the proportion of residents who are accepting of gas to some extent (**tolerate through to embrace**), as opposed to outright rejection, is much greater in Queensland. In 2016, residents of the Eastern Maranoa, which includes Roma and surrounds indicated the highest proportion of some acceptance for CSG (92%) followed by the Western Downs region (87%). Whereas, in 2017 in the Narrabri shire this drops to (70%). Figure 63 shows the biggest difference is the proportion of residents indicating they reject the notion of CSG development (30%) compared to Western Downs and Eastern Maranoa (13% and 8% respectively).

We explained why this could not be possible, as a simple dictionary definition of the word "tolerate" means "allow the existence, occurrence, or practice of (something that one dislikes or disagrees with) without interference", which would be like putting up with chronic back pain. It is obvious that you don't want it, don't like it and would rather be without it.

Therefore those who answered "tolerate" should not be grouped with those who "embrace" coal seam gas but grouped with those who "reject it".

Even the words, 'be OK with it' chosen for the mid-point 3, is not appropriate for a Likert scale survey question.

We received a reply to our submission, from CSIRO, '**we will use this to inform our final report**'

Our doubts and concerns were reinforced by the opinion of Professor Anthony Hogan, University of Sydney who notes, amongst other things, [excerpt below], that "looking at the data, it is more likely that the majority would have been scored as not supporting the project".

Excerpt from email sent to Sally Hunter of People for the Plains from Anthony Hogan, Honorary Professor Faculty of Health Services, University of Sydney, previously adjunct Professor at Research School of Psychology at Australian National University.

I would note that the survey question is quite unconventional and does not follow the usual protocol for structuring such as question. For example, one would usually present a likert scale (e.g. 1-7) with respondents rating from strongly disagree or don't support thru to strongly agree or support. Presented as such, and looking at the data, it is more likely that the majority would have been scored as not supporting the project.

One would also critique the words used in the response categories. For example, the word tolerate is a loaded word, not independent of its association - e.g. a person might tolerate toxic chemo therapy or environmental pollution but they may neither like it or desire it etc

Taking these points together, and in the context of the data I'll send thru, there is a strong argument to contend that the question itself is leading and as such, the result unreliable or misleading. I would assert unreliable or misleading since the statistic they report, in itself, can be deduced from their data (so you cant say it is not true) just misleading or unreliable.

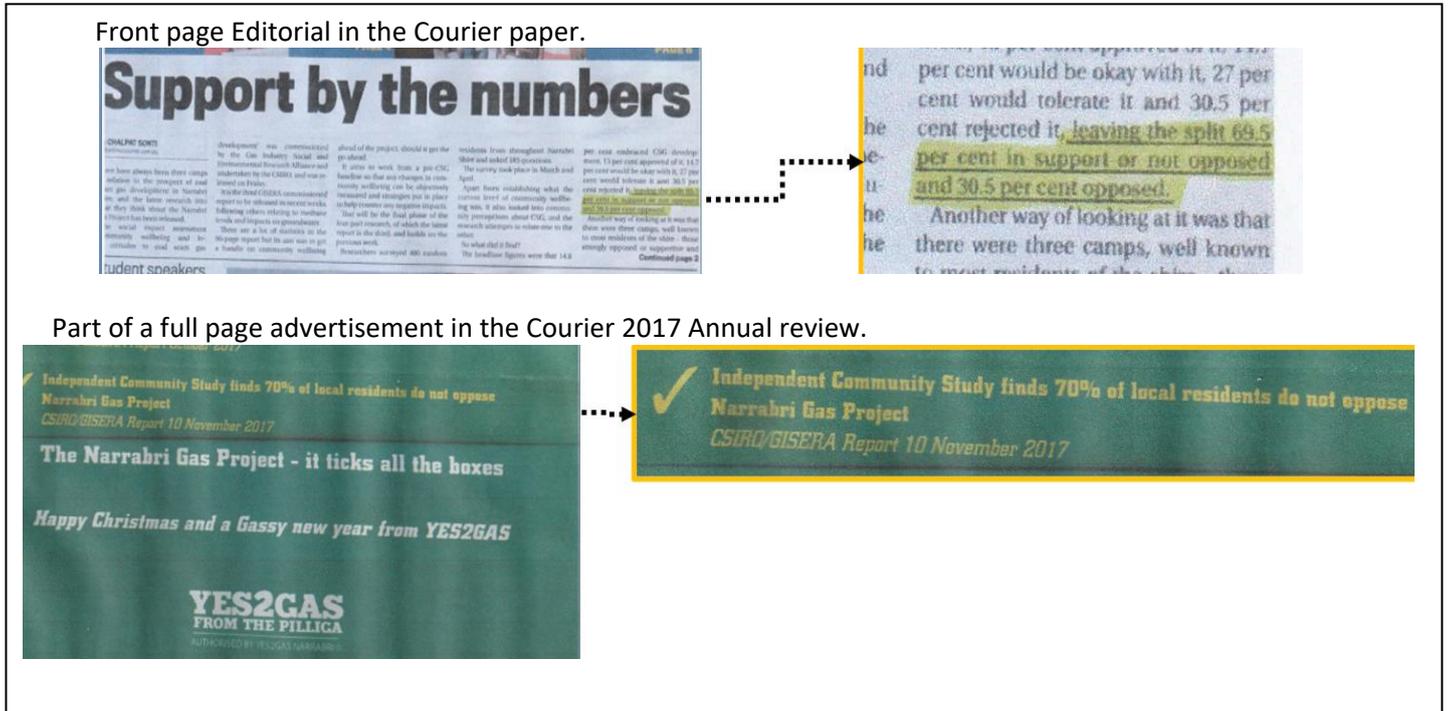
Regards, Anthony

Despite this CSIRO ignored our feedback as the two way split was retained in the **Final Report**.

As we predicted in our feedback meeting with the CSIRO, the local newspaper The Courier, and pro gas supporters seized on these report's findings and were using these figures to claim the majority of Narrabri residents were in support of CSG.

"...leaving the split 69.5 percent in support or not opposed and 30.5 percent opposed". This is the same as the Report except for the rounding of the percentages.

The inserts below prove this information came from the CSIRO report.



The most recent use of these CSIRO report findings were presented to the IPC Commissioners after lunch on the last day of presentations 1/8/2020, by a NGP supporter.

Quote from the transcript: 'I would have to say the GISERA figures of around 70% in favour is more reflective of the true amount of local approval of this project'

We had extended correspondence back and forth with CSIRO, seeking to have this misinterpretation corrected. The CSIRO denied having created a two way split, "**.we did not collapse these five categories into a two-way split in our report**".

In a subsequent query we received a reply, although the wording in this reply is different it is a misleading statement which in our opinion infers that the report did not split Question 44 into a two way split.

Below are excerpts of denials we received from the CSIRO which we believe are falsehoods.



Attachment 6

29 January 2018

Our Ref: Email letter received from Stuart Murray, People for the Plains, Narrabri CCC Representative
Re: CSIRO presentation to the Narrabri Gas project CCC Dec 2017

Dear Stuart,

Thank you for your letter seeking clarity on a question you raised at the Narrabri CCC meeting held in December 2017, where I presented our research findings on community wellbeing and perceptions of CSG development in the Narrabri region.

Your question referred to an article in the Courier Newspaper (November 14, 2017) where the newspaper described our survey results for peoples' attitudes towards CSG development in the Narrabri shire. I believe your question related to the following comments from the newspaper report:

"The headline figures were that 14.8 per cent embraced CSG development, 13 percent approved of it, 14.7% would be okay with it, 27 per cent would tolerate it and 30.5 per cent rejected it, leaving the split 69.5 percent in support or not opposed and 30.5 percent opposed."

The percentage reported in each category is correct, as depicted in the graph below and detailed in our report. Although we did not collapse these five categories into a two-way split in our report, the journalist's interpretation is not inaccurate.



Attachment 7

8 March 2018

Stuart Murray
People for the Plains
denisemurray47@gmail.com

Dear Mr. Murray,

I refer to your letters dated 09/01/2018, 08/02/2018 and 25/02/2018, regarding reported survey findings from a CSIRO research project on community wellbeing.

The quotation you have provided was from 'The Courier' (Narrabri) article of 14th November 2017 which referenced a CSIRO research report entitled 'Community Wellbeing and Local Attitudes to Coal Seam Gas Development'. The article did not quote directly from the report.

To make matters worse in this very same report, **Social Baseline Assessment: Narrabri project – Phase 3 Survey report**, the CSIRO contradict themselves, on page 28, by coming to a conclusion the exact opposite that shows that the majority of the Narrabri community in fact **reject** the development of CSG in the Narrabri Shire.

The insert below shows the 5-point Likert Scale survey Question 44 with the subjective words, **tolerate,- be Ok with it,- approve of it**, inserted between **1. reject it** and **5. embrace it**. This enabled the authors to manoeuvre the result into a two way split as described in their report. See below.

(70% of Narrabri residents **were accepting** of gas to some extent, **tolerate through to embrace**), while only (30% **reject** the notion of CSG development).

	Narrabri Shire			Subregion		Out-of-town	
	No.	Mean	SD ¹	Narrabri	Rest of shire	In-town	Out-of-town
Q44 Overall, which best describes your attitude toward this CSG development in the Narrabri shire. I would							
1. reject it	115	30.5%		27.9%	35.9%	25.6%	39.3%
2. tolerate it	111	27.0%		25.9%	29.2%	26.1%	28.5%
3. be OK with it	55	14.7%		14.2%	15.9%	17.4%	9.9%
4. approve of it	59	13.0%		14.9%	9.0%	16.0%	7.5%
5. embrace it	60	14.8%		17.1%	10.0%	14.8%	14.8%
Total	400	100.0%		100.0%	100.0%	100.0%	100.0%

When results from the Narrabri shire were compared with two gasfield regions in Queensland, it showed that the proportion of residents who are accepting of gas to some extent (tolerate through to embrace), as opposed to outright rejection, is much greater in Queensland (see Figure 20). In 2016, residents of the Eastern Maranoa, which includes Roma and surrounds indicated the highest proportion of some acceptance for CSG (92%) followed by the Western Downs region (87%). Whereas, in 2017 in the Narrabri shire this drops to (70%). Figure 20 shows the biggest difference is the proportion of residents in Narrabri indicating they reject the notion of CSG development (30%) compared to Western Downs and Eastern Maranoa (13% and 8% respectively). Similarly, if we compare residents who had less positive attitudes toward CSG development (tolerate it or reject it) was higher in the Narrabri Shire (57%) than in the Western Downs (46%) or eastern Maranoa (32%) regions of Queensland.

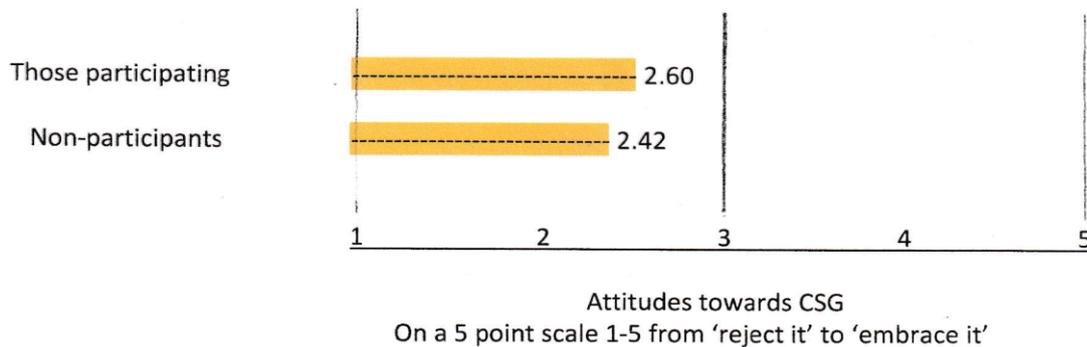
This is exactly what they have done, yet deny in writing that they, **' did not collapse these five categories into a two way split'**.

The next insert shows Page 28 of **Phase 3 of this Social Baseline Assessment**, where the report describes the **Additional sample checking**, asking the same question, about **'residents attitudes to CSG activities in the Narrabri Shire on a 5-point scale from reject it to embrace it'**. This is a properly designed and balanced 5 point Likert Scale survey Question, rating people's responses numerically from 1 to 5. In addition to the 400 people who agreed to participate in the survey, this question was chosen to be asked to those who declined to participate in the full survey.

The results show the majority of people reject CSG development.

Additional sample checking

An additional question was also asked to check if people declining to participate in the survey had significantly different attitudes towards CSG activities from those participating in the survey. If residents declined to participate in the survey, they were asked if they would be willing to answer one short question about their attitude to CSG activities in the Narrabri shire on a 5-point scale from 'reject it' to 'embrace it'. However, there was no significant difference between participants and non-participants in their average attitudes toward CSG ($M = 2.60$ and $M = 2.42$ respectively, $p = .11$). We did not ask why people declined the survey and it was not possible to test the representativeness of those declining. However, the sample of respondents who participated were representative of the population in the Narrabri Shire across four ABS population census criteria and weighted for age.



Where 1 = 'reject it' and 5 = 'embrace it'. A score of 3 equals the midpoint.

The bar graph is ours, but is typical of how most other questions were reported in this survey.

This information clearly shows that the CSIRO have arrived at two different conclusions to this important question, one showing the majority **embrace** and one showing the majority **reject** GCS development in the Narrabri Shire.

It begs the question, why was the manipulated version that incorrectly supports the notion that the proposed Santos Narrabri Gas Project has a SLO, was chosen for the Final report?

This could be a deliberate attempt to contrive a (SLO), or a mistake by the researchers of this report. If it is mistake then it is poor science, made worse as we would expect this anomaly to have been picked up by those who peer reviewed this report.

The following article describes the fundamental conflict of interest that underlies the Gas industry Social and Environmental Alliance (GISERA), making it an inappropriate organisation to undertake research on the social and environmental impacts of unconventional gas development.

<https://www.tai.org.au/content/gisera-and-conflict-interest#:~:text=A%fundamental%20conflict%20of%20interest,What%20is%20GISERA%3F>

The People for the Plains experience I have described in this submission confirms that any gas industry funded research that is produced should be closely scrutinised.

The Independent Planning Commission should consider this information, along with the doubts raised by several expert speakers as to the validity of some of the science that supported the NGP.

Kind Regards
Stuart Murray.