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MR S. O'CONNOR: Good morning. Welcome to the public hearing of the
5 Narrabri Gas Project. My name is Steve O'Connor, and I am the chair of this IPC
panel. Joining me are my fellow commissioners, Professor Snow Barlow, Mr John
Hann, and counsel assisting, Richard Beasley SC. Before we begin, I would like to
acknowledge the traditional custodians of the land on which we meet and pay my
respects to their elders, past, present and emerging, and to the elders from other
10 communities who may be participating with us today. In line with current COVID-
19 regulations, we have moved this public hearing online with registered speakers
provided the opportunity to present to the panel via telephone, videoconference, or
the studio we had set up in Narrabri. In the interests of openness and transparency,
each day we are livestreaming this electronic public hearing via our website. As
15 always, the public hearing is being recorded and a full transcript will be made
available on our website.

Before we hear from our first registered speaker today, I would like to outline how
today's hearing will proceed. Each speaker will be introduced when it is their turn to
20 present to the panel. Each speaker has been advised how long they have to speak.
We have received a record number of speaker registrations, and it's important that
everyone registered to speak receives a fair share of time. I will enforce the
timekeeping rules as the chair. I reserve the right to allow additional time for the
provision of technical matters. You will hear a warning bell at one minute before
25 your allocated time expires, and two bells when your allocated time is finished. I
also ask the speakers today refrain from making offensive, threatening or defamatory
statements, as per the guidelines available on our website. It is important that all
speakers understand that the hearing today is not a debate, and the panel will not be
taking questions.

30 If there is something you would like the panel to consider and you don't get the
opportunity to raise it, the panel will consider any written submissions lodged up to
the extended deadline of 5 pm on Monday, 10 August 2020. All written submissions
are weighed in the same way as verbal submissions made during the public hearing.
35 It's important to understand that any person can make a written submission
irrespective of whether they have been allocated time to speak at this public hearing.
If you have a copy of your speaking notes or any additional material to support your
presentation, it would be appreciated if you would provide that information to the
Commission. Please note, however, that any information given to us may be made
40 public. Thank you. I will now ask Richard to introduce today's first speaker.

MR BEASLEY: The first speaker today is Dr Jacinta Green. Dr Green, can you
hear me?

45 DR GREEN: Yes, I can. Can you hear me?

MR BEASLEY: We can. Please go ahead.

DR GREEN: Excellent. So I would also like to acknowledge the traditional custodians of the land, past, present and future. I'm an ecologist who lives and works on the Liverpool Plains. Over 10 years ago I first saw an image of the gas fields. At that stage I was still under the assumption that gas was better than coal. But then I saw the map and saw the amount of habitat fragmentation that occurs within a coal seam gas field. Not much has changed since then. And I know a number of speakers have touched on habitat fragmentation, but I would like to ensure that the Commissioners are clear to its impact and clear in how the DPIE final assessment is disingenuous with respect to habitat fragmentation and, by association, edge effects.

In paragraph 442 of the assessment, the description of fragmentation as indirect is arguable. It suggests that neither Santos nor the DPIE understands what fragmentation is or the devastating effects it can have on biodiversity. Santos is directly fragmenting the landscape with its wells and access roads and pipes, every piece of infrastructure. Vegetation clearing is the mechanism that can create fragmentation. Fragmentation has a direct impact on the Pilliga Forest that is unavoidable within a CSG industry. Paragraphs 444 and 445 indicate the environmental scientists working for Santos do not understand habitat fragmentation or edge effects, and apparently the DPIE have nobody on staff willing to explain it to them. The estimate of 181 hectares of indirectly affected area is based on an arbitrary 10 per cent buffer.

News flash: habitat fragmentation doesn't occur because of proximity to an open space. Habitat fragmentation is creation of patches by roads, infrastructure, etcetera. The number of patches matter. Each species has a differing width of open space they are willing to cross. Some species are quite happy crossing a path two metres wide. Others are only happy to cross a path 30 centimetres wide, or even smaller. When species won't cross a path, the cohort left trapped in the patch experience a dramatic decrease in genetic diversity, and a decrease in genetic diversity leads to localised population extinction. While the DPIE looks at the map and sees only 181 hectares impacted, I look at the map and see thousands of localised population extinctions across the entire gas field.

Patch size also matters. This is where we get into edge effects. While many species won't cross an open space of a certain size, others, including certain plants, won't survive or thrive within a certain distance of an open space. An arbitrary buffer area – and the 10 per cent is completely arbitrary – is irrelevant. And also, as the gas field matures, we see infill wells. So as time goes on, the patch sizes become smaller and smaller. For some species which thrive only in the densest of areas, the entire area of the gas field becomes inhospitable, not just the areas bulldozed. Studies into edge effects on linear corridors, even narrow ones, indicate that the impact is equally significant if not greater than the impact of the disturbance.

Paragraph 443 states that Santos is also proposing to offset the indirect and cumulative biodiversity impact to compensate for the effect of fragmentation. Gee, how nice of them. I would like to draw the Commissioners' attention to the interim report of the EPBC Act released just this week. It has some interesting things to say about offsets. On page 13 there is a headline, "Environmental offsets do not offset the impacts of developments". We all knew this. We've always been alarmed about offsets. This is a whole section that it's in the interim report onto the EPBC. There are a number of other similar shocking headlines, which are completely apposite to the Pilliga gas field.

Another whole section is entitled "Monitoring compliance enforcement and insurance under the EPBC Act is ineffective". The interim report into the EPBC Act highlights exactly how the system is broken and why any insurances or measures contained within the DPIE assessment will fail. I urge the Commissioners to read the EPBC Act interim report before deciding the fate of the Pilliga, and I would also like to draw the Commissioners' attention to the federal decision this week by – sorry, a decision by the Federal Government this week with regards to Shenhua, which shows exactly how lacking legislation is to protect our Aboriginal history as well. Thank you.

MR O'CONNOR: Thank you, Doctor, for your presentation. Next speaker, please.

MR BEASLEY: We have Alaine Anderson on the phone. Alaine, can you hear me?

MS ANDERSON: Yes, I can, very clearly.

MR BEASLEY: Good. Please go ahead. We can hear you.

MS ANDERSON: Good morning. My husband and I have been farming at Croppa Creek for 40 years. I've been a wildlife carer, in particular for koalas, for 30 years. Our farm will be eventually impacted by future gas exploration. I would like to compare our experience of industrialised farming with that of the impact of gas extraction on community and farm production. In one short decade, this district has seen the negative effects of massive corporate farming. Rarely do we see the consequences so quickly of broadscale vegetation clearing. The fragmentation of what is left continues. No compliance. Is the Pilliga to suffer the same fate?

Our economy has suffered severely. Soil has blown away or washed away. Trees once provided microclimates. Without that buffer, we have experienced regular dust storms, extreme heat and less rain. This district was once considered the golden triangle. Soil degradation means higher input and less productivity. The water tables have dried up in this district and irrigation pivots ceased to move months ago. Trees watered by this underground source have died or are dying. Riverine areas have been cultivated too close to the river, and ancient river gums have died from climate extremes and chemical drift. The river redgum is a primary koala food tree, and quality and quantity of leaf have been reduced.

Water shortage is a fact of life now. Water extraction for mines and the risk of damage to aquifers is a price too high to pay. The carbon emissions from mining, methane in particular, add to climate variation and intensity. We've sustained heavy losses of koalas here in the last summer. Most were in very poor condition,

5 dehydrated and diseased when rescued. We believe bulldozers wiped out several colonies of koalas since 2011, and these refugees were dispersed into unsustainable habitats. There are two colonies of koalas in the Pilliga, and we must protect them from a catastrophe such as we've witnessed. Koalas are the canaries in the coal mine for all biodiversity.

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Northwest koalas are a unique gene pool. Their societies have been broken up, causing functional extinction. That is, the young surviving koalas have lost the hierarchy of alpha males and females which create stability and sustainability. Deadly chemicals further weaken drought-affected trees. Koalas don't eat all leaves

15 from trees at all stages of the year, especially leaves tainted by chemicals and petrol fumes. They self-medicate on a variety of leaves. Alarming, though, they are forced to eat poor-quality, desiccated leaves and therefore lose condition and need to drink water. Some trees have been killed by their overgrazing and compressed habitat. Gas companies will not be able to quantify the damage caused to wildlife by

20 fragmenting vegetation, burning off gases, and containing noise disturbance.

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More wildlife will naturally be killed with increased traffic and machinery. Our backroads here are more like highways, and this is more dangerous for our community and creates a biosecurity issue. Lower scale farming has reduced

25 population and community spirit. There have been job losses with high-tech farming, and most staff now are transient workers renting what once were proud homesteads. The mines employ staff in the construction phase but leave a void of residents into the future. Our feeling of wellbeing is reduced in this environment. The consequences of any intensive industry on this fragile, increasingly desertified

30 landscape will be a poor legacy to leave for future generations. We need to follow the shift to biofuels and regenerative farming as a matter of urgency. Thank you for listening.

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MR O'CONNOR: Thank you, Alaine, for your presentation. Next speaker, please.

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MR BEASLEY: We have Penelope Milson. Ms Milson, can you hear me? You can?

MS MILSON: Yes, I can.

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MR BEASLEY: Okay. We can hear you. Please go ahead.

MS MILSON: Thank you. Good morning and thank you for your time. My name is Penelope Milson. I'm from Tamworth, and I hold a Master of Public Health from

45 the University of New South Wales. I have 25 years of experience in health promotion, which has included working in mental health, and also heart health. I hold the deepest level of concern in relation to this project and implore you to reject

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it. There are three points I wish to make. (1) we can no longer separate the health of people and communities from the health of their environment. This was a key point made by Professor Tony Capon from the University of Sydney at the 2018 Health Promotion Symposium.

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So whilst we think of health as being determined by our genetics, lifestyle and access to the health system, in addition health status, both physical and mental, is inextricably linked with nature and the state of the environment. Human development which is resulting in degradation of land, climate change and so on has a permanent bearing on the health status of whole communities. Something as vital as water for life and livelihoods is potentially at risk. We must not put jobs and business activity for a finite period before a healthy environment and the long-term health and quality of life for these rural communities.

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15 Point 2, the New South Wales Government and Santos have given inadequate attention to mental health risk. There are serious mental health risks associated with this project, both the landholders and the Narrabri townfolk, in particular the Aboriginal community, which makes up 12 per cent of the local population. The overwhelming opposition, as we've seen by the vast number of objections to date indicates the extent to which this project is unwelcome.

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Look, even if we had an ironclad guarantee that the project would not compromise land, culturally significant areas or threatened ecosystems, it is the uncertainty, the loss of control, fears about the future, concern and anxiety about personal health, social conflict, and community division and the disruption to way of life, which poses a significant risk to community mental wellbeing. Prolonged stress and anxiety can lead to depression and, in severe cases, suicide. In 2015, George Bender from the Western Downs took his own life after a decade of fighting to protect his land from CSG mining. Now, my brief exploration of relevant documents leaves me questioning whether there has been adequate respect for the risks to mental health. To quote from the University of Queensland expert report:

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There is little acknowledgment within the Narrabri Gas Project SIA of the potential impacts to the mental health of the community in which the project is located.

Now, this is a community already under extreme pressure. They have come through unimaginable drought, all the while having this looming over their heads. Please ensure that mental health risk is among your considerations. And my final point 3: any socioeconomic benefits will likely not be evenly shared among the local community. Now, the New South Wales Government assessment report and the proponent paint a very rosy picture of job creation and socioeconomic benefits for Narrabri. Yet it is predictable that these benefits will not flow to all members of the community.

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There is the risk that the project may inadvertently have an adverse effect on some people's lives. It's important we consider the community members working in

everyday jobs and those who are disadvantaged as to what impact this project will have. Will a localised wage inflation cause cost of living to go up? Will it be harder for everyday community members to rent or buy a home? The example of a single female vet employed in Roma but required to relocate to the smaller town of Surat, 80 kilometres away, because the rents in Roma as a result of CSG mining climbed as high as Brisbane sticks firmly in my mind.

Whilst there is some acknowledgment of this issue in the documentation, I don't feel satisfied that the proposed solutions of consultation and a community benefit fund will compensate for the potentially inflated cost of living for those local residents. Our region has a strong appetite for clean renewable energy projects that can create jobs, help communities prosper, whilst not threatening the health of the environment and local communities. I strongly reject the assertion that this project is critical for a post-coronavirus recovery when regional New South Wales is so rich in renewable resources, agricultural industries and tourism opportunities. Please let us not take for granted this valuable agricultural asset which produces safe, healthy food for us all. Thank you.

MR O'CONNOR: Thank you, Penelope. Our next speaker, please.

MR BEASLEY: Next speaker is Megan Kuhn. Ms Kuhn, can you hear me? Can you hear me, Ms Kuhn? You might need to put your microphone on.

MS KUHN: Yes, I'm here now.

MR BEASLEY: Good. Go ahead.

MS KUHN: My name is Megan Kuhn. I'm a fourth-generation famer and beef cattle producer from the Liverpool Plains. In my presentation today, I aim to validate and express the importance of the gas field-free survey data for the northwest New South Wales. These results need to be recognised in the public interest test for this project, as it overwhelmingly proves that Santos has no social licence to operate anywhere in our region. My family are, unfortunately, no newcomers to this debate. 15 years ago the Central Ranges gas pipeline constructed from Moomba to Tamworth was pushed through our region, supposedly to aid in the expansion of business in Tamworth. We were caught unaware of our rights, and certainly unaware of the bigger picture about to unfold.

Soon after, Santos personnel appeared for the first time holding a community meeting at Blackpool Village, about half an hour to our east. Seismic surveys were being carried out locally without prior notification from any level of government or the company, and the words "coal seam gas" were new to our vocabulary, let alone our understanding. A hall packed with anxious local landholders pushed Santos for answers when a representative let slip they intended thousands of coal seam gas wells across our beautiful alluvial black soil plains. What was immediately evident were Santos' plans to radically industrialise our landscape.

In those early days, community quickly struggled to learn all they could about coal seam gas and come to terms with the lack of support or protection offered by those we had elected and systemic failures. Shock reverberated amongst our communities, and mistrust grew with lack of transparency from this industry and government.

5 That continues today. Santos' plans to establish themselves on the high gas-yielding coal seams below Liverpool Plains failed following a massive landholder opposition, and they quickly retreated to the seclusion of the Pilliga Forest, where governments' approval were likely, indicating the Narrabri Gas Project is their Trojan horse.

10 We saw the same modus operandi of industry targeting government-run forests to establish a gas field toehold when we visited Queensland in 2014. The feeling of guilt and betrayal for leaving those distraught people we had met in Queensland behind who had shared their heart-wrenching accounts of the reality of living in a gas field will never, ever leave me. It quickly became evident to me the voice being
15 overlooked from the debate were the people, the families, those who would have to endure daily the ongoing impacts of invasive and toxic gas fields in perpetuity should these proposals be approved.

The social injustice to ignore individuals and communities burdened by the mental,
20 physical and financial impacts imposed on them led me to Lock the Gates' amazing gas field-free survey strategy. It was perfect. It is entirely about a place and its people, the very fabric of what makes a community. In 2012, with a clear strategy to adopt, I began working locally with communities at a grassroots level to document their view and give them as a voice as a necessary part of this debate. It's a simple
25 and respectful community-driven process run by community for community. My role was to facilitate their community effort to achieve accurate and thorough collection of responses from everyone over 18 along every road posing the question, "Do you want your land or road gas field-free?"

30 We began with the local area of Mullaley, just south of the Pilliga Forest, as they had recently courageously fought and won to protect their farms against Eastern Star Gas' proposed pipeline. A strong result of 98.5 per cent responder responded in favour of remaining gas field-free. The survey spread rapidly over the next five
35 years, and our northwest embraced the opportunity, community by community, as the coal seam gas threat grew. Huge swathes of our region, including the entire lock the – local government area, sorry, of Coonamble and Gilgandra are declared gas field-free by the will of these incredible people. This is democracy in action. To date, thorough community consultation and engagement has revealed 108
40 communities in our united northwest have surveyed over 3.3 million hectares in nine local government areas completely encompassing the Pilliga and the Narrabri Gas Project, with an overwhelming response of 96 per cent rejecting any form of gas field activity.

Community opposition has rendered the Narrabri Gas Project a stranded asset.
45 Interestingly, over 98 per cent of the 23,000 public submissions lodged in response to Santos' EIS opposed the Narrabri Gas Project. And well over 90 per cent of those that have spoken before you and for the Independent Planning Commission are in

opposition to the Narrabri Gas Project. These results demonstrate Santos has no social licence or community acceptance in our northwest. Unequivocally, our democratic right is now in your hands, and we urge you to reject Santos' Narrabri Gas Project in the interests of the people. The northwest is our home, not their gas field. Thank you.

MR O'CONNOR: Thank you, Megan. Thank you for setting out the history or background to how that survey evolved. Our next speaker, please.

MR BEASLEY: Next speaker is Philip Winzer. Mr Winzer. You might have to put your microphone on, Mr Winzer. We can't hear you.

MR WINZER: Now?

MR BEASLEY: I think we're right now. Just say a few - - -

MR WINZER: Okay.

MR BEASLEY: Yes, we can hear you.

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MR WINZER: Sorry.

MR BEASLEY: That's all right.

MR WINZER: Just having some trouble with my – trouble with my headphones. I apologise for the traffic noise. Just on a busy road here. My name is Philip Marri. I'm a Ngarabul and Wirrayaraay Murri from the Gomeri Nation from Tamworth. Ngarabul country in Glen Innes. And, yes, just wanted to register my opposition to the project, longstanding opposition. I have been speaking out against Santos for many years, attended a number of their AGMs and spoken with executives of the company and, you know, with other Gomeri people to register our opposition.

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My primary reasons for opposing the project are, firstly, the threats to our country and sacred sites in the Pilliga Forest; secondly, the threat to water there and also throughout the greater Murray-Darling Basin. We've already seen on our country at Inverell – last year we saw, you know, mass fish deaths on the Macintyre River, which is an important Dreaming site for the Black Swan Dreaming as part of the Murray-Darling Basin, and, you know, we can't risk the kind of operations that Santos will be conducting in the Pilliga contaminating our waterways and the groundwater that flows into other parts of the Murray-Darling Basin.

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I'm also concerned about the climate impacts of gas. As an Aboriginal person, you know, we're already experiencing in our country the impacts of long, long droughts. On my eastern country, in Ngarabul country, we've experienced the devastation of the bushfires last December that tore through huge parts of our country and left many people homeless and, you know, killed several people on our country. And allowing

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this project to go ahead and further fossil fuel expansion to happen will only contribute further to climate change that is already having these impacts.

5 As a parent with a young child who I want to bring up strong in her culture and identity as a Ngarabul and Wirrayaraay person from the Gomeroi Nation, you know, it's important to me that she has access to those sacred sites on our country. It's important that she is able to grow up along the rivers and creeks and other waterways of our country, you know, like I did as a young Aboriginal person, and to learn her culture and to learn the song lines and stories of that country.

10 And I remember last year when I was telling her about the mass fish death that had happened on the Macintyre River at Lake Inverell, you know, her – you know, she turned to me and she said, "If the river dies, what will happen to the story of Bulligalami and Goorai," who are two of the Dreaming figures associated with that river. She said, "Will that story die as well?" And as a parent, that's a really heartbreaking thing to hear from your child, you know, that something that's so central to their identity at such a young age they already feel is threatened by the impacts of extractive industries and climate change.

20 And so as a Gomeroi person, I strongly urge the Commission to reject this project and not to allow Santos to go ahead with it. You know, we've tried many avenues and I know that I and many other Gomeroi people will be, you know, exercising our internationally recognised rights as indigenous people to be on our country and to stand up against this project if Santos do attempt to go ahead with it. And, yes, I think that the measure of community opposition that has been seen – I know that every Gomeroi person that I have spoken to about it is adamantly opposed to the project. I've not met any Gomeroi people who believe that, you know, our country will be better off because of coal seam gas. And, yes, as such I would urge you to reject this project. That's all I have to say. Thank you.

30 MR O'CONNOR: Thank you, Philip, for your feedback. Our next speaker, please.

MR BEASLEY: Ian Hargraves on the phone. Are you there, Mr Hargraves?

35 MR HARGRAVES: Yes, I'm here.

MR BEASLEY: Please go ahead.

40 MR HARGRAVES: G'day. My name is Ian Hargraves. I live on a 500-acre farm on the Namoi catchment area. I'm a member of the RFS. I'm a father. for water. I'm very environmentally conscious. As with our all our farming community, we strive to do better for our farms, our environment, and our community. In my opinion, gas extraction and fracturing is not a sustainable practice. It is detrimental to the ecology, geology, and ignores the cultural and religious aspects on our
45 indigenous peoples. The potential for environmental contamination, as is commonplace throughout the US and other countries where fracking is involved on

bore water and has made bore water flammable at taps and becoming poisonous to stock, making those subsurface water systems unusable.

5 Also, in Queensland, where creek systems have had gas contamination wherein the water has become flammable to combust with an external ignition point. For far too long, our subsurface aquifer and water transient lines have been undervalued or completely ignored as an asset to us. These subsurface assets have supported our regional grazing industries for nearly a century, and as an ongoing asset will support this industry into the future. This industry going forward is potentially worth
10 trillions of dollars to our country over the next century or so. There is no way fracking could offer the same. We can't eat gas, and we can't eat money alone. And it has also helped us with our food security.

15 The subsurface water is invaluable. It is no longer acceptable to proceed under ignorance as an excuse to continue. Be warned, as our community will not accept aquifer damage in our environment, contaminants through the geological strata that run under our land. You cannot repair any damage or remediate any contamination. So this project should not proceed. Our current and future incomes are going to be bankrupt – will potentially bankrupt any company involved in fracking and gas
20 removal of substrata surfaces. The environment is not replaceable.

This also ignores the cultural and religious beliefs of our First Nations indigenous peoples. The fact that this type of industry continues disregarding and damaging the environment, it is a direct insult to our first people. Our first people, who have their
25 religious connection with the land, whose religious and cultural beliefs predate all other religions by over 100,000 years. This predates all other cultural languages and accepted acknowledgment of time itself. Our first people, who have had agricultural systems over 6000 years ago; that predates by 4000 years any Asian society that claims to be the first agricultural people. So, please, stop this industry from moving
30 forward. It's not worth it. And at the end of the day, the results of such things, we may just stand up and bankrupt any business that proceeds. Thank you.

MR O'CONNOR: Thank you, Ian, for your comments. Our next speaker.

35 MR BEASLEY: We have Malcolm Donaldson. Mr Donaldson, can you hear me?

MR DONALDSON: Yes, thank you. I can hear you.

40 MR BEASLEY: Go ahead.

MR DONALDSON: Thank you. My name is Malcolm Donaldson. We are a 1700-hectare meat farm on the eastern side of the Pilliga Forest. The original section of our farm has been in the family since 1880. I'm a graduate of farm management at College. I worked on our farm since 1978. I've been a member of the Rural
45 Fire Service since 1979, and I've been actively involved in the community. That's my background. I would like to share a screen, please, and do a PowerPoint thing. So that one down here.

UNIDENTIFIED FEMALE: Yes.

MR DONALDSON: That one, yes.

5 UNIDENTIFIED FEMALE: And press share.

MR DONALDSON: And press share. I've got here, and I've got to go - - -

MR BEASLEY: That's fine. It's working.

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MR DONALDSON: From the beginning – can you see that now? Sorry about this.

MR BEASLEY: Yes. Yes, got it.

15 MR DONALDSON: Okay. You've got it? Okay. So this is an overall picture of the type of area that we work in. Our farm relies on underground water, and our main water supply comes from the Gunnedah-Oxley Basin in the form of our main bore, which is 307 metres deep on the eastern side of the Pilliga. This bore is the mainstay of our water supply situation that allowed us to get through the last drought,
20 and without it we would have been in all sorts of trouble. We have dams like this one on the right. That dog is walking on the bottom of the dam there, so there's not much water left in it. We have 250 head of breeding cows, and that will mean up to 600 head of cows when we get in the middle of summer to keep water up to.

25 And predominantly the water supply for these cattle is from underground water. The well head of our – this is the well head of our deep bore. Santos openly admits that its EIS – that the proposed operations will affect the aquifers of the Gunnedah-Oxley Basin and draw them down, and it misses the significance of the Gunnedah-Oxley Basin, because it reckons it's poor quality and it's not used by local farmers. I
30 strongly disagree with that, and this is water from the Gunnedah-Oxley Basin, and that it's quite suitable for stock water, and without it we would have been in a lot of trouble. I get the impression that maybe Santos has not fully investigated the groundwater in any detail in our area. In fact, the farms up and down the eastern side of the Pilliga adjacent to the Bibblewindi area, we all have one thing in common, and
35 that is that Santos has not contacted us in any way.

So what I want to do here is also show you that our bore, when we run it for a couple of – a day or two, fairly aggressively, it starts to blow bubbles, and we can collect those bubbles in a jar embedded in another pool of water to isolate it from the
40 atmosphere. And as you can see here with time-lapse, you accumulate the gas bubble. And that gas bubble can be stored in the jar, provided it's inverted. If we then go on to this one, it's self-explanatory. This is methane coming out of our bore water supply.

45 So we have a drilling log from the time the bore was drilled, and it shows that at no time did the bore hole intersect any coal seams. And so connectivity to the strata and fractal lines and volcanic intrusions in this area below our bore. You've also

already visited the Iverarch study et al from the University of New South Wales, and I believe this is going to go some way towards backing up those findings. I am concerned that DPIE had a figure 6 on the gas well configurations, which showed Santos labelling one of their gas bores as between 300 and 800 metres deep.

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And I look at our bore, which is 307 metres deep, and we sort of – you get quite concerned. If the Gunnedah-Oxley Basin is depleted by Santos dewatering the deeper bores, we can expect that we will have a drop in our water levels and our bores. And as soon as we get a drop in water levels, I would expect this bore to start producing much more methane than it already does and turn our stock water supply into a gas well, if you like. So it would also mean that our bore – our bore was also identified in the original Santos EIS, but we haven't been – we have been ignored and overlooked by the latest DPIE and WEP analysis, as far as I can see. They seem to be pretty comfortable with the computer modelling and not active enough to actually go out into the real world.

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I sort of wonder what we've done to deserve this, and I believe that this is another example of where Santos has not fully identified the potential impacts to the neighbours. We're also – because we're on the edge of the Pilliga Scrub, we know the formidable reputation of Pilliga bushfires. During my time in the Rural Fire Service I've seen quite a few of them. This fire was in 2006. It was a fast-moving bushfire that came to our – down to us from Rocky Glen. It burned out 12,000 hectares in three hours, and including 20 per cent of our farm. And there's a before and after picture of it there. We were also partially burned out in 1980.

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Santos continually downplays the risk of bushfires and the DPIE report only lists bushfire risks amongst the sundry issues, and apparently as of nominal importance in this report. And in my experience, this is a highly risky position to take. If you look at the intensity of the fires on the righthand side here – look at the intensity of the fires there and wonder how the gas infrastructure is going to cope with it when it's so hot that the ground is vacuumed and everything wood is vaporised So the intensity of a Pilliga fire is pretty severe. So many of the Santos gas sites or well sites are one road in and the same road out, and it's bloody dangerous. I don't know really how they can get away with it.

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Of course, Santos has got these flares running in the scrub. The added complication for us is that we're southeast of the Bibblewindi field. We're 20 Ks southeast, and on a catastrophic day this flare seems to be – is still allowed to run for some reason. The DPIE report suggested the flare is 6.3 kilowatts per metre square of radiant heat, and that the threshold for any sort of threat or danger is 10 kilowatts per metre square of radiant heat, and so therefore everything is safe. Well, I'm far from in agreeance with that. I think that the radiant heat is one thing, but or a bit of a wind blowing debris or willy-willies, which are common in these situations, especially in the fire weather, then we're in trouble. And the problem is, because they're directly downwind if there's a hot nor'wester, it's very much like a loaded gun pointed at us all summer. And to be quite honest, Santos' complacency, I think, is laughable if it weren't so bloody serious.

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The Rural Fire Service – as I mentioned before, some of your other speakers, they plan not to – they’re not going near the Pilliga in daylight hours. It’s just too unsafe. And you can see the top photo there is actually of a hazard reduction a couple of years ago that got pretty hot. And there’s another one here it was east of
5 Bibblewindi. So there’s a – also, along the eastern side of the Pilliga, there’s a lot more no till farming and use of tropical grasses in their grazing systems, and it’s a high field load, which causes quite a serious problem.

10 Santos gives very little reference in any of their documentation to plan B. And I mean, on a farm we’re always doing plan B or plan C, because someone makes a mistake or there’s somehow human error. This is the company that’s going to risk our water supply and is risking our lives with bushfires and that sort of stuff. And really, I just – they keep assuring us that plan A is going to work and we’ve got no need for anything more. I have my doubts. Chernobyl, Exxon Valdez, the Gulf of
15 Mexico, they were all human error situations that caused major environmental disasters. And, you know, if Santos makes a mistake with our water supply, you know, will they be able to put Humpty Dumpty back together again? I don’t know. I don’t want to have to find out.

20 In conclusion – sorry, I’m getting the right slide. In conclusion, we all want local employment in our towns, for our kids. We want prosperity for our local businesses. And we all want clean water and clean air and clean soil. So please realise the Santos project is not about putting a road closed sign. It’s certainly not putting up a road closed sign for Narrabri or anywhere else. It’s more of a detour sign, and it tells
25 us there is another way to get where we need to go, because climate change is real and the detour towards renewables and away from fossil fuels is going to be a little bumpy and a little longer, as detours often are, but our children and our grandchildren’s children will thank us for our enlightened action. I would like you to remember the video of our bore hole and remind yourself that Santos may not have
30 done as much quality homework as they claim. Please help save the planet and stop this madness, and I thank you for your attention.

MR O’CONNOR: Thank you, Malcolm, for your presentation.

35 PROF BARLOW: Steve, can I ask just a quick question?

MR O’CONNOR: Yes. Yes. If you can stay online, Malcolm. Thanks. Go ahead, Snow.

40 MR DONALDSON: Yes.

PROF BARLOW: Mr Donaldson, just a quick question. I may have missed it. But has that methane appeared in your bore since exploration began in the area, or is it
- - -

45 MR DONALDSON: I don’t think it has changed. I don’t think it has changed a lot at the moment, but we – I know I do have neighbours who have undocumented

instances where their bore has dried up at the same time that Eastern Star started drilling, and they – because they were too busy with drought-related matters, they didn't actually – weren't able to document exactly what happened. But they did lose their bore at the same time as it was – as Eastern Star started, and they are much
5 closer to the gas field than we are. But I would say I'm just pretty certain that where we're getting our gas from, once I had read that Iverarch report, I thought, well, yes, that explains why we've got the gas, and it explains the connectivity, if you like.

10 PROF BARLOW: Thank you very much.

MR O'CONNOR: Thanks again, Malcolm.

MR DONALDSON: Thank you for your attention.

15 MR O'CONNOR: Next speaker, please.

MR BEASLEY: The next speaker is Lisa Lang Morley. Ms Morley, can you hear us?

20 MS LANG MORLEY: Yes, I can.

MR BEASLEY: We can hear you, so go ahead.

25 MS LANG MORLEY: Good morning. I would like to pay my respects to the traditional Aboriginal people of this country and to acknowledge Aboriginal people past, present and emerging, as the original natural resource managers of this land. For tens of thousands of years, Aboriginal people utilised all aspects of our land and water to sustain their lifestyles, working cohesively with the environment and keeping themselves and the ecosystem healthy. Aboriginal communities have a
30 spiritual and customary living relationship in all its forms through creation stories, use of water as a resource, and the knowledge about sharing and conserving water.

35 Aboriginal people have a holistic view to land, water and culture, and see them as one, not separate to each other. Water is the most sustaining gift on Mother Earth and is the interconnection among all living things. Water sustains us and replenishes us. Water is the blood of Mother Earth, and as such cleanses not only herself but all living things. The scarred water element teaches us that we can have a great strength to transform even the tallest mountain while being soft, pliable and flexible. Water gives us the spiritual teaching that we too flow into the great ocean at the end of our
40 life journey. Water shapes the land and gives us the great gifts of the rivers, lakes, ice and oceans.

45 Water is the home to many living things that contribute to the health and wellbeing of everything, not just in water. All life requires water, and yet our global water supplies are quickly being dried up and polluted. The First Nations people of this land have a special relationship with water built by our ways of life that extend back over 60,000 years. Our culture depends on clean water for transportation, for

drinking, cleaning, purification, and provides habitat for the plants and animals we gather as medicines and food. Our ability to access clean water shapes our traditional activities and our relationship with our surroundings.

5 Aboriginal people recognise that the scarredness of water is the interconnectedness of all life and the importance of protecting our waterways from pollution, drought and waste. Water is the giver of all life, and without clean water, we will perish. As a Gamilaroi woman, I am here today to say no to coal seam gas. May I remind you, you can't drink gas. The Pilliga Forest is the largest temperate forest we have left in
10 New South Wales. Turning it into an industrial gas field will poison groundwater, cover the forest in roads and pipelines, endanger koalas and other threatened species, and increase wildfires.

I am here today, as I am concerned about the runoff of waste into the groundwater and high risk of contamination facing the Great Artesian Water Basin. The Artesian
15 Water Basin is located beneath the Pilliga, and is the largest and deepest artesian basin in the world, stretching over 1,700,000 square kilometres. It is estimated to hold nearly 65 million megalitres of water, about 130,000 Sydney Harbours, and is a key source of water from the springs, many of which support unique ecosystems.
20 The Great Artesian Basin contains most of Australia's fresh water and lies beneath nearly a quarter of the continent. Groundwater from the basin is a vital resource for pastures, agricultural and extractive industries as well as for town water supply.

Coal seam gas exploration has already caused substantial damage to the forest, and
25 progression to the full scale gas production could lead to local extinction. I also have a real concern for the Pilliga koala population. Study results support previous findings of a severe decline of koalas in the area. The study report confirms that Santos' coal seam gas project area in the Pilliga has national conservation significance and is vital to the survival of federally threatened species like the Pilliga
30 mouse. Koalas are endangered on the threatened species at risk. The Pilliga koala population are the only colony disease-free. Saving these koalas is vital for long-term survival of the koala. The Pilliga Forest - - -

MR O'CONNOR: Lisa, could you please wrap up now? We're running out of time.
35

MS LANG MORLEY: Yes, I'm wrapping up. The Pilliga Forest also contains at least 900 plant species. Animals found in the Pilliga include at least 36 native and nine introduced mammals, 50 reptiles and at least 15 frogs. A 4909 kilometre square area of land includes the forest, and the nearby Warrumbungle National Park has
40 been identified by BirdLife International as an important bird area. It supports groups of painted honeyeaters and diamond firetails, endangered swift parrots, other woodland birds present - - -

MR O'CONNOR: Lisa, we're going to have to finish up now. Is there any final
45 comment you want to make?

MS LANG MORLEY: Just that – yes. If we do – if this goes ahead, you guys – the older generation might get to live their lives lovely and peacefully, but my generation and the next generation to come will not. - - -

5 MR O’CONNOR: Thank you very much, Lisa, for your presentation.

MS LANG MORLEY: - - - great for this generation. It will not bring any good for the next. Thank you.

10 MR O’CONNOR: Thank you. Next speaker, please.

MR BEASLEY: Next speaker is Anne Marett. Ms Marett, are you there?

MS MARETT: I am.

15

MR BEASLEY: Please go ahead.

MS MARETT: Good morning, commissioners, and thank you very much for this opportunity. In 2018 I made a visit to the Pilliga area with a group from the east
20 coast. We went not to enjoy its wild places and vibrant communities, but to find out what we could about the threat posed by CSG to the region. We were taken by local people into the heart of the Pilliga, through kilometres of land with all its wildlife. After a long drive, we were confronted by a CSG well flaring into the sky in what seemed to me to be way too close to the canopy of the surrounding
25 woodland. My first thought was, “What is going to happen when a bushfire comes through? It will go off like a bomb.” The area around the well pad had been cleared, but this cannot possibly protect the forest on fire ban days when there shouldn’t be a naked flame anywhere.

30 Next we moved to the site of the 2011 wastewater spill. This is a kill zone, an area contaminated by toxic spill. An accident, apparently. Two attempts to rehabilitate the site have failed. There, trees stood bare and stark or lay on the ground. This was destruction of a very permanent kind, and this was just one spill. There have been over 20 already. We were shocked that this sort of risk could be taken with the
35 Pilliga. This remnant woodland must remain intact. It’s so important to Australia, acting as lungs and a groundwater intake site. It’s also a critical refuge for wildlife severely threatened by land clearing and global warming.

We see many reasons for rejecting this proposal. Threats to biodiversity, food
40 security, anthropogenic climate change, and the health of the people in the area. We’ve heard how important this land and water are to the Gomeroi people, who maintain their cultural identity and practices. It’s morally wrong to desecrate that link. Can I just say that, as 98th into the 23,000 submissions to the Department of Planning, we’re opposed to this project. It clearly has no social licence and would
45 not be in the public good.

- New US research on gas flaring suggests that it poses a significant risk to expectant mothers. The study published this month in the Environmental Health Perspectives found that pregnant women who lived in areas where flaring is common have 50 per cent greater odds of giving birth prematurely than those who did not. This puts a
- 5 baby at risk of numerous disorders, and even death. This outcome particularly affected women of colour backgrounds, the possible reason being their low socioeconomic status, their general poorer health and higher level of exposure to flaring. Yet in the US they flare in this area only at night. We're talking about 24/7.
- 10 It's clear we are only just starting to understand the full impact of this industry on our health. So let's consider the following: we note that Santos will be required to rehabilitate the site to a high standard and offset biodiversity impacts of the project. But how? So far they have not been able to rehabilitate the current kill zones of just a few hectares. And how can you offset a remnant intact eucalypt woodland
- 15 ecosystem which has taken thousands of years to evolve? What will be the impact of the emissions on global warming, those at the site, in transit, and at the point of consumption? If Australia continues to develop fossil fuel reserves, how can we meet our Paris target to keep warming levels to below two degrees?
- 20 In this case, it is a CSG resource over 80 times as potent a greenhouse gas as CO₂. The Department's report states in the overview that the project would not result in any significant impact on people or the environment. We ask, truthfully, what will the future be for biodiversity, including us, if projects such as this continue to go
- 25 ahead? According to the Department's report, Narrabri has promised 200 post-construction jobs for 20 years. But it was pointed out to us just yesterday that this is just 40 new jobs for the local people. So just a very few jobs for the risk of serious harm to the biodiversity, Aboriginal heritage and culture, farmlands, wood and water security, and rural communities. The integrity of the - - -
- 30 MR O'CONNOR: Anne, could you please wrap up now?
- MS MARETT: Yes. The integrity of the region, the Great Artesian Basin, and the massive hit to the accelerator of climate change, including a frightening increase in bushfire risk. No amount of scaling back or setting conditions can mitigate the
- 35 damage this development would do. Respectfully, we would strongly urge the panel to entirely reject Santos' application to develop the Narrabri gas field. Our environment and the planet cannot afford it. Thank you.
- MR O'CONNOR: Thank you very much, Anne. Our next speaker, please.
- 40 MR BEASLEY: We have Christopher Zinn. Mr Zinn, can you hear me?
- MR ZINN: I can hear you, and I'm just muted. You can hear me now?
- 45 MR BEASLEY: Yes. Go ahead.

MR ZINN: Yes. Good morning. There has been enough controversy, but what I am going to say don't believe is controversial at all, and concerns the interests of domestic gas users, aka consumers. You've heard from industry groups concerned about projected shortfalls in supply impacting production and trade unions worried about subsequent job losses. They are professionals whose job it is to know about these things. You've also heard from multiple objectors, some scientists, environmental groups, etcetera, and indigenous people who have a legitimate interest and in some cases expertise in debating the project. Some are professional, or at least fully engaged in the issues, and have been successful in bringing on board many others with a concern, be those the local, like about the Coonabarabran Spring we heard about on Monday, or global, as in climate change.

In the crowded schedule, there's also two Knitting Nannas speaking, but so far as I can see, a far larger group of older people who rely on gas for heating are not formally represented. There are 1.6 million households missing from the room – again, as I see it – and those are the families in this state connected to natural gas who have a legitimate interest in its supply, security and cost. However, they are not generally preoccupied with the myriad issues around the Narrabri Gas Project, even though the outcome may well affect them. As consumers, we are usually amateurs dealing in markets dominated by professionals and often without the ability to organise or coordinate. It's these people who I believe need to have their interests reflected here too and that's hardly contentious.

So far as I know, groups such as Energy Consumers Australia, who are charged with representing the long-term interests of us all in this area, have not made a stand on Narrabri, so I'm speaking today as an individual who has worked with and for consumer groups, established and start-ups, for some years, and often around empowering consumers to make more informed decisions about their energy costs and use. I have advised Bright-r, which runs a campaign around natural gas awareness, but they have not advised me. I have an interest in this area and this is no one else's script but my own.

Granted, some of those 42 per cent of gas-connected homes in the state would be against Narrabri if they knew or cared about this debate. Let's be generous, let's say one-third of them are against, but that still leaves about 1 million homes who I bet, if they'd even read the summary of the DPIE report last month and the implications of this project for supply and price, might not universally damn it so quickly. As a consumer campaigner, I've always believed the key planks of policy should be around choice, accessibility and affordability for all. On these grounds, we have a choice of natural gas. It's an established and sustainable source of heating and cooking.

Accessibility, this is the resource currently coming to us from Queensland mostly and subject to future shortages in New South Wales. And affordability, in that local supply means lower pipeline costs. I know this is contested but the ACCC, the Consumer and Competition Commission and the consumer's friend, as it's often called, has much gas experience and says as much. I believe – and maybe some

other gas consumers might too – that this project, subject to the all-important and relevant safeguards, should go ahead. I too am concerned about climate change and habitat loss but if the DPIE report is to be believed, the risks, where relevant, can be managed.

5

I used gas to cook my egg for breakfast and heat my home this morning, and we all benefit from it in a myriad of unseen ways in the products and services we all consume. I see this as the likely scenario to continue for the next decade at least, so I'd feel hypocritical if I didn't speak up as a consumer. We do need to transition to a cleaner energy future and I'm convinced, along with authoritative bodies, gas will play a legitimate role in the mix. There are many strong opinions about the Narrabri Gas Project which are fairly being weighed up by you this week but the gas consumers' opinions must count too. Thank you.

15 MR O'CONNOR: Thank you very much, Christopher. Next speaker, please.

MR BEASLEY: Hi. We have Katherine Brown. Ms Brown, are you there? Can you hear me?

20 MS K. BROWN: Yamma. I can hear you. Can you hear me?

MR BEASLEY: Yes, go right ahead.

MS BROWN: My name's Kate Brown. I'm a Kamilaroi woman whose grandmother's country is out near Garah, near Moree, and I travel back to my country often for social and cultural purposes. I'd just like to acknowledge the Dharug People whose land I'm speaking on today and pay respects to their elders past, present and future, and extend that respect to any Aboriginal and Torres Strait Islander people who are listening today. I'm opposing the Narrabri Gas Project on a variety of – for a variety of reasons, and that is cultural security, water security, the risks of fire in this drought that we're currently in, as well as climate change security.

So as we've already heard from many Kamilaroi elders and knowledge holders, the Pilliga has many sacred sites for our people and also represents an important biodiversity bank. As Australians, I believe that we must embrace our history of first nations peoples' knowledge and law as the longest unbroken culture in the world, and I believe that there's knowledge that we must listen to in order as a nation to move forward. We've seen recently Rio Tinto have destroyed a remarkable cultural site, and these sites are important not just for Aboriginal people but for all of Australians for the knowledge and the science that they can impart.

I'm also opposing the project on water and food security grounds. As we all know, we're in a massive drought and we've seen in the Pilliga in the last few months, massive cracks across the ground that are feet wide, that is costing the council millions of dollars to fix, and I believe that that adds an extra risk towards our Great Artesian Basin, which is critical for our survival. It's our last backup water source and currently there are some communities who already depend on the Artesian Basin

for drinking and agricultural security. That basin has taken millions of years to fill and I believe that that the precautionary principle must be applied, given the risk to our waters and our future. Yes. As I said, the drought and the increase in the cracks in the – in the soils increase the risk of contamination, which will contaminate our food and drinking water production.

With the gas flares, there's also an increased risk of fire in drought. The previous speaker stated the gas was a sustainable fuel and I don't believe that to be true. Gas is a non-renewable resource and therefore cannot be included as sustainable. It creates emissions. Although 50 per cent less than coal, it is still creating emissions. And it also creates a low level of employment due to mechanisation. In Australia we have some of the best solar resources in the world and the renewable energy COVID economic recovery could create almost 80,000 jobs, according to a report from the Climate Council. Therefore, I strongly urge the Commission to reject the Narrabri project on cultural, food, water and climate security grounds.

MR O'CONNOR: Thank you, Kate, for your submissions.

MS BROWN: Thank you.

MR O'CONNOR: Next speaker, please.

MR BEASLEY: We have Nigel Howard. Mr Howard, can you hear me?

MR HOWARD: Yes, I can.

MR BEASLEY: Go right ahead.

MR HOWARD: Okay.

MR BEASLEY: Go ahead, please.

MR N. HOWARD: Okay. Good morning, Commissioners. And after four days of testimony, you must be exhausted. Thank you for the opportunity to speak. I'm speaking on behalf of the Northern Beaches Climate Action Network to oppose the proposed Narrabri coal seam gas project. We are a network of nearly 50 different groups advocating for emergency climate action. Our groups span all political parties and age groups and a wide range of environmental concerns. In five minutes I can only summarise our submission and I will do so passionately, and you may think that I'm exaggerating but the detailed sources in our submission corroborate my advocacy.

We object to this project on six main grounds. First, the project adds to climate risks which are already projected to comprise an existential threat to future generations. We are on track for at least four degrees of warming, with our children's and grandchildren's futures and 90 per cent of other species on the planet threatened by drought, crop failure, ecological collapse, migration and conflict, bushfires, extreme

weather, flooding, and storm surge. Australia's emissions are already worst in the world per capita. We're the largest exporter of coal and gas pollution in the world. We are ranked second-worst globally on climate action, and Professor Will Steffen has presented to the Commission . We beg you to hear the science of compounding feedback loops that will be triggered by about 2030.

Ian Dunlop will speak later today. We beg you to hear his advocacy on how reckless it is to ignore the precautionary interpretation of the science. The fugitive emissions from fracked coal seam gas do not make gas a viable transition fuel. Every fossil fuel project adds to our emissions and we need to now be reducing our emissions by at least 16 per cent year on year. This project emissions will add 0.7 per cent and likely kill more people long term, 315, than it will provide long-term jobs for, 200. This bears repeating. This project will kill more people than it provides jobs for. The Land and Environment Court has created legal precedent recently at the Rocky Hill Mine for factoring in the impacts of climate change when considering fossil fuel projects. On these grounds alone, this project should be rejected.

Second, the project will not be economic and will quickly become a drain on the public. Fracked coal seam gas has proved uneconomic globally without government subsidy. This project has always been only marginally economic. Income projections by CSIRO have misleadingly ignored competition from the growth in renewables. Growth of renewables will probably make this project uneconomic within, say, about five years because by 2030 all of our electricity will likely be from renewables. Matt Kean's first renewable energy zone for New South Wales was ninefold – I'll say that again, ninefold oversubscribed by investors.

Future proof, dispatchable, renewable energy that brings down electricity prices, improves competitiveness and increases employment, it is a perfect low-risk, high-yield investment. Of course people are going to invest in it. Exporting this gas is unlikely to be viable either. Most other nations are decarbonising and President Macron has suggested that all nations might impose tariffs on exports from climate pariah nations like Australia.

Third, the project will provide one-tenth of the long-term jobs per dollar invested compared to investment in renewables, especially during post-COVID recovery. Narrabri coal seam gas will require \$18 million invested per long-term job, whereas renewables require just \$1.4 million per long-term job. Narrabri gas will provide jobs for less than 20 years. Renewables will provide jobs indefinitely. Fourth, you already know that this project has no social licence. It takes 50 objections to trigger an IPC review but this project received 18,000 objections. Poll after poll from the Australian Institute show that 84 per cent of the public want rapid transition to renewables.

Renewables can make us proud leaders on climate action, not shameful pariahs internationally. The public have proved willing to take legal action and protest to stop projects like this and, even if you approve, for sure we will waste lots of public money in legal challenges. Fifth, NBCAN supports the cultural concerns of the

Gomeri People and the concerns of farmers for impact on their land and livelihoods. Sixth, the project and proposed pipeline will have huge additional indirect environmental damaging consequences of concern to our entire network of groups, to our youth, their parents and grandparents, to climatologists, ecologists, marine conservationists, hydrologists, doctors and health experts, farmers, indigenous peoples, coastal property owners, and even economists.

Other expert speakers have addressed a lot of these issues already to you and will continue to do so. In summary, there are no rationally viable grounds for this project to proceed and we urge you to not just summarily reject it but to also ask searching questions of the New South Wales Government for approving it in the first place. Thank you for your kind - - -

MR O'CONNOR: Could you wrap up, please, Nigel?

MR HOWARD: I've finished. Thank you.

MR O'CONNOR: Thank you for your presentation. Next speaker, please.

MR BEASLEY: Next speaker is Bob Hill from Bathurst Community Climate Action Network. Mr Hill, can you hear me? You might have to turn your microphone on, Mr Hill.

MR R. HILL: Can you hear that?

MR BEASLEY: Yes, go ahead.

MR HILL: Thank you very much. Good morning, Commissioners. My name's Bob Hill, as we've just noted. I'm speaking to you on behalf of the Bathurst Community Climate Action Network or BCCAN. We operate on Wiradjuri country and I pay my respects for Wiradjuri elders past, present and emerging. For over 12 years, BCCAN has been working to increase the public recognition of the threat that climate change poses. BCCAN supports the urgent phase out of fossil fuels and the rapid adoption of renewable energy alternatives. There are many reasons for opposing Santos' Narrabri Project but I have a second hat as president of our village's RFS and I'll focus on the impact of climate change on the bushfire risks the project poses.

During the catastrophic fire season that we've all just been through, our Millthorpe brigade, like many, was called on to send firefighters across the state. We sent crews to the Blue Mountains and individual members joined teams fighting fires of the southeast. Like many brigades, we have trouble recruiting volunteers and our members are aging. We don't need more bushfires. A bushfire requires three things: ignition, fuel and a conducive weather situation. Santos' main contribution will be to creating a climate that is more conducive to bushfires. As Greg Mullins pointed out yesterday, increasing the greenhouse gas emissions have lengthened and intensified the bushfire season and expanded the geographical range of the fires.

A recent CSIRO study co-authored by Canadell noted that atmospheric methane is increasing by around 12 parts per billion each year, and that's playing an increasing role in driving climate change. The rate of increase is consistent with the scenario modelled by the IPCC, under which the earth would warm three to four degrees by the end of the century. Fugitive methane emissions are notoriously difficult to measure and they're easy to underestimate. Yesterday, Tim Forcey convincingly argued that the Santos' EIS dramatically underestimated the fugitive emissions from the Narrabri Project. Then we move to the CO₂ emissions from the burning of the gas.

10 In Kevin Gallagher's introduction, he claimed that the Narrabri Project would increase the supply and security of cheap gas to New South Wales. Now, many experts, like Dr Davey, have challenged this claim but if it's true, cheaper, more reliable gas would entrench New South Wales' dependence on fossil fuels at exactly the time when we desperately need to transition away from gas. The only reason for Santos to keep gas cheap would be to sell more, for more gas to be burnt, more CO₂ to be released. The Narrabri Project is estimated to produce five million tonnes of greenhouse gases by the end – per year, sorry.

20 As Will Steffen pointed out, Australia has exhausted most of our carbon budget if we're to keep global temperature increase to two degrees by the end of the century. Now, we've experienced what one degree per century can do to fire risks. The forest fire danger index shows that fire risks across Australia in 2019 were the highest ever experienced. For the first time ever, the fire risk in the Greater Sydney region was catastrophic. For the first time but not the last. This is probably the new normal. So then we look at the direct impact of ignition fuelling of bushfires. It's not in Santos' interest to cause bushfires and I'm sure Santos would take precautions and ensure that its workers are trained to prevent and fight fires.

30 But even their EIS indicates that extracting and transporting and flaring of gas from among these 850 gas fields involves, even in their view, a small but significant direct risk of igniting and fuelling fires, and Greg Mullins talked a bit more about that – on that risk in response to Snow Barlow's question yesterday. So I think the EIS estimates about one fire in 70 years. That's one too many and, fortunately, we don't need to take that risk. Renewable energy offers a safer, cheaper and more sustainable alternative. The precautionary principle makes economic sense.

40 So, Commissioners, please do what you can to ensure our brigade volunteers don't spend their Christmases hoping that their pagers don't go off and that their families don't have to spend their summer holidays hoping for the safe return of their loved ones fighting fires across the state. Thank you very much for your patience.

MR O'CONNOR: Thanks for your presentation, Bob. Next speaker.

45 MR BEASLEY: I think we have Mr Jonathan Moylan from Greenpeace. Mr Moylan, can you hear me?

MR J. MOYLAN: I can hear you, yes.

MR BEASLEY: Good.

5 MR MOYLAN: I've also just shared my screen but I'm not sure whether - - -

MR BEASLEY: Yes, we can see that. We've got - - -

MR MOYLAN: You can see that.

10

MR BEASLEY: - - - your front page for it, yes.

MR MOYLAN: Fantastic. Well, thank you, Commissioners, and before I begin, I'd like to acknowledge the Gomeri People who will be affected by the project.

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Acknowledge their elders past, present and emerging, and their considerable opposition and the strong voice of Yahne that has been coming from Gomeri traditional owners for most of the last decade in opposition to this project. I may not need to introduce Greenpeace but for the Commission's benefit, we have 1.2 million supporters. We cover not just Australia but the most climate vulnerable regions across the Pacific.

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Globally, we have 55 national and regional offices worldwide, and our focus is on how we can bring forward the inevitable transition that's already underway globally as part of the critical need to limit average global warming as close to 1.5 degrees as possible. On a personal note, I'd like to – I've spent many years in the region near Narrabri. I'm very familiar with the locally-driven concerns, that are really about the local impacts. The growing land use conflict, the concerns about groundwater and the impacts that this could have on Narrabri, and really want to commend the extraordinary efforts of residents, who really have been battling it out on their own, with very little support from groups outside the area, in a sort of very formidable conflict that's been going on for far too long.

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The commission will, obviously, already have the assistance and the capable assistance of counsel assisting but I would just like to briefly touch on the matters that the IPC must have regard to. And they are the objects and mandatory relevant considerations of the EO&A Act; the public interest; the principles of ecologically sustainable development – and this includes the precautionary principle and the principle of intergenerational equity, which the Commission has already extensively discussed; the mining SEPP, including the obligation to consider the effects of downstream greenhouse gas emissions that remains a requirement that the IPC must have regard to; environmental planning policies; and, of course, public submissions.

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There are other issues which – I won't read out this beautiful explanation of the challenge that's before the Commission by Chief Justice Brian Preston in his decision in Warkworth Mining, but it is a polycentric exercise. It's not a matter of assessing impacts on their own because, obviously, they interrelate and too much attention in terms of one impact area can redistribute other impacts, and so it is a

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complex decision-making process. There are other matters that, of course, the Commission would be aware of and, to be clear, the memorandums of understanding between the New South Wales and the Commonwealth on electricity, the MOU between the IPC and the Department of Planning – these, as far as we are aware, and
5 our advice is that these are matters that don't carry any legal weight but we imagine that they would bear in the Commission 's minds, and would draw attention to the fact that the electricity MOU, in particular, doesn't place any specific attention to the Narrabri Gas Project.

10 Our understanding is that that is deliberate, that there isn't any particular enthusiasm from the New South Wales Government for the project, despite the pressure that has been placed on them at a Commonwealth level. And we would also note that the Commission can have no regard at all to unlegislated bills that have been essentially
15 stalled in committee. We would also like to draw your attention to the fact that AEMOs gas statement of opportunities is a worst case scenario. It doesn't describe the most likely pathway forward for gas forecasting. And, of course, Santos' sunk investment risk, which has to be the reason for their only residual continuation for this project, isn't really something to which the Commission – who should attach
20 primary weight to the public interest – should have regard.

I have to express a certain amount of pity for the Commission because you're not very well assisted by the Department of Planning's own review. It didn't – as it normally would or you would expect it to – look at in detail each of the matters that are required to be assessed under the Acts and legislation and policy but, rather, had
25 a very heavy focus on responding to matters based in submissions, with some more discussion of hydrogeological impacts. So we do, though, share some common ground with DPIE. We would endorse the comments made by David Kitto on Monday that gas is not necessary to deal with the closure of aging coal burning
30 power stations in New South Wales.

There are many, many other alternatives, as multiple studies have demonstrated, and we're pleased that the department has acknowledged that issue. We're also pleased that the department has acknowledged that there is no contention that the project would bring down the price of gas. It jars a little bit with the review that they've
35 provided to the department but it looks like their views have changed since that review was finalised. The review also obviously acknowledges that the project will lead to a net decline in manufacturing employment and acknowledges that there is a low level of knowledge of the deep aquifer, as the Water Expert Panel has acknowledged and the Independent Expert Scientific Committee has acknowledged
40 with much greater strength.

It makes us wonder a little bit what we're all doing here and why the Commission 's time has had to be wasted for the last seven days. We are obviously in the midst of a big oversupply crisis in the gas industry that pre-dated, to some extent, COVID-19
45 but has been partially exacerbated by it. That has led to a situation where gas producers are facing the horrible decision of whether to kill wells at the moment because they're, quite frankly, just running out of storage space and refrigerated

ships to store LNG, and we've seen that happening across the US and the North West Shelf, around the world, and, you know, it's not very easy, obviously, once you've killed a well to bring it back into full production.

5 It sort of beggars belief why you would have a \$77 per gigajoule gas – high cost gas production being forced into what is already a critically and quite dangerously oversupplied market. That's due to a number of factors. The commission will be aware of the extraordinary reduction in the cost of renewable energy over the last 10 years. That should be a relief to all of us who are pleased with having reliable
10 electricity supply that doesn't contribute to pollution, to localised impacts and, obviously, to anthropogenic climate change. Firming other technologies' storage, synchronous condensers, low balancing, those are all coming very rapidly down the marginal costs curve as well.

15 This project in particular is a – the technique in terms of multilateral drilling is highly experimental. It's never been attempted before. It's why a lot of the impacts are so unknown. For this to happen in the Southern Recharge Zone of the Great Artesian Basin and in Pilliga Forest, which has a critical role in the Brigalow and Nandewar bioregion is – it really beggars belief. The Independent Expert Scientific Committee
20 has noted the inadequacy of the water model and the difficulty in relying on it, and the proponent's inability to provide data. Produce brine, obviously, a major issue. We're talking about four B-Double truckloads, almost an aircraft hangar, over the course of the project's life.

25 That's been noted by the department. There's no real attempt to deal with that issue, despite nearly a decade of having to try to find a solution, and there's discussion of dumping that toxic brine into Bohena Creek. Exploring options is not an appropriate condition for a major impact of the project. Biodiversity impacts, in terms of habitat fragmentation. This is not identified at a landscape level. That's a critical issue.
30 There's going to be further issues if the project needs to be assessed under the EPBC Act. Greenhouse gas emissions is obviously something that we're considerably concerned about.

I won't go through this in much detail because the Commission 's had already a lot
35 of assistance by others with great expertise, but we would note that the department's reliance on the NGERs projects and – assessment and the UNFCCC reporting framework doesn't really relate to the obligations under the New South Wales framework because it needs to be assessed according to scientific evidence. There's some notoriety about that methodology.

40

MR O'CONNOR: Could you please wrap up now, Jonathan.

MR MOYLAN: I can. I will simply conclude by approvingly paraphrasing – and
45 apologies to Chief Justice Preston – by noting that this is a project in the wrong place at the wrong time. Because of the need to deal with the consequences of climate change, the project should be refused. And I thank the Commission for your time and hope that you will make an appropriate decision on the project. Thank you.

MR O'CONNOR: Thank you, Jonathan. Next speaker.

MR BEASLEY: Next speaker is Melissa Gray from Healthy Rivers Dubbo. Can you hear me, Ms Gray?

5

MS M. GRAY: I can, thank you.

MR BEASLEY: Go ahead.

10 MS GRAY: Thank you. Today I'm representing Healthy Rivers Dubbo. We're a grassroots community group dedicated to providing a strong voice for our local rivers, aquifers and wetlands in the Murray-Darling Basin for the benefit of wildlife, plants and people. Today I'd like to pay my respects to the traditional owners of the land and rivers where we work and play, the Topagamayn-Wiradjuri. Thank you for
15 the opportunity to speak to the New South Wales Department of Planning's assessment report on the Narrabri Gas Project. Our group is firmly of the belief that the project shouldn't proceed and, in particular, we're concerned that the risk to the waters of the GAB, the Great Artesian Basin, are not adequately addressed in the assessment report.

20

In this five minutes presentation we're going to focus on the risks of further depressurising the GAB through increased water extraction. So the GAB is considered one of the seven hydrological wonders of the world. The Pilliga Forest is one of the very few known groundwater recharge areas for the GAB. Recharge areas
25 are vital in maintaining aquifer pressures, and therefore water pressures, throughout the GAB. Over 20 years Santos plans to extract 37.5 billion litres of water from deep below the Pilliga. The New South Wales Government have also increased the extraction limits in the southern recharge groundwater source which covers the Pilliga by 30 per cent from the 2008 New South Wales Great Artesian Water Sharing
30 Plan to the 2020 New South Wales GAB Water Sharing Plan.

In this water sharing plan, extraction in the eastern recharge area has also been increased, the extraction limit, by 22 per cent, so take is up. There's more water coming out of the ground from every method. There's increased extraction from this
35 project, there'll be increased extraction from existing irrigation. This is going to cause – is continuing to cause depressurisation, not just in the local areas but the effects will be widespread and they'll come over time. Efforts and investigations in capping and piping projects that have had some good outcomes in the GAB at restoring pressure for the artesian basin will only be put at risk by higher levels of
40 take in the recharge. Yet another case of one hand giving and the other taking away.

GAB springs continue to support the oldest living culture in the history of the earth. They have watered megafauna dating back over 30,000 years. They continue to sustain internationally recognised Ramsar listed wetlands to this day. The mound
45 springs at Peery Lake are recognised as one of the rarest landforms in Australia. Springs in the GAB are listed as supporting endangered ecological communities under the Commonwealth Environment Protection and Biodiversity Conservation

Act '99, they are listed as critically endangered ecological communities under the Biodiversity Conservation Act 2016, and they are listed as sites of significance under the Ramsar Convention, some of them are.

- 5 Approximately 1000 springs have already become extinct in the New South Wales Great Artesian Basin due to overdevelopment. The remaining springs that are there provide critical habitat in the harsh conditions for far western New South Wales. Stygofauna are fauna that live in groundwater systems or aquifers. They grow slowly, they don't have many young, they live long lives, and they stay close to
- 10 home. Some are from extremely old lineages with ancestors dating back about 200 million years, and it is because of their characteristics born of their low energy environment and their incredible age, a lot stygofauna species are extremely rare and very localised.
- 15 Stygofauna contribute important ecological services by creating a nutrient cycle and have been recognised as indicators of groundwater health. The Pilliga sandstone aquifer has been found recently to contain rare species of stygofauna. A survey of 22 sites within the Pilliga sandstone aquifer conducted in 2016/2017 reported a total of 11 taxa of invertebrates, which include 10 families from five orders of stygofauna.
- 20 The results show stygofauna exist across the entire area. Stygofauna are vulnerable to extinction from environmental changes and human impacts. They also are classified as being of high ecological value, as the area there is covered by the Lowland Darling Aquatic Endangered Ecological Community listed under the Fisheries Management Act of 1994.
- 25 The climate is drying a lot quicker than expected. The summer of 1920 was extremely hot and dry, quite terrifying actually. A lot of environmental damage was done and many regional centres, some quite large, were at risk of evacuation from running out of water. Dubbo, Tamworth, Orange. More dams are planned in New
- 30 South Wales. If they go ahead, it will only mean winners at the top of the catchment will have access to reliable surface water. Those downstream will have to rely more and more on groundwater.

MR O'CONNOR: Melissa, could you please wrap up now?

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MS GRAY: Water harvest from our floodplains is greater than ever and it's devastating our rivers. The pressure on groundwater supplies is increasing and will only continue to do so. Please don't allow this dangerous project. Thank you.

40 MR O'CONNOR: Thank you, Melissa. Next speaker.

MR BEASLEY: Next speaker is Suzie Gold from Lane Cove Coal and Gas Watch. Ms Gold.

45 MS GOLD: Hi. Can you hear me?

MR BEASLEY: Yes, go ahead.

MS GOLD: Can you hear me?

MR BEASLEY: Yes, we can hear you.

5 MS GOLD: Okay. Good morning, everyone. Okay. I'll go ahead. Good morning,
everyone, and sincere thanks for this opportunity to address you this morning. I'm in
awe of the speakers we have heard, as the facts have been laid out to the panel with
absolute clarity and gravitas. I'm a 74 year old grandmother and live in Castlecrag,
New South Wales. I'm a proud member of the Lane Cove Coal and Gas Watch and
10 a Knitting Nanna. Today I want to express to you my own personal statement of
expectations regarding the Santos Narrabri Gas Project.

Some years ago, my then 11 year old grandson confided in me that I was the most
passionate person he knew – there was a long, thoughtful pause – and he said when it
15 came to dogs and the environment. It was those issues that led me to the wonderful
friendship with Ted Mack. Ted became my mentor. We met at Tunks Park, our
local dog park, and used to meet regularly on what became known as the crossbench.
Wonderful times that I miss so much. I still walk his darling dog Billy most days
and this is my dose of daily happiness in these anxious times.

20

Many of the people I speak to believe the trust in our government has been eroded.
The response to the environmental crisis has been a catalyst for that erosion. In Ted
Mack's Henry Parks Oration 2013, Ted says:

25 *We seem to have achieved a government of the people by the powerbrokers for
their mates.*

Most people today believe that they should have a right to have their say in all
decisions that affect them, yet the usual views of politicians is to say, "We were
30 elected to make the decisions and if you don't like it, vote against us at the next
election". This view is totally unsatisfactory. It is the decision people are interested
in, not revenge sometimes later.

So I am hoping that this independent panel and the decisions before it gives us an
opportunity to re-establish public trust and demonstrate that we can be guided by fact
based on long-term decisions made for the greater good of coming generations.
After all, our legacy is driven not by what we have today but how we support
tomorrow. I wish it to be recorded that I am against this Santos project and I thank
you for the opportunity to have my say. Thank you very much.

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MR O'CONNOR: Thank you, Suzie, for your comments. We'll take a short break
now and we'll return at 10.30. Thank you.

45 **ADJOURNED**

[10.09 am]

MR O'CONNOR: Welcome back. We'll now proceed with our next speaker.

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MR BEASLEY: I think we have Barbara Russ-Deans on the phone. Are you there Ms Russ-Deans?

MS RUSS-DEANS: Yes, I am.

10

MR BEASLEY: We can hear you, so please go ahead.

MS RUSS-DEANS: Thank you. We are a farming family in the Coonamble Shire, fourth generation, two bores, and we share three bores with 20 other farming enterprises. I ask that the Commissioners do not give CSG mining go ahead in the Narrabri Pilliga. Because of the lack of evidence in the DPIE final assessment report and Santos's report, I am convinced that we will lose our groundwater. On page 14 of the executive summary, I quote:

20 *The salt is likely to be classified as general salt waste, which can be routinely disposed of at one of the 11 licenced waste facilities within 150 Ks of the site.*

I say this has to be a lie, and we can't trust this report. They have not addressed the salt waste problem. In EIS, they only identified three large enough waste facilities, yet to be confirmed. Using Santos's figure, yet to be proved, that equals 1344 trucks a year, for 25 years, dumping salt.

25

The Santos and the government could have – should have – been able to answer this one question. They had the time, the money, and the figures. On page 13 of the executive summary, they talk about minimising any long term risks of the project with safeguards, and it is security deposit, financial insurance, and a legal mining program. This is using money to fix the problem. But you can't drink money. My sheep and cattle can't drink money. What I'm worried about is no water, and you can't fix no water with money. But after three years of drought, I'm actually pretty sure our sheep and cattle can eat money. It looks like hay, but it was money. So what I can say is, they had good water for that three years, thanks to our bores.

35

In the Coonamble Shire, every mortgage is locked into this groundwater. I'd like to bring to your attention the Coonamble Shire's meeting in July where we were presented with a report from BPA Engineering. It is a detailed report on Coonamble's water system. Page 68, I quote:

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45 *Bores have been constructed into the Pilliga sandstone in Coonamble since the 1870s. These bores once flowed regularly at the surface under artesian conditions, but aquifer pressures have declined over time due to uncontrolled flows at multiple locations. The Pilliga sandstone aquifer is no longer artesian*

at Gulalibone. The aquifer remains artesian at Coonamble and Gwambone, albeit, at very low flow.

End of quote. In the same report, yield. I quote:

5

The safe yield for long term pumping capacity of these individual bores is difficult to quantify long term pumping capacities. It is the function of artesian pressures, which have declined markedly over the last 100 years. Where bores once flowed freely at the surface, declining pressures have necessitated pumping the system.

10

End of quote. These bores are 650 metres deep at Coonamble, 350 metres deep at Gulalibone, 600 metres at Gwambone, which is in the depth range of the Lake Berman seams at the Black Cat group that Santos notes on page 5 of the exclusive summary. This is too close, too dangerous to our town's water supply.

15

The Cap and Pipe Bore program of New South Wales states there is 8000 bores capping into the Great Artesian Basin across New South Wales. Nearly half the bores have stopped flowing, reducing landholder access to water. This is why we, as a community, are so worried about the pressure, the drawdown, and the recharge. The recharge is so important, and it doesn't get anywhere near the amount of attention that it should get in this report. I think this is because Santos don't know, and they can't test.

20

Reading the Independent Expert Scientific Committee report of June 2017, the phrases that struck me were, "it is a desktop study", "predictions of drawdowns can't be predicted", "greater impact than predicted", "not enough data", "not clear from the information provided", "limited data", "no evidence provided to support the proponent's claim", "modelling report not provided", "residual risk associated with uncertainty", "aquifer interference", "uncertain water flows", "limited field testing". I thank you very much for your time, Commissioners.

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MR O'CONNOR: Thank you, Barbara, for your comments. Our next speaker, please.

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MR BEASLEY: Next speaker is Peter Strong from the St George Greens. Can you hear me, Peter Strong?

MR STRONG: Yes. Can you hear me?

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MR BEASLEY: Yes, we can. Please, go ahead.

MR STRONG: Yes. Well, as you say, I'm from the St George Greens in the Bayside Council area. First, I'd like to acknowledge, I'm on Gadigal land of the Eora Nation. Respect to Aboriginal people, past, present, and emerging. Always was, always will be Aboriginal land. And I extend that respect to the indigenous people, the Gomeroi and Gamilaraay out there, fighting in the Pilliga against this

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ridiculous proposal to honeycomb the water supply and destroy livelihoods for other people in the area. The farmers who are already doing it hard because of the drought, and here comes this CS gas proposal that will just destroy the water supply, not only destroying the water supply for the people that need it, but the Great

5 Artesian Basin is – it should be sacred, you know. That’s supplying a lot of water for inland Australia. We cannot compromise it. And, you know, that’s just under the ground, the problems that will be caused if this goes ahead, with the ridiculous amount of water they want to extract every year.

10 The land clearing, you know. Like, do we really want to lose koalas in the country, you know. Do we really want it to be on our watch, koalas to go extinct? This koala habitat. They want to clear loads of forest. Land clearing in Australia is the big, big problem. So, then, there’s the spoils they want to produce; the solid salt laced with heavy metals. You know, what’s going to happen with that. We really can’t let this

15 go ahead. You know, there needs to be a mass movement like a 1998 Jabiluka, where people from all over Australia went and blockaded. You know, if it goes ahead, it will be opposed with direct action. I can assure you that.

20 You know, we cannot – in this time of COVID, you know, you cannot slip through these proposals, you know, just to – while everyone can’t – is in lockdown. You can’t just go ahead and destroy the planet, take the future generations rights of a livelihood away, you know. So I would just like to say, on behalf of the St George Greens, that we’re dead against this proposal, and it really – it really cannot happen.

25 We need a green new deal. We need to roll out sustainable energy. It can happen. It’s the future. Decentralise energy, make it sustainable, and leave a life for the future generations, you know. I mean, who are us just to steal the future. And gas – and CS gas proposals has caused problems all over the planet where it’s been

30 allowed to go ahead, destroying people’s livelihoods, destroying water supplies.

I think, if it does go ahead, the economic upheaval in the Narrabri area would be devastating for people; house prices going up. I mean, there’s a few jobs there, but the jobs in agriculture that would be lost, due to lack of water pressure, would be

35 much more. So on all levels – economic, environmental, indigenous land rights – it’s wrong. And it really – I really hope that, Commission, that you listen to all these submissions. And there’s loads and loads of submissions against this proposal.

You know, let’s roll out – you know, have some solar farm or windmills. Let’s not

40 get energy this way, which is the quick buck for an unsustainable energy, that will add to greenhouse gas emissions in a big way. I mean, this COVID crisis is one opportunity we have to reset the system to look at ourselves. Why is this happening? Maybe we’re doing it wrong. Let’s get out of this with a sustainable future of sustainable energy, human rights, and a better future and system for all. I think that’s

45 my rant pretty much over. I can’t think of anything else to – that I’ve – notes I’ve taken. Yes. Thanks for listening and have a good day. That’s me.

MR O'CONNOR: Thank you, Peter. Thanks for your feedback.

MR STRONG: Yes. All right.

5 MR O'CONNOR: Next speaker, please.

MR BEASLEY: Our next speaker is Ms Eleanor Lawless from The Wilderness Society. Ms Lawless, can you hear me?

10 MS LAWLESS: Yes. Thank you.

MR BEASLEY: Please, go ahead.

15 MS LAWLESS: Good morning, Commissioners. I'd like to acknowledge the Gamilaraay and Gomeroi Peoples, pay my respects to their elders, past, present, and emerging, and acknowledge that sovereignty was never ceded. Thank you for the opportunity to register this objection to the Narrabri Gas Project on behalf of The Wilderness Society, representing 126,490 active supporters. I come from a multi-
20 generational farming family from Bellata, as well as representing The Wilderness Society's national objections to this project of continental concern.

The Wilderness Society is an independent environmental advocacy organisation. We are membership based and we know that everyday Australians want governments to take action to protect nature and act on climate change. Australia's environment is
25 under increasing pressure. Independent reporting shows that all major indicators of environmental health have declined over the past two decades. We live in a truly special country, yet we are experiencing an extinction and climate crisis. Australia is worst in the world for mammal extinctions. The Narrabri Gas Project must be rejected.

30 As a nation, we are failing in our duty to protect environmental values, including endangered species, waterways, and large intact ecosystems. Australia's extinction crisis is not simply historical. Since 2000, Australia's list of nationally threatened species and ecological communities has increased by more than 30 per cent. At least
35 three endemic animals have gone extinct in the last 10 years alone. This must not be any of the 35 listed threatened species in the Narrabri Gas Project area. The Narrabri Gas Project will clear close to 1000 hectares of the Pilliga Forest, fragmenting the largest temperate woodland in the state; a home to unique wildlife. And yet, the department's assessment report reads:

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The project is unlikely to significantly impact any of the identified threatened fauna species, given the relatively small area of habitat removal.

45 This fundamentally fails to account for the project's impact on threatened fauna through fragmentation of a Commonwealth-listed biodiversity hotspot, thus creating wide and, effectively, permanent barriers to vertebrate movement with the construction of linear corridors. The etymology of fragment is, literally, a piece

broken off, therefore, creating a broken forest. These cumulative impacts could disrupt the breeding cycle and adversely affect habitat critical to the survival of these species.

5 One such threatened listed species is the endemic Pilliga Mouse. The future of the Pilliga Mouse is threatened by this project, due to the increased fragmentation from access tracks and dispersed clearance, potentially creating unfavourable micro-climates, open space, and traffic disturbances. The loss of habitat is significant. It might be a small brown mouse, but it is our small brown mouse, and we cannot fail
10 it. The project should not be approved, as the department's assessment report fundamentally fails to assure there is adequate knowledge and understanding of the current status of the Pilliga Mouse or all 35 threatened fauna in the project area, or of an appropriate management regime.

15 The department has recommended this project for approval with the requirement Santos undertake a Bush Fire Management Plan. This project cannot be approved before, and therefore, without an adequate bush fire plan. Importantly, this plan will likely recommend large habitat clearing, thus clearing far more of the 1000 hectares of the Pilliga than estimated and further contributing to habitat fragmentation,
20 leading our threatened species to extinction. The project must be rejected, as we do not know what this fire plan will entail and the consequent increased risk to threatened listed species.

25 Post-bush fired and post-COVID, Australia must not return to business as usual on fossil fuels, climate change, vegetation management and biodiversity conservation. There does not exist a binary between caring for our environment and supporting jobs. The two support each other. Without a healthy environment, we do not have a healthy community. The Wilderness Society urges you to be brave and sensible and to take a long-term, sustainable view. For our wildlife, our people, and our planet,
30 you must reject the Narrabri Gas Project. Thank you, Commissioners.

MR O'CONNOR: Thank you, Eleanor. Our next speaker, please.

35 MR BEASLEY: The next speaker we have, I think, is Fahimah Badrulhisham. Can you hear me?

MS BADRULHISHAM: Yes.

40 MR BEASLEY: Good. We can hear you, so please go ahead.

MS BADRULHISHAM: Excellent. Well done on the pronunciation.

MR BEASLEY: Thanks. That's the first hard one I've got right.

45 MS BADRULHISHAM: Good morning.

MR BEASLEY: Yes, go ahead.

MS BADRULHISHAM: Yes. Good morning. Thank you for giving me the opportunity to speak today. And thank you, as well, for the hard work that the IPC has put into this hearing. My name is Fahimah, and I am here as a representative of the Australian Religious Response to Climate Change. Yes, it's a long name, so we
5 use the acronym ARRCC, A-R-R-C-C. We are a multi-faith grassroots organisation, and our vision for the nation is one that embraces a sustainable future based on an ethical approach to ensure that all life on earth can flourish.

10 Our faith teach us that the earth is sacred and that our survival and prosperity are dependant on the planet's life-giving ecosystem. In Islam, the interconnection between God, human kind, and the planet, is and we have been given the privilege of custodianship to maintain the balance of our ecosystem and to treat its resources with respect. It is our firmly held principles of conversation that ARRCC
15 strongly opposes any coal seam gas extraction from the land of the Gomeroy People and, indeed, any fossil fuel extraction, full stop. It is well documented that the Santos Narrabri CSG project will not only contribute to climate change, it will be a disaster for local farmlands, for water supply and biodiversity and, also, for the spiritual rights of the traditional owners of the land.

20 Our faith teach us that our conduct must fundamentally be driven by fairness and responsibility. ARRCC is deeply concerned that the extractivist activities that we conduct today will have an unjust impact on future generations. But it's not only future generations that will suffer. In Australia, Aboriginal people are already bearing the disproportionate consequences of climate change. Our concern for
25 justice extends to the unfair and undemocratic influence that fossil fuel companies, Santos included, have over government decision making.

We also call out the conservative media for egregious falsehoods. Instead of
30 facilitating frank and productive dialogue about dignified and secure career opportunities in a low-carbon economy, mining and media corporations use scare mongering tactics. They have a vested interest in manipulating regional Australia into believing the false equivalency that ecological conservation equals economic ruin. This is not a fair go.

35 As people of faith, we are committed to truth telling. We accept the scientific consensus on climate change. We also accept the guidance of young people, traditional owners, and others who are most vulnerable to the consequences of climate damaging projects. The ecological limits of the planet are not negotiable, and we are rapidly approaching these limits. It is abundantly clear that there are
40 economic, health, and ethical imperatives to ween off our dependence on fossil fuels and to scale up renewable energy.

45 On behalf of ARRCC, I strongly urge the IPC to listen to the truth. As a young woman, as a person of faith, and as a proud Australian, I implore the IPC to make the right decision for our future; for sustainability, for fairness, for justice, and for truth, I ask the IPC to reject the Narrabri Gas Project. Thank you for your time.

MR O'CONNOR: Thank you, Fahimah. Next speaker, please.

MR BEASLEY: Our next speaker is Winnie Fu from the Lane Cove Coal and Gas Watch. Ms Fu.

5

MS FU: Hi.

MR BEASLEY: Please, go ahead.

10 MS FU: Thank you. Good morning. My name is Winnie Fu and thank you for the opportunity to present to the Commission on behalf of the Lane Cove Coal and Gas Watch, which is a subcommittee of the Lane Cove Bushland and Conservation Society. I would like to acknowledge and pay my respects to the Gomeroi People, the traditional owners of the country on which this project is proposed, whose
15 connection to the land continues to this day.

I'm here to also represent the voices of many thousands of people who live hundreds of kilometres away from Narrabri in the suburbs of Sydney; people who do not have this project in their backyard, but, nonetheless, strongly object to it; people who
20 have taken the time in the last six years to write submissions, write to the newspaper, attend forums, visit stores, attend movie screenings, respond to doorknock surveys, and sign petitions, because they feel strongly about protecting our country from coal seam gas. These people are not in the minority, they come from all walks of life and political persuasion. They live in the north, south, east, and west of our state capital.
25 We know this because Lane Cove Coal and Gas Watch is a part of a network of grassroot organisations who have been canvassing opinions of the general public in Sydney ever since 2014, and the results are overwhelmingly clear. We're only one group of many, and there are groups like us all over Sydney all receiving similar feedback.

30

In our local Lane Cove government area, we doorknocked six entire suburbs, Longueville, Riverview, Northwood, Linley Point, Lane Cove Central, and Lane Cove West. These are affluent conservative suburbs. We found in our first survey in 2014, that 84 per cent of residents did not want CSG on prime New South Wales
35 agricultural land. In 2017, 97 per cent said they supported a stop on the mining and exploration of unconventional gas in New South Wales. No matter how we asked the question, sentiments grew stronger. Among them were engineers, water experts, barristers, senior execs, and even the odd politician. We have met people with a thorough knowledge of the subject matter, including ex-CSG employees who did not support the industry.
40

Over the past six years, we have held regular stalls in Lane Cove and Gladesville, talking to general public and obtaining thousands of signatures on our petitions. In one petition, we collected 6000 signatures, which formed part of a 15,000-strong
45 signature petition to the New South Wales government asking for no-go zones for CSG, which triggered the CSG debate in Parliament House. We are in touch with the general public. Please don't be under any illusion that just because they don't

live near Narrabri that they don't feel strongly about this. There's a common community objection for CSG which is strong and consistent. These people are not naïve. They understand the economics, but they also understand the importance of protecting and maintaining our natural environment.

5

We heard consistent concerns about water scarcity, the impacts on our farms, about pollution, concerns for the natural environment, water security, and the impacts on communities. All of these things immediately come to mind for people when you raise the topic of CSG. We know that the capacity to grow food in our own state, to have clean water, to have healthy diverse ecosystems in protected wild places is far more important than the damage that we eventuate. People see that the short-term benefits of this industry do not outweigh the long-term irreversible risk to farmland, forest, Aboriginal heritage, water catchment, communities, people's livelihoods and people's health.

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The message from the Lower North Shore of Sydney is very clear, and we see this sentiment across Greater Sydney. People do not believe this project should go ahead. The impacts drastically outweigh the benefits. These people live a long way away from Narrabri, but it doesn't matter; it's their Australia as well. Their opinion and objections count, and I would ask you not to ignore this public sentiment. Thank you, Commissioner.

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25

MR O'CONNOR: Thank you, Winnie, for your submissions. Our next speaker, please.

MR BEASLEY: Next speaker is Tessa Rainbird from Tamworth Parents and Friends for Climate Action. Ms Rainbird, can you hear me? Ms Rainbird, can you hear me? Perhaps not. She's frozen.

30

MS RAINBIRD: Good morning, Commissioners. I would like to start by acknowledging the Kamilaroi People as the traditional custodians of the land from which I speak today and paying my respect to elders, past and present. My name is Tessa Rainbird. I appear before you today representing a group of approximately 100 climate concerned residents, mostly parents, from Tamworth, which is 170 kilometres southeast of Narrabri. I will, therefore, use my allocated time to talk about the climate consequences of the proposed project and why its approval would be deeply unjust to our children and, indeed, all children who deserve a voice in these proceedings.

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I am here today, not as an expert, but as a parent. I am also certain that by this point in the week, you have heard many submissions which address the scientific inaccuracies and manipulations in the Santos Environmental Impact Statement and the Department of Planning, Industry and Environment report. I will, therefore, not rehash this information in any detail. However, there are two glaring issues with these documents which I feel are worthwhile reiterating.

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First is the assertion that on a life cycle basis, the project's resulting CSG-fired electricity would produce 50 per cent fewer CO2 emissions than coal power and that, in relative terms, the emissions of the project are expected to be low. These claims are claimed on outdated decades old assessments. It has now been proven that the
5 CO2 content of the gas at Narrabri is up to three times higher than that assumed by Santos in its EIS. Santos's figures also underestimate the fugitive emissions. If actual gas content and modern internationally accepted methods for measuring fugitive emissions are employed, it is estimated that the project's total greenhouse gas emissions would approach those of burning coal to produce the same amount of
10 energy. Further, even a one per cent increase in Australia's total emissions is an enormous figure, given our country's status as amongst the highest per capita emitters in the world.

Second is the incorrect claim that the project will play a positive role in transitioning
15 New South Wales to renewables and that a decision against it will impede our shift to a clean energy economy. Not only are the project's emissions estimated to rival those of coal, but New South Wales's particular richness of renewable resources, together with advancements in clean energy efficiency and battery storage, means we are perfectly placed to transition immediately, without the need for a polluting gas as
20 a stop gap. Sorry, I'm just sharing a screen.

Thank you. On the screen before you is a collection of photographs of some of the beautiful children of parents in our group who I am here representing today. This includes my daughter Harriet, who turned one at the beginning of July. Around this
25 time last year, I read the Intergovernmental Panel on Climate Change 1.5 degrees report for the first time. Awake in the dead of a winter's night with my smartphone in one hand and a sleepless newborn in the other, I learned that by the time my daughter is 12 years old, human actions will have determined whether we can avoid the worst impacts of climate change and secure a habitable planet for her future. It is
30 with this knowledge that I appeal to you with unapologetic emotion on her behalf.

To secure our continued existence on the planet, we need to have our projected greenhouse gas emissions by 2030, a goal which we are far from being on track to achieve, and one which the Narrabri Gas Project would work actively against. Your
35 decision comes at a time when we cannot afford even the smallest increment in emissions if we are to avoid climate tragedy. In this context, at this point in history, the establishment of any new fossil fuel projects is completely unjustifiable and, indeed, reckless and immoral.

Commissioners, I ask you humbly and from the heart to please think of our children
40 in the coming weeks as you make your decision. They have been innocently born onto a rapidly deteriorating planet. It is our grave responsibility at this late stage of the game to do everything in our power to secure a safe home for their futures. Although many of them cannot speak for themselves yet, it is they who will suffer
45 the consequences, if we choose not to act in accordance with the accepted science and urgently address climate change. They, therefore, deserve to be at the centre of any decision that will impact our warming planet and, thus, their future health and

wellbeing. Commissioners, I ask that you please ask in our children's best interests and reject the Narrabri Gas Project. Thank you.

MR O'CONNOR: Thank you, Tessa. Next speaker, please.

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MR BEASLEY: Next speaker is Dolly Talbott from Gomeroi Traditional Custodians. Ms Talbott, can you hear me?

MS TALBOTT: Yes, I can.

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MR BEASLEY: Please, go ahead. We can hear you.

MS TALBOTT: Good morning. First, I would like to acknowledge the Gomeroi People and my elders, both past and present. I'm a Gomeroi woman from Gunnedah in New South Wales and, like many mob, I have cultural ties back to the Pilliga. And the discussion today is very difficult and upsetting for many Gomeroi people, as the proposed project will desecrate and destroy vast tracks of intact sacred places and burials, and these have not been properly considered by the proponent or the archaeological contractor to inform any assessment or mitigation consideration.

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I represent the Gomeroi Traditional Custodians of over 600 Gomeroi people, and I'm here today to voice some of our concerns. The following key points are (1) the inadequacy of the EIS process, and the failure of the company Santos to undertake its assessment obligations regarding the First People of this country, therefore, rendering the assessment information before you as inadequate and unacceptable; (2) the impending destruction of our cultural heritage, if this project is approved; (3) I've raised concerns regarding the adverse impacts to our water purity and its impact to regional communities reliant on water from the Great Artesian Basin. The need for the PAC to extend its consultation program to include an all-inclusive on-country cultural heritage discussion.

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I understand that there are time limits, and we'll deal with the matters listed in brief. I advise, the Gomeroi Traditional Custodians will also be providing a written submission; however, I'll also request an on-country consultation opportunity, due to systemic barriers which would go against our traditional laws and customs, placing us at an extreme disadvantage in this PAC process. (1) the first concern is that Santos have failed to undertake adequate consultation with traditional people. They have failed to identify the knowledge elders and conduct consultation in accordance with Gomeroi tradition and accordance with the NSW Office of Environment and Heritage 2011 Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales under the OEH cultural heritage guidelines, where the proponent is to undertake investigation into the cultural values of the project area, not just conduct a limited archaeological consideration.

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To date, there has been a failure to undertake assessment of Aboriginal cultural and spiritual values of the area, and this is a clear breach of the guidelines, despite these issues being raised to them on numerous occasions. This failure includes the fact

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that there is both men's and women's business out in the Pilliga, and these values have not been considered nor included in the assessment to inform impact assessment.

5 The Office of Environment and Heritage also advises that the proponent must apply the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, OEH cultural heritage guidelines, to have conducted an appropriate cultural heritage assessment. Santos has failed to do this. In these guidelines, there is an addendum
10 which makes provision for the management and recording of sacred knowledge, including men's and women's business, to be recorded and assessed. Santos have failed to undertake these requirements and, therefore, the entire assessment is inadequate and does not meet the requirements and should not be accepted as
15 adequate. As a result, the PAC should not make any decisions regarding the future approval or disapproval of this project without having all the information before them. To do so would be a miscarriage of justice for Aboriginal people and a failure of the Commission's due diligence to consider all matters necessary in their deliberations.

20 The Santos project is incompatible with Gomeri traditions and law. Our sacred places and generational burials are known to be placed throughout the area. Santos were advised of this sacredness and were asked to leave the area in 2013. This was recorded by media and our people. Santos has continued to have a presence in our country, without taking heed of the sensitivities and cultural sacredness of the Pilliga. These statements are not included, nor reflected, in the Cultural Heritage Assessment
25 Report.

Santos cites its commitment to the Burra Charter, and the Burra Charter guides cultural heritage management in Australia. The Charter defines conservation as:

30 *A process of looking after a place, so as to retain its cultural significance. A place is considered significant if it possesses aesthetic, historical, scientific, or social value for past, present, or future generations.*

35 We have been telling Santos that the Pilliga is sacred. It is special and holds special meaning and special places, including burials. Yet, and despite Santos stating that they uphold the principles of the Burra Charter and the fact that we need to retain its cultural significance, they have proceeded to ignore these requirements in the assessments and failed to include cultural information which would inform the assessment and the PAC and provide a different assessment and understanding and
40 set of recommendations. Relying on archaeological interpretation alone about our culture is inadequate and discriminatory.

45 There has been an overreliance on archaeological information and desktop assessment, and our cultural values and our traditional laws and custom in the sharing of sacred information has not been considered, nor recorded, to inform the assessment; therefore, the report should be declared invalid and further cultural

values assessment work should be directed prior to any decision or recommendation being made by the PAC.

5 The environmental and cultural concerns regarding the proposed project and its
irreversible impact on both water, its quality and supply, needed for all people in this
region, both upstream and downstream, from the aquifers to be impacted by the coal
seam gas extraction process. This region has been hit by severe and prolonged
drought, and climate change will only deepen these vulnerabilities in our
communities. The drought has had a heavy toll on our communities. Reliance on
10 water has been challenged, where communities and whole towns have not been able
to access water, and it's had to be transported in. Many a bottled water run has been
undertaken by Gomeroi People desperately trying to get water out to our families.
The vulnerability of our water systems need to be urgently protected and no
development consent should be issued for any project which places at further risk our
15 rights to the protection and use of our essential water supply.

Another question being raised is, also, why we need for coal seam gas in the Pilliga.
The Hunter Gas Pipeline has already been approved and is planned to bring gas from
Queensland to New South Wales to service the New South Wales community and
20 households. Hunter Gas Pipeline submission statement 2017 is on their website as
current, July 2020, and it clearly identifies that there's no need from a reliance of gas
from Santos, given the supply from Queensland. The other fact that's clearly not
been considered by Santos is this draconian offer, which over time will become
obsolete and at great risk of becoming a stranded asset.

25 Nationally, there are clearly changes in the use of renewable energy. South Australia
is a great example of renewables being used for energy, and they are leading the way.
Following close, in second place, is the Australian Capital Territory, which is on
track for 100 per cent renewable energy from 2020. The ACT has also announced
30 impressive plans to achieve net zero emissions by 2045 by cutting emissions from
transport and cities. Tasmania's in third place for making headwinds towards 100
per cent renewable energy by 2022 and its plan to provide energy to Victoria. While
Queensland lags in at fifth, alarming, New South Wales is woefully ranked sixth,
with New South Wales being the only state without a renewable energy target.

35 I'm not an alarmist or exaggerating the risk. Santos already has a legacy of toxic
contamination of aquifers, and I fear for my family and community and all
communities reliant on the Great Artesian water supply. The EP investigation report
into the contamination of an aquifer by Santos' Narrabri Gas Project in the Pilliga
40 forest revealed how little the government and the company can do to clean up CSG
pollution once it occurs. Since 2012, aquifers have been polluted with deeper aquifer
impacting the stock and the bores within five kilometres of the contamination
site. Apart from the extreme salinity, perhaps the scariest aspect of that report is that
it concerns that CSG wastewater leached a number of heavy metals out of the soil
45 into the water table, including uranium. The Great Artesian Basin supplies water to
thousands of people. It is also sacred to our people.

In closing, it is extremely difficult to share with the PAC sacred knowledge regarding our culture and heritage and sacred information about our places of significance in a public forum setting, such as this. This is not the way we speak about our culture. It is not in accordance with our tradition, and this places us at an extreme disadvantage. We have an oral tradition, and many of our elders and knowledge elders are uncomfortable with the written word in public forums such as the one where we are today.

Additionally, the high significance of the areas is based on layers of restricted knowledge, held and safeguarded by different knowledge holders. The majority of the elders of the area – sorry – are gender restricted. It is difficult for the Gomeri elders and knowledge holders to articulate the significance of the sites to our traditions, unless we are on country and in context, which enables us to disclose culturally sensitive information without significantly breaching the cultural protocols, which are central to our tradition and law.

Given that the state government, through their planning reforms, have eliminated the right to appeal the decisions of an EIS, we ask that the PAC please extend the consultation program to include our request, given the significant and irreversible impact this project will have on our Gomeri People and our elders and children, as well as consideration of the inadequacy of the assessment, which contravenes the standards of the New South Wales government, Aboriginal consultation and cultural heritage guidelines when undertaking a cultural heritage assessment. We request your assistance in obtaining access to the sites for us so that the PAC can be properly informed as to the significance of the areas to inform your deliberations.

MR O'CONNOR: Dolly, if you could please wrap up now.

MS TALBOTT: Okay. We, as Gomeri People, have the right to maintain and practise our culture and an obligation to protect and conserve our country. We, as a people, cannot survive without our country. We are intrinsically connected to our land and each other, and any destruction to country affects our physical, mental, and spiritual wellbeing. We strongly urge you to say "no" to Santos, and "gamil" means "no". And "gali" water is light. Thank you.

MR O'CONNOR: Thank you very much, Dolly, for your submission. Next speaker.

MR BEASLEY: We have Mr Greg Walker from the Sutherland Shire Environment Centre. Mr Walker, can you hear me?

MR WALKER: Can you hear me?

MR BEASLEY: Yes. Please, go ahead.

MR WALKER: Thank you very much, Commissioners, for the opportunity to speak to you on this very important project. A brief background is that I'm a retired

economics professor, and I've spent most of my working life in regional New South Wales. I have visited the Pilliga, a most inspiring conference sponsored by The Wilderness Society, and it is clearly a very magnificent environmental area, but a very fragile one. And I've also spoken to local Gomeroi and farming community people, who were so thankful that we people, now, from the city, have been prepared to listen to them and support their actions.

Given my background, I wanted to focus on the department's assessment of the economic benefits and the environmental risk. I have submitted a more detailed written submission. But I'll just concentrate on the key themes for you. I think the department's assessment of this project, particularly the economic benefits and the risks, are flawed. It appears to be just a rubber stamp of Santos's original Environment Impact Statement. In particular, they start with, the basis for their support for this project is energy security, and that's based on a projected supply shortage. It is very hard to argue that there is a shortage of gas in Australia, given that we are a major gas exporter and we export over 70 per cent of the gas we produce.

But what is missing from the department is any comment of what has happened in the last two years, leading up to 2020. There has been a massive expansion in global LNG export terminal construction. There is going to be an incredible oversupply of export LNG, particularly coming out of North America. Australia will be dwarfed by what is being recently constructed. On the demand side, we're now being plunged into an unexpected world recession that has smashed the demand for international gas. When words – when a body like the International Energy Agency uses the word “meltdown” to describe the international gas market, you've got to wonder just how serious this is. It is serious. The global energy monitor refers to us leading to a market bubble, but there's no reference to any of this in the department's assessment report. They simply claim that this will aid economic recovery from the pandemic; no, it won't. What we're looking at, probably, is that there will be a lingering oversupply from the Australian gas export industry that will linger well past 2025.

Now, let's go to the next point that the department mentions. It's a strategic energy project. Well, if it's a strategic project, why has it not investigated all possible solutions. My previous speaker, that I was just listening to, actually mentioned there are alternatives. The department mentions the alternatives, but there's no evaluation of these. Now, I appreciate that the Planning Commission, you are not tasked with looking at alternative solutions; you are tasked only with looking at this, but if the department says you should approve this, without explaining that we have better alternatives, I can only wonder whether your option is to say that this project should not be finalised, or should be rejected, until there is a proper evaluation of alternative solutions.

Let me move to economic modelling. Their modelling is old; it doesn't include the latest things that I've talked about. It has a cross-benefit analysis; yes, that's good. It has a computable general equilibrium modelling exercise. That's all good standard

evaluation of projects, but, of course, there's no comparative analysis of alternative solutions. When I dig into the sensitivity analysis that they've done, quite clearly, the net benefit that Santos and the department just simply accepts is wiped away if the international gas price collapses. It has collapsed. I would believe now, if this
5 benefit-cost analysis was redone, it would be a net negative benefit for this project. I can accept that they couldn't predict COVID – no one else could – that it would happen at this time.

10 MR O'CONNOR: Could you please wrap up, Greg.

MR WALKER: Okay. The other thing is the environmental risks have been understated. The emissions have been criticised. The department has not detailedly evaluated this; they have simply said, "We asked Santos, and Santos said, 'we did it according to national guidelines'." That is not an evaluation. This is just a rubber
15 stamp of Santos. I request that you reject this. It is a very fragile environment, the environment risks are too great to accept this, and the economic benefit is not there. Thank you.

20 MR O'CONNOR: Thank you for your submission. Next speaker.

MR BEASLEY: Next speaker is Dr Coral Wynter from Stop Adani. Dr Wynter.

DR WYNTER: Good morning. My name is – yes – Dr Coral Wynter. I strongly oppose the Santos coal seam gas mine at Narrabri. And I would like, first of all, to
25 acknowledge the traditional owners of the land and Gomeri People, whose land was never ceded. I'm a biochemist. I obtained a PhD in neurochemistry from University College London in 1973. I have taught medical students at The University of Queensland. I worked as a researcher for the Queensland Workers Health Centre, where I investigated workplace chemical exposures of workers in factories, offices,
30 and in agriculture. I was involved in cancer research for the last 15 years of my career, and I am a member of StopAdani Redfern. And I've been involved in environment movements for the last 40 years.

I have visited the Pilliga twice and seen the damage already committed by the 69
35 experimental gas wells. And I would remind the Commissioners of the 2011 event, where Santos spilt 10,000 litres of untreated toxic waste in the Pilliga. There was a large dead area around the wastewater ponds, where 20 spills of toxic wastewater over the last few years have killed all the trees and destroyed the – wrecked the soil. So it's inevitable that accidents will happen.

40 But in this submission, I would like to focus on the damage done by the chemicals involved in the mining of coal seam gas. There are two sources of the toxic chemicals. One is the chemicals added to the extraction of the coal seam gas. And, secondly, the chemicals naturally occurring in the coal seam are called the formation,
45 that are brought to the surface in the extraction wastewater. So, first of all, the first groups of chemicals, there's a wide range of chemical additives that Santos add to the pipes to extract the gas. found 113 chemicals used in this process in coal

seam gas, and 44 of them are harmful. But the government assessment report notes that their disclosure is not mandated, so we have no idea what these chemicals are. They hide under the rubric of commercial confidentiality.

5 The chemicals used in the extraction of the are surfactants, acids – because the underlying water extracted is alkaline; they have to neutralise it – bactericides, and glycol. But most of these additives, I will stress, are unknown. A known carcinogen, asbestos, was found in the wastewater pond at Pilliga, during the experimental process.

10 Secondly, to refer to the naturally occurring chemicals in the formation, are concentrated in the extraction of the – that are concentrated in the extraction of the gas. These are formaldehyde, benzene, cadmium, radioactive uranium, thorium and radium and their decay products. And all these are naturally found in the rocks, and they're all carcinogenic. As well as that, you've got cesium-137, that I understand that the – Santos puts down in the pipes, in order to use the – to find out where the bores are. I'll just share my screen. I've listed these – share – I don't know whether you can see that.

20 MR O'CONNOR: Yes, we can.

DR WYNTER: Okay. Good. So on top of that, there are other chemicals found also in the formation; that is – other toxins are toluene, nitrous oxide, ethylbenzene, xylene, a group of compounds called the poly aromatic hydrocarbons, nickel compounds, mercury, boron, lead, aluminium, strontium, barium and fluoride. Now, the root of exposure is through the evaporation of organic chemicals from the wastewater ponds and the particle pollution from the dirt and dust washed into the rainwater tanks that will be used for drinking water. That's another root of exposure for humans and animals. On top of that, the health effect of these chemicals are nose bleeds, asthma, constant migraines, skin rashes, birth defects, reproductive abnormalities, autoimmune disease, heart conditions, sinusitis, fatigue, neurological effects, respiratory effects, and cancer, of course. Now, all these have been found and documented in the coal seam gas fields in Queensland.

35 Now, it was a momentous decision, I think, of the IPC, to reject the Bylong coal mine, partly based on the damage to future generations, both climatic and environmental. So I urge you to use the same logic to reject these 840 gas wells of Santos and the 840,000 tonnes of contaminated salt, that I haven't mentioned. We don't need any more coal and gas mines in this country. We have enough, and abundant sunlight, and it won't be a gas-fired recovery; it will be a gas-fired disaster. We don't need to risk the largest intact standard temperate dry woodland forest, the Pilliga; no need to risk the health of the Narrabri community and the sacred sites and culture of the First Nations People, the Gomeroi, who, after – have conserved this land for 65,000 years.

45 MR O'CONNOR: Can you please wrap up now, Doctor.

DR WYNTER: Okay. This is my last point. We are literally endangering the future of agriculture in this state with the poisoning and the depletion of the Great Artesian Basin. I think Santos should have to prove why it's necessary to mine coal seam gas. I believe we are put on this earth to improve the way of life of the next generation, and I appeal to you to consider our collective duty as custodians of the water, the land, and the air. And I thank you for listening.

MR O'CONNOR: Thank you for your presentation, Doctor. Next, please.

MR BEASLEY: Next is Associate Professor Richard Fletcher from The University of Newcastle.

ASSOC PROF FLETCHER: Good morning. Thank you for the opportunity to speak to you this morning. And let me acknowledge the Gomeri People, the custodians of the land that we're talking about, and their elders, past and present and emerging. The points I want to make to you – can I have the next slide, please. I can't see that slide. The next slide. Thank you.

MR O'CONNOR: Yes. It's come up now.

ASSOC PROF FLETCHER: Okay. The point I want to make to you is a particular one, based on my research of the last 20 years to do with men's mental health, particularly around fathers' mental health – so fathers, not farmers; although farmers are a part of the populations that I've been investigating. My argument that I want to put to you is that the DPIE was wrong in assessing this and saying that it would be unlikely to harm their health. And I'm thinking of that particular group of farmers, who have already a higher risk of mental health issues, due to their environmental situation, with unpredictable climate issues, and now, I would say, because when – if Santos were to go ahead, they would be engaged in this assessment process – in the access assessment process. And that that, I'm suggesting, is inherently a stressor.

So my point is not that Santos behaved badly – although lots of other people have pointed that out – it is that the system that they operate on, for a landholder to negotiate with them, is inherently stressful. And that's because – could I have the next slide, please – that's because it's basically weighted so heavily in terms of – in this case, Santos, but whoever they're negotiating with in this framework. As you can see on this slide, the resources that are brought to a negotiation. And the negotiation isn't something you can avoid, really, because after 28 days you're obliged to go to arbitration. The negotiation is heavily weighted in terms of resources and time and finances on the side of Santos. And I want to illustrate that process, or the effects of that process, with one example. Could I have the next slide, please.

My point doesn't particularly apply to those farmers who might resist anything to do with CSG. It does apply to those who say, "Oh well, I'll" – as this farmer did, that I'm about to describe – "I'll give it a go." In 2018, I interviewed this farmer from the Roma Chinchilla area. That's not exactly a picture of his spread, but it's similar.

He's had – he agreed for Santos to drill on his property. He was very worried about the whole process. He runs cattle, and so he was worried that he would have evidence, perhaps, that his meat had been contaminated. And that would mean, if that were picked up further down the chain, that he would lose his certification. So
5 he was worried about biosecurity. He was worried about all the details, of which there are many, in a contract with Santos. And over a period of years, negotiated with Santos, reviewing and refining the contract that was eventually signed.

10 The reason he eventually signed, he explained, was because the stress of the contract process was keeping him awake or waking him in the middle of the night. And as someone who is a farmer, he was saying he's working with heavy machinery and he realised that he was becoming unsafe in his work; that he was having near misses. That meant that he weighed up the options and decided to sign with Santos to get out of this process. So I point out that this wasn't somebody who hated CSG necessarily
15 – or, certainly, not at the beginning – and who was negotiating in good faith with Santos. So it's not about their particularly nasty behaviour. It's about the systemic way that the farmers are put at risk. Could I have the next slide, please.

I think the DPIEs cavalier assessment of how different Pilliga is to Queensland is
20 also in error. The processes that I'm describing are the same. The farmers around Pilliga will be in the same situation as this farmer was up near Roma. The arrangements are similar. It's not very different between here – well, where you are, I mean, in Pilliga – and Queensland. Next slide, please.

25 MR O'CONNOR: Could you wrap up now, please, professor.

ASSOC PROF FLETCHER: Okay. I would say that the correct assessment from the DPIE, had they done their homework, would be that the Pilliga project proposed
30 by Santos is very likely, I would say, to have an adverse effect on the health of farmers, in this case, the people of the area. Thank you very much.

MR O'CONNOR: Thank you for your documentation you have provided. Next speaker, please.

35 MR BEASLEY: We have Christine Jinga on the phone, from the inner west branch of the Wilderness Society. Christine.

MS C. JINGA: Good morning, commissioners, and thank you for this opportunity to speak. I, first of all, want to acknowledge the Gomoroi people of the Pilliga,
40 whose land was never ceded, and their elders, past, present and emerging. I also acknowledge the Gadigal People of Eora Nation, from where I speak to you this morning. I wish to register my objection to the Santos proposal. As commissioners, you have had a heavy burden placed upon you in the absence of responsible leadership in our state, and indeed Australia. Our environment is threatened at a
45 bewildering pace, and the stewardship of this land for over 60,000 years, by our First Nations People, is being undone in a manner I feel ashamed of, and indeed enormously angry about.

Care for the Earth, our home that sustains us and needs our protection, has never been greater, and yet a gas-led recovery appears compatible in the eyes of our politicians. Over the past four days of the Commission hearings, there has been one word repeated again and again by farmers, concerned citizens and experts alike: risk.

5 Risk-taking is generally considered to be the domain of our teenage years, and we hope our kids learn, and survive their wilder years, yet we are allowing risk to be central to our finite planet. I grew up on the black soil of the Liverpool Plains in Gunnedah, and consider the land, and the friends I have in the area, to be my homeland.

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The water needed to sustain life and security of our food, as well as the air and healthy climate that we need, must be our primary considerations. I'm a grandmother to two boys, 10 and 13, who are very aware of the threats to their future posed by climate change. A co-ordinated group of people from the inner west, who are active members of the Wilderness Society, and who, like me, see a bleak future without effective protection to life-giving forests and ecosystems, and the creatures that depend on them. Like most of those who have presented to you over this record-breaking period, I have read deeply and widely on the issues generated by this ill-conceived proposal. My submission will be referenced, and will address my objections, but I want to highlight, in particular, the central threat to the Great Artesian Basin and the aquifers that the farmers are reliant upon.

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There is considerable risk that aquifers could be fractured, and that the steel-weld casings will erode and rust over time, and that methane emissions will be released. Underlying close to a quarter of Australia's land mass, this fragile water system of the GAB is our lifeblood, and must be protected at all costs. While Santos assures us that fracking will not occur, the 2011 contamination spill was met with a small \$52,000 fine. Santos passed the buck to the previous owners, Eastern Star Gas. Further spills have been recorded. Without a legally enforceable guarantee that no chemical fracturing will occur, the risks remain, and Santos has proven to be untrustworthy. To paraphrase an earlier speaker, when we can't manage the river systems that we can see, why would we risk that which we can't? The Pilliga, as you well know, is the largest temperate woodland in New South Wales, and the subject of Eric Rolls' A Million Wild Acres. It's already compromised by a multiplicity of managing bodies.

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The fragmentation of wildlife by new gas access roads and construction, to already endangered species, will spell their death knell. Small jewels like the Pilliga Pottery and Sculptures in the Scrub will likely see fewer visitors right at a time when a pandemic invites tourists to learn about and enjoy regional New South Wales. When the liability for CSG falls onto landholders, and insurance companies see the risks as too great; when the number of days over 40 degrees increase such that farmers cannot work and soil moisture and animals are stressed in the extreme; when suicides occur and hope is lost in our rural and indigenous communities; and the list goes on; we turn to you to offer wisdom and maturity. As my older grandson said to me last night, "They" – and his was meaning Santos – "don't care about our future. Please tell the Commission the plan sucks." Thank you for your time today.

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MR O'CONNOR: Thank you, Christine. Next speaker.

MR BEASLEY: Next speak is Pip Hinman from Stop CSG Sydney. Ms Hinman.

5 MS P. HINMAN: Good morning, commissioners. I would like to start by
acknowledging I'm speaking to you from Cadigal-Wangal land of the Eora people.
You may wonder why so many people from all over the state are urging you not to
approve Santos' application to drill for coal seam gas in the north-west of New South
10 Wales. It's because a lot of us have faced the threat from the industry setting up near
our homes, our workplaces, our schools and our parks. I first learned about the
dangers associated with CSG when Dart Energy attempted to undertake a test drill
site in St Peters, about six kilometres from Sydney's CBD, in 2011.

15 The local community found out, and quickly educated itself about the risks that the
industry posed, both to those living nearby and to the broader environment. Stop
Coal Seam Gas Sydney helped organise information sessions, film showings, rallies,
human signs and more. We also heard from former industry people, who warned us
about it. We learned about the damage caused in Queensland, and we decided the
20 risks were too great. We did all we could, along with other community groups across
the state, including farmers from the Liverpool Plains, to stop that test drill from
proceeding. After several years of community work, in March 2015 the New South
Wales government decided to cancel Dart Energy's petroleum exploration license
463.

25 It was a vast license, which covered the whole of metro Sydney and extended from
Sutherland to Gosford. It also cancelled 16 other licenses, admitting it urgently
needed an audit, because the licenses had been issued under the previous Labor
government like confetti, it was said. Later in 2015, the Coalition government
30 introduced its New South Wales Gas Plan, which allowed it to buy back coal seam
gas titles and applications, which had covered more than 60 per cent of New South
Wales. It claimed the plan was a response to the New South Wales chief scientist's
16 recommendations on managing the inevitable risks from coal seam gas.

35 But an Upper House inquiry in 2019 found that only two of those recommendations
had been fully implemented. Others were only partially implemented, or, some, not
at all. In 2015, it appeared the New South Wales government had decided the risks
from the industry were too high for those living in the city. So why has it decided
that the risks are lower for those living in regional and rural areas? Why, after
40 knowing the risks, has it decided to recommend that Santos be given the go-ahead,
even while the company publicly states that the risks of coal seam gas mining in the
Pilliga, to the Great Artesian Basin and other aquifers, is negligible?

45 Any risk to the GAB and other aquifers is not negligible. It's not acceptable. As are
the many significant risks of this project outlined in these hearings by the Gomoroi
People, farmers and townsfolk. As overwhelming numbers of people have addressed
the project's specific inadequacies, I want to spend the rest of my time on the
existential threat we collectively face if fossil fuel extraction companies like Santos

were allowed to proceed. I expect that you have children, perhaps grandchildren, but, even if you don't, you would know that young people are understandably worried about the climate-changed world they are inheriting. Last December, as the Black Summer fires were taking hold in New South Wales, the United Nations Secretary-General, António Guterres, told world leaders that global average levels of carbon dioxide had already exceeded what had previously been considered an unacceptable global tipping point.

Globally, there are already too many approved and contracted fossil fuel extraction projects. The world is on track to warm up a lot more than 1.5 degrees Celsius, the globally agreed target. In fact, just three years ago, Santos told its shareholders that its business plan was based on an increase of four degrees Celsius in the global climate. This is not acceptable. Climate scientists say Australia is not on track to meet its agreed targets under the Paris Agreement. On a per capita basis, Australia's carbon footprint, including exports, is nine times higher than China, four times higher than the United States, and 37 times that of India. This is relevant to any consideration about whether or not to give Santos the first approval to extract gas in New South Wales since 2001, when AGL received its license to frack in Camden.

The Paris greenhouse gas emission targets agreed to by other European countries, in particular, means that they won't be wanting Australia's fossil fuel exports for much longer. They will be looking to import clean energy, of which Australia has abundant benign sources. All jurisdictions have to make a conscious decision to make the switch away from fossil fuels. We know it would create a green jobs bonanza. And even Santos, I note, is starting to develop clean energy. I urge the Commissioners to think about the future, and not allow Santos approval for dirty fossil gas in what it hopes will be the first of many unsafe coal seam gas projects in the north-west of New South Wales. Thank you very much for listening.

MR O'CONNOR: Thanks for your presentation, Pip. Next speaker, please.

MR BEASLEY: Next speaker is Bruce Holland from The Norwood Resource. Mr Holland.

MR B. HOLLAND: Good morning. My name is Bruce Holland, as you just heard. I am from Norwood Resource, which is a not-for-profit group of ex oil and gas professionals. They're retired, semi-retired and independent operators. And our mission has been to try and correct a lot of the loose assertions and misrepresentations about the oil and gas exploration and development in and around Australia. A lot of our time has been spent on fracking and fracking inquiries, as well as offshore oil and gas exploration such as in the Great Australian Bight. In regard to the Narrabri Gas Project, I'm – my background is also economics. So I'm an economist as well.

In regard to the Narrabri Gas Project, we are of the view that the more gas production, the more sources of supply – is certainly urgently needed for the east coast of New South Wales – the Sydney, Newcastle, Wollongong area in particular –

and this is also evidenced in the AEMO latest – looking at the supply and demand in – around that area. So, from 2024 there’s going to be a tight and uncertain ability for supply to be able to meet demand. And certainly on a peak-on-peak basis, it may be that it won’t be 2024. It might start to come into 2023, and maybe even a bit earlier, because meeting peak can sometimes be quite difficult.

While some of the anti-Narrabri Gas Project participants might take the view that – saying that there’s no mass shortage of – on the east coast, because, well, we simply have to take from export market and put it in the domestic market, our view is that, basically, when customers can’t get long-term supply offers, and prices are peaking, overall there’s not enough gas to go around. So we’re of the view that more gas supply, and more gas, is required, and we see Narrabri Gas Project as an ideal cog in that wheel, in terms of being able to meet supply and meet demand. And this is also evidenced by a recent article, actually, in The Australian, on 16 July, just this month, by Stephen Bell, the CEO of Qenos, a major industrial user in gas around the Sydney area. And he is basically crying out for more gas supply.

And gas is more than just an energy source in competition with coal, say, for electricity, or with renewables for electricity generation. It’s an essential feedstock. It’s an essential feedstock for gas-based chemical manufacturers. They supply gas-type products into 108 out of 114 value chain industries. Gas-based manufacturing employees 300,000 – or 300,000 people depend on gas supply for their jobs in around the east coast. It produces anything up to about \$38 billion of wealth for our country each year. It’s critical to our strategic agricultural resources and downstream processing industry. As a feedstock, it’s transformed in an extensive range of everyday products. Products which you use every day, which I use every day – plastics on your mobile phone, plastic in our computers. It’s used for fertilizers that are essential for agriculture.

Shampoos, glassmaking, printmaking, disinfecting, detergents. Over 6000 products are made from petroleum each and every day, which we use each and every day. A lot of people sort of think gas is just a fuel for electricity generation. No, it’s not. It’s for everything that we use. You know, plastic for just even Glad Wrap. The more gas, the more gas supply options there are, the more chance the customers have – the power of choice, which is one of the essential reasons why the National Electricity Market was set up – was to give customers choice. And if you don’t have choice, then you’re sort of stuck into taking what the A supplier is giving you. So more suppliers – more supply options – is better for customers’ demand and customer choice. And that also transforms into more choice – the more competition – more competition – there’s a potential for prices to be lower.

MR O’CONNOR: Can you wrap up now, please, Bruce.

MR HOLLAND: Sorry, I didn’t realise I took so long. But basically what we’re saying is that gas for Narrabri is a terrific opportunity for the locals, for the local people, and it’s – to be able to get jobs, as well as paying \$1.2 billion in royalties to the state. You can compare that to renewables. Renewables don’t pay royalties;

renewables get subsidies. So there's no even playing field for – on a gas basis for electricity, either. So basically, we're commending this project to you, and we support – strongly support – the Department of Infrastructure and Planning and Environment's summary in June, but – basically saying that the project is likely to
5 deliver strong economic benefits to the State of New South Wales. Thank you very much for the time and opportunity.

MR O'CONNOR: Thanks for your presentation. Next, please.

10 MR BEASLEY: We have Peter Nielsen on the phone. Mr Nielsen.

MR P. NIELSEN: Yes, good morning. Can you hear me?

MR O'CONNOR: Yes, we can. Go ahead.
15

MR NIELSEN: Yes. Good. Thank you. Thank you for the opportunity to speak. I would like to add my voice to the – in supporting the rural sector at Narrabri. As a farmer and a food producer all my life – dairy, orchards, cattle – the most important issue to me in the entire debate is protecting the viability of productive farmland,
20 which obviously necessitates protecting water and resources, and doing all we can to stop further damage to our climate, being the greatest challenge, I think, humanity is going to face. Narrabri Gas Project threatens all these essential components affecting our ability to grow food. We are part of a complex system that has evolved to allow us to exist and thrive at this point in time.

25 Unconventional gas extraction contributes to upsetting this balance by adding excessive greenhouse gases to the atmosphere, in the form of methane, CO₂, heating our oceans, causing chaotic weather patterns, acidification of the ocean, damaging marine life as well as depleting and contaminating water resources. I know you've
30 heard this a hundred times, but it is the facts that we are facing. Groundwater extraction in this quantity takes water essential to food producers and graziers, an irresponsible waste of important water resources, especially foolish if climate change continues and that means drier weather, as science is predicting. And the IPCC has been telling us this is happening, and predicting it for years.

35 Mining for CSG depressurizes aquifers; lowering water tables can stop springs from flowing. Not enough is known about the hydrogeology of the Pilliga area to risk drilling it, and the recharge area of the Great Artesian Basin is one of our greatest assets. I understand that Santos plans to take 37 billion litres of water over 20 years.
40 No surprise that the landholders who rely on the Great Artesian basin and the Gunnedah-Oxley Basin are strongly opposed. The hydrology report by Dr Matthew Currell refers to recent research showing major problems. It's clear from all reports from credible scientists that gas is not the answer to our energy needs. A recent study by Harvard was scathing – a study across the gas fields in America.

45 Gas, once again touted as a transition fuel, has been found in recent studies to be even more damaging than greenhouse gas and coal. The entire production process is

taken into consideration, intentionally releases flaring to get rid of CO₂ – it may be in the methane. This flaring also releases particulates, which cause respiratory and health problems. We've heard the comments from doctors in these interviews.

5 Deliberate venting and fugitive emissions will escape from every connection point, plus the compression and liquification process required to produce LNG adds more methane into the atmosphere. We cannot afford to add any more gas or coal mining projects if we are going to keep global warming below two degrees and avoid catastrophic climate destabilisation.

10 All credible science reports tell us we must vastly reduce fossil fuels and transition towards net zero carbon emissions as a matter of urgency. 20 or 30 years is not acceptable. We need action very, very soon. At this time, when Australia is struggling to reduce greenhouse gases and meet its commitments to the Paris Agreement, it would be irresponsible to approve any new gas mining projects. Nor
15 can we afford any further land clearing, as it's estimated that our forests store around a third of all carbon emissions globally. Yet the Santos plan for 850 wells across 95,000 hectares of the Pilliga forest will industrialise and cause serious damage to this unique temperate woodland, clearing nearly 1000 hectares of forest in the small blocks for gas infrastructure, removing several endangered ecological immunities
20 and pushing many dependent wildlife to the brink of extinction.

Those very limited surveys were taken to assess the project. They still found 35 threatened species and 10 threatened plant species in this area, in the proposed gas field. I think we have 1000 endangered species in New South Wales alone, and we
25 cannot add to that. Our farming community was similarly threatened by a gas company waiting to industrialise a valley with a thousand gas wells, and only in 2014 did we fight to protect our farms and our livelihoods from industrialisation. Now it's happening to these farmers and landholders in the Narrabri area. I believe an ongoing concern for loss of livelihoods, family farming businesses, many built up
30 over generations, must be causing severe mental stress. Why must these businesses sacrifice for a gas project which is not only unnecessary but will cause damage in so many ways.

MR O'CONNOR: Peter, can you wrap up now, please.

35

MR NIELSEN: Yes. Yes, I can. If the government is serious about more gas projects in New South Wales, then they must adhere to the chief scientist's report. The recommendations haven't been implemented. Two of the 16 in the past six
40 years. This failure makes it even more concerning. I would ask that you deny this project and give due respect to the landholders and farmers in that area, and keeping in mind that future generations are relying on a sound decision, with their future in mind, being made by this panel. And thank you for your time.

MR O'CONNOR: Thank you for your feedback, Peter. Next speaker, please.

45

MR BEASLEY: Next speaker is Ian Dunlop. Mr Dunlop.

MR I. DUNLOP: Thank you, chairman, and thank you commissioners for the opportunity to talk with you this morning. I would like to use a few slides, which I will just put up on the screen at this point. Thank you. Gentlemen, my background is in the international oil and gas exploration business, and in coal, although for the last 25 years I have been focused on climate change, and particularly the risk implications of climate change, which is what I would like to talk about in the context of the Narrabri project, because what we face today is an immediate existential risk to humanity from climate change, which is going to require emergency action, and which is far more urgent than anything we're being told officially in this country, and indeed globally at the present time.

The Paris Climate Agreement you've heard a lot about, no doubt, which is the intent of limiting temperature increase to well below two degrees toward 1.5. If you look at what's currently happening with emissions globally, you can see them rising on the grey line to the left-hand side here. To stay below two degrees C, they then have to peak and drop very quickly, and the longer we leave it to peak the steeper the decline has to be. Unfortunately, that is the line we've been travelling on. There has been a blip with the pandemic, but we seem to be going back onto that red line. And the Paris Agreements themselves do not – the commitments that were made in 2015 do not – get us anywhere near reduction. They only level off the emissions.

And the intent was to come back this year to start more ambitious commitments, but that has been put off until next year. So there's a yawning chasm between the rhetoric of Paris and the reality. And this is the biggest challenge humanity faces – is to bridge this gap very quickly. So, if you look at what this means, we see the warming of one degrees C from 1880. We already see about level – Arctic Sea ice and West Antarctic ice sheets starting to tip into irreversible melt. And these are average global temperatures. That means that the regional effects of this will be far greater on land and in countries like Australia, which are more exposed than most to climate issues. The Paris upper limit is two degrees C, which is already the boundary of extremely dangerous climate change.

And one and a half degrees C, the lower limit, is already built into the system. We cannot now void it. It will be here by 2030. In Australia last year, the average temperature was actually 1.8. So, already in that region ourselves. The Paris commitments, if they were implemented – at the moment there's no sign they are being – in the view of many national security experts around the world, would lead to outright chaos – social chaos. And we saw the beginnings of this in the bushfires, I would suggest, in New South Wales in 2019 and 2020. Four degrees C, which is the path we're currently on, in the view of those same national security experts, would be incompatible with any organised global community.

That would mean global collapse and a significant reduction in population, from around 7.8 billion today. In the view of some scientists, toward 1 billion people. That's the sort of thing we're talking about, which we have not had a proper discussion on, and we need to. The three degrees C picture – we did a report on this last year. It will probably be here by 2050. I won't go through these in detail, but

these are the sorts of things that happen. And this means massive change within our region – this is particularly in – which – the same sort of thing will start happening in Australia. We will get major impacts of these kinds. And that’s what we have to think about in a hard-nosed practical sense. And I will come back to the hot-housed earth in a moment.

If we have to stay below Paris, what does it mean? Well, if you – climate change is being caused by a combination of emissions from fossil fuels, agriculture and land clearing. If you just look at fossil fuel, the resources we have are represented by the larger – I will to the left here. Within that, you have reserves. That’s the amount of resources that can be economically recovered at the and within that you have developed reserves, the ones that we’re currently producing from the existing oil, gas and coal reservoirs we’re actually operating. You can just take that small developed reserve, and you convert that into carbon. That’s what you get if you burnt it all. That left-hand bar with coal, gas and oil. The two degrees C limit, to stay below two degrees C, is roughly equivalent to that, slightly more. The one and a half limit is about half of it. Now, that means that - - -

MR O’CONNOR: Could you please wrap up now.

MR DUNLOP: - - - one and a half you have to basically – can only, you know, use up half of what we’re currently producing from, to about the same amount. But that’s only with a 50/50 chance two-thirds chance of success. So you can’t build any new fossil fuel projects, and you have to manage a rapid decline of the existing industry. But if you up those chances of success to 90 per cent, we have no carbon budget left today, which means the industry should shut down tomorrow, which of course it won’t. But it does mean you cannot afford any new projects.

MR O’CONNOR: Thank you. We have to draw to a close there.

MR DUNLOP: Could I just finally – the last slide, if I may.

MR O’CONNOR: Go on.

MR DUNLOP: risks here – we are not included in that analysis. I won’t go through those in detail. Pandemics are part of it, because they’re linked to climate. And if you look at the implications, gas has never been a realistic fossil fuel. We can’t commit to any new projects. Narrabri is incompatible with Santos’ own climate change policy, and with Australia’s signature of the Paris Climate Agreement. alternatives available, and therefore this project, I would suggest must not be allowed to proceed - - -

MR O’CONNOR: Thank you for your - - -

MR DUNLOP: - - - because it is - - -

MR O'CONNOR: - - - time, Ian. We have to call it to a close there. Our next speaker, please.

5 MR BEASLEY: Next speaker is Lee O'Connor from the Coonamble Chamber of Commerce. Can you hear me, Ms O'Connor? Can you hear me, Ms O'Connor?

MS L. O'CONNOR: Yes, I can. Can you hear me?

10 MR BEASLEY: We can. So please go ahead.

MS O'CONNOR: Great. Thank you very much, and thanks to the panel for allowing us to speak. I'm speaking on behalf of the Coonamble District Chamber of Commerce. We have 80-odd members, and in the past week we've surveyed our members just to check their views on the project. Of those who responded, more
15 than 75 per cent are adamantly opposed to the Narrabri Gas Project, 24 per cent feel as though they don't have enough knowledge to make a judgment and one member said they support the project. And just for your information, these are non-farm-based businesses.

20 The reason that I'm speaking today on behalf of the chamber is that about three weeks ago our chamber was made aware that the New South Wales business chamber, now known as Business New South Wales, had been actively lobbying in support of the Narrabri Gas Project, which of course is their prerogative, except that they theoretically represent 34,000 members of local chambers, and at least in our
25 region we've seen no evidence that local chambers, let alone their business members, have been consulted, surveyed or otherwise involved in the setting of those policies. I did contact some of our neighbouring chambers, who also said they're not aware of having been consulted, or even being made aware of the state policy.

30 So we do sympathise with the commercial and industrial users of gas in New South Wales – businesses in our region pay the highest electricity costs of almost anywhere in the state – but we question the validity of many of the claims, and welcome the
35 IPCs independent scrutiny of the data provided. The New South Wales Business Chamber's paper, Running on Empty, released last December, quoted employment and business figures that we found were either unreferenced, or, in some cases, referenced not to their own business-based research but to Santos' EIS. We were hoping to find information on how many member businesses were gas users, and be reassured by authentic evidence, to justify our state chamber's stance in support of the project; however, the paper that they commissioned was prepared by a company
40 called EnergyQuest, and we discovered that five out of seven of their team are former Santos employees, which we think damages any claim to independent thought, and was disappointing to us as members.

45 And so we would ask that you bear in mind the lack of consultation in considering a submission from Business New South Wales. In opposing the Narrabri Gas Project, our members cite the potential risks to the region's water supply and the environment, as well as the economic impacts on the majority of agribusinesses who

are our customers – many of our members’ customers. In terms of the overall levels of risk and return on this project, it’s our view that risks far outweigh any potential economic returns to the state or the north-west region. In fact, it seems clear to us that Santos’ return on investment will diminish the value of our society’s collective assets, in land, water and economic infrastructure.

We also have some comments and questions about the claimed economic need and benefit of the project. Again, Santos’ EIS and other documents cite 33,000 businesses, 500 industrial users and 300,000 relying on gas, but again it was very difficult to find a source for any of these figures, and we are really hoping that the panel will be able to obtain updated, independent verification of the figures before making a final determination. There has also been reference to the decline in usage by heavy industrial users of gas over recent years, and a suggestion that the demand would necessarily increase with the increased supply from the Narrabri Gas Project, but we believe that this is a simplistic assumption and can understand that it has been widely questioned.

We would ask that, if gas price and availability is so critical to the needs of our state, then surely all stops would have been pulled to ensure that projects closer to the demand centre in the Sydney basin could go ahead before any consideration was given to a project in an environmentally sensitive area that involves intruding on our nation’s largest inland water storage, the Great Artesian Basin, and that would need a new pipeline to be constructed that would also add to the cost. It seems to be a case of “not in my backyard”. In terms of the economic benefits to be delivered by the project, again I’m not an economist, but the modelling showed that, in terms of jobs generated, 127 of those jobs would be in that Narrabri Local Government area and they of course get the cherry on top of the 4.8 million gas community benefit fund.

MR O’CONNOR: Could you please wrap up now, Lee.

MS O’CONNOR: Sure. We can fully appreciate why they welcome that, but the prospect of 161 jobs to be shared between 13 local government areas means roughly 12 jobs per LGA over the next 25 years. And we would like to point out that one medium-sized supermarket or a small feed lot would generate the same amount of employment. In concluding, we would just like to say that we need to know that the modelling procedures are valid and the actual veracity of the figures that underpin the modelling have been checked, and are incontestable. So far, we do not have this kind of confidence in the process. Our chamber supports good business, sustainable business, and businesses that truly solve our region’s problems. In our estimation, the Narrabri Gas Project would create more problems than it solves. Thank you very much.

MR O’CONNOR: Thank you, Lee. Next presenter, please.

MR BEASLEY: Scott Sledge from the Nimbin Environment Centre is on the phone. Mr Sledge.

MR SLEDGE: Yes. And can you hear me?

MR BEASLEY: Yes. Go ahead.

5 MR SLEDGE: All right. Hello. My name is Scott Sledge. I'm president of the
Nimbin Environment Centre. We're part of a network of people concerned about the
environment that we all share. We object to this proposal. We have strong links to
other environmental groups, most significantly the Northern Rivers Guardians, which
10 has more than 600 activist members. We operate a shopfront on the main street of
Nimbin, staffed entirely by volunteers. I was born in the USA and migrated to
Australia during the Whitlam years. I have children and grandchildren, whose
welfare is my greatest concern. I am a landholder – can you hear me all right?

MR O'CONNOR: Yes. Go ahead.

15 MR SLEDGE: All right. I am a landholder in New South Wales, and have worked
globally in archaeology. I have been fascinated and inspired by these IPC hearings.
You have heard a wealth of facts and statistics that I trust you to consider carefully,
and so I will not repeat any of these. One speaker tried to debunk environmental
20 concerns as misinformed, and said none of the objectors have any first-hand
knowledge. This is obviously untrue, as many objectors have testified their
experience. For example, I have been to the Queensland gas fields and witnessed the
construction of the gas pipeline. I suggest you pay special attention to Dayne
Pratzky when he speaks to you later, as he had to leave his home in Southeast
25 Queensland due to the gas mining there.

I have been to the Narrabri-Boggabri region and the Pilliga Forest when the water
treatment plant was being established at Leewood. I'm a shareholder of Rainbow
Power Company and lobby on behalf of clean, renewable energy. I have met with
30 gas companies, including Metgasco. I was deceived for a time by claims that gas is a
clean transitional fuel. That is nothing but propaganda. Gas is an additional loading
of fossil fuel pollution in a world rapidly heading towards climate change
devastation. We have all witnessed extreme weather events. The recent wildfires
should convince all but the most extreme sceptic that we need change. The "greed is
35 good" mantra needs to be reviewed in light of widespread land clearing and wildlife
habitat destruction.

I took part in peaceful protests at Chinchilla, Seamingcrim, Shannonbrook, Glenugie,
Dalpo Creek, Lismore and Bentley. I stood with thousands of citizens of all types
40 opposed to damaging gas developments, and I want to remind you that the people
will rise up again, as we did successfully in the Northern Rivers, despite increasing
government restrictions on our right to process. Santos says it won't fracture the
geology, but it has already fractured our society. I have heard this proposal
described as weasel words, and I hope that you will not be swayed of wealth and
45 prosperity and absurd assurances. Santos' idea of adaptive management is that when
something goes wrong they will fix it, but how will they clean up aquifers or
compensate for polluting the Great Artesian Basin?

We have all heard that a woman cannot be just a little bit pregnant. Underground water sources such as the GAB cannot be cleaned once they're polluted. Santos and their propagandists will tell us there is no risk of significant damage. If you believe that, I could sell you about anything. It is like the urgent young man who assures a fair maiden that he will pull out in time, despite she has fallen pregnant many times in the past. I hear the project proponents say that they have learned from the mistakes of the past, so we should not consider the damage to people and environments in Queensland and overseas. They say it won't happen here. Will we be so naïve as to believe their seductive promises? Will they never frack these wells? Really? Will they pull out in time?

I hope you will take seriously the devastation caused by clearing massive tracts of bush for drill sites and pipelines. When I saw these in Southeast Queensland, it looked like a war zone, and in fact it is. A war of greedy men against nature. The cost in wrecked homes for people and wildlife is enormous, and, if allowed to continue, there will be little left for future generations. Who cares? I do. All of us who have children and grandchildren must care. An attack on our environment is an attack on our future. There are more jobs in a sustainable world with renewable energy. Does the fossil industry operate without government subsidies? When was the last time they cleaned up their mess? Mostly they walk away, leaving a polluted landscape for the taxpayer to rehabilitate. Another public cost. Privatised the profits and socialise the risks.

MR O'CONNOR: Can you please wrap up now, Scott?

MR SLEDGE: Yes, mate. Just a couple of quick things. I think that the government appoints commissioners who can be relied upon to approve whatever it wants. In this case, I appeal to you as wise men. Do not continue down the dinosaurs' path, but reject this dangerous proposal and become heroes to the people our government is supposed to represent. I believe you are expected to give conditional approval because the rights of the public to a merits appeal will be extinguished by this public hearing process.

MR O'CONNOR: We have to cut you off now, Scott. I'm sorry, we have run out of time.

MR SLEDGE: Okay. Well, do what you know to be right for the future of our whole country.

MR O'CONNOR: Thank you, Scott.

MR SLEDGE: Thank you.

MR O'CONNOR: Bye. Next speaker.

MR BEASLEY: Next on the phone is Fiona Sim from Running Stream Water Users Association. Ms Sim.

MS F. SIM: Thank you for the opportunity to make a presentation at this hearing. I would like to begin by acknowledging the traditional owners and custodians of both the land we're discussing and the land from which I am making this presentation; to acknowledge all Aboriginal and Torres Strait Islanders here today, and to pay my
5 respects to elders past, present and emerging. Our association was formed by local residents nearly 30 years ago in response to the threat of coal mines in our area. Running Stream is a vibrant agricultural community surrounded by large areas of national park and native vegetation, and watered by hundreds of natural springs. Mining under such an important water resource would be madness, and 30 years on
10 we're still fighting to protect our water for future generations.

Our association also supports other communities battling to preserve their livelihoods, their health, their water resources and their natural environment from the destruction of large-scale mining. We object to the Narrabri Gas Project. This
15 project will damage precious natural water resources, including the Great Artesian Basin and the Murray-Darling Basin. The highest recharge area for the Great Artesian Basin is within the Pilliga East Forest, and water removed for CSG extraction could depressurise the aquifer and irreparably damage the flow of water across the entire basin. Creeks within the Pilliga run into the Namoi River, part of
20 the Murray-Darling system, and contaminants from the proposed hundreds of drill sites are extremely likely to pollute this system. The Narrabri Gas Project already has a long history of spills and leaks of toxic – hello?

MR O'CONNOR: Keep going.
25

MS SIM: I've just been cut off, have I?

MR O'CONNOR: No, no.

30 MR BEASLEY: No, we can hear you.

MS SIM: Hello?

MR O'CONNOR: Loud and clear.
35

MS SIM: Okay. Sorry. The Narrabri Gas Project already has a long history of spills and leaks. I'm being cut off here.

MR O'CONNOR: No, you're not. You're fine.
40

MR BEASLEY: We can hear you.

MS SIM: Sorry. I'm - - -

45 MR O'CONNOR: Just keep talking. We can hear you. Don't worry about it.

MS SIM: Right. Okay. The Narrabri Gas Project already has a long history of spills and leaks of toxic CSG water. Santos has already contaminated a freshwater aquifer in the Pilliga with heavy metals such as lead and arsenic. There have also been more than 20 reported spills and leaks of toxic CSG water from storage pipe
5 and well heads. As well as contamination with heavy metals, thousands of tons of salt waste would be produced by the project each year, potentially poisoning the ground and polluting water systems. CSG mining fuels climate change through the leakage of methane. This project will release huge quantities of greenhouse gases into the atmosphere. These toxic gases also endanger human health. Major impacts
10 have been documented in human populations close to existing gas fields in Australia and in the US.

The Pilliga is a nationally listed biodiversity hotspot, and is vital to the survival of threatened species such as the Koala, Spotted-tail Quoll and the Eastern Pygmy
15 Possum. The forest is home to over 200 bird species. The gas field would fragment close to 100,000 hectares of the Pilliga with well pads, roads and water and gas pipelines, damaging habitat and threatening the survival of endangered species. There are hundreds of traditional Aboriginal sites in the Pilliga, which could be destroyed or damaged by the project. We've recently witnessed the disrespect shown
20 to Indigenous custodians and to culturally significant sites in Rio Tinto's destruction of a 46,000 year old Aboriginal site in Western Australia.

Will Santos behave any more responsibly? Light and dust pollution from the project will threaten the viability of Siding Spring Observatory. The area around the
25 observatory has been internationally recognised as a dark sky park, and dust pollution and gas flares from drill sites will jeopardise this status. These methane flares will be burning day and night, even on total fire ban days. The Pilliga is prone to severe bushfires, and the project would increase ignition sources as well as extracting, transporting and storing a highly flammable gas right within this fire
30 prone forest. Have we learned nothing from the catastrophic 2019/2020 fire season?

We're all interconnected, and what happens in the Narrabri District affects not just those living in the immediate area, but will have consequences for all of us. Contamination of the Great Artesian Basin will affect all Australians. We implore
35 the IPC to show its independence and listen to the science. We're listening to the experts and the science in our collective attempt to prevent the spread of COVID-19; let's do the same to protect our precious natural environment and water resources in the Pilliga. Thank you.

40 MR O'CONNOR: Thank you, Fiona. We heard all your presentation. You were fine.

MS SIM: Okay. Thank you.

45 MR O'CONNOR: Next speaker, please.

MR BEASLEY: We have Rowena Macrae. Ms Macrae, can you hear me?

MS R. MACRAE: Yes. Can you hear me?

MR BEASLEY: Yes. Go ahead.

5 MS MACRAE: Good afternoon, and thank you for this opportunity. My name is
Rowena Macrae. I'm a farmer, business owner and mother of five from Coonamble.
I want to speak to you today to express my clear and strong objection to the Narrabri
Gas Project. The proposed project has plagued my family's everyday life for many
10 this project. We visited Queensland gas fields; spoke to residents, farmers and
business owners living and working amongst the gas infrastructure that threatens our
back door. We have discussed infrastructure like a high-pressure gas pipeline that
APA Group would like to plough straight through our farmland and across the
Castlereagh River, within a kilometre of my home.

15 We have seen first-hand the devastating effects that will have on the landscape we
call home. We have been on countless trips to meet with and discuss our situation
with lawyers, politicians, community groups and media outlets. Our lives have been
forever changed. We have anguished over countless submissions, trying to compete
20 with a company who can afford to pay top notch professionals to do the same, and
here today I sit in front of you with just five short minute to outline why this project
should not be granted approval. We come to you as real people speaking for our
native flora and fauna in the Pilliga. We come to you as real people speaking for our
precious Great Artesian Basin, and our only source of fresh water.

25 We come to you as everyday down-to-earth Aussies who just want to get on with
living life without this huge threat hanging over us every day. You're being asked to
determine if Santos can operate and safely extract coal seam gas from over 850 wells
in the Pilliga Forest. How can you do that with certainty when, by their own
30 admission, they are still determining how they will safely do so? I of course refer to
the hundreds of thousands of tons of toxic salts Santos are still unable to
communicate a safe disposal plan for. Will this end up in our waterways? Or soils?
Our pristine forest? I could speak of so many reasons that the NGP is too risky for
our reason: catastrophic bushfire concerns; the very real and unacceptable risk to
35 our Indigenous culture and heritage; threats to agriculture, tourism and of course the
greatest threat of all to our precious environment, native flora and fauna and our
water.

40 Five minutes does not leave much room for that, but I know there are hundreds of
champions that have and will speak to you over the course of this week, and I know
they highlight it in a much clearer and more factual way and outline of these, and so
many more, real and valid concerns. The review conducted by the chief scientist,
and I quote, drew on "information from a large number of experts from around the
world in a range of fields." It also consulted extensively with community groups,
45 industry and government agencies. This report concluded in 2014, and in the six
years since Santos, with all their incredible wealth and resources, staff and expertise,

have been unable to comply with the 16 recommendations set down to protect communities from the threats of coal seam gas mining.

5 Six years is a very long time, and in comparison my small farming operation, in that time, has, through proper planning, costing and implementation, been able to more than triple our production in a sustainable, water-efficient manner, even through one of the worst droughts on record, when money was exceptionally tight. A vast comparison to the wealth of Santos. And still here we are, six years on, with a grossly inadequate commitment by them to the chief scientist's recommendations.
10 How, among so many other issues, can landholders be expected to host this industry without any insurance? I can insure against many things that may or may not actually occur. I can even insure against my death, which is inevitable. Why, then, if this industry poses no risk to my region, can't we get an insurance policy to cover the risks?

15 If they are as miniscule, as unlikely, as Santos would have us believe, why do I bear the risk? How, commissioners, do I explain to my kids that the very safeguards put in place to assure us that the project is safe – they're not met, and still the project could be approved. I wish I could introduce you to my children, five glorious little
20 people whose future you will frame with our decision. Your decision will directly impact their lives and their futures in our region. Can they grow up to be farmers, just like their dad, if they want to? Without water, the answer is no. Commissioners, there are thousands more small children like this across our region, whose futures you will frame with your decision. Do not let these young Aussies bear the cost of
25 this approval. We just can't get this wrong. When you deliberate your decision, remember our future is these small people. We, as a collective, must protect our water and our environment for them. We cannot let this be part of a tragic future for them. We can't take risks with our water and our natural landscape.

30 We're a pretty resilient bunch out here. We can safely and sustainably grow food for this country, in essence forever, even through horrendous droughts, but without fresh water? No. And for what? A short-term, high-cost, high-risk project that has no social license to operate, and whose operation will risk our water and our very way of life. Please, commissioners, remember our faces. Remember we are the faces of
35 the very real people who will have to live with your decision every day, moving forward forever. We cannot get this wrong. To conclude, my children can't be heard today to speak with you. They're not given a voice in this argument, although perhaps listening to them would be the most powerful voice of all. So, in lieu of that, I asked them all what they would say to you if given the opportunity to speak. I got
40 some pretty interesting responses from my youngest two - - -

MR O'CONNOR: Please wrap up now, Rowena, we're running out of time.

45 MS MACRAE: Can I have one more minute? Not even. My three-year-old, Barnie, said, and I quote, "Shirley needs water. She's thirsty." Shirley's our dog. But it opened up a conversation that is heartbreaking. My beautiful children, who should be out dreaming of what they want to be when they grow up, are scared of the

implications that any damage to our water may spell for them. So I will leave you with my 10-year-old's comment. She wanted me to tell you, and I quote, "Without fresh water, we won't be able to live here, and this is our home, Mum. Tell them I don't want to leave, ever. I love it here. It's my home." Thank you for your time.

5

MR O'CONNOR: Thank you, Rowena, for your comments. Next speaker, please.

MR BEASLEY: We have Ms Kira Alexander on the phone. Ms Alexander.

10 MS K. ALEXANDER: Thank you.

MR O'CONNOR: Go ahead.

15 MS ALEXANDER: Thank you. My name is Kira Alexander, and I own a property in the southern part of the Pilliga, about 20 kilometres north of Coonabarabran. I am voicing my objection to Santos' Narrabri Gas Project, as my property relies completely on groundwater, which currently is high quality, crystal clear and clean. My water security will certainly be compromised if this project goes ahead. I am also deeply concerned that, no matter what we do as landholders to mitigate any
20 potential risk of bushfires, the Narrabri Gas Project's wells include constantly burning flames that will severely increase the risk of catastrophic fire events throughout the region, which is already highly flammable. This will make my property uninsurable, and potentially unliveable for humans and other species.

25 The toxicity of the waste produced by these 850 wells will turn this pristine wilderness into a wasteland, and make this very environmentally – and vitally important – part of our beautiful state uninhabitable, all for a short-term profit. Initially, I didn't want to be chosen to speak to you today, because the way I see it this process is just a formality, so what is the point? The decision has been made,
30 and many promises along with it. To me, it is completely obvious that for Santos and the New South Wales government the people that live in this region and the environment we live in are totally expendable just because there is a short-term profit to be made for mostly overseas investors.

35 We will pay with our homes, property prices, quality of life, health, livelihoods and environmental wealth just to line the pockets of the few and produce a very expensive short-term product which will not create value for money to the Australian consumer or ongoing and innovative employment opportunities for the people of New South Wales or our region. This project is a dud. Australia used to be a world
40 innovator and have a huge opportunity for growth in far more sustainable and cleaner technologies which more investors are now turning towards. We need to be smarter than this or we will end up as a third-world country that has undersold the wealth that potentially exists for all of us.

45 If this project does go ahead it will be a grim outlook for the inhabitants of North Western New South Wales and eventually much sooner than you think. We will be left with nothing but a massive taxpayer funded clean-up bill. I thank you,

Commissioners, for hearing me today, and I also want to send my regards to Maria Rickert and her family from Pilliga Pottery for bearing this burden for so many years. But mostly, I want to say thank you to every single person who has given up so much of their precious time, years of their lives banned together in opposition to this
5 project, and stand up for all of us as Australians and our basic human rights to clean water and air and a safe environment for us and future generations to thrive in.

Your will, determination, persistence and strength embody what it means to be an Australian, and I am truly grateful. The Pilliga Forest does not belong to any
10 government or corporate entity. It belongs to the people of New South Wales. And we say no to gas mining in the Pilliga. We do not consent. Thank you.

MR O'CONNOR: Thank you, Kira. Next speaker.

15 MR BEASLEY: We have Mark Lyden from Southern Cross University. Mr Lyden, can you hear me?

MR M. LYDEN: I can, Commissioner, but that is a typographic error. I'm not speaking on behalf of Southern Cross University. I'm a private citizen.
20

MR BEASLEY: Go right ahead.

MR LYDEN: Thank you.

25 MR BEASLEY: I think you'd still be a private citizen if you were at Southern Cross University but I'm wrong.

MR LYDEN: Well, quite possibly. I mean, I'd like to be the chancellor there, but I'm not. Thank you. Anyway, Commissioners, I've got limited time so enough of
30 the jokes. I appreciate the opportunity to speak to you today. My name is Mark Lyden. I'm actually a solicitor, and I reside in Tamworth with my wife, Bernadette, and our child, Lucy. I've practice as a lawyer in North Western New South Wales for about 20 years. so I've got to know the place pretty well. I commenced my legal career here with the Aboriginal Legal Service at Tamworth back in 2000, and
35 although I've moved on to work in other areas of the law I've continued to take an interest in the local indigenous people here, the Gomeroi.

I acknowledge that where I'm speaking from today is Gomeroi land, and again I pay my respects to the elders past, present and emerging. As I've got very limited time I
40 want to get straight to the what I think is a very important point about this development participation process. I've referred, Commissioners, to the Native Title Claim Reference NC2011/006 which encompasses the development site amongst others. That claim was registered with the Native Title Tribunal in 2012, and is presently allocated by the Federal Court reference number NSD37/2019.

45 Under this claim where exclusive possession is possible, the Gomeroi claim exclusive possession, occupation, use and enjoyment of land that borders the subject

area, and where exclusive possession is not possible the Gomeroi claim amongst other things, important rights such as to participate in cultural and spiritual activities in the application area, and the right to maintain and protect places of importance under traditional laws, customs and practices in the application area. The

5 Commissioners will know that the SEARs that Santos was directed to address required consultation under OPH2010 consultation requirements with the Gomeroi Native Title Applicant amongst others.

10 I draw your attention, although it is somewhat water under the bridge now, to chapter 20.1.1 of the EIS where Santos states that it had consulted the native title claimants under Federal Court file 2038/2011. A search of the National Native Title Claim Registry conducted by me yesterday indicates that Federal Court file 2038/2011 is no longer on foot. The native title claim for this region is, as I've just referred,

15 NSD37/2019. This discrepancy in the EIS is not simply a typo. In 2016 during the development consultation process the Gomeroi People initiated a legal process to replace the native title applicant under NSD37/2019 with 19 new representatives.

At a duly constituted meeting of the Gomeroi People which took place here in Tamworth in July 2016 motions were passed to remove the prior claimant's

20 solicitors, the solicitors on the record for this claim, to remove the 19 title claimants under 2038/2011, tellingly, two of those claimants were at that time deceased and appoint 19 new claimants. An election then followed which resulted in the amendment of 19 new claimants. An application was then brought to the Federal Court under section 66B of the Native Title Act to replace the former claimants. I'd

25 ask the Commissioners to remember that at this stage two of those former claimants were deceased.

The conditions on which a replacement application could be made under the Native Title Act include (1) there is a claimant application in the register (2) each applicant

30 from order under 66B is a member of the native title group (3) and this is very important, the person to be replaced is no longer authorised by the claim group to make the application and to deal with matters arising in relation to it, in other words, consultation with Santos (4) alternatively the person to be replaced has exceeded the authority given to him or her by the claim group and (5) the persons making the

35 application under 66B are authorised by the claim group to make the application and to deal with the matters arising under it.

The application to replace the former native title applicant was ultimately determined in late-2017 by a judge of the Federal Court. All this begs the question whether you

40 as the consent authority can be satisfied that notwithstanding the content of the firms otherwise going before the court that you can be satisfied that the development applicant has, in fact, consulted with in an adequate and appropriate manner with the Gomeroi native title claimant given one of the former native title claimants died in or on the 8th of May 2014, the second former native title claimant died on the 6th July

45 2016 - - -

MR O'CONNOR: Could you wrap up, please, Mr Lyden.

MR LYDEN: Yes. By mid-July 2016 the authority of the claimants had been withdrawn. The final assessment was, of course, dated in October 2015. Therefore, it's entirely clear that Santos has not consulted with the present native title applicants. Under those circumstances I submit it is not in the proper interests for
5 you to approve this development application at this point in time. Thank you for the opportunity to point this – what I would say is a significant error in this process and to the Commissioners.

MR BEASLEY: Thank you, Mark, for your presentation. Next speaker, please.
10 We have Glenn Morris is the next speaker. Mr Morris.

MR LYDEN: Hello. We're right to go ahead?

MR BEASLEY: Yes. Go ahead please, sir.
15

MR G. MORRIS: Okay. Dear Commissioners, please let me introduce myself. My name is Glenn Morris, and I am a father. I have worked on the land for the previous 37 years, but during the past 20 years I have become extremely concerned about the effects of climate change. My concern for the type of planet we are leaving my three
20 sons and future generations and the urgent need for change is the main reason why I strongly oppose the opening up of the Narrabri Coal Seam Gas Project. After completing a Masters of Sustainable Agriculture course in 2004 I have been actively researching the threats and solutions to climate change and water security ever since.

25 The scorching dry period and associated apocalyptic fires and dust storms we witnessed in 2018 and 2020 are not normal. They were triggered by rising temperatures and major threats, heat events across the world including in the Indian Ocean and above the South Pole. I am extremely concerned at how precariously close we are to losing living systems right across the world. Standard high school
30 science teaches us all that plants are adapted to live in certain climate niches. In the journal global change, biology researchers have warned that plants in the inland mid-latitude regions of the world are near a tipping point in their ability to cope with rising temperatures.

35 In the journal, Science, researchers found that two degrees Celsius of warming will push most tropical rainforests above their safe heat thresholds. My observations on the ground reveal that we may have already pushed global temperatures to a level where we are starting to experience the total collapse of vegetation and life as we know it. What I observed at the end of 2019 and the start of 2020 was that entire
40 ecosystems and communities across Eastern Australia were in the brink of collapse. The catastrophic climate warming events in 2019/2020 not only resulted in the scorching of over a billion animals and 12 million hectares of land, in my own backyard, Northern New South Wales and Southern Queensland, I have been horrified to observe the sudden decline and death of hundreds of thousands of
45 hectares of forest across the landscape not from fire, just from the effects of a warming world.

In my view we are starting to witness the commencement of a mass global bleaching event of forests on land just as we have witnessed in the world's coral reefs over the past three decades. Hopefully this time we will take notice before it's too late. The death of plants across entire landscapes obviously has major ramifications for

5 climate, wildlife and food and water supplies. Consequently, any decision to approve new coal seam gas projects such as the Narrabri CSG proposal with massive greenhouse gas emissions will knowingly push the climate to limits outside what we are know are safe for continued life on earth.

10 Governments and the whole of society would also be made aware that healthy vegetated landscapes are the most valuable assets we have on earth. Every time we destroy another area of the land we are effectively destroying the living connections which protects us and nurtures us with a safe environment, clean air, clean water and healthy food. Protecting and enhancing areas of the forest such as the Pilliga is

15 essential if we are to have any chance of restoring a safe, healthy future. The Narrabri Coal Seam Gas Project places a foreseeable risk of worsening the climate and water cycle just to point in time when every effort should be made to enhancing them.

20 As we go forward in the 21st century we have to ask the question what sort of civilisation would knowingly unlock dangerous reserves of gases which threaten the entire future of life on their planet. I'm resolutely opposed to the idea that governments think they can go on making decision with foreseeable outcomes such as worsening our climate, altering rainfall patterns and increasing the total collapse

25 of vegetation and life on earth. It's not the actions of an intelligent society. If we truly care about our planet and future generations then the Narrabri Coal Seam Gas Project must be rejected. Thank you very much for your time and hearing the evidence of my serious concerns for our state, our nature and alpine.

30 MR O'CONNOR: Thank you, Glenn. Thank you for your submissions. That brings us to the end of this morning session. We will resume at 1.30 pm. Thank you.

35 **ADJOURNED** [12.44 pm]

RESUMED [1.30 pm]

40 MR O'CONNOR: Good afternoon, and welcome back to this afternoon's session of this public hearing. Can we please have our next speaker.

45 MR HANN: We have Ms Stilt from the Manilla Community Renewable Energy; are you there, Ms Stilt?

MS STILT: Yes, I am here.

MR O'CONNOR: Please go ahead; we can hear you.

MS STILT: Thank you. So yes, my name is Emma Stilts. I am the current president of the Manilla Community Renewable Energy. We are building a 4.5
5 megawatt solar farm with hydrogen battery storage in Manila which is about an hour and a-half from Narrabri so I would like to start by commending Santos for the photos supplied for the assessment report, and the Independent Planning Commission for using it.

10 In my view you keep those two solar panels, and you do away with the 850 gas wells, and you could utilise the billions of dollars used for that to develop this project for renewable energy projects instead. If Santos could do that there would be smiles all around. This was shown by the survey completed by North West Alliance
15 volunteers last year who surveyed 800 people in Narrabri. 24 per cent of people were in favour of gas but 98 per cent of people were in favour of renewable energy projects.

It's a huge opportunity for regional renewal which is exactly what needs to occur to meet the most pressing issue of our time, which is climate change. It would also
20 offer vital infrastructure investment for regional Australia, revitalising our economy despite COVID-19, and future-proofing our energy needs. I am speaking in opposition to the project as it goes against the public interest. It is clear that the majority of the public in our region, and across Australia do not support these projects, and the impacts it will have on our climate due to excessive carbon
25 emissions is unacceptable, and in my opinion criminal.

After reading the assessment report it is clear the authors feel the majority of opposition comes from a place of fear and ignorance as I believe the general public do not understand the specifics of the project, its geography, size, impact, and
30 especially when compared to the Surat Basin and other projects elsewhere. However, none of the – and I quote – “At least five favours in favour of the Narrabri Project which is that it is small, it has limited cumulative effects, it has favourable hydrology and geology, it's in a scarcely populated area, and has controls” none of those favours mentioned in the report list climate change as an issue which is a
35 recurring thing in the 22,000 letters of objection, and it comes from a consensus of 97 per cent of the world's scientists.

Climate change is the most pressing issue of our time, and it will be long after we are gone so what we do now today, the projects you approve, will have long-lasting and
40 irreversible consequences on our climate, for this planet and for generations to come. This assessment report states the project is critical for energy security and reliability in New South Wales as it would meet domestic gas shortfalls forecasted to start in 2024, and provide despatchable energy to the national energy market as it transitions away from long-term reliance on coal powered energy stations, and a greater reliance
45 to renewable energy.

From our Manilla Cellar Project, and hundreds like it, there is no need for the Narrabri Gas Project to fill this – to be part of this transition. We can just develop renewable energy projects now, and they can provide despatchable energy. The report also states the project will delivery significant economic benefits to New
5 South Wales and the Narrabri region, and stimulate the economy after the effects of COVID-19, and that the Narrabri Gas Project is classified a strategic energy project because it can produce gas for industries such as smelters, paper mills and abattoirs.

10 In 2020 there is no need to extract gas from a coal seam through the Great Artesian Basin and then pipe it hundreds of kilometres to produce energy. There are simply better ways to do this. They are viable and existing renewable energy technologies which include solar, pumped hydro, wind, biogas and hydrogen energy storage, as well as the local innovations like Bindaree Beef in Inverell, an abattoir that
15 offal, entrails and other unmentionables to generate the gas to power the abattoir itself. These technologies are sustainable and renewable; they can be rolled out tomorrow, and they contain all the benefits that the Narrabri Gas Project but do not contain the risk.

20 Instead of the Narrabri Gas Project our energy future could include renewable projects that adopt the community commercial model like we are doing in Manilla. This allows the economic benefit to be shared with the community, allowing the energy to be a local commodity that is exported to developing economic resilience for regional communities, and further strengthening social bonds and sense
25 of place.

This type of development does not risk culture, water, dark skies, ecology, and in agricultural's future of this region, and it would not be met with 22,000 letters of
30 objection. The report forecasting the timeframe of 2024; if we had an equivalent budget for renewable energy we would develop thousands of solar projects with energy storage. This could be rolled out across Narrabri and New South Wales, and there are community groups working to do just that. This would decentralise and decarbonise our networks at a time when transition and transformation is vital. It would strengthen regional communities, especially when adopting the community
35 model.

MR O'CONNOR: Could you please wrap up now, Emma, thank you?

40 MS STILT: If this project is approved the space for these types of investment is smaller, the need for renewable energy is less as gas will fill that need. Renewable energies as an energy source for the – of this century, it will have huge economic benefits, and we need to embrace it. Please, I ask you to reject this project. Let's look to the future. It has to be renewable. Thank you.

45 MR O'CONNOR: Thank you, Emma. The next speaker, please.

MR HANN: We have Dr Keith Fleming. Dr Fleming. I think you might need to turn your microphone on, Dr Fleming.

DR FLEMING: Your Honour, I'm muted by the host; thank you, very much.

5

MR O'CONNOR: Yes, we can hear you now.

DR FLEMING: Keith Fleming here, Commissioners. Throughout my presentation I will refer to Santos Narrabri CSG EIS and the company's application as the Santos proposal. My PhD is in chemistry. I have worked in industry analysing boiler water for saline contamination to identify boiler failure from corrosion. I'm experienced in risk management strategies. To be acceptable an EIS must be scientifically safe in its operational environment. Implementation of the Santos proposal cannot be scientifically safe in its proposed Narrabri environment, therefore I must strongly object to this unsafe procedure, and recommend to you that the Santos proposal be rejected.

My original submission addressed six pivotal issues, and found each to pose unacceptable risks to humans, other animals and plant species as well as non-animal and non-plant species; natural waters, land and air environments. I believe each of these six issues by itself is sufficient to justify rejection of the Santos proposal. Let's consider the first of these points. Iron and steel in the presence of water, oxygen, and saline catalysts already oxidise the iron component of the steel alloys used in the well casings and tubes; corrosion of iron and steel is therefore a predictable natural occurrence. Protected coverings such as paint, galvanising, concrete shielding and sacrificial electrodes, without regular maintenance, re-application and replacement will only delay corrosion failure.

Corrosion of the proposed plant and infrastructure, and this includes the CSG well casings and tubes, will ensure the failure of 100 per cent of wells over time. This is the chemistry; not some company's marketers international best practice which would appear to have been carefully selected to maximise that company's profits. This is real chemistry. Clean up of the below ground infrastructure on the site appears left to future generations to deal with, and this fails the principles of ecologically sustainable development incorporated in our laws which have been legislated by our governments.

The proposed procedure in the Santos proposal is therefore doubly flawed; firstly on scientific grounds and secondly on legal considerations. Let's consider these legal obligations a little more closely. Judge Brian Preston CJ of the Land and Environment Court of New South Wales identifies equity; equity as the principal consideration when the Land and Environment Court rules on development applications. Preston CJ also points out that in any environmental development decision there will be winners and losers. In legal terms the winners and losers include people from the present generation, peoples of future generations as well as non-human nature both present and future so why does the DPIE, in their climate report, refer only to public interest in their conclusion?

Australian legislation also reflects the outcomes of the Brivillin report and Rio declaration. For example, in domestic legislation development must meet the needs of the present without compromising the ability of future generations to meet their own needs, and from within the principles of ecologically sustainable development
5 inter-generational equity, again, and polluter pays and user pays principles, and many more. In my corrosion example the formation of contamination routes for fluids to move between different strata fails both the present generation and future generation equity tests, as well as the polluter pays principle, and ecological sustainable development. Is the Santos proposal exempt from meeting these legal obligations?
10 Clearly, the Santos proposal does not reflect these principles of equity in environmental sustainability incorporated in our laws, therefore the Santos proposal cannot be in the public interest.

Commissioners, acting in your roles in loco parentis for communities now, and into
15 the future, and here I refer to both human and non-human communities, I urge you to recommend to the government, in the strongest possible terms, rejection of this inappropriate, unsafe Santos proposal. Thank you all for your attention in this significant matter.

20 MR O'CONNOR: Thank you, Doctor. Thanks, for your presentation. The next speaker, please.

MR HANN: Brett Sanders on the phone. Mr Sanders, are you there?

25 MR SANDERS: Yes, I am. Good afternoon.

MR HANN: Good afternoon, go ahead.

MR SANDERS: Thank you, very much. Thank you, Commissioners, for your time.
30 I apologise for not meeting – being able to get onto the internet earlier. I'm a third generation farmer from Tambar Springs. I grow organic horticulture produce. My family has been on the same bit of land for over 70 years. My kids are now looking at taking over the farm one day, being very interested.

35 We're extremely fortunate that we have water that bubbles up from an aquifer, and feeds our spring fed creek that runs through the middle of our property. I thank my lucky stars, the blessings every day to having access to this beautiful spring water that sustains not only our property that produces beef and other crops, but sustains – it's the life blood of this country. This is the head-waters of the Murray-Darling
40 Basin which is facing a massive challenge, as we all know.

And my grandfather, Donald Seaton, when I was a kid – and I wish I had paid more attention – he always told me that our water came from the Pilliga, and I've chatted
45 about this with another farmer, Rosemary Nankivell, who I believe would be speaking in opposition to Santos during this IPC hearing, and her father, who was a little bit older than my grandfather, said that the rainfall – he felt that the rainfall, their rainfall at Pine Ridge which is east of where I am – that came from the Pilliga.

So there is an old understanding of the importance of the Pilliga, and I think our modern science have upheld that. We know that it's a major recharge zone for the Great Artesian Basin. If something happens to the Artesian – the Great Artesian Basin – our access to the life blood of all of our lives out here then we're finished,
5 we're done, we don't have the ability to live, to grow our produce, and to sustain ourselves.

Back in 2014 I was arrested for locking onto an implement that was in the Pilliga Forest. I was almost thrown off my farm by my parents who were horrified that I
10 had been arrested and charged three times. The first and only charges I've ever had, and they were pretty full on charges, and I don't take it lightly mainly because I had missed out on a few things that I would have liked to have done, having these charges against my name, but I got into a two page story in the Sydney Morning Herald, and Alan Jones got me on his radio show for 20 minutes we went two to
15 three minutes into the 8 am news speaking about coal seam gas.

So if this project goes ahead there is no doubt that people like myself will do whatever it takes to stop it, and to protect our underground water resources for future generations. I think a lot of people are now realising, after coming through the most
20 hideous drought that white fellas have ever experienced out in the North West, that the underground water is all we've got at the end of the day to sustain ourselves, and if we don't have access to that then we're finished.

So I really urge the Commissioners to please reject this project. We don't need it.
25 We've got enough gas. The employment figures don't really stack up, and the potential risks to our underground water to the fragmentation of the Pilliga Forest to Indigenous heritage and cultural values, climate change, now and into the future is way too much of a risk to manage safely. I just don't think Santos has it; they've proven that they – Eastern Star Gas and Santos have stuffed up in the past, and we're
30 still dealing – they're still dealing with those ramifications so I please urge you, Commissioners, please reject this risky – hugely risky and inappropriate industry from the North West, and I thank you very much for your time, and consideration, and yes, thanks, very much.

35 MR O'CONNOR: Thank you, Brett. Thanks, for your call.

MR SANDERS: Thank you. Bye.

40 MR O'CONNOR: Bye. The next speaker.

MR HANN: We have Lee Rodger on the phone. Hello, Lee.

MS RODGER: Good afternoon. Good afternoon, Commissioners.

45 MR HANN: Please go ahead.

MS RODGER: Thank you. My name is Lee Rodger, and I live in the Tamworth area. I'm concerned about three things; water security is the first, two, the effects on mining infrastructure on the Pilliga Forest, and three, the potentials involved in short-term gains compared to long-term damages. My first point, water security, concerns
5 the region from the Tamworth area to much further west. Our Tamworth water supplies come from the local catchment with water from our Peel River joining the Namoi which flows on towards Narrabri. For the last two years, and still the water supply in Tamworth has been at critical levels. Very little goes downstream, and at these times, for the benefit of landholders, there's none.

10 The water does not reach Narrabri when seasons are dry. Narrabri District therefore has to rely on the Artesian Basin for its water supply which is recharged in flood years. We do not know about water moving underground either that may affect the water that we have in the Tamworth area. This recharging, however, does appear to
15 be a simple science of gravity pulling water down but it's obviously a much more complex process. Santos shows diagrams that indicate they will not affect this Artesian Basin water. They say they will be tapping water and gas from lower down. These with their water and gas components are part of a system to maintain the aquifer We do not know what could happen by weakening these aquitards and
20 the aquicludes with drill holes, nor do we know if taking these pressurised resources from below the aquifer could induce collapse or shattering the aquifer's base, or even slow leaks would be disastrous given the warming planet.

We do not know if this will create draw-down from the above water through rocks.
25 One must suspect that this quantity of drilling, which apparently inferred sideways drilling, must set up vibrations to assist cracks to form. I'm concerned about the water to be extracted by the gas fields process. The holding ponds for this water or near a water-course, and must be piped from wells across the ground – sorry, from wells in across the ground. The area is renowned for big floods, and should
30 contamination of ground water occur by any method, it can persist for a long time, and it is very difficult to treat.

There are many demands on water being made; many of which will be more important to Australia than one company making the most profit from a process that
35 may affect many adversely. Please turn down this arrangement. My second point deals with the effect of more traffic on existing infrastructure, and the construction pad about a hectare across from Santo's own publicity; that's about five house lots which must be cleared of all vegetation because they burn the gas off. Why is this allowed at all in such a bushfire prone country, and why can't they collect it – I
40 question that.

Roads threaten the forest in many ways. They are dangerous to wildlife as they are more exposed to predators. They separate wildlife from food sources, and remove
45 shape in the soil, further drying and compacting the soil; not to mention man-made noise, litter and increased dust. Animal losses will be many. Trees in this environment take a very long time to grow so regeneration will be a long, long time

coming after they have disturbed the area for 20 years or so. I ask, “Will Santos be around then to do the clean-up?”

5 My third concern is about the advisability of doing this project at all, or any other
like it. Having the means and the will does not indicate that it is necessarily
worthwhile. A use of technology and manpower to prop up a fading energy system
is unwarranted. The disturbance to the natural environment is unwarranted. We
10 have other energy systems that are well established, and kinder to the plant. I cannot
see how the cost benefit ratios for this project show its worth. The gas derived is
it virtually – it can power half of Australia but it’s not sold in Australia, and we are
moving into a future here, and elsewhere, where other sources of energy are making
up our needs as well as working to reduce the energy consumption overall.

15 Various experts have warned that we would not be buying this gas cheaply, and that
Australian people may end up burdened with the support for this failing business
model from the Australian taxpayer. Surely, if this country has learned anything at
all from this year it’s that governance must be considered, and we must be more
sensible with our choices or bear the consequences. Thank you.

20 MR O’CONNOR: Thank you, Lee. The next speaker, please. Mr Chaffey, Wayne
Chaffey is the next speaker. Mr Chaffey, can you hear me?

MR CHAFFEY: Yes, I can.

25 MR O’CONNOR: Go ahead, we can hear you.

MR CHAFFEY: Thank you. Good afternoon, Commissioners. I feel privileged to
be here today to speak to you, to live in a democratic society where the government
of the day has appointed you, a truly independent panel, to make a judgment on this
30 incredibly controversial project. Yaama, Yaamanday, I acknowledge the Gamilaroi
People as the traditional custodians of this beautiful country on which I speak. I pay
my respects to elders, past, present and importantly those emerging.

35 My wife, Nel, and I were both born and raised in the New England North West. We
were educated here, and have lived or had ties here for all of our lives. We have
children living in the region, and now grandchildren here as well. We currently
operate a beef cattle enterprise with some share cropping after 40 years as public
servants in the education sector.

40 By degrees we’re working towards becoming better custodians of the land by
regenerative agricultural practices, living more sustainably, and protecting and
restoring the biodiversity of our remnant and endemic flora, for our fauna and all
who follow us. We’ve just come through the longest drought in living memory. The
13 dams on our property all dried up, and it was only bores that supplied water to
45 keep our cattle and herd alive.

We are some of the lucky few who did not have to sell our entire breeding herd, then buy back cattle at post-drought inflated prices. If our aquifer had significantly dropped in level or been poisoned we could have not survived this drought. We, along with many farmers, fear should this project be approved the loss of their essential water through dropping levels or poisoning.

Currently, the New South Wales government is giving us very mixed messages. On the one hand politicians are announcing renewable energy hubs, on the other the Department of Planning, Industry and Environment is supportive of an outdated carbon based energy project; the first providing clean energy and sustainable jobs, the second putting our future at risk in so many ways, including loss of cultural sites, potential long-term damage to water supplies, increasing risk of fire, production of unusable waste etcetera, etcetera. It's a long, long list which you've been hearing about all this week.

The presentation by David Kitto on behalf of the DPIE was flawed. It embarrassingly relied on lots of desktop models, rather than real, wide scale research data that's essential for a project such as this. People in New South Wales are giving the government a strong message; look around any community, note the number of solar water heaters and solar electricity generating panels on the roofs of private homes, commercial or industrial buildings despite the lack of real incentives.

There are a number of large solar farms, and wind farms awaiting DAs from local councils. People are installing induction cook-tops and reverse cycle air conditioners to reduce their reliance on domestic gas and lower cost. Some government incentives would further lower this demand while further funding into research and development of energy storage systems, like hydrogen batteries, would increase their accessibility.

We must recognise that Santos is not engaged in this project for the good of the people of New South Wales. It's purely for the profits to be returned to its shareholders, and many not living in Australia. This may have been considered a more legitimate project a decade ago to fill a perceived energy gap but not now. It appears that Santos and government are stuck in the noughties – a noughties time warp. Renewables are overtaking this failing industry. The government; it is just not stepping up to the mark quickly enough.

I am led to believe that a government department produced a document on the accumulated effects of mining and CSG on water in the Namoi Valley catchment; a report that was then mysteriously shelved. Just this week the ABC reported that bores drilled in the Liverpool Plain equipped with an expensive data log as to record water levels, had been locked then neglected so long that the batteries have gone flat, all data lost, all conveniently adjacent to the proposed Shenhua Watermark Coal Mine. Can we really trust the New South Wales government?

As I said, we just survived the biggest drought in a hundred years, but we now know that the next one will be much sooner. Why; because humans are changing the ever-

changing climate at an accelerating rate. The CSG industry, according to British Petroleum, or BP, produces more climate altering gases than the coal-based energy systems. How can this project really gain approval?

5 Ultimately, I know in my heart the decision best for our children's children's children, we need to leave our planet in a better state than we currently find it. You cannot drink or eat money. I wish you well in your deliberations, Commissioners. Thank you. There's only one decision to be made; this project must not go ahead. Thanks.

10

MR O'CONNOR: Thank you, Wayne, for your presentation. Our next speaker.

MR HANN: Robyn King on the phone. Can you hear me, Robyn?

15 MS KING: I certainly can.

MR HANN: Please go ahead.

20 MS KING: Thank you. Thank you for the opportunity to present to the Commission. I would like to begin by acknowledging and paying my respects to the Gamilaroi People. I acknowledge and honour the Gamilaroi traditional owners, and offer my respects to the Gamilaroi Elders. I'm a third generation farmer from Mullaley on the western edge of the Liverpool Plains. My son, who is now involved in the management of our property, is the fourth generation of my family to be
25 involved in agriculture.

30 Never in my wildest dreams did I ever imagine that I would be forced to fight to protect the right to produce food, and to have a sustainable supply of ground water that is integral to our farming operation. Since 2009 I have dedicated my life to protecting this valuable food producing region from coal seam gas extraction. It's hard to imagine unless you've lived through a long, protracted battle against a seemingly insurmountable foe, the toll it takes on your whole being.

35 I have paused to reflect on this battle, and many aspects of my journey to get to where we are today. It's a great sadness to me that I've had to neglect my family at times, that I've been unable to attend many of the activities that my grandchildren have been involved in. I decided early in this battle that I would rather die having done something that I consider important for the future of my family rather than do nothing.

40

45 The period from 2009 to 2020 have exacted a huge toll; physically, emotionally and financially. If I put a dollar value on every hour spent reading, writing or researching it would amount to thousands of dollars. If I put a dollar value on every mile I've travelled to attend meetings or gatherings of like minded people it would amount to thousands of dollars. I have often thought that if every person who has concerns with coal seam gas extraction in this region had contributed a few thousand dollars each, and employed a lobbyist to prowl the corridors of parliament, we would have

been able to relax safe in the knowledge that politicians would speak up to defend this valuable food producing region from a toxic industry that cannot co-exist with agriculture.

5 It is disappointing that the majority of politicians do not consider the future
sustainability of this nation important. It is disappointing that they don't recognise
that the groundwater reserves of the Great Artesian Basin are the most valuable
resource we have. If it wasn't for people power in this situation, could we have
10 depended on the honesty and integrity of the people who were elected to represent
us.

In 2009 Eastern Star Gas, a coal seam gas extraction company, was proposing to lay
a gas pipeline from Narrabri to Wellington. Part of that pipeline was to be laid in a
15 portion of our property. From initial contact with the employees of C & C, the
company contracted to make approaches to landowners, it became apparent that the
initial impression of good humour on the part of the employee rapidly deteriorated
into a mild form of threatening behaviour if you did not agree to their terms.

A group of landowners and concerned individuals came together, and through
20 consistent and united opposition saw the plans for the pipeline abandoned. As our
knowledge grew, and our research continued we became increasingly concerned with
the concept of coal seam gas extraction. We live on the driest inhabited continent on
earth; water is our life blood. Many towns, industry, tourism, and agriculture
depend on groundwater reserves. The Great Artesian Basis supplies water needs for
25 22 per cent of Australia.

After Santos purchased the Narrabri Project from Eastern Star Gas it became
apparent that the company was not intending to report any incidents; for example
chemical spills. If it wasn't for concerned and vigilant private individuals these
30 incidents would have gone unreported. When incidents were reported Santos blamed
the previous owner of the project.

Once your trust has been eroded it is hard to restore trust. We, as landowners, were
meant to be considering a partnership with a company, who it had been revealed was
35 very unprofessional and unprincipled. When Santos released their Environmental
Impact Statement there appeared further evidence that this company was prepared to
make statements meant to mislead or deceive to achieve a satisfactory outcome in
their favour. In the first chapter of the EIS Santos states:

40 *The EIS found that the project will have minimal risk of impact on agricultural
and domestic water sources. In addition, the project is not located within a
major recharge zone of the Great Artesian Basin.*

In fact the area that Santos's EIS covers is termed "The Southern Recharge of the
45 Great Artesian Basin." Your decision affects not only the Santos coal seam gas
extraction project but the future of food production in North West New South Wales.
Your decision affects the people whose livelihoods depend on a reliable source of

groundwater. You are deciding the future of Australia's clean, green image and our reputation as a trading partner. Thank you.

MR O'CONNOR: Thank you, Robyn. Our next speaker, please.

5

MR HANN: We have Nathaniel Deans on the phone. Mr Deans, can you hear me?

MR DEANS: I can; can you hear me?

10 MR HANN: Yes, go ahead.

MR DEANS: Thank you, Commissioner, for the opportunity to speak today. My name is Nathaniel Deans. I am 27 years old, and I'm currently studying to become a veterinarian. Our multi-generation family property is located in the Coonamble
15 Shire. I am here today to show my support for the Coonamble community, and all the communities that are threatened by the proposed Narrabri Gas Project, and I object to the project. Today I will be discussing two main points; firstly, to emphasise longevity and sustainability of cultural land, and the culture, and how this short-term depleting project threatens that. And secondly, in a world that is
20 threatened by climate change I would like to convey my concerns for my future, and the following generation.

To begin I can only speak for myself but I believe my views are shared by many farmers and their families of the Coonamble District and wider community. My
25 oldest sister and her husband, my younger brother and his fiancé as well as myself have chosen agriculture. As the fourth generation in the region we all share a strong connection to the land. Growing up on the farm teaches you so many life lessons, and the experiences we have had together have all been generated by the unique relationship with the environment. We want our kids to have the same
30 opportunities.

Our great-grandfather and grandfather spent their life on the farm. Our father spent his life on the farm, and now we have taken on that responsibility. For near 100
35 years we have operated on the farm, and plan to do so well into the future. With each generation the same basics will apply; look after the land, listen to it, learn from it so we can produce high quality food and fibre in a sustainable and repeatable way. Each generation has added and improved on the of the land, and to our credit sustained farmers are some of the most innovative in the world. This story is shared by many farms of the district. Our time on it speaks for the successful
40 relationship with the land that will project far into the future.

Farming is sustainable and replenishing. Farming does not have an expiration date. In the last decade we have only become more efficient, and will continue to in the future. The Narrabri Gas Project has a predicted life term of 25 years. It's non-renewable and poses a threat to our most guarded commodity, groundwater. There
45 have been a multitude of speakers this week that have brought forward numerous facts covering such topics as groundwater risk, economic viability and environmental

impact of the Narrabri Gas Project, and I commend them. Without re quoting all of them I will keep my perspective simple; I see a short-term project of 25 years that is not sustainable. It's depleted by nature, it's unnecessary and it's and it is in stark contrast to the already proven agricultural land of the district.

5

As Commissioners I ask you to please keep in mind that this project is a risk to something that has been in the area for a hundred years, and will be carried on into the future by generations who come like my sister, her husband, my brother, his fiancé and myself, and given the opportunity our children and their children to come. So please, for all the generations involved, please rule in favour of agriculture that is not threatened by unsustainable non-renewable energy. Furthermore, please give considerable thought to the Australian's role in choosing our dependence on a non-renewable energy source. I urge you as a younger member of society to lead Australia towards a more sustainable future. Thank you, very much, for hearing me, and thank you.

15

MR O'CONNOR: Thank you, Nathaniel. Next speaker, please.

MR HANN: The next speaker is Dr Hannabeth Luke. Dr Luke, are you there?

20

DR LUKE: I am here.

MR HANN: Please go ahead.

DR LUKE: Thank you. Good afternoon ladies, gentlemen and Commissioner. I'm a researcher from the School of Environment, Science and Engineering at Southern Cross University, and I'm here because several members of the Narrabri community asked me to present my research. My research focus has always been to help make rural communities resilient in the face of ongoing changes and challenges. Visiting Narrabri on my honeymoon I found a lively rural community, welcoming to strangers. This contrasted with the changes I had seen in Queensland where many rural industries struggle with the boom and bust cycle of the CSG industry where strangers are no longer trusted as they once were.

30

For nine years I've been researching community perspectives of unconventional gas industries. I've spoken with hundreds of rural residents about their hopes, fears and experiences of what the industry brings to their towns and landscapes. I've conducted studies in New South Wales, Queensland and across nine international case studies. I completed a PhD on the topic, and I've published 11 peer reviewed articles so far. From 2011, I conducted research in Queensland's Western Downs region, interviewing many of the same people over time. My entire insight into what senior business managers, farmers and other residents expected the industry to bring, and how those expectations were or were not met. My study found that for local residents it was a mixed bag. While the boom lasted those employed by the gas industry enjoyed a higher income, and school enrolments increased.

45

The higher number of FIFO workers had a knock-on effect. The town filled with neon shirts, the roads were clogged and dusty and daughters no longer felt safe in their town. House prices pushed up and some families sold and moved away. Those who could not afford the rents also moved away. Small business owners such as
5 farmers, a cabinet maker and a boutique owner struggled to compete with high wages. The boutique closed along with other businesses that did not service the gas industry.

Others, such as those in construction did very well during the boom yet the rapid turn
10 down had a huge impact on the now CSG reliant community, especially in the towns. An earthworks company suffered huge losses because they bought new machinery and contracts that outlasted the boom. Even the council suffered; still paying 20 per cent above the wage increase deemed essential during the boom, and servicing a \$16 million debt for a water treatment plant without the predicted ratepayer support.

15 After the gas rush my interviews sadly discussed the disappointment, along with the raised crime rates and substance abuse in their community. The sports clubs who had previously received contributions from CSG companies now had all the gear and no volunteers, as so many families had left. Perhaps what I found most surprising
20 was how the business community's perceptions changed over time. In 2011 senior business managers in Chinchilla were excited about what the industry could bring. In 2013 they were making money; in 2016 their disenchantment was striking. One businessman said:

25 *Four to five years ago I wouldn't have answered the same way. A lot more optimism and all good, all good. I thought there were checks and balances. I was naive. These companies are not here for the good of society, and they don't care what they vandalise or contaminate.*

30 Another said:

I don't know how it got like this, and who is to blame.

Several of the farmers I interviewed used the words "David and Goliath battle."
35 Some did very well. A couple who owned water extraction rights made good money supplying the CSG industry. It was, however, their neighbour who reported a 10 metre drop in bore water levels. I found many examples of neighbour pitted against neighbour. Agreements sealed with a handshake were no longer considered sufficient as farmers faced lengthy negotiations that could turn into vexing litigation.
40 One was told it would take three months to install a pipeline that took three years, cutting her farm in half and diverting her water. In court it cost 30,000 to find out that anything other than a worker's camp could be built on her land. Before I finish I must mention the health impacts associated with this industry.

45 Some farmers explained how their children experienced a rash after bathing, and unusual nose bleeds. I've had three nose bleeds in my life; one from a hockey ball, one a surfboard, and one after a day of taking water samples from the river that flows

through the gas fields but that's just anecdotal, but I may not be a health expert but I am a scientist, and in 2018 I conducted a review of 90 papers, and 23 reports on social and health impacts of the Australian CSG and gas industry. We found an alarming lack of rigorous health studies examining cause and effect of CSG development with a health review stating that:

An absence of evidence does not mean evidence of absence.

One study compared child hospitalisation over 16 years in areas with and without CSG finding that blood immune diseases for young children increased by 465 per cent in the CSG area. While these studies remain few the evidence is inconclusive, and therefore points towards taking caution when considering health impacts of the CSG industry.

Yesterday I called up one of my interviewees in the Western Downs and asked if things had improved. She said that the town was dead. My research indicates that the CSG industry in the region I've studied has failed to deliver the safety and long term prosperity promise. The broader research shows that Chinchilla is not alone in experiencing these impacts; perhaps Narrabri may be an exception. Thank you, for your time.

MR O'CONNOR: Thank you, for the information about your research, Doctor. Next speaker, please.

MR HANN: We have Siobhain O'Leary. Ms O'Leary, can you hear me?

MS O'LEARY: Hello. It's Siobhain O'Leary, thank you.

MR HANN: Thank you.

MS O'LEARY: Hello, and thank you for this opportunity to speak. Firstly, just to say I'm speaking to you today outside my comfort zone. Having not spoken to a hearing like this before it is a little scary but I've chosen to speak because what I find even more frightening is the prospect that one day my children will turn to me and ask, "Mum, did you, in the face of decisions leading to catastrophic climate change, how did you raise your voice?" At that point I want to be able to look them in the eye and say, "Everything I could."

I'm objecting to the approval of the Narrabri Gas Project on behalf of myself but also my children who cannot be here today but whose future will be impacted by this decision. I speak too for future generations as the current political and economic processes fail to adequately take them into account. As part of inter-generational justice we have a responsibility to leave future generations a clean and healthy atmosphere, a living world in which they can survive and thrive; we are not currently meeting these obligations.

I was moved on Wednesday by Rachael Scott, the young woman who spoke at the hearing about the impact the climate crisis is having on her mental health. As the parent of a six and nine year old I related to feeling the need to constantly do more to tackle climate change; it is persistent and exhausting. Of course, Rachael and I will
5 continue to do what we can but all is for nought if fossil fuel projects continue being proposed and approved.

You've already heard from many speakers about worsening climate change processes. I agree with these assessments. Today I would like to focus on the inter-
10 generational inequity in the approval of this, or any other fossil fuel project represents. With every additional emission we are global warming to safe levels harder. This impossible burden is on future – burdens on future generations cost of mitigation and draw down measures, increased natural disasters, food and water insecurity, the potential for mass human migration on scales never seen before, and
15 worsening societal and global conflicts. In the face of an unstable climate the richness of life's opportunities are diminished. Choices we have taken for granted like where to live, buying and insuring a home and whether or not to have a family are becoming harder. Anxiety levels in young people are increasing, and the capacity of young people to emotionally invest in their futures is being affected.

20 Paris limit targets are not being met, and they are not sufficient to limit warming to two degrees. Expected emissions from already planned projects are over twice the remaining carbon budget. Emissions must halve by 2030. 2030 is only part-way in to the 25 year planned life of the Narrabri Gas Project. Warming effects are not
25 linear; when it warms climate tipping points are activated. The shrinking of the Arctic ice sheet, for example, leads to the ocean absorbing more heat, reducing the ice sheet, accelerating more warming. Scientists warn that climate tipping points have already been activated, and others will be activated at lower levels of warming than previously thought.

30 The emissions we commit to today will not impact future generations in the same way the emissions have impacted us but in exponential and reinforcing ways. Fossil gas is not a transition fuel. Fugitive methane emissions of just three per cent across the gas production system would wipe out any of the emission benefits of burning
35 fossil gas over coal for electricity. Methane is around 86 times the warming potential of CO2 over a 20 year period. This is the critical period that will make the difference between containing climate change, and losing the battle. Renewables and storage are now the cheapest form of new energy generation. According the Australian Energy Market operator we have the technical capacity to achieve 75 per cent
40 renewables in 2025, and all that is needed is regulatory reforms. It would be cynical to assume that because the Narrabri Gas Project is specifically mentioned, along with other projects, in the January 2020 Memorandum of Understanding between the New South Wales and Federal governments on expanding gas demand in New South Wales, that the approval of the Narrabri Gas Project is inevitable.

45 However, I remain optimistic because the MOU also states that should the projects not proceed the governments will conduct a gas market review, and that the New

South Wales government, working with the Commonwealth government, will explore options to free up gas demand through electrification, fuel switching and energy efficiency; this needs to be the outcome of this approval process. A comprehensive review of the New South Wales gas market, its expected longevity, and the potential for stranded assets in the face of climate change, an independent and comprehensive fugitive emissions from CSG over the lifetime of wells, including their decommissioning, coupled with New South Wales and Federal government initiatives drive down gas demand rather than increase gas supply including options to accelerate the uptake of hydrogen for processes that cannot be electrified.

There is no transition until fossil fuel projects are no longer approved. The time for transitioning was over the last 30 years; it has now passed. The of this project is the economic just and environmentally sound thing to for current and future generations. Thank you.

MR O'CONNOR: Thanks, Siobhain, for your presentation. Our next speaker please. The next speaker is Lynn Benn; can you hear me, Lyn?

MS BENN: I can; can you hear me?

MR O'CONNOR: Yes, go ahead.

MS BENN: I apologise for the background noise; I'm travelling. I'm at the Gilgandra Caravan Park; I hope it's not too bad. I would like to acknowledge that all of Australia is Aboriginal country, and was never ceded. I'm a member of the Knitting Nannas of Frontline Action on Coal, many other environmental groups, a great fan of birds, and also a grandmother of four, and I'm here to object to this project. I actually want to thank Santos because my involvement in this campaign has introduced me to the wonderful Pilliga Forest which I've come to love. I have heard submissions from experts on the – sorry, you have heard submissions from experts already on the ecosystems and biodiversity of the forest, and how precious they are so I won't repeat those details but I want to try and draw some threads together. This week the interim report on the review into the EPBC Act was released. It states that:

Australia's natural environment and iconic places are in an overall state of decline, and are under increasing threat. The current environmental trajectory is unsustainable.

Also:

The pressures on the environment are significant, including land use change, habitat loss and degradation, and feral animal and invasive plant species. The impact of climate change on the environment is building, and will likely exacerbate pressures contributing to further decline.

And in another paragraph they state:

5 *Cumulative impacts on the environment are not systematically considered, and
the overall result is net environmental decline rather than protection and
conservation.*

The report is also highly critical of the use of environmental offsets stating that:

10 *Environmental offsets are often poorly designed, and implemented, delivering
overall net loss for the environment.*

15 So it absolutely clear that our existing framework for environmental protection is not
working. The extensive loss of habitat and the horrific fires last summer, and the fact
that such fires are likely to happen more often as the planet warms, should be
enough, on its own, to trigger a major re-evaluation of our remaining high value
habitat. Against this background of extensive environmental degradation of ongoing
habitat loss, we cannot afford to lose the Pilliga Forest. This project threatens the
irreplaceable Pilliga Forest in many ways, including direct destruction fragmentation,
20 loss of water, increased fire risk, pollution and loss of air quality, and the increased
greenhouse gas emissions which will feed back into increased temperatures and fire
risk.

25 You have also heard expert submissions on the impact on groundwater and the
predicted drop in the water table, and you've heard how the fire risk assessment is
inadequate and does not take into account the increased fire frequency, and intensity
due to climate warming, and about the absolute madness of allowing flaring on
catastrophic fire danger days in a timber dry forest. You have also heard how this
project will industrialise the landscape into a checkerboard of isolated patches criss-
crossed with pipes and tracks, and the accompanying dangers of leaks and spills. I
30 want to say a little bit more about the greenhouse gas emissions if I can share my
screen with you.

35 This is from the UN Environment Programs Production Gap Report which was
released late last year, and it makes it clear that it's critical to move away from fossil
fuel production, including gas, right now. As this chart shows governments are
planning to produce about 50 per cent more fossil fuels by 2030 than would be
consistent with a two degree pathway, and 120 per cent more than would be
consistent with a 1.5 degree pathway. If we are to stand any chance of averting
40 catastrophe those plans cannot go ahead.

45 Now, is absolutely not the time to embark on a new gas development so I just want
to finish on the fact that I was actually brought up in the UK but I have been in
Australia for over 30 years, and I was brought up with a strong sense that anyone
fortunate enough not be entirely consumed with a fight for survival as a role of
stewardship to preserve and enhance our way of life and our environment, that you
have a duty to leave the world a better place than you find it. By that standard,
unfortunately, our generation has failed dismally. If this project were to go ahead it

would greatly exacerbate that failure. Please, please, do not approve this project. Thank you, for your time.

5 MR O'CONNOR: Thanks for your presentation, Lynn. Next speaker, please. The next speaker is Gerard McEvilly. Sir, are you there?

MR McEVILLY: Yes, I'm here; can you hear me?

10 MR O'CONNOR: Yes, go ahead, please.

MR McEVILLY: Thank you, for listening. I'm speaking on behalf of my grandchildren. You see they can't speak for themselves; they haven't been born yet. For their sakes, please reject this proposal, and the grovelling assessment of it by the New South Wales department; shame on them. Just read the top management brush-off is one example. I humbly ask you to consider the bigger picture of our future energy, economics and environment. Please, think beyond this gas field; important though it is. For example, through bad governance we have inherited a grid not fit for purpose. Faulty government policies caused massive mis-investment, gold plating a grid designed for yesterday, not tomorrow.

20 We have also inherited a gas production industry that's not fit for purpose; environmentally unfit, economically unfit, mostly exported into a flooded market and yet still inflating domestic prices so these are inherited failures that have left us in an energy mess. Commissioners, you have the opportunity to put a stop to this downward spiral of criminal stupidity. COVID recovery gives us the chance to reset our grandkid's future, and that's why I had to speak to you at this crucial point in history. The decision you make will set the path for the next 20 plus years; it's not just about this project.

30 Again, I am pleading with you to look at the bigger picture. You can be the tipping point for aligning the recovery from COVID with recovery for our planet, and security for our grandkids. It's an awesome responsibility, and I hope and pray that you are up to it. I ask respectfully be truly independent. Please don't hide behind narrow terms of reference. Please don't imagine a few tweaks to this approval or extracting a few more Santos promises will do the trick.

40 Remember your predecessor, IPC, in 2014; they ruled on the exploratory drilling at Narrabri but they recognised broader concerns, and commented on what should be taken into account in assessing future projects. None of this is even mentioned in this assessment. Will you be like them; a toothless tiger that gets thanked, and then forgotten? I shared the past government failures we have inherited. There is another one I'm afraid.

45 In Australia we have no national energy strategy; how appalling is that? But there's some good news as well. The States and Feds have recognised this at COAC meetings, and even set up the Energy Security Board to develop a national approach. Oh, no, more bad news; the Energy Ministers now meet under National Cabinet

Rules so guess what, the agenda and deliberations are secret, and the ESB is excluded. Evidently ESB's advice has been a bit too frank and fearless but more good news; the States have all set up renewable energy targets and New South Wales is a bit of a star with its renewable energy zones. Bad news I'm afraid; the infrastructure for these needs Federal funds which the Feds have tied to increasing gas supply.

Did I mention the COVID Recovery Commission is stacked with gas and mining interests? Please, reject this because it's just wrong to go ahead with this project in isolation from a broad decarbonisation plan that's free from vested interests. Please reject it because this pathway is paved with lies, unfair influence and deceit. Please reject it because it's driven by commercial interests over the public good. Please reject it because this assessment is nothing more than a fan letter from government to Santos. Please, Commissioners, reject it for my grandchildren if I'm ever blessed with any, and may you be blessed with the courage to do the right thing. Thank you.

MR O'CONNOR: Thank you, Gerard. Next speaker. The next speaker is Simon Cant. Mr Cant, don't crash. Pull over safely, please. At some stage you will need to put your microphone on as well. We can hear your dog but not you just at the moment. I see the dog.

MR HANN: Like Hairy Maclary.

PROF BARLOW: You've been reading too many books.

MR O'CONNOR: Mr Cant.

MR CANT: Yes, hello.

MR O'CONNOR: Hello. Please go ahead. We can hear you now if you're ready to give your speech.

MR CANT: Okay. Thank you. Well, thanks, Commissioners. I'm here in Warren. I – I came to town to get some better reception, and that all – it's great that you're running on time. The – I – I've heard some very capable and articulate speakers and I really commend them. It's fantastic, and I'm not here to claim any special expertise in aquifers or stratas or fault mines. I just want to present some really simple facts – facts that I – I can't debate. I just want to present fact number 1. All life is sustained by water. Fact 2 human existence in our part of the world is highly dependent on ground water. Only a few months ago the Macquarie Valley was facing the approaching horror of losing all surface water.

We – they – they boarded up the Macquarie River at – at the town where everything downstream had run down and run out. We just had a few pools of native fish left. It was a pretty horrific situation, and the only thing that sustained us through that and the remaining stock that we did have was bore water. The only thing that we bathed in – the only thing that we washed in – the only thing that we cooked in was bore

water. Fact 3 there's some stuff down in the earth that doesn't belong in the water.
Fact 4 Loctite manufactures some of the best sealants available yet they have no
product that is guaranteed indefinitely and yet the proponents of CSG claim that they
can keep our water safe for eternity by sealing off the drill holes.

5

Fact 5 experts claim that any threat for water from subartesian drilling would be
local. Fact 6 in 2015 Santos reported to their shareholders they held petroleum
exploration licence across much of the state. So by my reasoning – reasoning, local
impact could be a widespread impact. Fact 7 I was previously the downstream
10 neighbour of an international corporation. I can state clearly that whilst some of the
locals – the – the local staff were great people and very good community members,
morality never made it to the boardroom table, and that, more importantly, that when
it comes to compliance, might has right. And I haven't seen evidence that a
government department is prepared to stand up to a company that has got bigger
15 legal resources than theirs. I just want to finish with my plea. Our water is precious
and essential. Subartesian drilling poses a risk that's not worth taking. I thank the
Commissioners and I thank the – those who have helped out. Thank you. Bye.

MR BEASLEY: Thank you.

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MR O'CONNOR: Thank you, Simon.

MR CANT: Thank you.

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MR O'CONNOR: Next speaker.

MR BEASLEY: Next speaker is Adam Macrae. Are you there, Mr Macrae? You
might need your microphone on, sir.

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MR A. MACRAE: Roger that. Sorry about that. How are you?

MR BEASLEY: That's good. We can hear you loud and clear now.

35

MR MACRAE: Thank you. Good afternoon, Commissioners. I – please allow me
to acknowledge the traditional custodians of the land, the people of the Gomerioi
Nation, and pay my respects to all their elders, past, present and emerging. I'm
Adam Macrae, and I acknowledge your diligence in touring the Santos facility and
meeting with their representatives. I sincerely invite you, Commissioners, to pencil
in a day and witness for yourselves the strengths of and challenges faced by a
40 community like ours, of which there are many, whose only permanent fresh water is
supplied by the Great Artesian Basin. We have no other option not only for farms
but for our townships, including our schools, hospitals, our support services,
businesses, sporting fields and our residents.

45

I have lived in Coonamble since 2003 or the Coonamble Shire since 2003. I'm a
husband and father of five. Our family farm is about 4000 acres and along the rest of
– with the rest of our extended farming family out here we produce the best and

cleanest beef, wheat, barley, chickpeas, lamb, wool for the rest of the world. I've been an agriculture and science teacher at our high school for 18 years. My wife, Rowe, owns and operates a café in town. I'm president of the Coonamble Bears Junior Rugby League and Netball Club with over 200 registered players, and I'm an active member of the Coonamble Show Society and vice-president of Coonamble Junior Cricket.

The purpose of this impromptu CV is to establish some valid credential as a representative and hardworking advocate for our community. I'm not an economist, a hydrologist, a health expert or an engineer, but I have a firm finger on what is required and what is valued and what is a threat to the people of our community but I have had firsthand experience in dealing with the project associated with the NGP, namely APAs Western Slopes Pipeline. My experience was traumatic and indicative of the slim to zero regard this industry has for due diligence, property rights and communities. This included trespass, intimidation and operating outside the terms of the ATS.

Our people reject any notion that this project will benefit our community in any way. We are screaming to be heard. The undeniable evidence of the staunch public opposition is 97 per cent of all surveyed residents across the 3.2 million hectares surrounding the Pilliga oppose the CSG industry. 104 communities declare themselves to be gas field free over this area. 23,000 submissions with 96 per cent opposed to this project. I acknowledge the qualification that many were form submissions but 23,000 people the National Party lost Barwon to the Shooters, Fishers, Farmers, who openly opposed the project, and two very conservative rural advocacy groups, the CWA and New South Wales Farmers Federation, openly opposed the project.

The people of the north-west are not prepared to accept the many risks posed by this gas field nor any other CSG development that will follow. Risks to their water, climate, economy, health, culture and community, all of which have been presented to you by people much more qualified than I and are best summarised by Santos' two of 16 score card in relation to the Chief Scientist's recommendations. Added to this, our communities can see right through any espoused benefits of this industry. The DPPs acknowledgement that this project will not actually reduce domestic prices is a great start. Median house price is an excellent gauge of economic health of the town.

A quick look at realestate.com shows Chinchilla's median house price in 2006 was 275K. In 2015 at the height of the construction boom it ballooned to 380K and only three years later in 2018 after it had all packed up and gone it was 191K. That's 30 – 30 per cent less than 12 years prior. Added to this, the fact that land hosting any CSG infrastructure is uninsurable, this industry is an economic and social parasite. People are aware of the COVID Commission's push for a gas powered economy for the – gas powered recovery for the economy. We have right under our nose agriculture and tourism, both of which are economic powerhouses that are sustainable, established and capable of tremendous growth in the long term.

For example, the shires in the surrounding – surrounding the Pilliga Forest in ABS 2015/16 Census, which was a dry year – we didn't even sow one paddock – there were 2062 farming businesses with gross receipts of \$2.06 billion and more broadly the GAB supports 12.8 billion in economic activity. Now, agriculture not – not only
5 employs 10 times more jobs per dollar - - -

MR O'CONNOR: Can you wrap up now, please, Adam.

MR MACRAE: Yes. Sorry. I will – than mining. It improves the value of land
10 indefinitely, creating a platform for further investment and employment and in doing so tremendous intergenerational equity. Therefore, Commissioners, I appeal to you not only to reject this project but recommend the cancellation of all PELs held by CSG companies across the north-west, and I'm serious about that invitation.

15 MR O'CONNOR: Thank you, Adam. Next speaker.

MR BEASLEY: Next speaker is Lara Ottignon. Hello, Lara. Are you there?

MS OTTIGNON: Yes, yes. I'm here.
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MR BEASLEY: Please go ahead.

MS OTTIGNON: Firstly, I acknowledge the traditional custodians and pay my
25 respects to the elders, past, present and emerging. The Pilliga Forest is a place of significant cultural heritage for Gomeroi people, the traditional custodians. Santos' Narrabri Gas Project will fracture their connection to an area which is essential to their culture and spiritual health. We must acknowledge that this damage will be irreparable. My name is Lara Ottignon and I am 26 years of age. I am speaking today as a concerned young citizen.
30

I have visited the Pilliga and I have witnessed with my naked eye the stress of the environment and the local community that has occurred as a result of the existing coal mines in the area as well as Santos' pilot gas wells. Over the last – past nine months I have worked in my free time to educate the community, mostly those
35 placed in the Sydney area, about the Narrabri Gas Project and the impacts of gas to climate and the community. The assessments states that, quote:

*The project is unlikely to result in any significant impacts on the local
40 community or the environment –*

unquote, despite evidence that the project will, in fact, cause significant impacts and those impacts will be intergenerational. I object to Santos' Narrabri Gas Project and for the following reasons ask the Independent Planning Commission to reject the project. Firstly, coal seam gas, like all natural gas, is composed primarily of
45 methane, a potent greenhouse gas. Coal seam gas wells, pipelines and other infrastructure leak fugitive emissions. Gas has been guised as a transitional fuel despite methane being 86 times more powerful than carbon dioxide on its

atmospheric warming impacts considered over a 20 year period. This is in a time when action on climate change is critical and the commitment to the Paris Agreement implies a strong reduction in greenhouse gas emissions.

- 5 The assessment focuses on impacts to the local environment and community and does not adequately consider how the project will have global impacts. The assessment states that emissions will comply with relevant criteria, yet in Australia at present there are no regulations that directly limit methane emissions from oil and gas production. The project is not in the public interest due to its contribution to the potential impact of climate change in New South Wales and especially to the interests of the youth. Secondly, in regards to the economy, it is said that the coal seam gas will create jobs in Narrabri which would give the town's economy a significant boost.
- 10
- 15 The assessment states that the project will create up to 1300 jobs – and I emphasise the “up to” – during peak construction and 200 jobs during operations; however, the gas industry is highly mechanised and Santos employs skilled labour, meaning employees are flown to regional areas as required. Santos does not provide information in the assessment on how many employees in the gas field workforce will be locally recruited. In fact, Santos' gas field poses direct and indirect threats to existing long term, sustainable industries in the Narrabri area, such as agriculture and tourism. The assessment states that local gas will boost local manufacturing, but the Queensland experience proves otherwise.
- 20
- 25 A published article from the Australian Journal of Agricultural and Resource Economics found that for every job created in the coal seam gas industry in Queensland 1.8 jobs were lost in agriculture and one job was lost in the service sector. I also have a lack of trust in the project for two reasons. The New South Wales Chief Scientist's recommendations have not been implemented. A Parliamentary inquiry in February last year found that 13 of the 16 recommendations have not been implemented. Also, Santos does not have a good track record with compliance, of which I don't have much time to go into now; however, Santos refuses to answer key questions about the project such as the gas composition analysis, where they will dispose of tonnes of toxic salt waste, and where the gas wells themselves will be located.
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- 35

The risks of this project are so high that landholders are unable to access insurance. Santos cannot even provide key information about the project so how can they be trusted with such a high risk project? I'd also like to remind the panel that the Narrabri Gas Project has no social licence. Communities around the state repeatedly say when polled that they oppose coal seam gas. In May 2017 the EIS received 22,700 objections to New South Wales Planning, representing over 97 per cent of submissions. Globally, people are coming together and marching in masses to urge governments and companies to take action on climate change.

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45 Speaking on behalf of myself, my stake in the future is greater than an older person and I would urge the Commission to ensure that young people and future generations

are not burdened with the legacy of a company like Santos which has systematically deprived the Commission of adequate information to make its decision. I am sure that other people speaking over this week can give you more examples – have given you plenty of examples and the details, you know, how Santos have failed to provide
5 information. Thank you for your time.

MR O’CONNOR: Thank you for your comments, Lara. Next speaker, please.

MR BEASLEY: Our next speaker is Louise Redmond. Ms Redmond, are you
10 there?

MS L. REDMOND: I am. I am here.

MR BEASLEY: We can hear you - - -
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MS REDMOND: Thank you.

MR BEASLEY: - - - so go ahead.

20 MS REDMOND: I would like to share my screen. I figure that you gentlemen have been having a lot of people talk to you this week and I thought you might like a bit of a break from talking heads, so I’m going to give you some pictures. I – my name is Louise. I live in the Blue Mountains in New South Wales. I do not support the development of the Narrabri Gas Project. You have heard from many experts this
25 week and just this afternoon I’ve listened to some extremely eloquent speakers like Lara and Gerard and Adam and Simon just before me. You’ve heard a lot about the negative impacts of coal seam gas extraction in this area. I agree with them all. I’m not here to speak on those areas.

30 My position is that this project does not have community support or community licence to operate – a social licence to operate, and there are two points I want to make today. One of them is picking up on Lara’s point. I am a mother and a grandmother. This is my family. People I care about and love very much, and I think about the world that they are going to live in. You, the Commissioners, are in
35 similar generation to myself, and we’ve had a terrific environment in many regards to – to live in. But I’m afraid that our children and our grandchildren will live in a world that is much hotter and much drier. You’ve heard from experts about that this week.

40 If we keep doing what we’re doing now, the same actions that got us to this point, we’re heading towards global warming of four degrees. Now, as Lara commented, students, young people are saying, “Hang on. This is our – this is our future. It’s all right for you guys. You know, you’ve had your lives. You’re coming to the later end, but this is what’s ahead of us for our children as well”. The fact that hundreds
45 of thousands of students have taken to the streets right across the world saying, “Things have to change. We can’t keep doing what we’ve been doing”, this is their future. Greta Thunberg in many ways has been the voice of this generation and I

think her statement here, “I want you to act as if your house is on fire, because it is”, is critical.

5 An earlier speaker referred to the UNEP Production Gap Report about how the – the Paris Climate Agreement’s goal is to keep our global warming well below two degrees, but preferably 1.25. Now, I think it was Lynn a few speakers ago who mentioned this and the impact that this has on gas production. We’ve actually got to stop gas production, not keep it going, and this one gas field would increase Australia’s greenhouse gas emissions at a time when we are supposed to be reducing them. It just simply doesn’t make sense. The other point that I want to talk about is the fire. Now, I live in the Blue Mountains, as I mentioned, and we had massive fires through here over the last summer.

15 80 per cent of the world heritage national park here was destroyed in those fires. I was also in the Pilliga in January 2016 in a bush camp and we were forced to evacuate with the – with the fires that came through. So I’ve seen the ferocity of that fire which raises the question, what does the Rural Fire Service have to say about this? Well, I have heard some speakers during the week, and I have read some of the media reports which – saying that the Rural Fire Service is pretty much staffed by volunteers and a lot of those are farmers who are not in support of this project. For some reason the assessment report believes that really there’s quite a minimal chance of fires happening even though there are gas flares in this area, and yet from this period at least 17 bushfires have been recorded in the Pilliga.

25 So it just simply does not make sense that fire is not a major issue. Now, I’m not an expert, but – but these are simple things that stand out. Finally, I don’t believe that this transition fuel, a fossil fuel, is the way forward when renewables offer jobs and economic development. That is in line with the need to reduce global emissions. This project does not have social licence, and I urge you to reject this project. Thank you for your time.

30 MR O’CONNOR: Thank you, Louise. Next speaker, please.

MR BEASLEY: We have Sandra Kirby on the phone. Are you there, Ms Kirby?

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MS S. KIRBY: Yes. I am.

MR BEASLEY: Please go ahead. We can hear you.

40 MS KIRBY: Okay. Thank you. Good afternoon, Commissioners, and thank you for all the speakers that I’ve heard. I know I’m repeating some of the things that have already been said, but please bear with me. I want to speak on the project and global warming too. If our planet is to have a future we all know that mankind must act now. It is essential that we all do our part. There can be no free riders. Carbon and methane emissions must be immediately reduced until the zero emissions goal is swiftly reached, and certainly there must be no new fossil fuel extraction. None of us

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are exempt from moral culpability if we do not challenge the actions of the non-compliers.

5 Therefore, I call out (1) the Australian Government for proposing a gas fired COVID recovery plan; (2) I call out the New South Wales Government for rejecting a moratorium on coal seam gas mining; and, (3) I call out Santos for rejecting its planetary obligations and proceeding with this polluting project. It's unconscionable that Santos should seek to further pollute Australia and its environs with a whopping one per cent of Australia's current emissions so it's for the sake of the planet and for
10 a clean, smart, fair and decent Australia that I oppose the Narrabri Gas Project.
Thank you.

MR O'CONNOR: Thank you, Sandra. Next speaker, please.

15 MR BEASLEY: Next speaker is Elaine Sherwood on the phone. Ms Sherwood, are you there?

MS E. SHERWOOD: I am here.

20 MR BEASLEY: We can hear you.

MS SHERWOOD: Good – good afternoon, Commissioners. Thank you for the opportunity to speak on behalf of those ordinary Australians like myself who do not have a scientific or technical background. I live in Coffs Harbour, so I'm not directly
25 affected by the mine, but in terms of the big picture of climate change we are very much affected. I object to the mine and believe Santos does not have a social licence for this project and it should be rejected for the many reasons given by earlier speakers. I grew up in the post war era of coke for fireplaces and coal for electricity, and it was only early this century that I became aware of the impact of fossil fuels on
30 greenhouse gas emissions and, therefore, climate change.

I immersed myself in the latest data, joined the local climate action group and followed the media reports on the then proposed Whitehaven Maules Coal Creek Mine. To see for myself what was happening with the mine I went out to Narrabri.
35 Subsequently the mine was approved with strict environmental regulations. The current mine's website shows a lot of forms to be completed re compliance, but I notice that that hasn't stopped water breaches occurring there. These breaches mainly surround unlawful extraction of water which greatly affects the farmers, and some years later I visited the Santos Pilliga CSG mine which has also been in trouble
40 with breaches of water. In its report, the Department of Planning states that:

A comprehensive suite of strict conditions would ensure the project was in the public interest.

45 This is in contradiction to a further statement using vague terminology:

The project is reasonably isolated from the coal mines in the region and is unlikely to result in any significant cumulative impacts on the shallow aquifers.

5 My greatest concern surrounds compliance, so my question, Commissioners, is if this project were to be approved who would ensure compliance of this comprehensive suite of strict conditions? Compliance regulators, as we know, are under resourced and understaffed. So will it be left to Santos to self-monitor, as Whitehaven Coal did? Ticking boxes on pages of strict conditions does not guarantee what happens on the ground. The bottom line for Santos is distribution of profits to shareholders. It
10 isn't of concern to them that environmental costs are borne by all Australians, current and future, and these costs are not hypothetical.

There are countless instances where non-compliance by miners has led to disastrous environmental calamities such as those involving BHP and Rio Tinto. And so, in
15 finishing, in my opinion, Commissioners, the possible irreversible pollution of the Great Artesian Basin and the effect on groundwater through non-compliance alone is sufficient reason for this project to be rejected. Thank you.

MR O'CONNOR: Thank you, Elaine. Our next speaker, please.

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MR BEASLEY: We have Naomi Hodgson. Ms Hodgson, can you hear me?

MS N. HODGSON: Yes. I can.

25 MR BEASLEY: Please go ahead.

MS HODGSON: Thank you. Firstly, I'd like to pay my respects to the Awabakal custodians where I am in Newcastle and the Gamilaroi custodians of the Pilliga, to note the opposition of the current Gamilaroi native holder title holders to the Narrabri
30 Gas Project and that sovereignty over the Pilliga has never been ceded. I went to the Pilliga protest camp during the scorching heat of 2014 when Santos was drilling new exploration wells. I supported extraordinary protests involving hundreds of farmers uniting to interrupt CSG activity, and on many occasions generating – generational farmers deliberately placing themselves in the path of arrest.

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I planned to stay two months, but as each day went by I learnt more about why the proposal should not succeed and I came to love the iconic Pilliga landscape, its rugged expanse and its delicate beauties. This place is a recognised biodiversity hotspot. It's a national treasure. It is no place for a gas field. I also came to know
40 and love a whole community of salt of the earth rural people who were stepping outside their comfort zones to protect their land and water. I recognised then the unprecedented scale and nature of this community rejection of a fossil fuel proposal and since then the opposition has greatly grown in depth and breadth.

45 I stayed for a year as a volunteer, and for the following five years I continued my engagement as a campaigner with the Wilderness Society. I speak today as a concerned citizen, an aunty and a participant of the New South Wales Grassroots

Environment Movement. I urge you to please deeply study and consider independently every one of the expert's submissions from yesterday including Dr Hayley's contention that the project does present considerable risks for groundwater resources, and that the proponent's characterisation of these risks is inadequate and uncertain, Dr Currell's evidence regarding the interconnectivity between coal seams and aquifers and the risks of contamination, Dr Khan's contention that the project cannot be approved because it lacks a plan for the 850,000 tonnes of salt waste it would produce.

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10 The submissions from Milledge, Paull and Serov regarding the special ecological features of the Pilliga, the impact that fragmentation brought by the grid like clearing for a gas field would bring, the impossibility of offsetting its unique values elsewhere, and the high likelihood it would bring localised extinctions of endangered species. I found Professor Will Steffen's presentation outlining the incompatibility of the project with our commitment to the Paris Climate Agreement particularly eloquent due to its brevity. It is not complicated. Gas is a fossil fuel, and we are on track to blow our Carbon Budget. We cannot afford another gas field.

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20 During the parts of the hearing I've caught I've heard all these arguments outlined with so much damning detail and clarity from the experts and from the diversity of other stakeholders a commonsense logic that seems deafening to me as I sit with the reality of the DPIEs contrary recommendation for approval. The precautionary principle dictates that with scientific uncertainty and a risk of serious or irreversible harm that these risks must be avoided. All of us opposing presenters are listening to expert opinion and that opinion confirms that there is serious uncertainty about the potential impacts and there does certainly exist a risk of serious and irreversible harm.

25
30 Astonishingly, on top of all these risks and impacts we're being asked to accept, there is no robust justification for this project. There is no shortage of gas in Australia. We are the world's largest gas exporter. Gas is expensive here but that is because our prices are linked to international markets and the companies here engage in cartel-like price fixing behaviour. Prices in New South Wales will not be pushed down by the relatively small additional of expensive gas from Narrabri. Again, I urge you to study the experts' submissions regarding these matters. I also urge you to place great significance on the admission on day 1 from David Kitto of the Department of Planning that Narrabri gas will not push down prices.

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40 On this point alone how can the project be justified? It's an essential argument from all its proponents. So invalid. What will create jobs is renewable energy. Many recent reports outline viable pathways for turbo charging a COVID recovery with new, green jobs. Just yesterday a new report showed that gas is the poorest value for stimulus input as it is one of the least jobs intensive industries. This is a bigger picture but it's the same on a Narrabri region scale. A 2018 report found four times as many jobs could be created in the local solar and wind industries compared to jobs from the Narrabri Gas Project. Before I conclude I would add my concern regarding

the 14 unmet recommendations of the 16 made by the New South Wales Chief Scientist 2014 CSG inquiry.

5 This inquiry was undertaken to assure the community that the industry could be safely managed. Undertaking an inquiry then ignoring the findings will create the opposite effect for an already deeply concerned community. It is unacceptable that the Narrabri Project be considered until every one of the 16 recommendations has been fully implemented. This project has no social licence. It is unnecessary, unwanted and unsafe. It risks our precious groundwater. It would exacerbate the
10 climate crisis and would compromise the integrity of the Pilliga Forest, an irreplaceable ecological refuge. The application must be rejected. Thank you, Commissioners.

15 MR O'CONNOR: Thank you, Naomi, for your presentation. We will now take a break and return at 3.20 pm. Thank you.

ADJOURNED **[3.01 pm]**

20 **RESUMED** **[3.22 pm]**

25 MR O'CONNOR: Welcome back for the afternoon session. We will now go to our next speaker.

MR BEASLEY: We have Mr James Jackson from the New South Wales Farmers Association. Mr Jackson, can you hear me?

30 MR J. JACKSON: Yes. Can you hear me? Audio okay?

MR BEASLEY: We can. All good. Please go ahead.

35 MR JACKSON: Okay. Thank you very much. Yes. I'm James Jackson. I'm President of the New South Wales Farmers Association and we certainly welcome the opportunity to provide our members' insights into the Independent Planning Commission's public hearing examination of this Narrabri Gas Project. New South Wales Farmers does have – urges the government to act very cautiously in – regarding any proposal to recommence coal seam gas mining in New South Wales.
40 New South Wales Farmers' policy opposes the approval of the Narrabri Gas Project due to the unacceptable risk that – that the project poses on precious water resources, soil and water quality.

45 Security of groundwater and protection of prime agricultural land is of paramount importance to farmers, and we cannot support any activity that could pose a risk to the precious Great Artesian Basin. There is only one Great Artesian Basin, and placing agricultural production over vast areas of Western New South Wales at risk

is short-sighted and poses great risk to the rural and regional communities that depend on the farming sector in these areas. The government's own independent Water Expert Panel identified that the – that the Narrabri Gas Project may result in groundwater depressurisation and draw down on the aquifers and changes to the surface water flow and quality as a result of the discharges.

The Water Expert Panel also identified that small impacts from connected water sources can potentially have cumulative significant local impacts. Our members are rightly asking, “What happens if those significant local impacts are under my farm?” You heard this morning from Malcolm Donaldson. Obviously the connectivity between the stock and domestic bores and these coal seam reserves is quite obvious, and that 300 to 800 metre zone is something that is connected to the stock and water – stock and domestic water aquifers.

New South Wales Farmers' members in Western New South Wales have indicated very clearly that they have no appetite to risk their precious water resources, and the association believes it's unfair that our members and their communities should have to take this risk when there's other arguably more cost competitive sources of gas available. Our members are also concerned about the 2019 finding of the New South Wales Legislative Council Committee that the government has not yet fully implemented many of the recommendations of the New South Wales Chief Scientist's independent review of coal seam gas activities in New South Wales. I am sure you've heard this before.

The Chief Scientist's important recommendations were intended to ensure that the risks of coal seam gas operations are comprehensively and adequately monitored, reported and mitigated, and that a comprehensive and transparent compliance framework is implemented and that landholders are fairly indemnified for any risks of the project. The Chief Scientist's recommendations must be implemented before approval for coal seam gas development is issued for the Narrabri Gas Project or its associated pipeline, for that matter. Full implementation of these recommendations is critical to ensuring that any coal seam gas project approved in New South Wales are held to the highest possible standards.

New South Wales Farmers' members are especially concerned the Chief Scientist's recommendation regarding the need for robust and comprehensive insurance and environmental risk coverage framework has not been properly addressed by the government. The New South Wales Parliamentary inquiry described the coal seam gas industry as “uninsurable”. That is, uninsurable. And the New South Wales EPA has said that the insurance position for the coal seam gas industry is not straightforward. Lawyer speak for a dog's breakfast, I'd have to say, and that operators choosing not to hold relevant insurance will be required to instead prove to the EPA that the existence of sufficient potential clean up funds.

To date – to date there is no option for insurance against future risks including financial loss as well as the environmental damage, and there's no clear indication of the actions the government will take to guarantee to landholders that they will not

bear the risk of coal seam gas development. Notably, insurance requirements are not comprehensively dealt with in the DPIE assessment report or the draft development consent prepared by the department, the Upper House's committee's findings that the enhanced insurance coverage envisaged by the Chief Scientist is not available, and
5 that these risks are uninsurable and that farmers will ultimately – ultimately be left to bear the risks posed by the CSG activities.

This explains largely the very deep and genuine reservations the New South Wales farming community hold about this proposal. It's not just a few people. It's right
10 across the board. So thank you for the opportunity to provide a statement to the public hearings. The only way that agricultural communities and the environment can be protected from the risks proposed by the Narrabri Gas Project is that the project not be approved. Therefore, New South Wales Farmers does not support the Narrabri Gas Project. Thank you.

15 MR O'CONNOR: Thank you for your submission, James. Next speaker, please.

MR BEASLEY: We have Garry Jennings on the phone. Mr Jennings, can you hear
20 me?

MR G. JENNINGS: I can.

MR BEASLEY: Please go ahead, sir.

25 MR JENNINGS: Thanks for the opportunity to speak. My name is Garry Jennings. I'm 66 and live in the Hunter Valley. I've visited the Narrabri region in the past and have friends who've lived and worked there. Like many other submissions to the IPC, mine staunchly opposes the proposed Santos coal seam gas project. Now,
30 additionally, my daughter's about to have her first baby and my first grandchild. I'm having my say in an attempt to stop another project that will contribute to the poisoning of our land and our water table, and this is especially relevant to my future granddaughter and her generation.

35 So I've appreciated the insights of a number of experts presenting on this issue, but I want to address three issues today about the project and they are the poisoning of the water table and production of hazardous waste, the idea that because a resource exists we should just exploit it and, finally, an idea for the future that making the best use of our land for people in low impact ventures will better prepare us against future threats, such as viruses and pollution. Now, the first issue is that we're just not
40 learning from previous projects which have ravaged the land.

The forests and natural vegetation will obviously be affected by the salt and the heavy metals produced in the gas extraction process, and with enough pressure on our valuable water resources already because of ongoing droughts and the well
45 documented misuse of water in the Murray Darling Basin it just beggars belief that we would also be jeopardising the groundwater in the Great Artesian Basin as a result of this project. Santos has already apparently conceded that the – there'll be a

large residue of salt left after the extraction, and, I mean, are we supposed to be grateful or consider this as some misguided attempt at transparency that we're told, "Sure. The process is dirty, but trust us. Okay".

5 The fact is that salt waste, when it's combined with water, won't disappear and has to be managed forever. Do we trust Santos to do this? The next issue is significant for our future quality of life. I contest the idea that just because a fossil fuel resource exists that it means that the last profits have to be squeezed from coal seams to exhaust all such fuels before their extraction is banned eventually for the sake of the planet. And, yes, there's always the question of job and wealth creation. I believe that the jobs will come at too great a cost and, really, when you consider the loss of farmers' properties and their workers who will have to move out, is the overall net level of employment really significant?

15 I urge the NPC and the government to factor these issues in. We can't afford as a planet more extraction options that coal, gas and oil offer. Now, my final point is that we're at a point in our history where we need to truly value the – the food productivity of our land. And this is valid for both the Narrabri area under question and our wider world. The current COVID crisis has demonstrated the fragility of life in densely populated areas. We need to give people more choice in how they live and produce food. We can no longer alienate land and need to invest more in renewable resources for our energy. Additionally, our kids need to see that the land is respected for its ability to sustain us and not just become a real estate ship sold to the highest bidder.

25 Finally, I also strongly oppose what I see as Santos' plans to desecrate the Pilliga Forest which has enormous significance for our First Nation people. I want my daughter and her children's generation to know that we took a stand to respect the sacredness of our land and to reserve it for them. Please do not approve this project.
30 Thank you, Commissioners, for the chance to speak.

MR O'CONNOR: Thank you, Garry. Next speaker, please.

MR BEASLEY: Next speaker is Kathleen Hossack. Ms Hossack, can you hear me?
35

MS K. HOSSACK: I can. Thank you.

MR BEASLEY: Please go ahead.

40 MS HOSSACK: Good afternoon, Commissioners O'Connor, Snow, Barlow and Hann. I'm speaker, I think, number 246 so thank you for this Herculean effort that you're doing. There's been many presentations already setting out the strong objections to this project, and I probably have little to add, but I have a voice and I feel compelled to use it in this instance regardless. I've been working as a social worker in palliative care in Sydney for many years and I recently took off or some years ago took off three months for long service leave. I hired a campervan and I took it to the – to outback Australia. I love rural Australia with a passion, having
45

been raised as a child in the country and working in several regional centres across New South Wales as an adult, including in Tamworth in – in the north-west of the state.

5 So I drove from Sydney's south to the Murray, along the Murray to Port Augusta, up
north to Tennant Creek and – and then east to Rockhampton and back to Sydney. A
wonderful adventure and beautiful country, of course, but it has a – a darker side of
many – as many of us will know that love the country. I love my job, but I did think
10 I was. Death, loss and despair were everywhere. The road kill was horrendous, as
many of us know. Kangaroos and emus, driven south in search of food by the
drought. Crops were dying, native bush going along with it. Towns all but empty.

15 And the human stories were just as powerfully resonating with me, of loss of
generations of farming businesses, fury over inequity in water access and the impact
of those on the emotional lives of those concerned was palpable. I remember a
wife's eyes sliding warily towards her husband when he was describing these events
in his family's life and gently saying, "We thought a trip to get away might do him
20 some good". There was incredible resilience but communities, families and
individuals are really struggling and desperately need support and advocacy. I was
actually stunned to realise I was right in the middle of the Murray-Darling area,
seeing it all firsthand and talking to the people that were impacted by decisions made
about water management.

25 I encountered the Great Artesian Basin way down south on this trip. I was amazed at
the vastness of this incredible underground freshwater source. I found it extended
1.7 million square kilometres across four states. With freshwater making up only
three per cent of the Earth's water I was so frustrated that this resource and the
people that rely on it in our arid country are treated so short-sightedly and poorly. I
30 determined on that trip that I would make sure that I spoke about this to city people
and anyone else for that matter. After all, what happens out there happens to us all.
Then I heard about the Narrabri Gas Project and I heard of the risks this poses to the
integrity of the aquifers of the basin as well as the other negative environmental
impacts of the project.

35 I drove to Narrabri to look myself at the gas wells and was horrified by what I saw –
toxic water spills and the burn off of toxic gases into the atmosphere. I spoke to –
sorry. I spoke to local farmers and Indigenous people about their long battle against
this project. I am old enough to be cynical about assurances from Santos that I might
40 – that they were going to keep these wells well maintained. I think that these wells
carrying toxic materials that are drilled through the aquifers of the basin is quite
unacceptable, in my view, let alone the other risks. There have already been spills of
toxic water. I saw one spill area, a grey desolate scar on the land. I joined with the
farmers and the local Indigenous people then and there in opposing this proposal.

45 To go ahead with this irreversibly damaging project is simply madness, in my view.
We are transitioning to renewables already. There are jobs in renewables. We

cannot take the term – the approach to this and risk our already fragile environment and then along comes 2020 with catastrophic bushfires and the COVID pandemic. Surely this year has shown us that the system of interdependencies that we are – that we are used to is more fragile than we expected. The notion that we might always be
5 able to import food and that we might always have access to arable land can actually be switched off by bushfires or a virus. Sorry. I've just lost my thought.

MR O'CONNOR: If you could wrap up, please, Kathleen.

10 MS HOSSACK: Yes. I will.

MR O'CONNOR: Yes.

MS HOSSACK: So water management basically is the chief concern of rural
15 communities. It's critical to the way of life of all of us. All Australians need sustainable and flourishing rural communities if we are to survive and prosper. I urge you to reject this proposal. Thank you.

MR O'CONNOR: Thank you, Kathleen. Next speaker, please.

20

MR BEASLEY: Next speaker is Anne Kennedy. Can you hear me, Ms Kennedy?

MS A. KENNEDY: Yes. I can.

25 MR BEASLEY: We can hear you.

MS KENNEDY: Can you hear me?

MR BEASLEY: Yes. We can. Go ahead.

30

MS KENNEDY: Wonderful. Thank you. Good afternoon, Commissioners, and thank you very much for this opportunity to speak on behalf of the Coonamble branch of the New South Wales Farmers Association. My name is Anne Kennedy. My husband is a fifth generation farmer in the Coonamble region and we are totally
35 100 per cent reliant on our artesian water. We have 30,000 acres of rich, productive land but our black cracking rich vertosol soils cannot run water for dams when it rains. We are totally dependent on our artesian water. Our entire enterprise that we've vested our lives and our businesses rely on our groundwater.

40 And although our property produces thousands of tonnes of wheat, lupins, barley, etcetera, many hundreds of tonnes of beef in a year, we would literally have to walk off our property if we lost our artesian water. Our property would be worthless. So all this to be put in jeopardy for future generations forever just for a short term destructive industry, the Narrabri Gas Project, that is economically and
45 environmentally flawed is beyond belief. Our son has been working full time on our property for 30 years, and we're hoping that our grandsons will also take over the

farm, but we're worried about their future and the future of Australia if we allow this industry to destroy the greatest asset Australia has, our Great Artesian Basin.

5 Only the people who live there and are totally dependent on the GAB water can fully understand its worth. If we look after it it could be there for centuries into the future. If we allow the Narrabri Gas Project to destroy it we will be known as the generation who allowed our greatest asset, our water, to be destroyed. Australia is a vast continent, but only four per cent of this country is prime, arable land, and that is on the Darling Downs that they've already turned into a gas field, the Liverpool Plains, 10 our wonderful Coonamble Plains where most of the gas resources are that the mining industry are after. How can we risk this vital, prime food producing land – sorry. I like that – and our priceless groundwater for the short term destructive coal seam gas industry?

15 As Professor Julian Cribb said many years ago in the future, wars are going to be fought over water, not oil. All over the world the aquifers are drying up and Professor Cribb, who was the guest speaker at a New South Wales Farmers conference 10 years ago spoke of the coming famine, he called it. He told how there are 216,000 more people on Earth every day, and that people will need to find food and water for about 11 billion people by 2050. And yet, he said, at the same time 20 groundwater is dangerously depleting everywhere. A silent revolution has taken place underground, he warned, as the amount of water sucked from below the surface has tripled in the past 50 years.

25 Current estimates indicate we will not have enough water to feed ourselves in 25 years' time, Professor Cribb said. This was 10 years ago. He said coal seam gas will triple again the use of water by 2050. This Narrabri Gas Project is the most controversial in the history of the Environmental Planning Assessment Act. The EIS 30 attracted 22,721 submissions of which 98 per cent were objections. I know you've heard all this. Some of the key concerns raised by the landholders included primarily the risk to water sources in Western New South Wales. The Narrabri Gas Project will remove thirty seven and a half billion litres of water from the water sources beneath the Pilliga region and the subsidiary recharge aquifers of the Great Artesian Basin. 35

Secondly, their concerns were with the degree to which the deep aquifer deep watering coal seam gas will disrupt the recharge of the lower Namoi Alluvium or Pilliga sandstone and, thirdly, the presence of faults that might accelerate the exchange of water or methane between water sources and the environment. But the 40 good news. I was thrilled to hear that yesterday at a meeting of the New South Wales Farmers Executive Council they passed a motion that the New South Wales Farmers Association lobby the New South Wales Government to (a) not approve the Narrabri Gas Project; and, (b) to extinguish the 11 expired and inactive petroleum exploration licences. 45

Where now wonderful, strong, enormous bodies like the New South Wales Farmers Association and the CWA – the two largest and most representative organisations for

regional New South Wales and our farmers – when they loudly and directly oppose this project then surely the government must listen. When 96 per cent of the three and a half million hectares of the north-west which was surveyed said that they opposed the Narrabri Gas Project surely the government must listen to them, or is
5 this not a democracy any more? I have never in my 72 years seen such incredibly united communities, towns, farmers, traditional owners all so strongly united to stop this project and to save our land and water. Vast areas of inland Australia rely 100 per cent on artesian water – bore water.

10 Our agricultural industry and our rural communities must not be put at risk for CSG mining. Please listen to the New South Wales Farmers Association and the CWA, the Country Women’s Association, the largest and most representative organisations for us all. They are opposing this project too. Please, please, vast areas of inland
15 Australia rely 100 per cent on our artesian water. Our agricultural industry and our rural communities must not be put at risk for this CSG mining.

MR O’CONNOR: Could you please wrap up there.

MS KENNEDY: Please don’t approve this gas project and thank you for listening
20 to my concerns. Thank you.

MR O’CONNOR: Thank you, Anne. Next speaker.

MR BEASLEY: We have Vicki Parker on the phone. Ms Parker, can you hear me?
25

MS V. PARKER: Yes. I can.

MR BEASLEY: Please go ahead.

30 MS PARKER: Yes. Good afternoon. My name is Vicki Parker. I was born and have lived and worked in the Warren Shire all my 60 years. My great-grandfather was a wheelwright and that business in later years sold vehicles and was run by my mum and dad. My other great-grandfather was a publican of the Sportsman Inn on the Collin-Burrawong Plains. I had an awesome childhood growing up in town. My
35 mother’s only stipulation was to be home before dark. We were taught to always do our best, be honest to yourself and others, and how decisions you make affect others. This seems to be lacking in the government’s decision-making.

Shouldn’t people set to benefit directly from the project have the respect for the
40 people and the land that may be diversely affected through the depletion, contamination, or the depressurisation of aquifers? In the mid-1800s settlements secured good waterholes where homesteads and stock were concentrated. Dams were dug by horse teams. In the late 1800s and early 1900s bores were put down which meant permanent water. This enabled farmers to improve their grazing
45 management, such as rotational grazing where pastures can be rested which improved groundcover, retaining moisture and less water runoff. This improved soil health and sustainability.

Farmers, managers and government have together spent large amounts of money on conserving this precious and vital resource. Flowing bores were capped, infrastructure on farms, such as piping water to tanks and troughs, ponding, and money for education. If this risky, invasive, unconventional gas project goes ahead and the Western Slopes Pipeline is built, Santos will develop other petroleum exploration licences along the pipeline. Will farmers have the confidence to keep investing in water infrastructure? Another economic hit to rural communities. There are people presenting to the panel that would have never made a public statement in their lives.

10 This shows the depth of feeling there is in the community that oppose this project. Santos has no social licence, as shown by many surveys taken in the western towns. A packed meeting held at Coonamble in December '17 unanimously carried motion 1, the rural communities including towns, villages, farming communities total reject Santos CSG Pilliga project and all associated industries and we'll stand together the vehemently oppose this using all possible options to protect the water. I don't know if the panel understand the anxiety and stress we have had – have as a community in the last three years because of the unprecedented and relentless drought. The key factor of getting through was the permanent underground water.

20 People who have relied on river water downstream of Warren invested in bores after the river flow was stopped at Warren. We can survive droughts but can we survive Santos and coal seam gas? Mentally, this will be a region of crisis as we wait for the unknown impacts of this project. After years of investment in water infrastructure let's not see it wasted. We have a duty of care as we are custodians of the land and water for future generations. We have never seen the depth of feeling with communities united in their opposition for this project. I just hope you all listen to everyone that's speaking against it. Anyway, thank you. Bye.

30 MR O'CONNOR: Thank you, Vicki. Next speaker, please.

MR BEASLEY: Next speaker is Greg Richardson. Can you hear me, Mr Richardson?

35 MR G. RICHARDSON: Yes. I can. Can you hear me okay?

MR BEASLEY: Yes. We're fine. Go ahead, thanks.

40 MR RICHARDSON: Great. Thank you very much for the opportunity to comment. I too share concerns about approval raised by many previous speakers, and today I'd like to concentrate on a couple of aspects of the department's assessment. The department bases one of its reasons for project approval on what it says are low greenhouse gas emissions and the wider potential to produce – to reduce overall emissions in New South Wales. It supports CSG as a transition fuel for electricity production, saying it could cut carbon emissions by 50 per cent in comparison to coal fired electricity production, but as pointed out by IEEFAs Bruce Robinson yesterday,

50 per cent is a questionable figure and doesn't apply to gas peaking plants, the electricity production technology promoted by the department.

5 Gas peaking – gas peaking plants are less efficient and potentially reduce emissions
by only 31 per cent compared to coal. The 50 per cent applies to gas baseload plants
and these are neither proposed, nor do they make financial sense. Supporting gas as
a transition fuel is a questionable strategy. As former Chief Scientist Professor
Penny Sackett explained yesterday, there's simply not enough time for gas to be a
10 transition fuel if we're able – if we're going to meet our Paris commitments, and
there are viable, cheaper alternatives. I also don't believe there's been a detailed
consideration of fugitive emissions.

The CSIRO study cited by the department to show fugitive emissions in Australia are
15 lower than previously thought describes its own report as only a pilot study
encompassing less than one per cent of the existing CSG wells in Australia.
Emissions were only measured from well pads, so cannot give a full representation
of the whole of life emissions. To fully characterise emissions a larger sample size
would be required and measurements would need to be made over an extended
20 period. Furthermore, a recent study in the journal Nature indicates that
anthropogenic fossil methane emissions coming largely from the gas industry have
been underestimated by 25 to 40 per cent and a 2016 Melbourne Energy Institute
report found that no baseline methane emission studies were completed prior to the
commencement of the Australian CSG/LNG industry.

25 There is significant uncertainty about emissions or about estimates reported by oil
and gas producers and there has, as yet, been no comprehensive, rigorous,
independently verifiable audit of gas emissions. Looking more broadly, there seems
little connection between the department's assessment and the climate policies of the
New South Wales Government. New South Wales has adopted a net zero plan 2020
30 to 2030, the foundation for New South Wales' action on climate change, yet the
assessment fails to address how the project advances the goals of the plan
specifically and how it helps to achieve a 35 per cent reduction in New South Wales
emissions by 2030.

35 Further, there's no mention of how the project impacts the New South Wales Climate
Change Fund that's spending \$1.4 billion to provide reliable, clean and affordable
energy and resilience to a changing climate. Similarly, there's no reference to the
New South Wales Electricity Strategy, the state's plan for a reliable, affordable and
sustainable electricity system. There's also concerns over ongoing governance and
40 the ability to monitor and regulate this project. The department makes many
references to the Chief Scientist's report into the CSG industry. It promotes the New
South Wales Gas Plan as a major pillar for governance and oversight.

45 It must be noted that that gas plan advocated for all of the Chief Scientist's
recommendations to be implemented; however, the department makes no mention of
the recent Legislative Council review that looked at implementation, and that review
found that out of 16 recommendations two have been implemented, six have been

partially implemented and eight have not been implemented at all with no indication the New South Wales Government has any intention of implementing them. It's clear there is a serious question over implementation. The department is silent on this, therefore, the ongoing oversight and monitoring of this project under the
5 auspices of the Gas Plan and the Chief Scientist's recommendations are in doubt.

Overall, I believe there are legitimate concerns that the project's greenhouse gas emissions have been seriously underestimated, that there are questions on the implementation of ongoing governance and safeguard measures, and there's a lack of
10 consideration for New South Wales Government climate policy and plans. I believe this establishes solid grounds to reject this project. Outside the assessment, my plea is that we listen to the best and most widely agreed science and act now to avert the worst impacts of climate change. We can't leave this for future generations. 2030 is a tipping point for staying under 1.5 degrees.

15 This project continues emitting well past 2030 and we're currently heading towards 3.2 degrees of warming. Continually establishing new fossil fuel projects gives us no chance to stay below 1.5 degrees of warming. Fossil fuels need to stay in the ground. We have cleaner, more viable and cheaper alternatives. Thank you very much for
20 listening.

MR O'CONNOR: Thank you very much, Greg. Next speaker, please.

MR BEASLEY: We have Kate Mildner. Can you hear me, Ms Mildner?
25

MS K. MILDNER: I can. Can you hear me?

MR BEASLEY: Yes. Please go ahead.

30 MS MILDNER: Good afternoon. My family has run Billabulla, located on a very special part of the Macquarie River Floodplain, for over 130 years. I acknowledge the huge significance of this floodplain to the Wailawong People. Billabulla has some of the most significant remnant vegetation left on the Macquarie River, large areas of femoral wetland, open grasslands and multiple ecosystems that we have
35 managed not only for our benefit but understanding its significance to others and future generations. We use regenerative agricultural practices which aim – with the aim of improving biodiversity and carbon on our land. I'm just going to share my screen for a moment. Hopefully – oh, can you see that?

40 MR BEASLEY: It looks like it - - -

MS MILDNER: Can you see that?

MR BEASLEY: We can see your name on a slide, so something may happen.
45

MS MILDNER: Okay. I'll keep talking and hopefully something will come.

MR BEASLEY: All right.

MS MILDNER: But we use regenerative agricultural practices with the aim of improving biodiversity and carbon on our land. Imagine our despair upon
5 discovering APA planned the Western Slopes Pipeline right – right through this property, effectively giving them the right to undue our stewardship without giving us any redress. Have you got any photo yet?

10 MR BEASLEY: No photos yet. I'll let you know.

MS MILDNER: Oh, okay. A condition for the Narrabri Gas Project to proceed is an approved pipeline, yet there has been no consideration in the assessment report of the wider impacts created by these pipelines, a complete failure in the assessment
15 process. The impacts of wiping out significant remnant vegetation along one or possibly both pipeline routes – in our case, river redgum forests, including trees hundreds of years old – no consideration for the other biodiversity impacts – in our case, the femoral wetlands – no considerations of – sorry. I'm just trying to get that content back again here. Can you still hear me?

20 MR BEASLEY: Yes. We can still hear you.

MS MILDNER: Oh, sorry. I'm just – I apologise. No consideration for the femoral wetlands and grasslands and no considerations of major impacts on river floodplain systems. APAs route crosses the widest and most heavily flooded part of the
25 Macquarie Valley Floodplain. APA has totally dismissed changing that route despite the risks. The floodplain soils here are vertosol soils that shrink and swell, creating huge culls and cracks, soils that worldwide are recognised as unsuitable for high pressure gas pipelines. The pipeline will cross four kilometres of very often very heavily flooded country with multiple channels that are constantly changing with
30 each flood.

There is often no vehicle access for months at a time. This year, four months and still inaccessible. The risk of this pipe failing in a flood is significant. The risk is –
35 of channels opening up along the pipeline route, thereby diverting water flow, is huge. This is a totally unacceptable risk to the Macquarie River system and the community and ecology that relies upon it, including the irrigation industry and the iconic Macquarie Marshes. The water impact of the Narrabri Gas Seam Project is not just about groundwater systems but, by virtue of the pipelines which cross multiple rivers and creeks, is also about the river systems of the Murray-Darling
40 Basin, already recognised to be under extreme pressure.

Climate change is our biggest threat. In the recent drought we were totally destocked for three years. That means no income. We sell our livestock earlier than most in order to preserve vegetation and groundcover. The Macquarie River has never dried
45 up in my lifetime, and I'm over 60. We had no surface water left, no river water, and relied upon bore water for human needs. Wildlife had no water either. We experienced fish kills of yellowbelly and Murray cod, some over 80 years old. There

were dead kangaroos everywhere and we had wallabies, echidnas and hundreds of birds desperately trying to find something to eat in our garden.

5 The photo that you may or may not be able to see is of one of the many dust storms.
This is topsoil containing heaps of carbon, the most valuable resource on the planet
along with water. These storms were not just one-off events but constant, as were
the extreme temperatures. This was not just one of those normal droughts. It is now
10 proven to be a result of climate change effects on the Indian Ocean Dipole. The
reality is climate change is creating extreme weather events. Extreme droughts and
floods are all too real for us. There can be absolutely no justification to approve any
fossil fuel project. I challenge the assumption that this case – this state needs more
gas. We need - - -

15 MR O'CONNOR: Could you wrap up, please, Kate.

MS MILDNER: - - - renewable energy. There is no time for transitional energy via
gas. Gas is not a better option than coal. The global warming potential figures used
by Santos are not correct with the IPCC using a figure 14 per cent higher.
Regenerative farming can be part of the – of the solution by capturing carbon in the
20 soil, but we need a change now. The next generation of my family - - -

MR O'CONNOR: Yes.

25 MS MILDNER: - - - wants to continue our work here, but we despair at the
continued push to approve projects such as the Narrabri gas field, which just undo
what we are trying to achieve.

MR O'CONNOR: Kate, you'll need to wrap up now. Thank you.

30 MS MILDNER: I will. I am doing that. Our community suffers. We watch our
friends suffer depression. We watch the wildlife suffer. We wonder how we are
going to continue to make an income and we become more and more frustrated and
angry that the science is not listened to and we are totally unvalued. We implore you
to reject this project. Thank you.

35 MR O'CONNOR: Thank you, Kate. Next speaker.

MR BEASLEY: Next speaker is Greg Roberts. Mr Roberts, can you hear me? Oh,
40 dear. Mr Roberts, can you hear me? He's busy talking to someone.

MR O'CONNOR: Not us.

MR G. ROBERTS: From – from memory, Mr Kitto talked of a wonderful gas - - -

45 MR BEASLEY: Mr Roberts, can you hear me?

UNIDENTIFIED FEMALE: I don't know what that says. Is that meant to be you, love?

MR BEASLEY: Mr Roberts, can you hear me.

5

MR ROBERTS: Hello. Hello.

UNIDENTIFIED FEMALE: Have you put the speaker – have you taken the mute off?

10

MR ROBERTS: Yes. The mute's off.

MR BEASLEY: Mr Roberts. We might need to get - - -

15 UNIDENTIFIED FEMALE: There's something else – mute on on your speaker – your speaker.

MR ROBERTS: No, no, no.

20 MR O'CONNOR: Okay.

MR BEASLEY: Chris Maltby, are you there?

MR C. MALTBY: Yes, yes. I'm here, yes.

25

MR BEASLEY: Good. We've finally got someone. Mr Maltby, please go ahead and make your submission.

30 MR MALTBY: Thank you, Mr Beasley. Look, thanks for the opportunity to address the panel. I'm acknowledging the Birrabirragal People in the country where I am and the Gomeroi and Gamilaroi People out where the project will be constructed if it's approved and note their important role as custodians of that land and – and it's really important, I think, to listen to their voices in this – in this assessment. I'd like to make a couple of observations about the role of the IPC first and the importance of this hearing and the submissions in – in – in that. And I think
35 the key word in the title here is the word "independent" and it's very pleasing that – that the panel is, in fact, independent of the government because I don't think the work done so far by the government in the assessment here is at all independent of the proponent and – and so I think you should – you should pay importance to that
40 role.

The Department of Planning's assessment is – is really based entirely on the EIS from the – from Santos and – and it doesn't really go into any great assessment detail of the – of the claims that they make and it – it's – it should be viewed, I think, in
45 that light, but you've had the benefit – and I've been watching the – the various submissions over the last few days too – of the – of some very important contributions from experts across a variety of fields, and I'm not one of those people.

My background is risk management in – in internet – internet security, but you – and – and those – and those people, of course, have got no pecuniary interest in this project, and – and you've also heard from many local people whose – whose livelihoods will be at risk if the project is approved.

5

So you should place as much weight at least on these alternative assessments as you have on that information provided by the department. Now, the department's assessment has been repeatedly identified as being deeply flawed. In my view, that's – that's an – an – sorry. And – and that's also the view of many of these highly qualified experts that you've already heard. I mean, I was astounded when I – when I read the opening paragraphs which asserted that this would reduce the price of gas. Of course, that was – that's a – that assertion has now been retracted, but it doesn't really give you a lot of confidence in the document.

10

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So other serious flaws, of course, in the assessment include the – the failure to consider the precautionary principle and the – the risks relating to geography – sorry – the geology, the climate impacts, the fugitive emissions question, the management of the waste of the salt and the produced water, fire management and so on. All of these are inadequately addressed in the report, and – and so you should consider, I think, the – the views of the experts in those areas very seriously. I'd also like – like to draw the panel's attention to the broader context of this project and – and that it's – it's the gateway to opening up the entire north-west of New South Wales to gas extraction.

20

25

And this project, I think, is a test case for that – for that broader outcome, partly then the location, I think, is significant in that as well. If – if approved it will establish a precedent and – and it will establish also the infrastructure that will be necessary for those projects to go ahead as well. The Narrabri Project's actually located on a – on largely public land and grazing land. We've heard from – from a number of primary producers out in that area who have got much more high value land, in a sense – in an economic sense. And I think that's – that's part of the consideration in Santos' effort here, is that this is a – this might be the weakest link, if you like, in the – in the – in the – in – in potential future projects.

30

35

It's – it's – it's the – the land's huge ecological and cultural significance is – is undervalued, I think, in the – in the – in the reports and – and in their – their mind because it doesn't have an economic value, apparently. So you've heard from the landowners who are well aware of the threats inevitable if this future expansion of the gas industry goes ahead. That – their – their view is – is all based on that, so I won't go any further. So – so there – the risks to those people is – is an essential component of your assessment, I think. You – if you – if you approve the initial phase of this – of this north-west gas field at Narrabri, the other ones will probably inevitably follow and – and I think that would be a disaster for the climate and for – for agriculture in New South Wales and, of course, for future generations.

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45

So I'll just leave it at that. You've had the bell, and – and I encourage you to refuse this – this application on – for all the reasons that have been presented by – by

submitters and on the basis of – of its responsibility. It’s an integral part in that future disaster that would – would entail from – from the north-west industry. Thank you.

5 MR O’CONNOR: Thank you, Chris, for your presentation. Next speaker, please.

MR BEASLEY: Next speaker is Alison Crook. Ms Crook, are you there? Ms Crook, are you there?

10 MS A. CROOK: Yes. I am. Yes. I am.

MR BEASLEY: Please go ahead.

15 MS CROOK: Thank you for the opportunity to provide input on this important issue. My background includes having been New South Wales State Librarian, Director-General of State and Regional Development for New South Wales, deputy vice-chancellor of Monash University, and a non-executive director on the boards of 17 organisations in both private and public sectors. More recently I’ve been the
20 founding chairperson of Enova Community Energy, Australia’s first community owned energy retailer, and that role provides insights and experience relevant to the Narrabri Gas Project. The department’s assessment report acknowledges and examines the risks and threats in this project. It then outlines a comprehensive and complex set of conditions which, if carefully adhered to by all parties, are thought
25 suitable to manage the risks.

The major problem, as we all know, is that humans are fallible and in some cases corruptible. Errors and mishaps will occur. The consequences are obvious in the case of CSG mining in America, Queensland and already New South Wales, with many of them even documented in the report. “Oops. Sorry” after the event really
30 isn’t sufficient, as we’ve seen recently in relation to cultural heritage in the Northern Territory, and we’re all currently living with the consequences of human fallibility in the health field. I’m sorry. It’s telling me I have to unmute my microphone. Am I okay? Can you hear me?

35 MR BEASLEY: Yes. We can.

MR O’CONNOR: Oh, you’re fine. Yes.

40 MS CROOK: Okay. Thank you. In short, the precautionary principle should be applied, as many speakers before me have pointed out, but it, together with the demonstrable failure to have a social licence, has been set aside on the basis that New South Wales needs the gas and that it will bring great economic benefits to both New South Wales and the region. I wish to argue that, in fact, the project is not
45 necessary. Other better and non-risky solutions are available to meet energy needs and address economic development at state and regional levels. I’ve provided the case to address the claimed need for gas at a state level in a written – written submission.

I'll use my time now to outline the way in which renewables can be used to create self-sustaining economically strong regions. The Australian Energy Market Operator itself has declared 35 renewable energy zones which have the greatest potential for the development of large scale renewables in Australia. Narrabri or the north-west region is one of these. The New South Wales Government has recently announced work on the first two of these in New South Wales. The New England Renewable Zone is expected to generate around 12.7 billion in private sector investment, provide around 2000 construction jobs for a decade, and create around 1300 ongoing jobs.

5
10 The Central-West Orana Zone announced in June has surprised government by already attracting expressions of interest in building new projects nine times the expected target and involving some 38 million in private sector investment. By my – by comparison, the Narrabri Gas Project is expected to have capital investment of 3.6 billion and create 1300 jobs during construction and 200 ongoing jobs. A recent
15 McKinsey study also points out that a net zero carbon economy recovery would create five times more employment than spending the same amount on fossil fuel developments. These are large scale developments, but at Enova we believe that it's also vital to unlock the potential of community energy to ensure maximum benefit to regional Australia.

20
25 Currently our highly centralised energy system results in hundreds of millions of dollars leaving regions on people's power bills. In the case of the Northern Rivers, over \$380 million. That is replicated for every region of approximately 130,000 households. The Narrabri Gas Project represents the continuation of such centralised approaches to energy. Already some 60 per cent of our customers at Enova have rooftop solar arrays. Self-sustaining regions are creating by adding energy efficiency and demand management to rapidly increasing distributed energy resources including storage, using software platforms to enable grid integration of households and their cars, and to manage the financial transactions enabling residential generators of
30 electricity to market their energy into an open, competitive market.

Self-sustaining regions where streets, small – and small towns share solar PV and storage wherein better networks, microgrids and virtual power plants operate, where local investors own community generation assets, where hospitals, airports and local
35 industry are served by local generation such as pumped hydro, solar, wind or bioenergy, such regions offer more energy security, greater resilience in the face of natural disasters, and create stronger local economies with more long term jobs. Enova Community Energy grew out of the successful movement in the Northern Rivers region communities to oppose the development of coal seam gas mining at
40 Bentley. Enova's purpose is to build self-sustaining and resilient communities through locally generated and shared renewable energy to assist them to transition to renewable energy without leaving anyone behind. To keep - - -

45 MR O'CONNOR: Alison, could you please wrap up now. Thank you.

MS CROOK: I'm just nearly there.

MR O'CONNOR: Thanks.

MS CROOK: And profits in local communities and to reduce carbon emissions. Our social enterprise model is embedded in our constitution and we undertake to
5 return 50 per cent of profits to the communities of our customers. Our aim is to ensure moneys from both the generation and retail ends of the energy supply chain stay circulating in communities. Four years on, Enova has 8800 customers. Our first pilot microgrid is underway. Phase 1 of our first virtual power plant has been initiated. We've secured funding and we'll soon be going to tender for our first grid
10 scale battery project which will also permit us to trial peer to peer trading, and our first social access solar garden is operational.

We employ some 30 staff in the Northern Rivers and purchase supplies and services locally. We stand ready to assist the community in the Narrabri region to become
15 self-sustaining and are already in discussion with one community group. As one of AEMOs designated renewable zones, now is an opportune for the Narrabri communities to start mobilising to ensure maximum local control and assist in driving zone development. A gas field is simply unnecessary. Thank you.

20 MR O'CONNOR: Thank you, Alison. Next speaker, please.

MR BEASLEY: We have Matt Parmeter on the phone. Mr Parmeter, can you hear us?

25 MR M. PARMETER: Yes, I can; yes. Thank you very much.

MR BEASLEY: Please go ahead.

MR PARMETER: Okay. My name is Matt Parmeter. I'm opposed to the Narrabri
30 Coal Seam Gas Project, and I'm opposed to the project on a number of grounds. Firstly, on a climate change ground, and the decisions that we make today will have long-lasting effects so we should choose with the timeframe of at least, like, some decades in mind, if not much longer. The carbon dioxide concentration in the atmosphere's now 412 parts per million. When I was born it was 320 parts per
35 million and it's risen more than 25 per cent in my lifetime. Global temperatures have increased. The effects of climate change we see now will haunt our children and our grandchildren through their lives. We should not be investing in fossil fuel technology because of the long-lasting damage that it produced.

40 And secondly, I'm opposed to the Narrabri Gas CSG Project on environmental grounds. The construction of 850 gas wells in the Pilliga and the Western Pipeline with all the infrastructure causes environmental damage to the Pilliga appearing across thousands of hectares of land. The Pilliga is, like, the largest temperate woodland in eastern Australia. It's home to 75 threatened species of animals
45 including, like, koalas, the Pygmy Possum and the Pygmy Mouse, and we have to, like, look after our diversity. Thirdly, I'm opposed to the Narrabri CSG Project because of the potential for fire. Gas wells and the flaring of gas are a significant fire

risk. Last summer saw catastrophic bushfires through South-Eastern Australia.
There were

MR BEASLEY: We're just losing you, Mr Parmeter.

5

MR PARMETER:

MR BEASLEY: We can't hear you at the moment, sir.

10 MR PARMETER: Okay. it's estimated that a billion animals killed. We – we
just can't afford CSG in the Pilliga. Fourthly, I support renewable energy. So
renewable energy creates sustainable jobs for New England and the North West
Region of New South Wales. The New England Renewable Energy Zone is planned
15 to generate \$12 billion in private investment, as the previous speaker said, and a heap
of jobs, so renewable energy can provide the energy needs of our society in a
sustainable, long term way and provide jobs – jobs – jobs. We just don't need CSG.
There are a number of other issues of concern with the – the Narrabri CSG Project,
like there's been considerable community concern about CSG fracking in
groundwater.

20

So speakers have dealt with that. There's been, like – one of the issues is damage to
Aboriginal cultural heritage in the Pilliga, like shelters, burials, artefacts. And,
lastly, just it's a dumb idea, and I recommend to the IPCC an article by Bruce
Robertson that appeared in the Brisbane Times discussing the Narrabri Gas Project
25 yesterday. The very last thing the world needs is more gas for a – even from just
straight economics. It – it doesn't seem to add up. Thank you for your time and
hopefully, you know

MR O'CONNOR: Thank you, Matt.

30

MR PARMETER: Okay.

MR O'CONNOR: Next speaker.

35 MR BEASLEY: Mary – we have Mary Watson who's the next speaker. Can you
hear me, Ms Watson?

MS M. WATSON: I can.

40 MR BEASLEY: Very good. Go ahead.

MS WATSON: Yaama. Hello, Commissioners. I'd like to start by acknowledging
that I live and work on Awabakal land in Newcastle, and pay my respects to the
elders, past, present and emerging, who have cared for country with their knowledge
45 for many thousands of years. I'd also like to acknowledge the Gomeri and the
Gamilaraay People, the custodians of the lands that we are discussing at this hearing
that have never been ceded. I feel frustrated that we're not standing before Gomeri

Commissioners but yet again in this 250 year history of colonisation we're not giving the traditional owners the respect to make decisions about their land that they have a sacred responsibility to uphold.

5 As Gamilaraay woman Suellyn Tighe noted, Aboriginal voices have yet again been excluded in the development of this Santos project. I'm a non-Aboriginal woman from Cooni Lands in Victoria who's had the very great honour of working for over 25 years with Aboriginal children, teenagers and communities from Awabakal, Watarul, Worimi, Gomeroi and many other Aboriginal countries. I have experience
10 in working alongside Gomeroi People who are directly affected by their cultural responsibility to protect the country nominated in the Santos proposal from development and damage to sacred sites, water and food sources.

15 Although there've been some incredibly powerful presentations from Gomeroi and Gamilaraay speakers like Dolly Talbott today, I've found that in talking with Gomeroi People about their concerns that speaking or writing to an Independent Planning Commission was not an appropriate choice for any of them. This is an intimidating, non-Aboriginal hearing, not an Aboriginal led process of yarning and deep listening to Gomeroi Gamilaraay elders. I know Santos has consulted with
20 registered Aboriginal parties but what I've been told is that promises of possible money and jobs has served to divide and create extremely stressful splits between Gomeroi families leading to severe mental health issues.

25 For many years I have heard about the terrible impact on mental health leading to thoughts and actions of self-harm and suicide when Aboriginal people are separated from their country and their culture. Gomeroi people have protected their Artesian water, the Namoi river, their sacred site and their burial grounds for thousands of years. Last Tuesday Gomeroi man, Counsellor Kodi Brady, he spoke about how the Gomeroi people belong to Pilliga, the mother earth, a conceptual knowledge that is in
30 direct opposition to Santos proposing that they have the right to destroy and contaminate the earth and water with potentially severe damage to the health of animal, plants and people.

35 At this stage, Santos is committing to avoiding direct impact on the 90 known Aboriginal sites in the project area if they are deemed to be of high significance by a cultural heritage advisory group. As the name implies, this group could advise but has no power of Santos' actions to save sacred sites. In fact, the location, nature and significance of many sites and sub-surface artefacts are not previously known but should have been known prior to the lodgement of the Environmental Impact
40 Statement. By the time they are known, it will be too late to stop the gas feds. And for those plethora of sacred sites not deemed significant enough, the destruction of burial sites, historic camps and rock art can never be rehabilitated, as we've recently seen in Western Australia. Many thousands of years of Gomeroi history will be completely destroyed.

45 I'd like to finish by asking you to imagine. I wonder how it would feel to have your backyard dug up, your carefully planted veggie garden, your well-tendered lawn, to

have that gas flame burning even on catastrophic days. I wonder how it feels to have your family pet killed by methane gas or contaminated water. We'd be outraged if our pets lay dead. I wonder how it would feel to have your sacred memories destroyed. Your church, cemeteries, sports oval, art gallery torn down to never see
5 or be near those special images again. And I wonder how it would be to have suicidal kids, grandkids, dispossessed, cut off from their family law, to never know those cultural icons you hold dear. Imagine how that might be. You have the power to protect the water, the regent honeyeater and koalas, the people and all that is sacred on Gomeri land. A future of fresh food and water keeping everyone's
10 backyard safe. Imagine how good that would be. Please - - -

MR O'CONNOR: Could you please wrap up now, Mary. Thank you.

MS WATSON: Please reject this proposal. And from the words of Auntie Maria
15 Polly Cutmore, no more suffering. Let us all live and enjoy life on Gomeri country. Yaluu. Thank you.

MR O'CONNOR: Thank you, Mary. Next speaker, please.

20 MR BEASLEY: We have Terry Woronov. Ms Woronov, can you hear me?

MS T. WORONOV: I think so.

MR BEASLEY: Please, go ahead.
25

MS WORONOV: Can you hear me? Okay. Thank you.

MR BEASLEY: Yes, we can.

30 MS WORONOV: Good afternoon, Commissioners, and thank you very much for allowing me this time to speak. My name is Terry Woronov and I'm speaking to you from Gadigal land in inner Sydney. I'm affiliated with, I work for the University of Sydney as an academic but I'm speaking to you today as a private citizen. In other words, a member of the public. I mention this because the Department tells us that
35 the Santos SCG project is in the public interest. But I note that according to both the Commonwealth and the State, policy and case law, public interest is not an abstract concept but, in fact, is well defined and it is defined by the four principles of environmentally sustainable development.

40 Yet, in their 392 page document the Department does not mention ESD even once. We can only assume that this is a conscious and motivated omission driven by their desire to cover up the fact that this project does not actually meet any of the four ESD principles. I won't reiterate the many arguments that have already been put forth in the brilliant presentations over the past few days, but I simply want to speak
45 as a member of the public who has an interest in environmental sustainability and seeing these principles applied to development in my State. First, several people have noted that the precautionary principle must be engaged in this case because

there is a significant threat of irreversible damage to ground water and widespread uncertainty as to environmental damage.

5 Threats include significant impacts on wildlife as well as risks of catastrophic fire, carcinogenic chemical hazards to farmers and potential toxic contamination of the precious waters flowing to the farms that we all rely on for our food. Additionally, as others mentioned repeatedly, this project counters the precautionary principle by ignoring recommendations by experts including the State's own chief scientist.

10 The second principle is intergenerational equity. Virtually every risk associated with this project will disproportionately affect future generations. Productive farmland that will feed our nation into the future is at risk, as is the Great Artesian Basin. This project threatens sites sacred to the indigenous traditional owners of the land, country which is essential to the reproduction of Gomerioi culture in future generations, as
15 Mary just so eloquently told us. Of course, the largest intergenerational risk is climate change. Gas is not what Mr Gallagher called the perfect partner for renewables but is instead a major contributor to greenhouse gases and climate change. We have a critical window to combat climate change now for, as we all well know, our children and grandchildren will bear the brunt of our poor decisions and
20 inaction today.

The third principle is conservation of biological diversity and as multiple speakers have testified, this project will an increased fragmentation of a landscape that is already under severe environmental stress. The Pilliga, as we know, is the largest
25 unfragmented forest in Eastern Australia and the stronghold for an entire suite of threatened species. This project, especially its indirect impact – sorry, catastrophic fire risks and increased predators will only increase pressure on these already threatened species and put them at greater risk. At the same time, Santos' proposed mitigation and offset plans are fundamentally, deeply flawed.

30 Finally, the fourth principle of ESD is improve evaluation pricing and incentive mechanism. Multiple experts have testified that this project will not increase essential gas supplies to the domestic market and, in fact, have demonstrated that Santos itself is the cause of any possible so called shortfalls in the New South Wales
35 gas market. The IEEFA has found “a price fixing gas cartel operating in Australia which does not pay returns in royalties or tax.” Presumably, this cartel has something to do with the Federal NCCC plan to supposedly gas fire our COVID recovery for, as we know, this panel is packed with energy company executives with massive conflicts of interest.

40 In terms of economic development, the Australia Institute notes that the governments subsidise the coal and natural gas sections – sectors, sorry, and that Australian stimulus spending on fossil fuels is four times more than spent on clean energy. This is in spite of the fact that fossil fuels were the worst performing sector in the ASX
45 300 over the past decade and, in fact, the Department report somehow neglected to note that Santos will write down \$1 billion this year because of the crash in global oil

and gas prices. This is on top of a reported \$6.9 billion write off over the past five years.

5 If this project goes ahead, while the rest of the world transitions to cheap,
deflationary, low cost renewables, Australians will bear the cost burden of Narrabri
and Santos' other projects that are soon to be obsolete. We run the risk of bearing
the cost of a multi-million dollar asset, a white elephant. In sum, once the
principles of economic sustainable development are applied, it is clear that this
10 project is dangerous, short sighted, expensive and will not produce the outcomes we
need today in terms of protecting our environment, building an economy for the
future and protecting our beautiful natural world. In other words, it is not in the
public interest.

15 MR O'CONNOR: Could you please wrap up.

MS WORONOV: Thank you for your time.

MR O'CONNOR: Thanks, Terry. Thank you.

20 MR BEASLEY: Would you have Rachel Buchan on the phone? Ms Buchan, are
you there?

MS R. BUCHAN: Yes, I am.

25 MR BEASLEY: Please, go ahead. We can hear you.

MS BUCHAN: Good afternoon, Commissioners. As you know my name is Rachel
Buchan. I live here in Albury. I would like to begin by paying my respects to the
Gomeri and Gamilaroi people whose land this proposed Narrabri gas project will
30 destroy. There is no native title agreement. They oppose this project. Our respect to
them, rather than just hollow words, should be to honour that decision. I must
confess to having lost sleep over this IPC process. Too much is at stake. Species
lost, global warming, deforestation, 850 leaking gas wells. There is no definite
disposal plan for the 800,000 tonnes of toxic waste salt that will be produced. It is a
35 nightmare in epic proportion the locals have been fighting for 10 years.

We can't allow Santos to turn the Pilliga into an industrial wasteland. We are not a
client stake available to the highest bidder. We are trying to protect our natural and
cultural heritage and water. Even the recommendations of the chief scientist have
40 been ignored. If proper community consultation had occurred, other than local
counsellors who may see this as a huge injector of funds, and a 100 or so people
employed on the mines, over 90 per cent of locals are opposed to this project. Santos
will walk away once this project is over but we are trying to determine what
Australia will be like for future generations. Commissioners, this is your future at
45 stake too. Will you be held accountable for your decision?

Will you be on the wrong side of history? This Narrabri gas project has come down to a fight for rights. The rights of Santos to make a profit, or our rights to secure a clean water supply, protect biodiversity and keep Australia liveable by slowing global warming. This clearing and fragmenting of the Pilliga forest will only
5 exacerbate our record extinction rate with 35 threatened species within the project area. In the EIS each species of flora and fauna is awarded credit points. Really, credit points? Revegetating the Pilliga years later won't replace the fragmented eco system. Extinction is forever. You can't bring back species or eco systems with credit points. Gas leaks and bush fires could potentially torch this whole area.

10 We all know that Labour and Liberal parties will seek political donations from fossil fuel companies so these approvals are made by vested interest. With in power of charge of COVID recovery, we've seen increased fossil fuel extractions yet more jobs and economic recovery can be made in green jobs and renewal power. Australia
15 is struggling to meet its Paris Agreement targets. We have a responsibility to wind down these projects as recommended by the UN. We are in a climate emergency now and suffering the heat in summer. Santos won't care if Australia gets hotter. Last summer's temperatures were unbearable and will worsen. We're begging you to consider our future and the long term costs of this project. Future generations and
20 your children can't be compensated for a country too hot to inhabit.

Access to clean water is a basic human right. Yet water access to Santos will take priority over locals and farmers. Over 20 years, Santos will extract 37.5 billion litres of water. Santos cannot be trusted to self-monitor its water usage and effect. As
25 stated in the Sydney Morning Herald article on the 27th of Feb, the Liberal government has failed to recover funds from the industry to pay for its own regulation. This is unacceptable. In the EIS the great artesian basin aquifers are considered to have negligible environmental impacts from this project on volume, quality and other uses. The opposite will happen.

30 The Pilliga is one of the few recharge zones for this Great Artesian Basin. If the aquifers are de-watered as the methane is extracted it will reduce pressure heads and the water flow it bores in springs will EIS doesn't take this into account. It is impossible to extract 37.5 billion litres and claim it has negligible impact. Once
35 polluted with leaking gas, this whole water resource cannot be cleaned. It becomes permanently toxic and unusable. Bores and springs will no longer flow. This system is complex, barely understood and not addressed in the EIS. There is no compensation, insurance or redress for this scenario. Especially not if it is self monitored.

40 I am appealing to you to reject this project as water is a precious commodity and a basic human right. This project threatens the Great Artesian Basin and all who depend on it. Our species are threatened. The climate wrecking effect of land clearing and burning gas are too great. We owe Santos nothing but we can give
45 people more jobs with renewable projects, prevent extinctions and help slow climate change for a liveable future if we stop this project. Thank you.

MR O'CONNOR: Thank you, Rachel. Next speaker, please.

MR BEASLEY: Yes, sir. The next speaker is Deidre Stuart.

5 MS D. STUART: Commissioner.

MR BEASLEY: Ms Stuart, are you there?

MS STUART: Yes.

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MR BEASLEY: Please, go ahead.

MS STUART: Thank you for this opportunity to speak, Commissioners. I
acknowledge and pay my respect to the Gomeroi people, past, present and future
15 who are traditional custodians of the Pilliga area and who have so much at stake in
this project. My name is Deidre Stuart. I'm a New South Wales resident, I'm a
concerned citizen and I'm a mother. I'm also an applied scientist and I have a PHD
in chemical engineering. All of these things inform my judgment of this project. I
oppose Santos' proposed Narabri project. There's so much profoundly wrong with
20 this proposal but today I'm only speaking about three procedural aspects that concern
me.

The first is the project has no justification. From my reading, the only apparent
justification for supporting this project from the New South Wales Government was
25 an interest in putting downward pressure on energy prices and growing gas supply to
meet gas demand. Nonetheless, addressing the point of energy prices, on the first
day I heard from David Kitto that New South Wales Planning didn't expect the
project would reduce gas prices and, certainly, it's not in the proponent's interest that
gas prices plunge. After all, they're in it to make money, not to perform a
30 community service. In any case, given its associated greenhouse gas emissions and
other environmental and social impacts, wouldn't it rather be a good thing if gas
prices increased and internalised impacts and costs, otherwise worn by
disadvantage people.

35 Addressing the point of growing New South Wales gas supplies to meet New South
Wales gas demand, for me this is, in itself, an inadequate justification. An
equivalent claim would be that we need projects to produce more tobacco or more
ice or more heroin because there's demand for these things within New South Wales
that's not met – not supplied by projects within New South Wales. For the benefit of
40 all, governments implement policies that reduce demand for harmful drugs, similarly,
governments can implement policies to reduce demand for harmful fossil fuels.

My second procedural concern was that there was a lack of assessment against
positive alternatives. We are in the middle of a climate crisis, as you well know. We
45 are in the middle of a species extinction crisis too and Australia shamefully leads the
world on the rate of mammalian extinctions. Given this real and urgent context,
what are the likely positive alternatives to a CSG project? Clearly, these are

renewable energy options such as solar, wind, rapidly deployable renewable energy storage systems such as green hydro – sorry, green hydrogen or battery systems. How does this CSG project stack up against renewable energy based alternatives? Well, as far as I could tell, Santos' EIS and the New South Wales Planning Department's Assessment Report didn't assess against these relevant alternatives.

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The Planning Assessment report did point out that on a life cycle basis, CSG electricity production generates far fewer greenhouse gas emissions than coal fired electricity generation. Even if true, this is misleading fanning, deliberately intending to present the project in a positive light. Planning should have assessed this project against renewables. This technology is well advanced and already developed in the region. Moreover, I note that New South Wales has a target of net zero greenhouse gas emissions by 2050 but no genuine detailed plan to achieve this target. Does the government expect to reach this target by magic instead?

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We cannot continue extracting fossil fuels from the ground and releasing enormous quantities of long stored carbon into the atmosphere and still expect to end up with net zero emissions by 2050 or adhere to our responsibilities as global citizens. And especially so with current high deforestation rates and higher bush fire risks. I am so angry that the New South Wales government is still accepting fossil fuel exploration applications, let alone endorsing a fossil fuel production project like this one.

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Thirdly, the other procedural aspect that I am so angry about and object to is that this is an intrinsically damaging project with lots and lots of conditions dumped on top of it and then there will be inadequate oversight and all of this adds up to a disaster waiting to happen. This project is intrinsically damaging, intrinsically risky with access roads and infrastructure criss-crossing 950 square kilometres of the Pillaga forest and 850 wells penetrating deep into the ground. There will be lots of direct and indirect, expected and unexpected impacts. The New South Wales government approach to such projects is to just write in conditions to avoid or manage risks and write more conditions and write more conditions. They're not - - -

MR O'CONNOR: Could you please wrap up now, thanks, Deidre.

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MS STUART: Yes. My – I know from lived experience of coal mining in the Illawarra that there is no oversight by the government. Conditions imposed at approval are often not worth the paper they're written on and I ask exactly how many employees are New South Wales EPA and New South Wales Planning are intending to dedicate to monitoring and enforcing the conditions if approval was granted, or will the burdensome role of trying to hold Santos to account fall on disempowered, unpaid community members who are opposed to the project in the first place. Please reject this proposal. Thank you.

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MR O'CONNOR: Thank you, Deidre. Next speaker, please.

MR BEASLEY: We've got Greg Roberts. Mr Roberts, are you there on the phone?

MR G. ROBERTS: Yes, I am. Can you hear me?

MR BEASLEY: We can. Please, go ahead.

5 MR ROBERTS: Thank you. I'm Greg Roberts from the Scotland Island on the
Northern Beaches in Sydney. By way of introduction to my talk I listened to the first
day and subsequent days of the hearing mesmerised and at the end of each of the
days was very upset, and I'm a positive person. I have greatly admired your conduct
..... however. But as far as its content, truly awful. The Santos speech, awful. The
10 usual corporate speak, everything will be just great. And the government department
persons that are clearly keen on the project but vague and inadequate on many things.
It was clear that the government was complicit in the whole thing.

From memory, Mr Kitto talked of a wonderful gas led COVID recovery. A real
15 worry. A government is supporting – no, promoting is the correct word – this
venture. Revealed was that it is specifically interested in the royalty income and
additional jobs. Clearly, not concerned about anything else. Again, awful in that the
government has a serious long term duty of care to the environment and this was not
evident anywhere in his address. And Mr Kitto said there wasn't enough to trigger
20 the precautionary principle. How convenient. Stephen Perry from Warren said we
100 per cent can live without coal seam gas but we can't live without water. It is
impossible to put into words what the government is pushing to do.

It is truly unbelievable. It is awful for the farmers, the environmentalists, all highly
25 stressed over many years, absolutely fearful of the likely destruction of their
businesses and everything else with it. Clearly frightened. All presenting carefully
researched material including the inability to obtain insurance to conduct their
businesses. The inability to have their product signed off as clean and green. And
the bizarre suggestion that everything in the Pillaga could be picked up and moved
30 somewhere else, including the Pillaga mouse, and all will be fine. And the geologist
who said I don't know much about CSG but I know a lot about geology. He then
proceeded to define what would happen in drilling through the layers of rock and
shale. Terrifying.

35 Now, to my very truncated address. My concern is on a broad and very serious issue
which encompasses the Santos Narrabri proposal. The details are in my submission.
And if I take a selfish view, I'll say that I shall probably get through the balance of
my life perfectly comfortably and enjoyably. If I had no children, maybe I wouldn't
worry about this issue. But I do have children and grandchildren and have thought
40 during this period of my life of their future and the generations that will follow, as no
doubt you and many others have done. And particularly over recent times with
health impacts, economic impacts, climate impacts all swirling around us.

45 And I say this as strongly as I can; we have no right to make or even support
decisions that could be, potentially, have even the slightest negative impact on the
environment, our land, our water and the people and communities. We simply do not
have this right. We are still making decisions that we know will have negative

impacts driven by greed and selfishness and the proposal by Santos to dig for coal seam gas is another one of them.

5 Despite what all the consultants say and, of course, the miners, their statements, their projections, etcetera, they all fail the test. They will never say categorically that if you mine there will be no negative impact on the land, the water, the people, and their communities. Now, at long last, there is a hint of turning point being evidenced. A concern being shown by the independent groups, the IPC in terms of coal, the Land and Environment Court for the Gloucester resources of Rocky Hill
10 mine, they recognise there were future negative impacts involved. Climate change being a key one and made the decision to reject the proposals.

Now, in conclusion, these mining companies could not care less about our land or water or the people and the communities of New South Wales and the future of
15 Australia, for that matter. Coal seam gas has only a small role to play as a transitional fuel for our needs, as stated in AEMO's 20 year integrated plan. Fortunately, the answer is on the table. A quick and determined move to renewable energy which is proven and factored into AEMO's integrated system plan. If this proposal is approved and, even worse, sets the precedent to be allowed to mine up
20 through the rich agricultural land of the North West, then our children, our grandchildren and the future generation will curse us for it and we will deserve their curses.

Continuing food production to feed a growing population forever and an export
25 market, or short term mining with its destructive impacts on our farmers and the environment. On the basis of the above, I strongly object to Santos' proposal to drill and operate the 850 additional mines in the defined area. Thank you. And I shall include this with my submission. Thank you very much.

30 MR O'CONNOR: Thank you for your submission, Greg.

MR ROBERTS: Good. Thank you.

MR O'CONNOR: Next speaker, please.
35

MR BEASLEY: I think we have Dayne Pratzky. Mr Pratzky, can you hear me?

MR D. PRATZKY: Yes, I can. Can you hear me?

40 MR BEASLEY: Yes. Go ahead, please, sir.

MR PRATZKY: Commissioners, thanks very much for allowing me to address you. My name's Dayne Pratzky. Unlike many other speakers, I have actually first hand
45 experience. I'm New South Wales born. I moved to a farm in Chinchilla Queensland. I had 250 acres. They drilled 350 gas wells around my home. They built a compressor station next to my home. They built reverse osmosis plant next to my home, holding ponds. They, pretty much, changed the landscape in which I lived

and my peaceful little existence. Once the infrastructure started up, I made some complaints to the government about increase in noise levels.

5 This went on for years and then the government said yes, they will do some
monitoring. They sent out the gas company to do the monitoring at my house and
that was across the board for the rest of the other people that were looking for some
sort of resolution to these consistent, unmet demands of trying to have something
done. I also made a very detailed diary of what was happening at my house with the
noise and every time the noise picked up the machinery failed, by their report. So
10 that was, basically, a joke. When the mining company turned up to do the noise
monitoring I was actually mortified but it went on and it got worse. I developed
migraines, my water in my water tank became undrinkable. The government then
said that they would do some environmental monitoring at my house.

15 I must say that I was about six to seven kilometres away from the processing plant so
I was quite heavily affected. When the government came and did the monitoring
they said it would be done by an independent body. The independent body turned up
again in a Queensland gas company vehicle and was also – would return to the site to
monitor the equipment in a gas company vehicle. So it was basically a joke and it's
20 similar across the board in – throughout Queensland. People ask for help and they're
just – the whole thing is gerrymandered. They rig the system and I know it's all
about, oh, it's an independent body but these same independent bodies who write
these things are the same companies that work for these people. Queensland gas
company, Santos, they have destroyed many lives out there.

25 In 2016 what we found out is the Kenya facility, which I lived next door to, the
particular matters that rose, initially when they first started the plants were 54 tonnes.
They rose to more than 1000 tonnes. Like, 1000 tonnes. It rose in 2014 and '15
when I was making serious complaints. It kept on getting worse and worse. Then
30 we found out that the particular matter was an agent that could – other toxic
compounds could adhere to that particular matter and we were breathing them in.
And that's when many of the kids around the area had nose bleeds, chest problems,
myself had chest problems and the migraines. Then we found out that the nitrous
oxide levels rose from 710 tonnes in 2014 – 2013 to 2014 to 1300 tonnes, carbon
35 monoxide the same and the VOCs were much higher as well.

Now, Kenya plant next to my house was one of the better plants. Some of the other
plants in Queensland were worse. Then it got to a point where they were wondering
what they are going to do with us. So this is something that no one has probably ever
40 seen. These are property acquisition documents from my property in Queensland.
You can see here, Dayne Pratzky, Chinchilla, and the sale of my property to
Queensland Gas Company Proprietary Limited. This is not a normal property
acquisition document because hidden in this document is this. And I've had to black
it out. Clause number 14. It's a confidentiality clause.

45 When you complain, they come to your house and they beat you down and they beat
you down and they beat you down. Then, when you've got nothing left in you, they

do this to you. They buy your property and they silence you. They silenced thousands of people in Queensland. Twenty of my friends have been silenced that I know directly. So when the industry says to you it's okay, it's not okay. You will not hear the voices of the real people on the ground because of garbage like this. I
5 had to save myself. My battle went on for 10 years, 10 years, to get to a point where I had to abandon my land, sell it to the bloody enemy and sign the confidentiality agreement. I had no choice.

10 MR BEASLEY: What sort of property did you have, Mr Pratzky? Was it a farm?

MR PRATZKY: It was a – well, they called it Goanna Country because it was not a farm. It was – they call it it was 250 acres. But it was my home.

15 MR BEASLEY: Yes.

MR PRATZKY: It doesn't matter if it was a working farm or not, it's where I chose to live. I moved from Sydney's northern beaches to get some peace and quiet in the country.

20 MR BEASLEY: And - - -

MR PRATZKY: Here's further proof. Okay. That this is – you can see here, Queensland Gas Proprietary Limited.

25 MR BEASLEY: Yes.

MR PRATZKY: My solicitor and my signature on this document.

30 MR BEASLEY: Yes. And what sort of gas exploration was it? Did it involve fracking?

MR PRATZKY: Absolutely. They fracked a well closest to my house. The noise went on for 14 days. 14 days I didn't get a minute's rest. Not a minute. And the – it was like a highway outside my house. We would have 150 trucks a day drive past
35 my house.

MR BEASLEY: How far were the wells from your house? The – how far away was the nearest well?

40 MR PRATZKY: The nearest well was three kilometres.

MR BEASLEY: Sorry?

45 MR PRATZKY: I could hear the well operating at night. It was on top of a hill.

MR BEASLEY: Yes.

MR PRATZKY: I could hear the well operating on my house – at my house which is three kilometres away. The reverse osmosis plant and the compressor station, I could hear 14 kilometres away - - -

5 MR BEASLEY: Right.

MR PRATZKY: - - - in our residential estate. These things – they're not isolated to one compressor station or one reverse osmosis plant. There are dozens of these things spread throughout the – throughout gas fields. You can't localise a problem
10 like a compressor station. They have destroyed Western Queensland. They have destroyed it. And Santos have their bloody fingerprints all over it. And for them to stand up in front of you and lie is a disgrace and an actual – it's a disgrace to New South Wales people and it's an assault on the intelligence of the Commission.

15 MR BEASLEY: All right

MR O'CONNOR: Thank you. Thank you. We might have to bring it to a close there. Thanks for your presentation.

20 MR BEASLEY: Thank you. The next - - -

MR O'CONNOR: Next speaker, please.

MR BEASLEY: - - - speaker is Dylan Green. Mr Green, are you there?
25

MR D. GREEN: Yes. Can you hear me?

MR BEASLEY: Yes, we can. Please, go ahead.

30 MR GREEN: Great. Thank you for the opportunity to speak today. My name's Dylan Green. I live in Wollongong. I recently graduated with a degree in physics, mathematics and I have no direct connection to the Narrabri Gas Project. Today, I'd like to speak broadly about the Assessment Report produced by the Department of Planning, Industry and Environment for the Narrabri Gas Project. The sections of
35 the report which I read consistently undervalued the environment and understated the impact that this project would have on the environment. And, I think, kind of the clearest and most revealing example of this comes in the executive summary when it states, and I quote:

40 *That the project would not result in any significant impacts on people or the environment.*

Now, when we've heard all the stories this week, I mean, in particular that last one and many others similarly, we've heard how projects like this have had impacts on
45 health and the social fabric of nearby communities. The report itself talks about a massive area of bushland that would need to be cleared and fragmented to complete this project. And it also talks about the greenhouse gas emissions of this project. In

particular, it had a only 0.9 per cent of Australia's total emissions. We've also heard from various experts about the outdated cherry picked scientific reports used to make these calculations. We've heard about the impact that this project would have on local indigenous communities. We've heard from scientists, farmers and local
5 residents about inherent environmental risks associated with drilling for coal seam gas.

And so I'm left wondering, how can anyone say that this project would not have any significant impacts on people or the environment. And I can see three explanations.
10 So the first is that the authors of the report have no idea of what is significant to the community and the environment, or they don't care what is significant to the community and the environment. Or they have some understanding and care for this but they ignore these factors because it's somehow in their self interest and, whatever the case, this report cannot be well informed, well intended and impartial. And for
15 that reason it should be taken with a very large grain of salt.

I'm 22 years old and I've grown up believing, as I think most middle class Australian kids and teenagers do, that our governments are pretty good. They're pretty careful, they're pretty clever and there's this kind of idea that, well, if it was that bad
20 it wouldn't happen. Like, the government wouldn't let that happen. But you just need to read a report like this one from a government department and you realise that it's an absolute joke and the joke is on us, the people of the future who are going to have to clean this up when it goes wrong or, even worse, the people of the future who can't clean it up because it's just too far gone.

25 One of the key demands of the climate strikes around Australia over the last couple of years has been for no new fossil fuel projects. So while the Department of Planning, Industry and Environment seems to think that a supposed 0.9 per cent of Australia's total emissions is insignificant, there are hundreds of thousands of
30 Australians that think otherwise. The demands have been made by the people on the streets and today those demands rest with you, with this Commission, because you have been given the power to reject this project. And so, in summary, I say that any document that considers all the concerns and all the stories we've just heard as insignificant is massively flawed and it should be treated as such. I also remind you
35 that the demands of the future generations have been made and they are being made of you, Commissioners. And, finally, I ask you to reject the Narrabri Gas Project because of the very significant impacts it will have on people and the environment. Thank you.

40 MR O'CONNOR: Thank you, Dylan. Next speaker, please.

MR BEASLEY: I think on the phone we have Libby Ciesiolka.

45 MS L. CIESIOLKA: Ciesiolka.

MR BEASLEY: Ciesiolka.

MS CIESIOLKA: Hello.

MR BEASLEY: Yes, go ahead.

5 MS CIESIOLKA: Can you hear me?

MR BEASLEY: Yes, we can.

10 MS CIESIOLKA: Thank you for giving me an opportunity to speak today. I am
very pleased that an independent body is making this decision. I'll just tell you a bit
about myself. I grew up about six miles from the project on what was the largest
peanut farm in the southern hemisphere when I was a teenager and my psyche is
personally connected to the land and water of the Pilliga scrub and surrounds. I often
15 visit Wee Waa. I go there to visit Bundock Creek which is stream which will be
destroyed by the project. I go to check the ecological communities and geological
structures I've known since a child – my childhood. I'm an environmental and
planning solicitor. I – with practical experience in approvals particular water
security. I've worked for a range of clients but mostly farmers, miners, indigenous
20 bodies, community groups, the New South Wales State Government Office of Water
and Local Government. I hold post graduate qualifications in environment law.

I want to address, just in the speech, the community consultation part of the
Assessment Report. The Department has not properly assessed the community
acceptance of this project. They have disregarded the legitimate concerns of the
25 local and broader New South Wales community. There was 98 per cent opposition
and 2 per cent approval. The Department describes this as a dichotomy. It's not
a dichotomy, 98 per cent rate of objection does not indicate two equally legitimate
opposing views but instead it's a majority and minority view of the risks of the
project. 98 per cent opposition is a message that the project does not meet the
30 standards of the public who must live with the development.

It has no social licence. Even the mining industry recognises that it can only operate
without problems if the community is on board with its operations. The use of 30 per
cent local approval as a reason for approving the project does not match the other
35 surveys in the area. 30 per cent is the highest approval in all the other surveys. 30
per cent local approval is not enough to avoid the problems that will arise from lack
of community acceptance.

40 Adani is a good example of mining operations attempting to operate without social
licence. Likewise, the New South Wales Government has had to pay – been forced
to pay compensation to coal miners if they can't get community acceptance. The
Commission should be extremely wary of approving a project that is likely to
become a climate change battle ground between Australian citizens and the
proponents. The NGP will be heavily afflicted with Adani like dramas because
45 community opposition to the NGP is much greater than it was to the Adani mine,
especially at the pre-approval stage. The NGP approval process has more
opposition than any other Australian planning project historically. This is a

fundamental flaw in their assessment. They have assessed the risk of community activism by closing their eyes.

5 The decision to exclude a – to exclude objections reinforces the
fundamentality of this flaw. Why didn't they let people know they couldn't object
that way. Inconsistently, the Department now routinely provides forms with tick the
box comments for project approval purposes on their website. With regard to
strategic planning consultations, form answers are considered more reliable
statistically. As the use of internet forms is now routine, the Department's complete
10 disregard of many thousands of objections is irrational. It also disturbs public trust
regarding being heard about CSG concerns. The Commission must consider this risk
as approval without social acceptance is a known factor for making the project
unviable. Santos understands this well, that's why they want to sell.

15 The – sorry. Sorry, next page. The current consultative committee has not been
functioning effectively from the point of view of local stakeholders so that the
Department's assurance that its strict requirement to form will result in community
acceptance appear hollow. Locals have complained to me that much of Santos'
information for business is – confidential for business and they can't access those
20 – because of confidentiality agreements. The proposed CCC provides no comfort
that the project will be received – receive community acceptance.

I ask the Commission to either reject the project or find a way to avoid these social
acceptance problems. If they do want – if the Commission wants to approve a viable
25 mining operation, it's going to have to deal with this issue. The project could gain
social acceptance if it was required to comply with the chief scientist's
recommendations but, as I understand it, the project is not economically viable on
those terms. As an environmental lawyer, this circumstance raises a big red flag. It
indicates that currently CSG extraction that meets community standards is too
30 expensive to extract. That's really all I want to say on the Assessment. I've got – I
will be making submissions on the other issues, particularly, water. But I feel that
this is the most important part because if we get a project that is not accepted and
then all these dramas happen, it's just not going to work out very well for anybody.

35 MR O'CONNOR: Thank you.

MS CIESIOLKA: I guess that's all I need to say.

MR O'CONNOR: Thank you, Libby. Thanks for your comments.

40

MS CIESIOLKA: Thank you.

MR O'CONNOR: Next speaker.

45 MR BEASLEY: Next speaker is Naomi Groothoff. Are you there, Ms Groothoff?

MS N. GROOTHOFF: I am. Can you hear me?

MR BEASLEY: We can hear you well so, please, go ahead.

MS GROOTHOFF: Thank you. And good afternoon. These are my eight objections to the Narrabri Gas Project and Santos' proposal to drill 840 gas wells.

5 One, accelerate global warming by locking in decades of climate pollution. Reported high carbon dioxide levels. This Narrabri coal seam gas production will cause nearly a one per cent increase to greenhouse emissions per year. Meeting the Paris Agreement goal of keeping average global warming well below two degrees, global gas production needs to peak by 2030 and decline after that. To meet the save for
10 one point five degrees warming limit, gas production would need to peak this year.

United Nations Environment Programs Production Gap Report in 2019 stated that:

15 *The time to begin planning for wind down of gas production is, as with other fossil fuels, already upon us.*

There will also be an increased risk of wild fires. Two, over 20 years Santos will remove 37.5 billion litres of water from deep below the Pilliga. Following treatment Santos has no disposal plans for the 840,000 tonnes of solid salt laced with heavy
20 metals. Removing this water will cause depressurisation and loss of water in the Pilliga sandstone. Santos has little knowledge about deep aquifers so use the most basic ground water model. The Government Water Agency stated:

25 *A high level of inaccuracy.*

And:

30 *Not able to provide output at the scale and accuracy to assess the projects impacts against the minimal impact guidelines of the aquifer interference policy.*

And:

35 *Drilling is allowed only in areas where the geology and hydrogeology can be characterised adequately.*

The panel was unconvinced these requirements were met. Three, endanger koalas and other threatened species. There are 10 threatened plants and 35 threatened animals in the area. Four, Santos has no socialises to drill. Opposition from the
40 community including indigenous groups and farmers. Five, the Pilliga is the largest temperate forest we have left in New South Wales. This project would clear 1000 hectares of the forest turning into an industrial gas field will poison ground water of the Great Artesian Basin carving up the forests and nearby farmlands with roads and pipelines.

45

Six, social impacts. Santos' own assessment found 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. Gas is expensive and will increase energy prices. 70 per cent of Australian gas is exported offshore meaning Australians pay some of the highest prices for gas in the world. Santos claims the gas field is needed to “increase supplies of gas”. But
5 there’s a glut of exported gas from Queensland and ships of Australian gas sitting idle, unwanted. Also, is there a possibility of housing subsidence and, if so, to what extent.

Seven, Santos claims local jobs and jobs will be created for New South Wales but
10 there has been no figure given to how many jobs will be lost in agriculture. Eight, possible negative impact on the Gomeroi indigenous people. Santos claims they will avoid further sensitive indigenous sacred sites when they conduct further research after they are granted the licence. Concern there is no guarantee this will occur. Of
15 the 16 recommendations by the New South Wales chief scientist in 2014 to guard against coal seam gas risks, only two have been fully implemented and half haven’t been done at all. I’ll close with a Cree Indian Proverb; only when the last tree has died and the last river been poisoned and the last fish been caught will we realise we cannot eat money. Thank you for listening and for your attention.

20 MR O’CONNOR: Thank you, Naomi. Next speaker, please.

MR BEASLEY: Next speaker is Estelle Dollfus-Gates. Are you there, Estelle?

MS E. DOLLFUS-GATES: Yes, I am. Can you hear?
25

MR BEASLEY: We can hear you so, please, go ahead.

MS DOLLFUS-GATES: Okay. Thank you for the opportunity to speak today. I
30 am a resident of Hornsby Shire, also called the Bushland Shire, in the outer suburbs of Sydney. It is a beautiful area but I live vulnerable to bush fires and storms. I won’t be directly by Santos Narrabri Gas Project, however, I consider that we will all be affected by the greenhouse gas emissions the project will generate. I am not an expert and I know the potential effects of the project on water, farmland, biodiversity and emissions have been very well covered so far. I also know that we
35 can transition away from coal towards clean energy without more gas.

Today, I want to speak on behalf of my three children, age 9 and 12. They are
40 bright, healthy and friendly kids and you would have said 10 or 20 years ago that they have a bright future ahead of them, where that future becomes a lot darker every time a new fossil fuel project is opened up. They don’t have a say in the decisions that are being made today and that will impact their future, well being and happiness. They can’t vote, they can’t politicians, they can’t make generous donations to political parties yet they will be the ones picking up the tab when our climate crisis reaches new heights because of the inability and unwillingness of our politicians
45 and decision makers to stand up to fossil fuel corporations.

Sometimes, I daydream about what our decision makers could say. Times up, no more. Carbon has expired. Clean up. No, you don't get to use clean water to extract the gas. No, you don't get to farmland and forests. No, you don't get to pollute our water and air for corporate profits. Santos would like to be portrayed as a generous contributor to actioning climate change as its so called natural gas as a transition fuel to Australia and Asia. Indeed, their vision to 2025 and I quote from the Annual Report is to, "Reduce emissions and improve our air quality across Asia and Australia by displacing coal with natural gas." The fact is that there is no such thing as natural gas. Natural gas is a fossil fuel. Its extraction is and contributes to climate change.

Last summer we had a terrifying window into a future of out of control climate change. This will become a reality if we fail to act and face such a climate emergency. One of the most important ways we can act is by stopping expansionary fossil fuel projects. Santos Narrabri Gas Project is one of these projects and I urge the Independent Planning Commission to object it. Thank you.

MR O'CONNOR: Thank you, Estelle, for your submissions to us. That brings us to the end of day 5 of this public hearing and thank you everyone for your participation. I'd like to thank all the speakers for their engagement in this consultation process and remind everyone that a transcript will be made available on the Commission's website. The Commission will be accepting comments from the public up until 5.00 pm on Monday the 10th of August 2020. These comments can be sent to the Commission via post, email or through the Have Your Say portal on the Commission's website. The panel now adjourns this public hearing until tomorrow at 9.30 am and then to 9.30 am on Saturday the 1st of August 2020. Thank you once again for your participation. Good evening.

MATTER ADJOURNED at 5.15 pm UNTIL SATURDAY, 25 JULY 2020