To: The Independent Planning Commission, NSW

Regarding: Santos Narrabri Proposal

Narrabri Gas Project PH001/20 22.06.2020

To whom it may concern,

To save my time I have used a point form supplied by others. Using my own knowledge and experience in Environmental Resource Management, I can say with confidence that this information makes good scientific sense. I have added comments based on my personal knowledge and experience.

Water Resources

● Over 20 years, Santos would remove 37.5 billion litres of water from deep below the Pilliga and treat it in the Leewood water treatment facility. This treatment will produce up to 840,000 tonnes of solid salt, laced with heavy metals, for which Santos still has no disposal plan.

● Removing this water will cause depressurisation and loss of water in the Pilliga Sandstone, the southern recharge of the Great Artesian Basin, which outcrops in the Pilliga.

● Santos has used the most basic level of groundwater model because of how little is known about the deep aquifers they will dewater to extract gas. It is inevitable that water tables will be lowered, impacting on irrigation bores. This has been observed by and affected farmers in existing gas fields.

● Santos anticipates leakage from the precious alluvium soils that lie above the coal seams despite claiming there is no linkage between the water sources. Landholders that rely on the G.A.B., the Gunnedah Oxley Basin and other groundwater in the area are strongly opposed to the project. Groundwater linkages are poorly understood and new links may be formed by depressurisation and especially any form of fracking. Cross contamination may occur due to mixing of aquifers. Gas leakage is also inevitable via these links.

Social and economic impacts

● Coal seam gas brings upheaval and division to rural communities. A CSIRO survey in 2014 found that only 6% of local people living in Queensland gasfield areas thought the industry had improved their lives while 42% said that they were “not coping” or “only just coping”.1

● Santos’ own assessment found that there would be “almost certain” impacts on housing affordability for Narrabri residents, which will disproportionately affect low-income households and Indigenous people, who are far more likely to be renters. 1 Walton, A., McCrea, R. and Leonard, R. (2014). CSIRO survey of community wellbeing and responding to change: Western Downs region in Queensland. CSIRO Technical report: CSIRO, Australia. https://gisera.csiro.au/wp-content/uploads/2018/03/Social-2-Final-Report.pdf

● Claims of job creation are crucial to the project's justification, with an anticipated average 190 jobs created locally and 322 in the rest of the state, but this comes at other industries' expense. Santos' own assessment admits there would be lost employment in agriculture and manufacturing as a result of the project, despite unsubstantiated claims of flow on jobs in NSW. Gas extraction tends to create a local economic boom then bust when the gas is exhausted. Meanwhile the farming industry and ongoing jobs and amenity have been negated by loss of land, water and contamination. All well documented in SE Queensland gasfields.

● Santos claims the gasfield is needed to "increase supplies" of gas, but there's currently a glut of exported gas from Queensland and ships of Australian gas are sitting idle unwanted.

● The majority of social impacts are proposed to be mitigated through the use of the Gas Community Benefit Fund, the use of the Community Consultative Committee and a range of Landholder Compensation agreements, ignoring many of the negative impacts of the project.

Aboriginal cultural heritage

● The Pilliga is a hugely significant landscape for Gomeroi people. Santos' Aboriginal cultural heritage assessment identified 90 known Aboriginal cultural heritage sites in the project area, including rock shelters, burials and historic camps and hearths.

● Santos promises its drill pads and infrastructure will avoid these sites, but they're based only on previous work. No detailed new surveys for Aboriginal cultural heritage have taken place yet.

● Santos proposed to undertake detailed surveys after it gets approval and avoid newly found sites of high significance but by that time it will be too late to stop the gasfield.

Biodiversity

● The Pilliga is the largest temperate woodland in eastern Australia and CSG will industrialise 95,000 hectares of it, clearing nearly 1,000 hectares in small patches for well-pads, infrastructure and gaslines, including removal of several endangered ecological communities.

● Only limited surveys were undertaken as part of the assessment of the gasfield, but these found 10 threatened plants and 35 threatened fauna in the gasfield area, including pygmy possums, koalas and the Pilliga mouse.

● The Pilliga once hosted one of the most important koala populations in New South Wales, but the species is now on an extinction trajectory in the area. With so much habitat and lives lost to recent bushfires, it is crucial to the survival of the koala that its bushland habitats be spared industrialisation.

● Australia has a terrible record for species extinction. We have destroyed huge areas of stable ecosystems since settlement. Now is the time to focus on conserving these natural resources that we are dependent on.

Greenhouse gases and climate change

● Total greenhouse gas emissions produced by the project could be 127.8 million tonnes of carbon dioxide equivalent, or 5 million tonnes a year. In a time when Australia is struggling to meet its commitments under the Paris Climate Agreement, this one gasfield would increase Australia's greenhouse gas emissions by nearly 1% per year! I'm not sure if these figures are just for the gas use or include the very significant fugitive emissions that will occur.

● Mobilising methane in coal seams could lock in ongoing fugitive emissions of this potent greenhouse gas for decades to come. Many leading scientists believe that gas is a dirtier fuel than coal when the many fugitive emissions from extraction, distribution and use are taken into account. Methane is a potent greenhouse gas.

● Globally, the UN Environment Program's Production Gap Report in 2019 found that, "With average lifetimes of 20 years or longer for pipelines, terminals, wells, and platforms, the time to begin planning for a wind-down of gas production is, as with other fossil fuels, already upon us."

● Their report found that to achieve the Paris Climate Agreement goal of keeping average global warming well below 2 degrees, global gas production needs to peak by 2030 and decline after that. To meet the safer 1.5 degrees warming limit, gas production needs to peak this year.

● I am tired of hearing gas called a 'transition' fuel towards renewable energy. For some years new renewable power generation has been a cheaper option than that from fossil fuels. With well proven (in other countries) solar thermal & storage and rapidly advancing battery technologies make renewable energy easily available for peak and base loads, 24 hours a day we can rapidly transition to 100% renewable energy (Beyond Zero Emissions; "Zero Carbon Australia Energy Plan"; 2011. This transition would provide a win for environment, new and sustainable employment and species wellbeing including us humans. This Santos project would threaten environment with probably permanent damage and provide jobs for maybe 20 years before moving on to new destruction.

To sum up

We do not need more gas with its associated environmental destruction. The economic gains benefit a few in the relative short term. The environmental destruction and degradation, impacts for generations. Many ecosystems never recover.

I ask you to reject this project.

Sincerely,

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