



Environmental Defenders Office

**BEFORE THE INDEPENDENT PLANNING COMMISSION
PUBLIC HEARING 14, 17 FEBRUARY 2022
FOR THE NARRABRI UNDERGROUND MINE STAGE 3 EXTENSION PROJECT
(SSD 10269)**

**WRITTEN SUBMISSIONS
FOR
LOCK THE GATE**

SUBMITTED 25 FEBRUARY 2022

Contents

1. EXECUTIVE SUMMARY	3
2. FACTUAL BACKGROUND	8
3. RELEVANT MATTERS TO BE CONSIDERED	9
3.1 Section 4.15(1)(a): relevant environmental planning instruments – the Mining SEPP	11
3.2 Section 4.15(1)(b): likely impacts – general principles	12
3.3 The relevance of the Minister’s Statement of Expectations.....	14
3.4 The public interest.....	14
3.5 The public interest and ESD	15
3.6 Principles of Ecologically Sustainable Development	16
3.6.1 Intergenerational equity and intragenerational equity.....	17
3.6.2 Conservation of biological diversity and ecological integrity	18
3.6.3 The polluter pays principle	19
3.6.4 Precautionary principle	20
4. ENVIRONMENTAL IMPACTS AND CONSIDERATIONS	22
4.1 Climate change impacts	22
4.1.1 The evidence	22

4.1.2 Matters that the EPA and the State of NSW have accepted, and which should be found by the IPC	26
4.1.3 Matters the IPC can find in relation to greenhouse gas emissions having regard to the <i>Rocky Hill</i> decision	30
4.1.4 Greenhouse gas emissions and likely impacts: response to the proponent’s position	31
4.2 Ongoing viability of coal	35
4.3 Economic impacts	38
4.4 Social impacts	40
4.5 Subsidence and geotechnical impacts	46
4.6 Impacts on water resources	48
4.7 Impacts on biodiversity	51
4.8 Activities of the proponent leading up to the development application.....	53
5. PUBLIC INTEREST	62
5.1 Response to the proponent’s arguments on the public interest	62
5.2 Findings the IPC should make	64
5.2.1 Findings in respect of the objects of the EP&A Act	64
5.2.2 Findings in respect of climate change and likely impacts on the environment.....	68
5.2.3 Findings in respect of the coal market and economic impacts.....	70
5.2.4 Findings in respect of social impacts	70
5.2.5 Findings in respect of subsidence	71
5.2.6 Findings in respect of water resource	71
5.2.7 Findings in respect of biodiversity.....	72
5.2.8 Findings in respect of proponent’s activities leading up to development application	72
5.2.9 Findings in respect of the public interest	73
5.2.10 Overall findings	73
6. UNREASONABLENESS, IRRATIONALITY AND ILLOGICALITY	74
6.1 The principles of legal unreasonableness.....	74
6.2 Conclusions.....	75
7. CONCLUSION.....	76

1. EXECUTIVE SUMMARY

1. Lock the Gate Alliance (**LTG**) is a community group concerned about the environmental, social and economic impacts of fossil fuel developments.
2. LTG seeks a determination from the Independent Planning Commission (**IPC**) that the Narrabri Underground Coal Mine Stage 3 Extension Project (**Project**) be refused development consent. LTG says that there is no legally reasonable, rational or logical basis on which the IPC may approve the Project under the *Environmental Planning and Assessment Act 1979* (**EP&A Act**).
3. The objects of the EP&A Act make it very clear that the purpose of the Act is to maintain a stable and safe environment for the people of NSW, where resources are conserved, development is carried out in a planned and orderly manner, and the environment is protected and enhanced for the overall benefit of everyone in NSW, both current and future generations. That is the context in which the IPC must exercise its power to either approve or refuse the Project. While there may be some benefits to individuals arising from the Project, there is no rational basis on which the IPC could reasonably find that the Project advances any of the objects of the Act of relevance to its decision. Approval of the Project at this point in time would be inconsistent with the very scope and purpose of the EP&A Act.
4. The effect of a refusal by the IPC would simply be maintenance of the status quo. That is, the mine would continue to operate until its planned closure and rehabilitation of the site by 2030. The weight of the evidence before the IPC indicates that use of coal must decelerate now in order to promote an orderly and planned transition to a zero-carbon economy. Yet what this proponent is asking the IPC to do, in 2022, is to *delay* closure until 2044. To approve the Project at this point in time would be to ignore the clear evidence of the global energy transition, and the well-established catastrophic climate risks arising from the continued use of coal, and pre-emptively permit a delay in closure, up to 2044. Such a determination is unsupportable by the evidence before the IPC, and inconsistent with the objects of the Act itself.
5. There is simply *no* evidence before the IPC that *any* owner of a coal mine will be in a sufficiently healthy financial position to carry out the task of continuation of coal mining and completion of site rehabilitation up to the year 2044. Rather, all the evidence indicates that this industry is in serious structural decline, and that will affect every owner of a coal mine during 2031-2044.

6. The environmental, social and economic impacts of the Project are, properly assessed, negative. The Project is contrary to the principles of ecologically sustainable development (**ESD**) and is not in the public interest. The principles of ESD, in particular the principles of intragenerational and intergenerational equity, the precautionary principle, the principle of conservation of biological diversity and the polluter pays principle, dictate that the Project should be refused. These principles are contravened in relation to the following environmental impacts and considerations:

- a. **Climate change impacts:** Climate change is the greatest overall threat to the environment and people of NSW because it is comprehensively dangerous, global, fundamental, rapid, compounding, and self-reinforcing and is creating significant intra- and inter-generational inequity. Climate change impacts are accelerating, as seen in the greater frequency of extreme events globally. Greenhouse gases (**GHGs**) emitted by human activities are responsible for essentially all of the global warming driving climate change. The Project is contrary to the need to begin cutting GHG emissions immediately and, in fact if approved, will add significantly to the state and national task of emissions reductions required to limit the global temperature increase to 1.5°C, and even well below 2°C. Preventative actions between now and 2030 are the most important determinant of how much more climate change will occur. At current emission levels, NSW's share of the carbon budget to hold global warming to 1.5°C (with at least a 67% chance) will be exhausted in four years.
- b. **Ongoing viability of coal:** Convergence of worldwide policies on decarbonisation, the deflation of energy costs, and a transport and energy convergence means that the energy transition is accelerating rapidly – well beyond the financial markets or most energy experts' expectations. The use of coal in power and steel markets globally over the longer term is existentially challenged by these factors, and the most likely scenario is that coal use globally has plateaued and is set to enter a slow but inevitably terminal decline. Sufficient coal-mining capacity already exists globally to supply coal-fired power plants through the energy transition, as these utilities close at a much faster rate than scheduled. These factors challenge the viability of the Project over the life of the requested approval and risk creating stranded assets. This contributes to fundamental flaws in the Project's economic analysis such that, if climate related factors are properly assessed, and the polluter pays principle was properly applied, the Project will fail to deliver an economic benefit to NSW.

- c. **Economic impacts:** The cost benefit analysis for the Project is deficient in multiple ways including in relation to the carbon emission costs, the treatment of environmental offsets, and the valuation or lack thereof, of other environmental, social and cultural costs. When these factors are appropriately considered in the cost benefit analysis, the Project does not provide a net social benefit to NSW and cannot be considered an ecologically sustainable development. The Project assessment also fails to consider the social cost of carbon (as opposed to a price on carbon) where the social cost of carbon is the value of the net damage caused to society by adding a tonne of CO₂ into the atmosphere. Applying an assessment that appropriately considers climate damage, the cost to NSW of the GHGs resulting from approval of the Project would be in excess of A\$917 million, more than 1,000 times the amount stated in the Project Environmental Impact Statement (**EIS**).

- d. **Social impacts:** Serious omissions have been made in the proponent's social impact assessment (**SIA**) in relation to climate change and other unacknowledged social costs. Social impacts of climate change are extensive and grave; and include rising death rates, mass population movements, loss of livelihoods and poverty, social distress and civil violence, among others, and create significant intra- and inter-generational inequity. Extreme weather events (causing heat waves, bushfires, floods and coastal erosion) are local impacts being driven by global climate change and create overlapping socio-economic and environmental impacts in NSW. Aboriginal communities are already feeling the effects of the climate crisis knowing that climate is impacting the health of Country which in turn determines people's health and the ability to continue to live on Country in an environmentally safe and healthy manner. Unacknowledged in the proponent's SIA is the need to transition coal workers into new jobs to avoid a stranded workforce, the flow-on effects of the Project (e.g. climate change, water resources, subsidence) on such as agricultural livelihoods, and the loss of public trust in the failure of government to deal with these same major issues of social concern.

- e. **Subsidence and geotechnical impacts:** Subsidence and geotechnical impacts have the potential to impact groundwater, surface water and physical assets (both environmental and built) in the subsidence area. Review of the subsidence assessment showed that there is a greater likelihood of cracking extending into the locally important Pilliga Sandstone than has been identified in the assessment. Longwall mining also has the potential to lead

to cause surface cracking that could increase the instability of cliff lines and steep rocky slopes, and cause damage to infrastructure (including agricultural infrastructure) and items of culturally and scientifically important Aboriginal cultural heritage in the Project and adjacent areas. Given the potential impacts to natural features, cultural heritage and built infrastructure, approval of the Project is inconsistent with the precautionary principle.

- f. **Impacts on water resources:** Significant concerns with the groundwater modelling, mean impacts to the regional groundwater resources may be significantly greater than predicted by the EIS. In light of this uncertainty, approval of the Project is inconsistent with the precautionary principle. Once impacts occur, there are no feasible means to tackle impacts of mining on groundwater, either during the operations or via remediation afterward, except for them to be resolved naturally over the very long term. Groundwater monitoring is inadequate to discern any such impacts in a timely manner because it is insufficient, discontinued or not being reported.
- g. **Impacts on biodiversity:** The impacts on the biodiversity of NSW from the Project will be significant and irreversible because the Project will drive climate change, a key threatening process; generate substantial clearing and fragmentation of nationally significant native vegetation communities (including a range of Threatened Ecological Communities); alter hydrological and fire regimes, thereby causing long-term shifts in vegetation community and irreversible ecosystem degradation; clear and fragment connections between the globally significant Pilliga Forest and the nationally significant Mt Kaputar National Park, and create major clearance and other industrial disturbances that will provide conditions conducive to invasion by weeds and the occupation by vertebrate pests such as the Red Fox and Feral Cats (both major causal agents of extinction and biodiversity loss). Approval of the Project is inconsistent with the principle of conservation of biological diversity.
- h. **Activities of the proponent leading up to the development application:** The proponent and its related company, Narrabri Coal Pty Ltd, were convicted by the Land and Environment Court of 19 offences of contravening s 378D of the *Mining Act 1992* (**Mining Act**) in *Stephen James Orr v Narrabri Coal Operations Pty Ltd*; *Stephen James Orr v Narrabri Coal Pty Ltd* [2021] NSWLEC 85. On 3 December 2020, the Resources

Regulator rejected the enforceable undertaking given jointly and severally by the proponent and Narrabri Coal Pty Ltd. pursuant to the Court of Appeal decision in *Duncan v Independent Commission Against Corruption* [2016] NSWCA 143, it is open to the IPC to consider that the proponent's (and related company's) conduct is a factor weighing against grant of the consent to the Project and grant of the mining leases associated with the Project.

7. LTG has commissioned the following experts to provide independent expert reports to the IPC:
 - a. Professor Penny D Sackett – climate change
 - b. Mr Tim Buckley – coal finance
 - c. Assoc Prof Neil Perry – economics
 - d. Dr Alison Ziller – social impacts
 - e. Dr Patrick Harris – public health
 - f. Mr John Matheson – subsidence
 - g. Dr Steven Pells – water resources
 - h. Mr Mark Graham - biodiversity
8. LTG submits that the position is sufficiently clear that, upon the material before the IPC, the only reasonable conclusion is that each of the findings set out in section 5.2 below should be made.
9. Further, LTG submits that the position is sufficiently clear that, upon the material before the IPC including having regard to those findings, the only reasonable conclusion is that development consent should be refused.

2. FACTUAL BACKGROUND

10. On 19 November 2021 the Minister for Planning and Public Spaces wrote to the IPC with the following request:

1. Conduct a public hearing into the carrying out of the Narrabri Underground Mine Stage 3 Extension Project (SSD 10269) prior to determining the development application for the project under the Environmental Planning and Assessment Act 1979, paying particular attention to:

- a) the Department of Planning, Industry and Environment's assessment report, including any recommended conditions of consent;
- b) key issues raised in public submissions during the public hearing; and
- c) any other documents or information relevant to the determination of the development application.

2. Complete the public hearing and make its determination of the development application within 12 weeks of receiving the Department's assessment report in respect of the project, unless the Planning Secretary agrees otherwise.

11. Accordingly, the IPC is the consent authority for the Project under s 4.5(a) of *Environmental Planning and Assessment Act 1979 (EP&A Act)* and clause 8A of *State Environmental Planning Policy (State and Regional Development) 2011*.

12. The Department of Planning and Environment's (DPE's) assessment report was published on 19 January 2022. The referral letter dated 19 January 2022 from the Planning Secretary stated:

Based on this assessment, the Department considers that NCOPL has designed the project in a manner that achieves a good balance between maximising the recovery of a coal resource of State significance and minimising the potential environmental impacts. Overall, the Department considers that the major economic and social benefits for the local area and to NSW outweigh the potential impacts, and that the project is approvable subject to the recommended conditions.

13. In LTG's submission, the evidence establishes that the DPE has failed to properly assess the environmental, social and economic impacts of the Project. Properly assessed, those impacts are, on balance, all negative. There is no rational basis on which the IPC can reasonably approve the Project.

3. RELEVANT MATTERS TO BE CONSIDERED

14. The IPC is constituted under s 2.7 of the EP&A Act. The IPC's independence is confirmed by s 2.7(2), which states that the IPC:

is not subject to the direction or control of the Minister (except in relation to the procedure of the Commission and any directions authorised to be given to the Commission under section 9.1 or other provision of this Act).

15. Furthermore, the IPC must exercise its powers for the purpose of achieving such of the objects of the Act as a relevant to its decision.

16. The objects of the EP&A Act are set out in s 1.3 as follows:

1.3 Objects of Act

(cf previous s 5)

The objects of this Act are as follows—

- (a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,
- (b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,
- (c) to promote the orderly and economic use and development of land,
- (d) to promote the delivery and maintenance of affordable housing,
- (e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,
- (f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),
- (g) to promote good design and amenity of the built environment,
- (h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,
- (i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,

- (j) to provide increased opportunity for community participation in environmental planning and assessment.

17. The IPC's underlying function is identified in s 4.38(1) of the EP&A Act, which states:

The consent authority is to determine a development application in respect of State significant development by –

- (a) granting consent to the application with such modifications of the proposed development or on such conditions as the consent authority may determine, or
- (b) refusing consent to the application.

18. That function falls to be assessed by reference to the matters in s 4.15: see s 4.39.

19. Section 4.15(1) relevantly states:

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application –

- (a) the provisions of—
 - (i) any environmental planning instrument, and
 - (ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and
 - (iii) any development control plan, and
 - (iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and
 - (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph),
that apply to the land to which the development application relates.
- (b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,
- (c) the suitability of the site for the development,
- (d) any submissions made in accordance with this Act or the regulations,
- (e) the public interest.

20. These submissions will return below to key integers in s 4.15(1).

3.1 Section 4.15(1)(a): relevant environmental planning instruments – the Mining SEPP

21. Section 4.15(1)(a) obliges the IPC to take into account relevant environmental planning instruments **(EPIs)**.

22. One such instrument is the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* (NSW), commonly known as the **Mining SEPP**.

23. Clause 14 of the Mining SEPP states:

- (1) Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure the following –
 - (a) that impacts on significant water resources, including surface and groundwater resources, are avoided, or are minimised to the greatest extent practicable,
 - (b) that impacts on threatened species and biodiversity, are avoided, or are minimised to the greatest extent practicable,
 - (c) that greenhouse gas emissions are minimised to the greatest extent practicable.
- (2) Without limiting subclause (1), in determining a development application for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider an assessment of the greenhouse gas emissions (including downstream emissions) of the development, and must do so having regard to any applicable State or national policies, programs or guidelines concerning greenhouse gas emissions.

24. Clause 14 of the Mining SEPP has been considered in a number of recent Court decisions.

25. Those decisions establish a number of important propositions.

26. Clause 14(1) applies when considering a development application, whether or not the consent authority has decided (*prima facie* or finally) to grant consent to the application: *KEPCO Bylong Australia Pty Ltd v Bylong Valley Protection Alliance Inc* [2021] NSWCA 216 at [27]-[34].

27. So far as cl 14(1) contemplates consideration of the imposition of conditions: the IPC need not *itself* propose conditions; it is not for the IPC to “plug any gaps” that arise because the proponent has themselves failed to identify appropriate conditions which minimise greenhouse gas emissions: *KEPCO Bylong Australia Pty Ltd v Independent Planning Commission (No 2)* [2020] NSWLEC 179 at [82]-[83].
28. The “greenhouse gas emissions” to which cl 14(1) refers include Scope 3 emissions: *KEPCO Bylong Australia Pty Ltd v Independent Planning Commission (No 2)* [2020] NSWLEC 179 at [85]. So much flows from a coherent construction of cl 14 as a whole: it is clear from cl 14(2) that the clause encompasses consideration of “downstream emissions” ie Scope 3 emissions.
29. As for cl 14(2), it is for the consent authority to decide whether a policy is “applicable”: *KEPCO Bylong Australia Pty Ltd v Bylong Valley Protection Alliance Inc* [2021] NSWCA 216 at [65]. In *KEPCO Bylong Australia Pty Ltd v Bylong Valley Protection Alliance Inc* [2021] NSWCA 216, there was no error in the IPC treating as “applicable” the NSW Climate Change Policy Framework and the Paris Agreement.
30. The consent authority can consider the absence of proposed conditions minimising Scope 3 emissions in determining whether to refuse development consent: *KEPCO Bylong Australia Pty Ltd v Bylong Valley Protection Alliance Inc* [2021] NSWCA 216 at [44]. In that matter, it was open for the IPC to make the factual finding that because the proponent had proposed to undertake the development by minimising only Scope 1 and 2 greenhouse gas (GHG) emissions and not Scope 3 GHG emissions, the proponent had not minimised GHG emissions to the greatest extent practicable: *KEPCO Bylong Australia Pty Ltd v Bylong Valley Protection Alliance Inc* [2021] NSWCA 216 at [44], [138]-[140]. Further, it was open for the IPC to consider this factual finding as a factor militating against approval of the Bylong Coal Project.

3.2 Section 4.15(1)(b): likely impacts – general principles

31. Section 4.15(1)(b) obliges the IPC to take into account the likely impacts of the development.
32. Section 4.15 is the statutory successor of former s 79C(1) and, before then, s 90(1) of the EP&A Act. What Moffitt P said of s 90(1) in *Parramatta City Council v Hale* (1982) 47 LGRA 319 at 340 applies equally to s 4.15(1). His Honour there said:

The obligation is to take into consideration (a) to (s) matters which are in fact relevant, and not those which the authority or its officers considers relevant. By remaining ignorant of relevant environmental matters, an authority could not avoid its obligation to consider and, in its ignorance, give a valid consent without considering harm (not de minimis) to the environment which in fact fell within (b). Accordingly, despite the absence of a direct obligation to do so, the requirement of s. 90(1) to consider carries with it an indirect obligation, which rests upon the authority to acquaint itself with such material as will permit it to consider such s. 90(1) matters as are in fact material. Thus, if it is to consider the impact of the development upon the environment, if it is to consider whether it is likely to cause harm, if it is to consider the ways the environment may be protected or, if it is to consider the ways likely harm may be mitigated, it must be aware of each of these matters, namely, what is the impact, the likely harm and the ways to protect or mitigate.

33. In other words, the IPC is obliged to acquaint itself with such material as will permit it to consider the likely impacts of the development. It is not confined to the material placed before it by the proponent. And, where likely impacts are in issue, the IPC must be aware of the impact, the likely harm and the ways to protect or mitigate.
34. Further, in assessing likely impacts, it is incumbent on the IPC to form an estimate of the likelihood or possibility: *Cartier Holdings Pty Ltd v Newcastle City Council* [2001] NSWLEC 170 at [25].
35. The expression “likely impact” has a well-understood meaning. An impact is “likely” if there is a “real chance or possibility” of the impact *whether or not* the impact is “more probable than not”: *Hoxton Park Residents Action Group Inc v Liverpool City Council* (2011) 184 LGERA 104 at [43]-[47].
36. The likely impacts of a development include both direct and indirect environmental impacts: *Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7 at [494].
37. In addition to the provisions of any relevant EPI, s 4.15 requires that the IPC must take into account the likely environmental impacts of the development, the likely social impacts, the economic impacts, the suitability of the site for the development, and any submissions made in accordance with the EP&A Act. The IPC must also take into account the public interest: s 4.15(e) EP&A Act. The relevant considerations to the public interest in a development are summarised below.

3.3 The relevance of the Minister’s Statement of Expectations

38. The Minister’s Statement of Expectations (**SOE**) states that he expects the IPC “to make decisions based on the legislation and policy frameworks and informed by the Planning Secretary’s assessment”.¹ To the extent that this statement seeks to depart from s 4.15, it is bad law; the IPC is bound to make a decision in accordance with s 4.15 of the EP&A Act, and not the SOE. Namely, there is no reference to the phrase “policy frameworks” in s 4.15. Further, contrary to the suggestion in the SOE, the EP&A Act does not provide that DPE’s report should be provided precedence over other evidence. This report is not a mandatory consideration. Whilst evidently a relevant consideration to be taken into account by the IPC, it is of no greater import than other relevant evidence placed before the IPC, including submissions by objectors.
39. Further, the SOE states that the Minister encourages the IPC to “seek guidance from the Planning Secretary to clarify policies or identify policy issues that may have implications for State significant development determinations”.² This is, again, inconsistent with the proper role of an independent IPC, which is required to make a determination according to law, and not by reference to any guidance or fettering from the Planning Secretary on policy issues that may have implications for the Project.

3.4 The public interest

40. The public interest has a “wide ambit”.³ A consent authority may range widely in the search for material as to the public interest.⁴ According to Preston CJ, “a requirement that regard be had to the public interest operates at a high level of generality”.⁵ The public interest must be applied having regard to the scope and purpose of the relevant statute.⁶
41. As noted above, the objects of the EP&A Act include:

¹ The Hon. Rob Stokes MP, *Statement of Expectations for the Independent Planning Commission for the period from 1 May 2020 to 30 June 2021*, 2.

² The Hon. Rob Stokes MP, *Statement of Expectations for the Independent Planning Commission for the period from 1 May 2020 to 30 June 2021*, 2.

³ *Shoalhaven City Council v Lovell* (1996) 136 FLR 58, [63].

⁴ *Terrace Tower Holdings Pty Limited v Sutherland Shire Council* (2003) 129 LGERA 195, per Mason P [81].

⁵ *Warkworth Mining Ltd v Bulga Milbrodale Progress Association Inc* (2014) 200 LGERA 375, [298].

⁶ *Patra Holdings v Minister for Land* (2002) 119 LGERA 231, [11].

- a. facilitating ESD by integrating relevant economic, environmental and social considerations;⁷ and
- b. promoting the social and economic welfare of the community and a better environment,⁸ and to provide increased opportunity for community participation in environmental planning and assessment.⁹

42. The considerations relevant to these objects are detailed below.

3.5 The public interest and ESD

43. Decisions of the Land and Environment Court (a superior court of record), and the Court of Appeal, have held that the public interest necessitates consideration of principles of ESD during the merits assessment of projects which are equivalent to State significant development,¹⁰ including coal mines.¹¹

44. In *Minister for Planning v Walker* (2008) 162 LGERA 423, Hodgson JA stated at [56]:

... I do suggest that the principles of ESD are likely to come to be seen as so plainly an element of the public interest, in relation to most if not all decisions, that failure to consider them will become strong evidence of failure to consider the public interest and/or to act bona fide in the exercise of powers granted to the Minister, and thus become capable of avoiding decisions. It was not suggested that this was already the situation at the time when the Minister's decision was made in this case, so that the decision in this case could be avoided on that basis; and I would not so conclude.

45. In *Barrington-Gloucester-Stroud Preservation Alliance Inc v Minister for Planning and Infrastructure* (2012) 194 LGERA 113, Pepper J stated at [170] (emphasis added):

⁷ EP&A Act, s 1.3(b).

⁸ EP&A Act, s 1.3(b), (e).

⁹ EP&A Act, s 1.3(j).

¹⁰ *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [58].

¹¹ *Hunter Environmental Lobby Inc v Minister for Planning* [2011] NSWLEC 221.

I therefore reject the submission of AGL and the Minister that there was no requirement to consider ESD principles. In the words of Hodgson JA in Walker, **the time has come that “the principles of ESD” can now “be seen as so plainly an element of the public interest”** (at [56]).

46. The public interest also includes community responses to the Project. In *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, Preston CJ stated at [63]:

The public interest also includes community responses regarding the project for which approval is sought. In *Telstra Corporation Ltd v Hornsby Shire Council* (2006) 67 NSWLR 256; 146 LGERA 10, I confirmed (at [192]) that community responses are aspects of the public interest in securing the advancement of one of the express objects of the EP&A Act in s 5(c), being “to provide increased opportunity for public involvement and participation in environmental planning and assessment” (see also *Kulin Holdings Pty Ltd v Developments Pty Ltd v Baulkham Hills Shire Council* (2003) 127 LGERA 303 at [58]). I said, however, that in considering the community responses, an evaluation must be made of the reasonableness of the claimed perceptions of adverse effect on the amenity of the locality (see also *Foley v Waverley Municipal Council* [1963] NSWLR 373 at 376; (1962) 8 LGRA 26 at 30). An evaluation of reasonableness involves the identification of evidence that can be objectively assessed to ascertain whether it supports a factual finding of an adverse effect on the amenity of the locality. A fear or concern without rational or justified foundation is not a matter which, by itself, can be considered as an amenity or social impact: *Telstra v Hornsby Shire Council* at [193] and [195].

47. In the Court of Appeal proceedings, (*Warkworth Mining Ltd v Bulga Milbrodale Progress Association Inc* (2014) 200 LGERA 375), the Court endorsed this approach and held at [295]:

Likewise, we consider that community responses to the project were relevant to the public interest. As his Honour pointed out, at [430], the evidence of the community responses was relevant to a consideration of noise impacts, air quality, visual impacts and more generally, the social impacts on the community. All of those factors were aspects of the overall public interest.

3.6 Principles of Ecologically Sustainable Development

48. The principles of ESD to be considered under public interest are set out in section 6(2) of the *Protection of the Environment Administration Act 1991 (POEA Act)*. The chapeau to section 6(2) provides:

...ecologically sustainable development requires the effective integration of social, economic and environmental considerations in decision-making processes.

49. What this requires is a balancing exercise whereby the social, economic and environmental benefits and disbenefits are weighed up to determine whether the Project should proceed.¹²

50. It is LTG's submission that the Project will have a net negative impact on NSW in terms of social, economic and environmental effects. The Project is not in the public interest.

51. Key principles of ESD relevant to LTG's submission are outlined below.

3.6.1 Intergenerational equity and intragenerational equity

52. The principle of intergenerational equity is set out in section 6(2)(b) of the POEA Act. It provides that:

the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations ...

53. This principle of ESD includes two ethical elements: concern for the present – intragenerational justice or equity; and concern for the future – intergenerational equity. The needs that are to be equitably shared relate to the three components of ESD: economic development, social development and environmental protection. Accordingly, equity is not limited to the use or exploitation of natural resources and in fact extends to environmental protection.

54. In *Taralga Landscape Guardians Inc v Minister for Planning and RES Southern Cross Pty Ltd* (2007) 161 LGERA 1, the Court recognised that the goal of intergenerational equity requires the present generation to “extend the life of finite resources and the benefits yielded by exploitation and use of the resources to future generations”.¹³

¹² *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [36].

¹³ *Taralga Landscape Guardians Inc v Minister for Planning and RES Southern Cross Pty Ltd* (2007) 161 LGERA 1, [74].

55. In *Gloucester Resources Limited v Minister for Planning* (2019) 234 LGERA 257, Preston CJ explained that even after rehabilitation of a mine, the environmental, social and economic burdens will continue after the closure of the site. In the case of the Rocky Hill Coal Project, his Honour stated:

The visual impact of the Project, even after mining rehabilitation, will continue. The natural scenery and landscape will be altered forever, replaced by an artificial topography and landscape. The social impacts on culture and community, especially for the Aboriginal people whose Country has been mined, will persist. A sacred cultural land created by the Ancestors of the Aboriginal people cannot be recreated by mine rehabilitation... the Project will emit greenhouse gases and contribute to climate change, the consequences of which will burden future generations.¹⁴

56. It is LTG's submission that the benefits declared in the Project are distributed to the present generation, while the "burdens are distributed to the current as well as future generations".¹⁵

3.6.2 Conservation of biological diversity and ecological integrity

57. Section 6(2)(c) of the POEA Act states that "conservation of biological diversity and ecological integrity should be a fundamental consideration".

58. In this regard, the foreword to the Global Biodiversity 3 report (2010), produced by the Secretariat of the Convention on Biological Diversity, states:¹⁶

to tackle the root causes of biodiversity loss, we must give it higher priority in all areas of decision-making and in all economic sectors ... conserving biodiversity cannot be an afterthought once other objectives are addressed – it is the foundation on which many of these objectives are built.

59. The importance of the principle of the conservation of biological diversity and ecological integrity is highlighted in the objects of the EP&A Act, which include:¹⁷

¹⁴ *Gloucester Resources Limited v Minister for Planning* (2019) 234 LGERA 257, [415].

¹⁵ *Gloucester Resources Limited v Minister for Planning* (2019) 234 LGERA 257, [416].

¹⁶ Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 3*, <<http://www.cbd.int/gbo3/>>, 5.

¹⁷ EP&A Act, s 1.3(e).

to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats ...

60. In addition, it is notable that before granting consent for development for the purposes of mining, petroleum production or extractive industry, the IPC must, pursuant to cl 14(1)(b) of the Mining SEPP (emphasis added):

consider whether or not the consent should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure the following—

...

(b) that **impacts on threatened species and biodiversity, are avoided, or are minimised to the greatest extent practicable,**

...

61. It is LTG's submission that the Project's environmental impacts engage the principle of conservation of biological diversity and ecological integrity.

3.6.3 The polluter pays principle

62. Section 6(2)(d) of the POEA Act provides:

improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:

- (i) polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,
- (ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,
- (iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

63. In *Bentley v BGP Properties Pty Ltd* (2006) 145 LGERA 234, Preston CJ commented at [157]:

The fourth pillar of ecologically sustainable development is the internalisation of external environmental costs. Ecologically sustainable development requires accounting for the short term and long term, external environmental impacts of development. One way in which of doing so is by adoption of the user pays or polluter pays principle: J Moffet and F Bregha, “The Role of Law Reform in the Promotion of Sustainable Development”, (1997) 6 *Journal of Environmental Law and Practice* 1 at 7.

64. This was further qualified in *Director-General, Department of Environment and Climate Change and Water v Venn* [2011] NSWLEC 118, where Preston CJ stated at [328]:

The principle requires the polluter to take responsibility for the external costs to the environment and the community arising from its pollution. This can be done by the polluter cleaning up the pollution and restoring the environment as far as practicable to the condition it was in before being polluted. The polluter ought also to make reparation for any irreparable harm caused by the polluter's conduct such as death of biota and damage to ecosystem structure and functioning: *Environment Protection Authority v Waste Recycling and Processing Corp* [2006] NSWLEC 419; (2006) 148 LGERA 299 at [230] and see also *Bentley v BGP Properties Pty Ltd* [2006] NSWLEC 34; (2006) 145 LGERA 234 at [70], [157].

65. Therefore, the responsibility to provide for the remediation of any ongoing environmental harm caused by the operation of a development must be borne by the proponent itself.

3.6.4 Precautionary principle

66. In relation to the precautionary principle, section 6(2)(a) of the POEA Act provides:

if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

In the application of the precautionary principle, public and private decisions should be guided by:

- (i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and
- (ii) an assessment of the risk-weighted consequences of various options, ...

67. In the seminal case *Telstra Corporation Limited v Hornsby Shire Council* (2006) 67 NSWLR 256 (**Telstra**), Preston CJ provides an explanation of how the precautionary principle is triggered, its two conditions precedent, and the concept of a proportionate response. At [128] his Honour states:

The application of the precautionary principle and the concomitant need to take precautionary measures is triggered by the satisfaction of two conditions precedent or thresholds: a threat of serious or irreversible environmental damage and scientific uncertainty as to the environmental damage. These conditions or thresholds are cumulative. Once both of these conditions or thresholds are satisfied, a precautionary measure may be taken to avert the anticipated threat of environmental damage, but it should be proportionate.

68. As will be detailed later in these submissions, the Project's environmental and social impacts engage the precautionary principle.

4. ENVIRONMENTAL IMPACTS AND CONSIDERATIONS

4.1 Climate change impacts

4.1.1 The evidence

69. LTG's case on the Project's climate change impacts is that approval of the Project at the current time is not in the public interest and is contrary to the principles of ESD, in particular the principles of inter-generational equity, conservation of biological diversity and the polluter pays principle. The effects of carbon in the atmosphere arising from the activities at the site, and the burning of the coal extracted from the development, are inconsistent with a carbon budget and internationally agreed policy intentions to keep global temperature increases to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. Failure to achieve limit warming to these levels will result in significant negative impacts on the people and environment of NSW.
70. LTG is presenting evidence to the IPC from Distinguished Professor Penny Sackett, a leading climate scientist and former Chief Scientist for Australia. Professor Sackett's evidence demonstrates the immediate nature of the climate threat and the contribution that decision in NSW can make to either enhancing this threat or supporting global efforts to reduce.
71. In Professor Sackett's view, climate change is the greatest overall threat to the environment and people of NSW because it is comprehensively dangerous, global, fundamental, rapid, compounding, self-reinforcing, has delayed effects and, in some cases, is irreversible.
72. Professor Sackett advises that GHGs emitted by human activities are responsible for essentially all of the global warming driving climate change. The primary anthropogenic GHGs are carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). Atmospheric concentrations of all these gases have risen dramatically since the 1960s at an accelerating rate. The level of CO₂, the most important GHG driving current climate change, is now higher than at any other time humans have inhabited Earth and about 90% of the CO₂ emitted by humans per year is from the burning of fossil fuels: coal, gas, and oil.

73. The current level of global warming is about 1.2 degrees Celsius (°C) above preindustrial times. For comparison, the temperature difference between ice ages and the intervening periods is about 4°C – 6°C. Climate impacts are hitting harder and sooner than previous scientific assessments have expected. In parts of NSW, some effects of climate change are already surpassing future 2030 projections published only two years ago for medium and high emission scenarios. Continued warming increases the risk that some subsystems of the Earth will cross “tipping points” that would cause irreversible changes. Some subsystems already show signs of approaching these transitions, which could accelerate climate change and greatly intensify its impacts, perhaps irreversibly.
74. Current effects of climate change worldwide include increased severity of storms and heat waves, species extinction, wildfires, coastal inundation from rising sea levels and increased storm surge. Australia is already experiencing dramatic climate change consequences. Most years in Australia are now warmer than almost any year in the 20th century. Long-term increases in extreme fire weather and fire-season length are seen across the country. Flash droughts now happen so quickly that farmers find it difficult to adapt. Three billion individual native vertebrates perished in the Black Summer fires. Australians are five times more likely to be displaced by a climate-fuelled disaster than someone living in Europe.
75. NSW has borne the brunt of many of these changes. For example, 37% of the State’s rainforests were fire-affected during Black Summer, including over half of the Gondwana Rainforests. In some cases, local tipping points in these forests may have already been crossed. The short-term NSW health costs associated with smoke exposure is estimated to be \$1.07 billion, more than any other State.
76. The trajectory of human emissions, particularly between now and 2030, is the most important determinant of how much more climate change is in store. Already, human choices have essentially ensured that 1.5°C of warming will happen in the next two decades. If the trend of rising emissions continues, in just 80 years global warming could be 3°C – 4°C above pre-industrial temperatures.
77. The world is emitting greenhouse gases on a trend that would lead to substantially more dangerous climate change. Nations that have committed to reducing emissions by 2030 have done so on average by only 7.5%, whereas a 30% reduction (on 2010 levels) is needed to limit warming to 2°C and a 55% reduction is needed to limit warming to 1.5°C. Australia’s 2030 emissions reduction target is

consistent with global warming of 4°C if all other countries followed a similar level of ambition. Based on current policies as opposed to Paris Agreement pledges, warming could go as high as 3.6°C.

78. Only about 8 years remain at current emission levels before the remaining global carbon budget to hold warming to 1.5°C with at least a 67% chance is exhausted. Australia's and NSW's "share" of this budget would be exhausted in 3 and 4 years, respectively. In order to have even a 50% chance of holding warming to 1.5°C, 58% of oil, 59% of fossil methane gas, and 89% of coal reserves must not be extracted. Despite this, governments are still planning to produce about 45% more fossil fuels by 2030 than would be consistent with a 2°C pathway and more than double than would be consistent with a 1.5°C pathway.
79. Professor Sackett opines that NSW could play a major role in limiting climate change by quickly reducing its production of fossil fuels, particularly those which are exported. The emissions caused by combusting the black coal NSW produces are three times more damaging to the NSW environment than its own direct emissions.
80. In Professor Sackett's expert opinion, the Project is inconsistent with holding global warming to well below 2°C. Scope 1 and Scope 2 emissions from this Project alone would make it one and one-half times more difficult for Australia to meet its 2030 emissions target. The Project's Scope 1 emissions would make it one and one-quarter times more difficult for NSW to meet its 2030 target. Furthermore, the Project may continue to generate emissions after closure.
81. From a scientific perspective, all emissions, including Scope 3 emissions released when fossil fuels are combusted by any end user, must be included when considering environmental and social effects, including local environmental and social effects. To do otherwise is to assume that the fuel is never used for its intended purpose.
82. All three emission scopes have an equal effect on the climate of NSW on a per tonne basis, but due to the magnitude of Scope 3 emissions, Scope 3 dominates. In Professor Sackett's expert opinion, one question for the IPC is whether approving the Project will result in GHG emissions that unnecessarily, and in some cases irreversibly, damage the environment of NSW. She would contend that the answer is yes, regardless of where the Project's GHG emissions occur geographically. Project Scope 3 emissions have an identical effect on NSW's future climate – on a tonne per tonne basis – as do the Project Scope 1 emissions.

83. In Professor Sackett's view, if the Project were approved now – 9 years before the current mining approval ends – the government and people of NSW would be disadvantaged by not having access to critical information that may affect the decision, including a much better indication of the future market for coal, the results of future studies and research aimed at reducing fugitive methane emissions, and a secure indication of whether or not the State's 2030 emissions target will be met.
84. An argument that Project emissions represent a very small fraction of national or global emissions is irrelevant and misleading. If individual consent authorities around the world were to accept this argument and act upon it to approve fossil fuel expansion projects, the climate change predicament would, per force, continue to worsen. The climate change externalities of the Project will be borne disproportionately by younger and future generations, with no clear recourse or path to remediation.
85. Importantly, Professor Sackett opines that the recommended Conditions of Approval would not significantly reduce Scope 1 and Scope 2 GHG emissions from that indicated in the Project EIS, and in fact, allow the possibility that they could be increased. Importantly in Professor Sackett's view, the Conditions of Approval do not address the most important component of the Project's emissions that affect the environment of NSW: Scope 3 emissions.
86. The IPC should accept each of the opinions expressed by Professor Sackett.
87. LTG submits that in light of the projected substantial environmental harm, and the critical importance of combatting climate change now within the context of the carbon budget, the only rational response to this application would be to refuse consent to the Project. Moreover, it would be unreasonable for the IPC not to refuse consent to the Project on this basis.
88. The proponent's evidence indicates that emissions from the Project will be at least:
- (a) 1.040MT/yr on average of Scope 1 emissions;
 - (b) 0.121MT/yr on average of Scope 2 emissions;
 - (c) 19.81MT/yr on average of Scope 3 emissions.

89. By way of comparison, in 2019, the *total* volume of GHG emissions attributable to Australia was 526 MT.¹⁸...

90. Even taking *just* the Scope 1 and 2 emissions, the average contribution of the Project would comprise 0.22% of that total. Self-evidently, the proportion of the total would *increase* if Australia's total GHG emissions fall over time over the life of the Project. The proponent's figures at Table 22 of Appendix I are consistent with the Scope 1 and 2 emissions comprising approximately 0.22% of Australia's total.

4.1.2 Matters that the EPA and the State of NSW have accepted, and which should be found by the IPC

91. It is convenient to say something about facts which the NSW Environment Protection Authority (EPA) has agreed.

92. Our submission is that the IPC can give weight to the fact that the EPA has agreed each of these facts, and should adopt each of them.

93. The facts were admitted by the EPA in the context of Land and Environment Court proceedings, namely *Bushfire Survivors for Climate Action Incorporated v Environment Protection Authority* [2021] NSWLEC 92.

94. The EPA is relevantly "a statutory body representing the Crown" in right of the State of New South Wales: *Protection of the Environment Administration Act 1991* (NSW) s 5(2). Admissions by the EPA are thus admissions by the State of New South Wales.

95. The facts admitted by the EPA are as follows: see *Bushfire Survivors for Climate Action Incorporated v Environment Protection Authority* [2021] NSWLEC 92 at [76]:

1 Emissions of carbon dioxide (CO₂) and other greenhouse gases from human activity (including power generation, industry, transport and agriculture) cause a build-up of greenhouse gases in the

¹⁸ <https://www.statista.com/statistics/1014951/australia-yearly-greenhouse-gas-emissions/#:~:text=Annual%20greenhouse%20gas%20emissions%20in%20Australia%202010%2D2020&text=The%20total%20volume%20of%20greenhouse,tons%20of%20carbon%20dioxide%20equivalent>

atmosphere.

2 The build-up of greenhouse gases in the atmosphere traps heat.

3 The build-up of greenhouse gases in the atmosphere leads to global warming, also known as climate change.

4 Anthropogenic greenhouse gas emissions contribute to anthropogenic climate change.

5 Once emitted, greenhouse gases disperse throughout the global atmosphere where they act cumulatively to contribute to anthropogenic climate change.

6 Anthropogenic climate change has the potential to adversely alter all aspects of the natural environment.

7 Anthropogenic climate change has the potential to irreversibly alter all aspects of the natural environment.

8 Direct and indirect greenhouse gas emissions from activities in New South Wales impact on the environment.

9 NSW and Queensland are the two main producing states for black coal in Australia.

10 Australia is one of the world's largest producers and exporters of coal.

11 Global average surface temperature is approximately 1 degree Celsius (°C) higher than pre-industrial levels as at June 2020.

12 Australia's climate has warmed by just over 1°C since 1910.

13 2019 was Australia's warmest and driest year on record.

14 Globally, 2019 was the warmest year on record without the influence of El Niño.

15 As of 2018, eight of Australia's top ten warmest years on record had occurred since 2005.

16 As of 2018, sea surface temperature in the Australian region has warmed by around 1°C since 1910.

17 Eight of the ten warmest years for sea surface temperature on record have occurred since 2010 as at June 2020.

18 Anthropogenic greenhouse gas emissions have caused changes in the basic circulation patterns of the atmosphere and the ocean.

19 Anthropogenic greenhouse gas emissions have caused increases in intensity and frequency of many extreme weather events.

20 Anthropogenic greenhouse gas emissions have caused increases in acidity of the oceans.

21 Anthropogenic greenhouse gas emissions have caused rise in sea levels and consequent increases in coastal flooding.

22 Anthropogenic greenhouse gas emissions have caused intensification of the hydrological cycle.

23 Anthropogenic greenhouse gas emissions have caused increases in the frequency and/or duration of heat waves.

24 Anthropogenic greenhouse gas emissions have caused increases in the intensity and/or duration of drought.

25 Anthropogenic greenhouse gas emissions have caused or contributed to an increase in the frequency of extreme heat events in Australia.

26 Anthropogenic greenhouse gas emissions have caused or contributed to a decrease in April to October rainfall of approximately 11 per cent since the late 1990s.

27 Anthropogenic greenhouse gas emissions have caused or contributed to sea levels rising around Australia.

28 Warming of the ocean around Australia has contributed to longer and more frequent marine heatwaves.

29 Anthropogenic greenhouse gas emissions have caused or contributed to marine heatwaves and mass bleaching events on the Great Barrier Reef in 2016 and 2017.

30 Oceans around Australia are acidifying.

31 Acidification of oceans has led to a reduction in coral calcification and growth rates on the Great Barrier Reef, which impacts recovery from coral bleaching.

32 The climate of New South Wales is changing due to global warming.

33 Anthropogenic greenhouse gas emissions have caused a 1°C increase in average temperature in New South Wales as between the period 1960–90 and 1990 to 2018.

34 Anthropogenic greenhouse gas emissions have caused the number of hot days across NSW to increase since the mid-20th century.

35 Anthropogenic greenhouse gas emissions have caused the number of cold nights (temperatures dropping to less than 2°C overnight) to decrease since the mid-20th century.

36 In the period 1911–2013, heatwaves in parts of NSW have become longer, hotter and more frequent.

37 Australia is a signatory to the Paris Agreement.

38 Climate change cannot meaningfully be addressed without multiple local actions to mitigate emissions by sources and remove greenhouse gas emissions by sinks.

39 Global greenhouse gas emissions are currently rising.

40 If there is a 1.5-2.0°C temperature rise (relative to the period 1850-1900), the risk of widespread impacts on the most vulnerable would rise from moderate towards high.

41 If there is a 1.5-2.0°C temperature rise (relative to the period 1850-1900), the aggregated impacts of climate change around the world will increase political tensions and instabilities.

42 If there were a 4°C temperature rise (relative to the period 1850-1900) above preindustrial levels, there is a high to very high risk that most of the world's ecosystems would be heavily damaged or destroyed.

43 If there were a 4°C temperature rise (relative to the period 1850-1900) above preindustrial levels, extreme weather events would be far more severe and frequent than today.

44 If there were a 4°C temperature rise (relative to the period 1850-1900) above preindustrial levels, the most vulnerable people would increase greatly in number and, as large areas of the world become uninhabitable, migration and conflict would escalate.

45 If there were a 4°C temperature rise (relative to the period 1850-1900) above preindustrial levels the aggregated impacts around the world would significantly damage the entire global economy.

46 If there were a 4°C temperature rise (relative to the period 1850-1900) above preindustrial levels, a cascade of intrinsic tipping points in the climate system could drive ongoing strong warming even if action was taken to reduce emissions.

96. It is open to the IPC to give weight to the fact that the State of New South Wales has admitted these facts in proceedings in a superior court.

97. The IPC should make findings of fact corresponding with each of the matters in paragraph 95.

4.1.3 Matters the IPC can find in relation to greenhouse gas emissions having regard to the *Rocky Hill* decision

98. The IPC can also have regard, and give weight, to the findings of the Land and Environment Court in *Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7.

99. In particular, the IPC can have regard to the following findings:

- (a) Emission of greenhouse gases impacts the environment: *Gloucester Resources* at [431].
- (b) Greenhouse gases change the climate by trapping outgoing heat from the earth's surface and retaining it in the lower atmosphere and at the surface, thus increasing the energy of the climate system and raising its average temperature: *Gloucester Resources* at [431].
- (c) The direct and indirect emissions of a development contribute to the cumulative impacts of climate change: *Gloucester Resources* at [493].

- (d) All anthropogenic GHG emissions contribute to climate change: *Gloucester Resources* at [514].
- (e) “[C]limate change is caused by cumulative emissions from a myriad of individual sources, each proportionally small relative to the global total of GHG emissions, and will be solved by abatement of the GHG emissions from these myriad of individual sources”: *Gloucester Resources* at [516].

100. The IPC should find as facts the matters set out in paragraph 99.

4.1.4 Greenhouse gas emissions and likely impacts: response to the proponent’s position

101. The proponent asserts at 7-12 of the EIS that climate change will cause habitat gains and losses. To the extent this is an assertion that there will or might be *beneficial* impacts on the environment because of habitat gains and that those beneficial impacts should be taken into account, that assertion should not be accepted. Potential habitat gains are no more than speculative (and not suggested by the proponent to be more than speculative). The precautionary principle favours weighting the risk of environmental damage (say, from habitat loss) over the possibility of speculative environmental benefits. And a foundational principle of ecologically sustainable development is “conservation of biological diversity and ecological integrity”: that principle is violated where, although some habitats expand, other habitats contract.

102. The proponent says this (EIS 7-12):

It is acknowledged that (subject to the efficacy of national and international greenhouse gas abatement measures) all sources of greenhouse gas emissions in NSW, irrespective of their scale, will contribute in some way towards the potential global, national, state and regional effects of climate change.

103. Something should be said as to the words in parentheses. The words are meaningless. No particular abatement measures are identified. And, more importantly, there is no identification of how the efficacy of the (unspecified) abatement measures would mean that a source of greenhouse gas emissions will *not* contribute towards anthropogenic climate change. A source of greenhouse gas emissions is, by definition, a source of greenhouse gas emissions. If, say, a country chooses to create carbon sinks, that does *not* mean that the source of greenhouse gas emissions (say, a coal mine) will not contribute to anthropogenic climate change.

104. The correct position, which the IPC should accept, is that (to use the words of the proponent) “all sources of greenhouse gas emissions in NSW, irrespective of their scale, will contribute in some way towards the potential global, national, state and regional effects of climate change”.
105. The proponent makes a number of submissions concerning the countries to which greenhouse gas emissions are attributed under the Paris Agreement: see EIS at 7.4.3, 7-12. Those submissions appear to have two purposes. The first is to invite the IPC to disregard the Project’s Scope 3 emissions because they are some other country’s responsibility. The second is to invite the IPC to find that the Scope 3 emissions of the Project will not contribute to anthropogenic climate change because the countries of end-use will implement measures to offset the contribution of the emissions to climate change.
106. The IPC should not accept either of these invitations.
107. As to the first invitation. The issue before the IPC is not which country, as a matter of international law or emissions accounting under the Paris Agreement, is obliged to account for the Scope 3 emissions of the Project under that country’s nationally determined contributions (**NDCs**). The immediate issue before the IPC is the likely impacts of the Project on the environment of NSW. As stated by Professor Sackett, all three emission scopes have an equal effect on the climate of NSW on a per tonne basis, but due to the magnitude of Scope 3 emissions, Scope 3 dominates. Anthropogenic climate change and the adverse consequences on the environment of NSW therefrom are *still* likely impacts of the Project’s contribution to global greenhouse gas emissions *even if*, as a matter of international law or emissions accounting under the Paris Agreement, a country other than Australia is obliged to account for those emissions towards its NDCs. International law or emissions accounting does not absolve the consent authority, in this case the IPC, from properly considering the Project’s GHG emissions (comprising all of Scope 1, 2 and 3 emissions) and climate change impacts on the environment of NSW under the EP&A Act.
108. As to the second invitation. This contention is wholly speculative. The proponent has placed no evidence at all before the IPC which could allow the IPC to find that countries of end-use will wholly offset the greenhouse gas emissions of the Project. The IPC is in no position to conclude that there will be no net greenhouse gas emissions from this Project because end-use projects will offset greenhouse gas emissions from this Project in other ways *and will do so* in circumstances where they would *not* have offset those emissions if they had not imported the emissions from this Project.

109. In Attachment 4 of the EIS, the proponent sets out a “Summary of Mitigation Measures”. In respect of Greenhouse Gas Emissions, the proponent says:

The mitigation measures to reduce the level of future greenhouse gas emissions from the Narrabri Mine include (SLR, 2012):

- regular maintenance of plant and equipment to minimise fuel consumption and associated emissions;
- continuing to select plant and equipment that are energy efficient; and
- training relevant staff on continuous improvement strategies regarding efficient use of plant and equipment including maintaining equipment to retain high levels of energy efficiency.

In addition, NCOPL will monitor gas volumes and composition and continue to investigate developments in flaring technology to determine whether flaring is a viable option to abate greenhouse gas emissions associated with Project fugitive emissions. Depending on the outcomes of the above, NCOPL will flare gas for the Project and, if so, this will reduce direct emissions as it will convert methane to carbon dioxide as part of the combustion process.

110. No further measures are identified in Appendix I of the EIS.

111. It may be noted that there is no mention at all of *any* steps to mitigate the *vast majority* of the Project’s greenhouse gas emissions, namely, the Scope 3 emissions.

112. The proponent does not propose *any* conditions to minimise Scope 3 emissions at all, let alone to the greatest extent practicable. Such absence of conditions regarding a development’s Scope 3 emissions was considered by the IPC as a factor weighing against approval in its determination of the Bylong Coal Project: *KEPCO Bylong Australia Pty Ltd v Bylong Valley Protection Alliance Inc* [2021] NSWCA 216 at [44], [138]-[140]. This approach was held unanimously by the Court of Appeal to be reasonably open to the IPC in respect of its refusal of the Bylong Coal Project. LTG submits that the same consideration should be applied here in respect of the Project.

113. The proponent says this under the heading “Potential Indirect Impacts” (EIS 7-8):

Most potential indirect impacts of the Project identified in Project engagement have been positive in nature (e.g. indirect employment effects and local business benefits).

Consultation undertaken for the Project has identified that some community members have concerns regarding the potential for indirect greenhouse gas emissions associated with the end use of the product coal by export customer organisations to contribute to global climate change effects (Section 5). These indirect downstream greenhouse gas emissions would be accounted for by customer country international greenhouse gas abatement obligations (e.g. under the *Paris Agreement*) (Section 6.17).

International measures to ‘decarbonise’ global economies may alter the future demand for, and/or supply of, thermal coal. Expected global trends are factored into coal price forecasts considered in the Economic Assessment (Appendix L). The Economic Assessment also includes sensitivity analysis for variations in export coal prices and the social cost per tonne of carbon emissions. The sensitivity analysis for variations in export coal prices and the social cost per tonne of carbon emissions. The sensitivity analysis shows that the Project would still generate a substantial net benefit to NSW under the scenarios considered (Appendix L).

NCOPL would manage its contribution to Australian greenhouse gas emissions inventories through participation in the NGERs, as well as other applicable government initiatives and policies implemented to manage emissions at the national level under Australia’s progressive NDCs. As mentioned above, the Australian Commonwealth Government has committed to reducing greenhouse gas emissions by 26% to 28% below 2005 levels by 2030 under its first NDC (Commonwealth of Australia, 2015).

114. This is *everything* the proponent has to say on the topic of “potential indirect impacts” in its EIS.
115. The proponent’s submissions invite the following observations.
116. First, it is said that the “most potential indirect impacts of the Project identified in Project engagement have been positive in nature”. This is vague assertion. There is no identification of the “engagement” referred to. There is no identification of what it means for “most” impacts identified to be positive. It would not greatly assist the proponent to establish that they met with 10 people, 1 of whom gave them a list of 10 hypothetical positive impacts, and 9 of whom gave a list of 1 overwhelming negative impact (eg climate change). And, in any event, one does not assess the indirect impacts of a project by taking a survey.
117. Secondly, the second paragraph could be read as suggesting that climate change is not a negative impact in and of itself, but rather the negative impact is the “concerns” held by community members

about climate change. By far and away the gravest impact of climate change to which the project will contribute is the irretrievable damage to the environment.

118. Thirdly, the proponent suggests that Scope 3 emissions will be addressed because countries of end use will have their own Paris Agreement commitments. It is, however, speculative that countries of end use will be both parties to the Paris Agreement *and* will comply with their obligations under that Agreement *and* will have obligations under that Agreement which are consistent with minimising the impacts of climate change. And, even then, a contribution to climate change remains a contribution to climate change whether or not the country burning the coal is a party to the Paris Agreement. The proponent does not attempt to establish, or even assert, that global greenhouse gas emissions would be the same or higher if the project were not approved.

119. Fourthly, the proponent refers to participation in NGERS and “other applicable government initiatives and policies”. Once again, no policies are identified other than NGERS, and NGERS is no more than a reporting scheme.

4.2 Ongoing viability of coal

120. Mr Tim Buckley, Director of Climate Energy Finance, provided evidence to the IPC that the global transition from coal provides real doubt about the viability of the Project over the life of the requested approval.

121. In LTG’s submission, Mr Buckley’s advice does significant damage to the credibility of the financial analysis in the EIS for the Project. Mr Buckley advises:

- a. Global policy developments in decarbonisation and sweeping technology change of renewables in deflation of energy costs (picked up by financial markets) both mark a terminal trend for coal which calls into question the need for the Project; and
- b. There are fundamental flaws in the EIS economic analysis which to such a degree that the Project cannot be assumed to be of net benefit to the people of NSW.

122. The convergence of global policy developments in decarbonisation and sweeping technology change in renewables (causing deflation in energy costs) point to a terminal decline for coal as an energy commodity. Current analyses from several sources reveal ‘peak coal’ was reached in 2013.

Most forecasting agencies are falling short in predicting the rate of transition from fossil fuels (especially coal) to renewables.

123. Many countries sharpened their policy commitments to cuts in emissions over the next decade in the year leading up to and around COP 26 — by 2030: USA 50–52%, Japan 46%, and South Korea 40% were some examples. Germany committed to 80% renewables in electricity generation by 2030, and China instructed major power utilities to have 50% renewable energy capacity by 2025. Australia was among just a few countries that failed to increase its commitments.
124. Technology-driven deflation in energy costs accrues from rapid development in renewable energy and especially battery storage. An example is global production of polysilicon (mostly in China)—a key component of solar photovoltaic modules—is set to double by the end of 2022 relative to just one year ago. The price of solar power is predicted to fall by two-thirds from A\$45/megawatt hour (MWh) by 2020 to A\$15/MWh by 2030. In contrast, a coal-fired power plant requires A\$50/MWh just to cover fuel and the cost of production more than doubles when all other costs are factored in, using the current price of Australian Carbon Credit Units (ACCUs).
125. As a result, coal power plants are becoming stranded assets. This is reflected in the flood of their write-downs during 2021 in Australia, and premature plant closures in Australia and overseas. Among the drivers in the US is President Biden’s pledge for the national electricity grid to be zero emissions by 2035.
126. Thermal coal is in structural decline globally. The International Energy Agency (IEA) forecasts demand for thermal coal to decline by 82% from 2020 to 2050. More striking locally is NSW Treasury’s prediction that coal-mining employment across NSW could end entirely, as soon as 2041.
127. Global financial markets have picked up on the trends. For example, there is now from 2021 over US\$130 trillion of collective assets under management in the United Nations-sponsored Glasgow Financial Alliance for Net Zero. Not only are global financial managers moving investments away from fossil fuels (e.g. 190 globally significant financial institutions with formal coal financing exit policies – IEEFA), but where there is engagement with the sector they are also seeking actions in line with climate-change policies. An example is Vanguard, the world’s second largest asset manager, insisting that fossil-fuel firms have a credible path to decarbonisation.

128. In Mr Buckley's expert opinion, sufficient coal-mining capacity exists already to run the fleet of coal-fired power plants. The basis for his view is new work done by the German Institute for Economic Research (DIW Berlin). The steady decline in the proposed new capacity expansions of coal plants over the last six years (with a cumulative 1,175 GW of coal power cancellations as at June 2021) corroborates this perspective. The second trend of increased coal plant closures ahead of their expected design life (e.g. where the most recent local example is Origin Energy's announcement to close the 2.88GW Eraring coal power plant in August 2025, seven years earlier than previously slated,) is expected to accelerate.
129. For Whitehaven Coal Limited (the parent company of the proponent), these developments signal difficulties in refinancing its debt, even in accessing insurance. With 100% of its revenue and asset exposure to coal, Whitehaven Coal is increasingly stymied in going to its traditional banks in Asia (especially China, with Chinese banks estimated to hold 20% of the company's debt in 2020).
130. The other dynamic that impinges on Whitehaven Coal is the pricing of carbon emissions, which are rapidly increasing globally and expected to continue to do so by the IEA. With just Scope 1 and 2 (operational and post-mining) emissions of 27.627 Mt CO₂-e, current spot pricing on world markets sets these at A\$564–4,044 million, with an average of A\$2,300 million. The net present value (NPV) of the Project proffered by the proponent by almost any estimate is entirely absorbed.
131. Whitehaven Coal cannot sidestep at least partial costs of Scope 3 emissions that will also manifest in NSW as climate change has countries around the world introduce prices on carbon taxes on imported products, such as the currently proposed EU Carbon Border Tax. No salvation will arrive from carbon capture and storage technologies that have failed resoundingly to demonstrate the scale of abatements necessary.
132. During the public hearing, DPE defended its treatment of the economic analysis and the inclusion of company tax despite Whitehaven's failure to pay tax over the past decade (and in fact it received a tax credit). DPE insisted that as the approval ran with the land rather than the proponent it was appropriate to assume the stated taxes will be paid. However, this is inconsistent with industry practice of tax minimisation and in LTG's submission it is unrealistic to accept that any company that may own the Narrabri Mine in future would behave differently.

133. In Mr Buckley’s experience in analysing many sectors and companies operating in Australia over the last 30 years that the fossil fuel sector overall pays remarkably little Australian corporate tax. In his view, a high Australian corporate tax-paying, coal-mining company is the exception, not the norm. The Australian Senate Inquiry into corporate tax avoidance and aggressive minimisation report of 2015 provides substantive evidence of this, having held five public hearings and receiving more than one hundred submissions.

134. Support for the proposition that the IPC can consider the likely value of royalties to the NSW Government and the value of company taxes likely to be paid to the Commonwealth can be found in *Duncan v Independent Commission Against Corruption* [2016] NSWCA 143, where Basten JA said at [678] (emphasis added):

[678] The appellants also sought to obtain assistance from the judgment of this Court in *Warkworth Mining Ltd v Bulga Milbrodale Progress Association Inc*. **However, that case tended to support a broader view of the scope of public interest considerations relevant to the power conferred by s 74J of the EP&A Act.** Warkworth’s primary challenge to the decision below had been based on the supposed failure of the trial judge (who stood in the shoes of the Minister for the purpose of the decision) to consider and evaluate its economic evidence as to the value of the proposed mine locally, regionally, and having regard to the national interest. **One element of the evidence was the likely value of royalties to the New South Wales government and the value of company taxes likely to be paid to the Commonwealth, if the project went ahead.** The Court found that a broad range of issues was relevant to the public interest engaged in that case.

“Some of the matters involved a focus on local issues. Noise and dust impacts is an example. Other matters, such as biological impacts and economic issues, involved wider regional, state and national issues.”

4.3 Economic impacts

135. Associate Professor Neil Perry from Western Sydney University expressed his expert opinion that the approval of the Project requires that the social benefits outweigh the social costs under the NSW Government’s (2015) “*Guidelines for the Economic Assessment of Mining and Coal Seam Gas Proposals*” (NSW Guidelines).

136. In A/Prof Perry's expert opinion, the cost benefit analysis for the Project is deficient in three key ways, namely in relation to the carbon emission costs, the treatment of environmental offsets, and the valuation or lack thereof of other environmental, social and cultural costs. When these factors are appropriately considered in the cost benefit analysis, the Project does not provide a net social benefit to NSW.
137. A/Prof Perry's advice is that in regard to the carbon emission costs, the cost benefit analysis in the Economic Assessment has not included the entire amount of Scope 1 and Scope 2 emissions in the analysis. In the economic assessment, the total cost of carbon (\$279 million) is multiplied by the NSW percent of global gross domestic product to reduce the costs to \$860,000 in present value terms. In A/Prof Perry's expert opinion, the entire global costs should be included because under the NSW Guidelines they are all attributable to the Project. This total cost increases to \$546 million using a high price scenario. However, the high price scenario is well below the International Energy Agency's estimate of carbon emission prices in 2040 under plausible scenarios.
138. Professor Sackett also provided information relevant to the IPC's consideration of the social costs and benefits of the Project. Professor Sackett advises that the "Social Cost of Carbon" is the value of the net damage caused to society by adding a tonne of CO₂ into the atmosphere. It is not same as a "price on carbon" that may be introduced by government policies or prices related to emissions trading schemes or carbon "offsets". These are policy instruments, not assessments of climate damage. In applying a recent median scientific value for the Social Cost of Carbon to the full (all Scopes) lifetime emissions of the Project, Professor Sackett identified that the Project would be responsible for at least A\$296 billion of global damages. Apportioned to NSW on the basis of fraction of world economy, the cost to NSW of the GHGs resulting from approval of the Project would be in excess of A\$917 million, more than 1,000 times the amount stated in the Project EIS.
139. A/ Prof Perry further advises that the way that environmental offsets have been used considered in the cost benefit analysis does not align with the theory of cost benefit analysis. In the economic assessment, the cost of offsets is included as a cost of the Project and because offsets are assumed to lead to no net loss in biodiversity, no indirect environmental costs are included for biodiversity or water. However, NSW citizens value these and other environmental attributes in their current condition and location. While offsets may provide a benefit, they do not compensate citizens for the value of the biodiversity, water and other environmental attributes being lost. Thus, the willingness to

pay to avoid the biodiversity and other environmental losses even when compensation occurs through offsets must be included as an indirect cost of the Project.

140. The economic assessment has not included other environmental, social and cultural costs of the Project that may arise from society's increasing understanding that NSW and Australia have a responsibility to the world to curb greenhouse gas emissions. Citizens may have a willingness to pay to avoid the mine extension because they perceive they have a responsibility to future generations. Of course, other members of society may desire mining due to, for example, the employment it creates. However, the cost benefit analysis cannot purport to represent a conclusion on the economic efficiency of the Project without investigating this issue.

141. In A/Prof Perry's expert opinion, the full accounting of greenhouse gas emissions in and of itself renders the Project economically inefficient under plausible scenarios regarding the future cost of CO₂ emissions. Additionally, as biodiversity and other environmental costs have not been calculated sufficiently, and the social and cultural costs of more mining has not been calculated at all, the Project has not been justified as economically efficient.

4.4 Social impacts

142. Dr Alison Ziller's advice draws attention to serious omissions made in the social impact assessment (SIA) in the EIS for the Project and DPE's subsequent assessment of those impacts including the social impacts of climate change and other unacknowledged social costs.

143. Dr Ziller identified that at least four NSW Government guidelines indicate that qualitative assessments should be made for impacts that cannot be easily quantified, where they are major hazards widespread and cumulative over time and space (beyond the timespan and the region of the development).

144. In Dr Ziller's expert opinion, social impacts of climate change are extensive and grave. There is a substantial, reputable and well documented literature on the social impacts of climate change. The effects of anthropogenic climate change are expected to include: serious public health impacts (e.g. infections and morbidities), rising death rates, mass population movements, loss of livelihoods, eroding shorelines, extreme weather conditions (including flooding and drought), poverty, social distress and civil violence.

145. Dr Patrick Harris expands on these issues further. The advice of Dr Harris emphasises that these impacts are already being experienced in Australia and NSW. They can be seen in the form of heat, air pollution, bushfires, and floods. Dr Harris points to recent evidence of this including: air pollution (showing particularly high levels in 2018 but almost daily for Ozone), extreme heat in summer (2019 Penrith was the hottest place on earth), bushfires in 2019, and 2020 and floods in 2019, 2020 and 2021. Dr Harris highlights that these three climate related issues have significant impacts on the health and wellbeing, particularly mental health. Further, the end of the bushfire devastation in March 2020 coincided with flooding and the beginning of the COVID-19 pandemic, creating overlapping and back-to-back social economic and environmental crises in NSW.
146. Both the EIS and DPE's Assessment Report downplay both the indirect and diffuse effects of the Project in relation to the social costs of climate change – costs that impact NSW, Australia and the globe. In Dr Ziller's expert opinion, DPE's consideration of climate change seems solely concerned with financial benefits from selling coal to be burned elsewhere. Overlooked are the social consequences of approving a further contribution of burning coal to global climate change, and the loss of public trust arising through a failure of DPE to deal with major issues of social concern (e.g. climate change, sustainable regional economy, water resources).
147. The proponent claims there will be a benefit from continuing jobs associated with the mine – notably, not a new social benefit for the region — but completely ignores the reality of the regional cost of needing to transition the workers to new jobs in the face of mounting pressures away from coal (including mine automation, falling coal demand and prices, changes in government policies, etc.). In Dr Ziller's expert opinion, if these issues are not attended to, the outcome will be the social cost of a stranded workforce sacrificed for short-term profits and royalty payments.
148. Dr Ziller also identifies a key concern around the Department's assessment "minimising the social baseline" by misusing short-term, temporary impacts of a mining operation as a "new" social baseline. This approach disregards the fact that a number of impacts, such as mine traffic, noise and dust will exist only for the life of the mine, and ignores foreseeable social changes which have not yet taken place, such as those arising from the impact of climate change, and effects on agricultural livelihoods.

149. In Dr Ziller’s view the assessment further minimises consideration of social impacts by underplaying community concerns. As an example, Dr Ziller points to the statement by DPE that “The potential social impacts of the Project were not a significant feature of community and special interest group submissions”, based on 67 submissions. However, in Dr Ziller’s expert opinion, the Assessment Report ignored and omitted comment on the strength of opinion among 81 local respondents to a proponent-initiated survey that caused the consultant for the SIA to conclude that, “Local respondents disagreed that Narrabri Mine is a good neighbour, that Whitehaven listens and responds to community concerns and contributes to the local community”. The Assessment Report fails to acknowledge “that a significant part of that change [in attitude] is community conflict and dissatisfaction with the current impact of resource extraction on a largely agricultural region”.
150. Dr Ziller concludes that the omissions result in a substantial misrepresentation of the extent and gravity of the social impacts likely to eventuate from the Project. In Dr Ziller’s expert opinion, failure to consider these impacts is not only a matter of probity but creates the substantial risk of an erosion of public trust.
151. In 2020, Dr Karl Mallon prepared an expert report in the case of *Sharma and Ors v Minister for the Environment (Sharma)*.¹⁹ In his expert report, he provided advice on the impacts of climate change on people in Australia between the age of zero and 18 in the year 2020 and quantified the impacts on this cohort at major stages in their lives.
152. In LTG’s submission, given the Project’s acknowledged contribution to climate change, the advice developed for Sharma is also relevant to the IPC’s consideration of the Project.
153. Dr Mallon’s expert opinion was based on Representative Concentration Pathway (RCP8.5) which he considered was the most consistent with global emissions at that time, and well-studied in the academic literature and data-sets. He confined his opinion to losses of family wealth in housing, losses of income due to worker productivity and economic impairment, and the health impact of increased heat-stress.
154. Dr Mallon found that that the cohort of today’s children can on average expect to lose between \$41,000 and \$85,000 of family wealth due to climate driven corrections in the property market. These

¹⁹ Available at <https://equitygenerationlawyers.com/wp/wp-content/uploads/2021/05/201209-Expert-report-of-Dr-Mallon.pdf>.

estimates accounted for the elevated and increasing risk of exposure to flooding, coastal inundation, fire and subsidence.

155. Dr Mallon also found that approximately 30% today's children will experience decreased productivity due to the impacts of rising temperatures and will consequently forego an average of approximately \$75,000 in income over their working lives. Those with air-conditioned places of work will be vulnerable to increased disruptions of critical infrastructure which Dr Mallon estimates would have a cumulative impact of \$25,000 per year over each person's working life. Dr Mallon's estimate of the cumulative impact of reduced agricultural productivity was at least \$60,000 per capita over each person's life.

156. Dr Mallon was also involved in the development of the document "*Climate Change Risk to Australia's Built Environment - A Second Pass National Assessment*"²⁰ in October 2019. This report assessed climate risk arising from five hazards to over 15 million addresses in 544 local government areas (LGAs) between 2020 and 2100. The report found that the scale of extreme weather and climate change related risk is already significant and that across Australia, there are 383,300 addresses which would be classified as High Risk Properties in 2020. This was projected to increase to 735,654 in 2100 for existing developments.

157. In LTG's submission, climate change pressures will act nationally and on top of the localised social impacts arising from the Project.

158. The lived experience of these impacts has been described by Bhiemie Williamson, a Euahlayi Man from north-western NSW. Mr Williamson is a PhD candidate and research associate at the Centre for Aboriginal Economic Policy Research at the Australian National University. He has previously reflected on his experience of a changing climate on Country, Aboriginal culture and heritage:²¹

²⁰ Available at <https://aus01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fxd1.systems%2Fwp-content%2Fuploads%2F2019%2F10%2FClimate-Change-Risk-to-Australia%25E2%2580%2599s-Built-Environment-V4-final-reduced-2.pdf&data=04%7C01%7C%7Cdb7675ab37f44452b65908d9f7235476%7C58a19988b3624af189a2b23cd592f4d8%7C0%7C0%7C637812553834750593%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6IklhaWwiLCJXVCi6Mn0%3D%7C3000&sdata=F11CSM9WpE%2B8o0CF31zFyvsotv0tJyKx1a zZYyW6QY%3D&reserved=0>

²¹ Case study in the EDO report "Empowering the NSW EPA to Prevent Climate Pollution" available at <https://www.edo.org.au/empower-the-epa-policy-paper/>.

The main spiritual hub of our Country is the Narran River and the Narran Lakes wetland, which is a Ramsar-listed wetland and recognised internationally for its environmental values and bird nesting. As an adult, I have gone back to my Country at least once a year, and now that I have had my first child, I travel back to my Country three or four times a year.

Climate change is directly impacting Aboriginal peoples' connections with Country and doing cultural harm. In my Country, I have observed significantly less rainfall and longer, drier seasons. In the past, the hot season has gone from a period of about four months to now about six months. The peak of the hot season is much more intense, with stretches of days over 40 degrees much more likely than before. Extreme heat events make daily living very hard for elderly people and people with ill health and chronic health issues. The wet season, which used to last for about two months, is now down to between three and five weeks.

A lot of the native plants and native birds have ceased to exist at the Narran Lakes, or my community sees them only rarely. The bird species, such as bush turkeys, that used to proliferate there need water of sufficient quality to live. I have only seen two bush turkeys there in my life. Magpie geese, which used to nest in the Narran Lakes, are not there anymore. There are fewer black cockatoos, owls, and pelicans. These birds are important culturally and ancestrally, but are also an important food source for my community. When you take out the water, the birds, and the food sources, you take out the kind of ceremonial attachment that different people have to those animals as well. This gives me a deep cultural sadness.

One of the totemic animals for our community is the emu or dhinawaan. Emus have a nesting season, which is in the cold season. Longer and hotter hot seasons affect the sustainability of the species. There are now fewer emus on my Country and I fear that there is a real possibility that emus may disappear from my Country in the decades ahead.

Less water on my Country impacts the viability of living on Country. Now, when there is water, it is not of great quality. Australia is a dry country but the droughts we are experiencing are unprecedented and getting worse. The Namoi and Barwon Rivers, on my Country, went dry last year, which has not to my knowledge occurred before, even in my community's cultural memory going back millennia.

Two years ago my wife and I had our first child. When he was old enough, we took him home to Country. When we got to Walgett, I drove down to the Barwon River where I used to camp, fish and swim when I was a kid. It's a place where my people have always camped. For the first time in my life the river was

completely dry. And I just walked down to the river and stood on the riverbed with my son and just cried. It was one of the saddest moments of my life.

159. More locally, the IPC heard from Karra Kinchela, a Gomeroi traditional custodian from Narrabri. Ms Kinchela expressed her objection to the Project.²² She described her concerns about the “climate crisis” as follows:

The climate. We are in a climate crisis. There is an urgency around the need to act and change immediately. With the COP26 held late last year, we had our world leaders entering into agreements to cut down on coal and gas and oil industries like Whitehaven. They need to stop being approved in a manner that will not affect our future jobs and lives. The need to change the way we are overusing our resources is imperative. So the reason droughts are particularly hard within our communities and water became more valuable than ever before, with our water systems, land and biodiversity taking the full brunt of the drought. Seeing the effects of climate firsthand change our communities and how the negative impact on the health of our people, we need to take into consideration the environmental impacts this mine extension will have.

The health of Country will determine our people’s health and our people’s ability to continue to live on Country in an environmentally safe and healthy manner, which is so important to the cultural values and the existence of our people. And there is also the ripple effect, or the cumulative impacts that the continuous destruction of our environment has on our people and the land surrounding the Pilliga and waterways that are connected to the Murray-Darling Basin and the forest which holds the biodiversity of our native flora and fauna that we have responsibility to maintain these areas, which are connected to all of Gomeroi Country and surrounding nations, lands and waterways.

And last of all, the systems. So the cultural values of Gomeroi people are being displaced. We need to provide for our families. We need to work to make money to pay rent and still we’re the most socially disadvantaged people in this country. This is caused due to the system putting mining before our land rights, our Native Title rights and self-determination to choose our own path into the way we use our resources on our Country. The systems, protocols and procedures set are failing us in critical times, in the climate crisis and on Country. The transition away from polluting coal, gas and oil industries are a must. Failing to make these decisions and allowing these companies to make – to take such – to take as much as they want may be the reason these companies continue to – to work with such a bad record.

160. Ms Kinchela was also concerned the potential impact on cultural heritage sites:

²² Transcript p 78[16] – p 81[43]

Cultural heritage sites located around the area are the worksites of our people and valued proof of our continued occupation in the area. I also wanted to express these sites have not lost value due to the disconnection that was forced upon our people due to colonialism. These sites should have, but don't have, secure measures set in place to protect the area from subsidence and cracking. One of the 60 cultural heritage sites found in the project area has been found to be moderate to high scientific significance within the Narrabri Stage 3 Assessment Report. This is also the only site to be affected by subsidence and cracking. It also states in the report, the EIS does not propose any substantial protective measures for the site. However, such measures would come at a significant cost.

Instead, the EIS proposes that management of Aboriginal cultural heritage sites at risk of subsidence and cracks would be essentially a reactive problem. So the – we feel this – that it's not acceptable, in the need of protecting a large area, particularly the Grinding Grooves site, which contains 48 individual grinding grooves. It's not rare, but it's a really large site and is of major significance and high historic value in our stories and education and our long – obviously, our long continuous use of the Country over thousands of years.

161. These risks to cultural heritage sites were also identified by Mr John Matheson, a Chartered Professional Engineer who was engaged by LTG to provide independent expert advice in relation to the subsidence impacts of the Project. In his advice, Mr Matheson identified that the Aboriginal Heritage Sites at Mayfield and Longsight might also be susceptible to damage from cracking and erosion resulting from subsidence (this is more likely at the former in Mr Matheson's expert opinion).

4.5 Subsidence and geotechnical impacts

162. Mr John Matheson undertook a review of subsidence assessment for the Project which drew particular attention to the following issues:

- a. there is a greater likelihood of cracking extending into the locally important Pilliga Sandstone than has been identified in the assessment;
- b. subsidence and geotechnical impacts have the potential to disrupt water flow (both surface water and groundwater) in the Project and adjacent areas; and
- c. longwall mining has the potential to lead to surface cracking that could increase the instability of cliff lines and steep rocky slopes, and cause damage to infrastructure (including agricultural infrastructure) in the Project and adjacent areas.

163. Three important results were generated in this advice that were not made explicit in the subsidence assessment, namely:
- a. the plausible increasing thickness and depth of the Pilliga Sandstone leading south above Stage 3's longwall panels (LW206–LW209);
 - b. the predictions of the A-zone cracking (continuous-fracture zone in sedimentary roof above longwall) and its impact on the Pilliga Sandstone may be understated; and
 - c. the identification in the subsidence assessment that surface cracking may extend to 15 metres and there is possible connectivity between A- and B-Zone impact areas.
164. Together this information suggests that there is up to a 25% probability that connective cracking could impact the surface. In LTG's submission, this is a significant environmental and social impact (through potential loss of water) that has been insufficiently considered in the assessment.
165. Mr Matheson also advises that the subsidence assessment did not consider the potential impact of A-Zone cracking on the Napperby Formation, Ulinda or Clare Sandstone strata.
166. The subsidence assessment assumes that any surface cracking causing water to move subsurface would flow along the path of waterways towards the Namoi River. However, in Mr Matheson's expert opinion, the underlying geology means that such movement should not be assumed and water may instead follow the geology and move away from the Namoi River. Again, in LTG's submission this is a risk that has been given inadequate consideration in the environmental assessment of the Project.
167. Effects of subsidence can also be observed at some distance from an underground mining operation. Far-field or regional horizontal deformation of the ground surface is an example. Far-field movement can concentrate at one location and cause significant opening of pre-existing fault zones, rock joints or cracks, which could disrupt overlying structure, whether geological or built. The sloping rock faces and minor cliff lines just beyond the southern boundary of the Project are within 0.3 km of the end of the longwall panels LW205–LW207. In the event that far field movement concentrates at these geological features, a small but notable risk that should be considered in Mr Matheson's expert opinion, the stability of rock faces in this area could be jeopardised.

168. Extraction of each longwall panel will cause the ground surface to subside and tilt in towards a generally predicted 2.75-m deep subsidence trough. Maximum predicted tilt in towards the centre of each longwall panel will be 70 mm/m, which for reference is about twice the likely cross-fall of 3.5% or 35 mm/m of road pavement on the neighbouring Kamilaroi Highway. Surface crack widths ranging from 300 mm to 1000 mm induced by subsidence above steep slopes can be expected in the Project area. Ground extension and ground shortening is also expected to occur.
169. Collectively, these movements are likely to impact on environmental features and infrastructure in the vicinity of the Project. Examples of these impacts include:
- a. surface water ponding that could affect the flow in the ephemeral Tulla Mullen Creek system as it transits above longwall panels
 - b. where surface cracking intersects cliff lines or steeply sloping rock faces it has the potential to promote instability
 - c. where surface cracking occurs in creek beds it has the potential to create a hazard or drain surface water down into the underlying rock strata;
 - d. 9 of 41 farm dams could have the inflow affected by subsidence, and all could have cracks to base and walls promoting leaks; and
 - e. damage to dwellings/sheds and associated services, power/telecommunication poles and wires, fences, including the possibility of structures retaining a residual tilt of up to 25mm/m which is well beyond normal serviceability limits.

4.6 Impacts on water resources

170. In his review of the environmental assessment as it relates to water resources, Dr Steven Pells identified the following concerns:
- a. that the actual impacts to the regional groundwater resources from the Narrabri Coal Project will be significantly larger than predicted due to the inappropriate aspects of the groundwater modelling, as described below;
 - b. that the cumulative impacts to the regional groundwater resources from the Project and the Narrabri Gas Project will be significantly larger than predicted due to the inappropriate aspects of the groundwater modelling;
 - c. that monitoring will not observe or report actual impacts due to it being insufficient and / or being discontinued or not reported;

- d. that there is no feasible means for cessation of such impacts during the ongoing undertaking of approved mine works and
- e. that there is no feasible means for remediation of such impacts after mining other than a very long passage of time.

171. Depressurisation and dewatering of the coal seam before and during longwall mining will invoke seepage flow toward the mine and cause a wave of depressurisation to propagate outwards from the mined seam, causing associated depressurisation and dewatering of groundwater within adjacent geological formations.

172. Depressurisation will affect the direction of groundwater flow in adjacent formations and where the direction trends downward to the mine it will reduce the standing water level available within bores for usage in farming, water supply or industry, and may redirect water from supplying water to other sources such as rivers and surface water bodies.

173. Dr Pells advises that there appears to have been relatively little additional field investigation or monitoring to support the Project application, despite it being close to doubling of the mine size. There has been no additional field testing of hydraulic parameters.

174. Rather, numerical groundwater modelling is used to estimate how far these impacts propagate, and at what rate. The predictions given in the EIS are presented in maps showing “drawdown” – which is a term to indicate change in pressure, expressed as meters of ‘head’ of water. These maps show extensive drawdown with the coal seam and adjacent seams. However, there are minor to negligible impacts predicted for the Pilliga Sandstone, and the Namoi Alluvium, the more valuable groundwater identified resources in the region.

175. In Dr Pells’ expert opinion, the predictions in the EIS showing that groundwater resources in the Pilliga Sandstone and Namoi Alluvium are unaffected by mining may be inappropriate for the following reasons:

- a. the conceptualisation of geology adopted in the groundwater modelling artificially isolates the Namoi Alluvium, reducing predicted impacts on the groundwater of the Namoi Alluvium. There is no justification provided for such representation, and it appears to be inconsistent with the geology.

- b. the vertical hydraulic conductivity values adopted for the geology between the mine and Pilliga Sandstone are very low, having the effect to shield the Pilliga Sandstone from impacts. The values used are too low and are not supported by due scientific observation.

Specifically:

- adoption of values from laboratory testing of core samples is not suitable for advising vertical hydraulic conductivity in a regional flow model.
- field testing of hydraulic conductivity is insufficient and, in some cases, possibly erroneous.

176. Uncertainty testing of numerical modelling presented in the EIS does not adequately represent cases with higher hydraulic conductivity, as these are presented as having lower probability of occurrence.

177. Dr Pells also notes that the extent of subsidence-induced cracking assumed in modelling will affect the predicted impacts on the Pilliga Sandstone. The extent of cracking assumed in groundwater modelling is not clearly discernible.

178. In Dr Pells' expert opinion, monitoring of mining effects over the last 10 years should provide a basis for calibration of the groundwater model to address the above concerns. Calibration presented in the EIS is insufficient to dismiss the above concerns because:

- a. monitoring in critical bores has been discontinued;
- b. for all other bores, available groundwater data records are only considered up until 2019;
and
- c. the level of calibration achieved is insufficient to remove the non-uniqueness problem in groundwater modelling. Calibration results cannot be used to assert that the uncharacteristically low hydraulic conductivity values used in modelling are correct.

179. In Dr Pells' expert opinion the assessment of impacts to stream and creeks above the mine that have already occurred due to mining is inadequate. The assessment of environmental impacts on streams from future mining effects is also inadequate.

180. The assessment included groundwater modelling scenarios that represented concurrent operation of the proposed Santos Narrabri Gas Project. It was stated that the method was based on adoption of water extraction volumes as supplied by Santos but in Dr Pells' expert opinion there must be

uncertainty about such volumes and such uncertainty was not addressed. Modelling of the Narrabri Gas Project did not include further consideration of hydraulic conductivity parameters over the Gas Project regions, and has not been calibrated against observations in that region.

181. Regardless, in Dr Pells' expert opinion the assumptions of groundwater modelling for the Project apply equally to modelling of the Narrabri Gas Project. The prediction of cumulative impacts therefore suffer from the same inappropriate aspects as detailed above.

4.7 Impacts on biodiversity

182. LTG also commissioned advice from ecologist Mr Mark Graham of Bellingen Nature Company. The IPC also has the benefit of extensive advice from ecologist Mr David Paull.²³ These advices highlight the importance of the Pilliga forest and the need to avoid further impacts to its ecological integrity.

183. Mr Graham notes that the Pilliga Forest is the largest temperate woodland in Eastern Australia. It is a globally significant conservation asset because it supports the largest intact and ecologically functional landscape west of the Great Dividing Range in NSW and is the second largest temperate woodland on Earth (after the Great Western Woodlands in Western Australia).

184. In Mr Graham's expert opinion, the Pilliga provides critical habitat and refuge for an abundance of threatened species that have been extirpated across much or all of their range in NSW (e.g. the precipitously declining Barking Owl and the Koala). However the biodiversity of the Pilliga is now facing immense pressure from the cumulative impacts of:

- major fossil fuel extraction projects (e.g. Santos Narrabri Gas Project);
- linear infrastructure development (e.g. Melbourne to Brisbane inland railway and various gas pipelines);
- industrial logging by the NSW Government;

²³ Available at: <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2021/12/narrabri-underground-mine-stage-3-extension-project-ssd-10269/public-hearing-presentations/220214-david-paull-friends-of-pilliga-inc.pdf>

- exponentially increasing fire intensity and extent and the myriad consequences of global heating including multi-year extreme droughts and extreme and prolonged heatwaves with temperatures approaching 50 degrees Celsius.

185. In Mr Graham’s expert opinion, the Pilliga has already experienced substantial harm and significant degradation as a consequence of a rise in temperature of just over 1 degree Celsius in the last century. This harm includes significant dieback and loss of forest cover, major increases in fire extent and intensity and the loss of approximately 90% of the Pilliga Koala population in recent decades. This harm has been most acutely driven by increases in drought duration and intensity (particularly with the close sequence of the "Millennium drought" and the 2017-2020 record drought), significant increases in both heatwave length and maximum temperatures experienced (with weeks of temperatures exceeding 40 degrees Celsius during 2018 and 2019 and temperatures peaking close to 50 degrees Celsius) and the resulting “super-charging” of wildfire generating exponential increases in the extent, intensity and rate of spread of wildfire. With temperatures rapidly increasing globally these trends are highly likely to be exacerbated and will likely result in substantial additional harm to the ecological structure and function of the Pilliga.

186. In Mr Graham’s expert opinion, in order to continue to support its globally significant conservation values and to avoid cascading extinctions, all extant vegetation of the Pilliga needs protection and there urgently needs to be expansion of vegetation cover through allowing natural regeneration and facilitating strategic revegetation in order to mitigate cascading extinctions that are already occurring.

187. In Mr Graham’s view the impacts on the biodiversity of NSW from the Project will be irreversible because it will:

- generate the substantial clearance and fragmentation of nationally significant native vegetation communities (including a range of Threatened Ecological Communities);
- cause the ongoing decline and degradation of remnant native vegetation communities and biodiversity through dewatering substantial areas surrounding the proposed mine;
- alter hydrological and fire regimes, thereby causing long-term shifts in vegetation community and irreversible ecosystem degradation;
- cause major subsidence in long-wall mined areas and irreversibly degrade remnant ecosystems;

- clear and fragment connections between the globally significant Pilliga and the nationally significant Mt Kaputar National Park. These major forested blocks are the largest and most viable blocks of native vegetation west of the Great Dividing Range in NSW, and the proposed Project is located within the landscape that provides the closest and best connectivity between these conservation assets;
- create major clearance and other industrial disturbances that will provide conditions conducive to invasion by weeds and the occupation by vertebrate pests such as the Red Fox and Feral Cats (both major causal agents of extinction and biodiversity loss);
- cause irreversible damage and degradation to the recharge of both surface and deep aquifers including those feeding the Namoi River and the Great Artesian Basin; and
- exacerbate global heating and increase extreme droughts and heatwaves.

4.8 Activities of the proponent leading up to the development application

188. The activities of the proponent leading up to the development application militate against approval of the Project.

189. It is trite to say that a development consent attaches to land, rather than to the applicant for development consent: *Duncan v Independent Commission Against Corruption* [2016] NSWCA 143 citing *Eaton & Sons v Warringah Shire Council* (1972) 129 CLR 270; see also *House of Peace Pty Ltd v Bankstown City Council* [2000] NSWCA 44; 48 NSWLR 498 (*House of Peace*) at [22]-[24]; *Jonah Pty Ltd v Pittwater Council* [2006] NSWLEC 99; 144 LGERA 408 at [19]-[20] and *Kouflidis and Jenquin Pty Ltd v Corporation of the City of Salisbury* (1982) 29 SASR 321 at 323-324. In *Jonah* and *Kouflidis*, the Court held that prior unlawful use of the land was not a relevant factor to be taken into account in considering whether to grant a development application.

190. *Duncan* was an unsuccessful appeal from a decision of the NSW Supreme Court to dismiss a judicial review application in respect of the Independent Commission Against Corruption's (ICAC's) findings of corrupt conduct by certain individuals and companies associated with the Mount Penny tenement. The Court in *Duncan* considered the following (now repealed) provision of the *Environmental Planning and Assessment Regulation 2000 (EP&A Reg)* (emphasis added):

8B Matters for environmental assessment and Ministerial consideration

The Director-General's report under section 75I of the Act in relation to a project is to include the following matters (to the extent that those matters are not otherwise included in that report in accordance with the requirements of that section):

- (a) an assessment of the environmental impact of the project,
- (b) **any aspect of the public interest that the Director-General considers relevant to the project,**
- (c) the suitability of the site for the project,
- (d) copies of submissions received by the Director-General in connection with public consultation under section 75H or a summary of the issues raised in those submissions.

Note. Section 75J(2) of the Act requires the Minister to consider the Director-General's report (and the reports, advice and recommendations contained in it) when deciding whether or not to approve the carrying out of a project.

191. At the relevant time, s 75J of the EP&A Act provided:

75J Giving of approval by Minister to carry out project

- (1) If:
 - (a) the proponent makes an application for the approval of the Minister under this Part to carry out a project, and
 - (b) The Director-General has given his or her report on the project to the Minister, the Minister may approve or disapprove of the carrying out of the project.
- (2) The Minister, when deciding whether or not to approve the carrying out of a project, is to consider:
 - (a) the Director-General's report on the project and the reports, advice and recommendations (and the statement relating to compliance with environmental assessment requirements) contained in the report, and

(b) if the proponent is a public authority – any advice provided by the Minister having portfolio responsibility for the proponent, and

(c) any findings or recommendations of the Planning Assessment Commission following a review in respect of the project.”

192. Bathurst CJ (with whom Beazley P agreed) said at [224]-[225] (emphasis added):

[224] It is important to bear in mind that the question raised by this ground is not a question of whether the decision-maker must take conduct of the nature of that found by the Commission into account in determining whether to approve the development application, but rather, whether he or she was entitled to do so: *Minister for Aboriginal Affairs v Peko-Wallsend Ltd* [1986] HCA 40; 162 CLR 24 (*Peko-Wallsend*) at 39-40.

[225] **It also must be borne in mind that the approval of a development project in the present case carried with it the grant of a mining lease.** When the ongoing relationship and obligations imposed under such a lease, entered into in accordance with s 72 of the *Mining Act* and Pt 5 Div 4 of that Act, are considered, it is apparent that **approval did not amount merely to the approval of a development project.**

193. Bathurst CJ continued at [229]-[230] (emphasis added):

[229] In dealing first with cl 8B of the EPA Regulation, the authorities to which I have referred do provide support for the proposition that the identity of the applicant and his or her past conduct is irrelevant to consideration of an approval under Pt 3A of the *EP&A Act*. **However, this does not take into account the fact that the approval in the present case effectively carries with it the grant of a mining lease.** Such a lease will carry with it ongoing obligations on the lessee. Further, it is only transferrable with the consent of the relevant decision-maker: *Mining Act*, s 121. **Thus, unlike a development consent simpliciter, it cannot be said that a mining lease is not personal to the applicant:** cf *House of Peace* at [23].

[230] **In that context, I am of the view that the Director-General would be entitled, in considering the public interest, pursuant to cl 8B to take into account the circumstances in which the Mt Penny exploration licence was acquired and the dealings which led up to the application for a development consent, carrying with it the grant of a mining lease.** Even if that is incorrect and the Director-General was limited to a consideration of strictly environmental matters, the **Minister, in my opinion, could take the other matters into account in considering**

whether the mining lease should be granted. The Minister's discretion, in my opinion, is only limited by the scope and purpose of the statutory enactment in question: see the cases cited above at [226]. As was pointed out in *Warkworth Mining Ltd v Bulga Milbrodale Progress Association Inc* [2014] NSWCA 105; 86 NSWLR 527 at [299], the range of matters relevant to the public interest is very wide. The objects of the *EP&A Act* are stated to include the proper development of natural and artificial resources for the purpose of promoting the social and economic welfare of the community (s 5(a)(i)) and the promotion and co-ordination of the orderly and economic use and development of land (s 5(a)(ii)). **It seems to me that having regard to these objects, it would be appropriate for the Minister, in considering the public interest, to take into account the fact that the steps leading up to the application for development consent and the associated grant of a mining lease were tainted by corrupt conduct, something hardly consistent with the orderly economic use and development of the land.**

194. Importantly, Bathurst CJ said at [231] (emphasis added):

[231] The appellants contended that the primary judge erred in what was described as his reliance on the *Mining Act*. However, **the fact that approval under Pt 3A of the *EP&A Act* led without more to the grant of a mining lease, does not mean that the Minister in granting approval under Pt 3A cannot take into account public interest considerations which would be relevant if approval was sought under s 63 of the *Mining Act*.** To the contrary, having regard to the effect of the approval under Pt 3A, such considerations would seem to me to be directly relevant.

195. Basten JA made a similar finding at [675]-[679] (emphasis added), although his reasoning placed more weight on the Minister's discretion under s 75J of the *EP&A Act*:

[675] A further inference is available from the requirement that the Minister consider any advice by another Minister having portfolio responsibility for the proponent of a project proposed by a public authority and from the fact that the Minister is empowered (but not required) to take into account the provisions of any environmental planning instrument that would otherwise have applied to the project, if approved. By analogy, it must be permissible for the Minister to have taken into account factors which would have been relevant under specific legislation relevant to an authority otherwise required (subject to discretionary powers) for the carrying out of the development. **In other words, the primary judge was correct to accept that factors relevant to the issue of a mining lease, as prescribed by the *Mining Act* and Regulation, were permissible factors for the Minister to take into account in considering an application for a mining lease under Pt 3A of the *EP&A Act*.**

[676] **This analysis places more weight on the ministerial discretion conferred by s 75J of the EP&A Act; reference to the public interest in the EP&A Regulation, cl 8B, is less significant.** As the appellants noted, the reference in that context is to consideration by the Director-General, not the Minister. Accordingly, its content must be identified by reference to the functions of the Director-General in preparing a report for the purposes of s 75I. On the other hand, it is not correct, as the appellants submitted, to treat that function as limited to questions of environmental assessment in any narrow sense. The Director-General's report is to include "any advice provided by public authorities on the project" and "a copy of any report of the Planning Assessment Commission in respect of the project". The term "public authority" is broadly defined to include any government department. With respect to a project involving the grant of a mining lease, it must be permissible, if not mandatory, for the Director-General to seek advice from the Department of Primary Industries and Mineral Resources (as it then was). **There is no reason to suppose that that Department would not be entitled to give advice of any maladministration in the issue of the tenement or the exploration licence then held by the applicant for a mining lease.**

[677] Further, although the submissions did not address the matter, **it is not insignificant that the Director-General's report is to include any report of the Planning Assessment Commission.** That body, established pursuant to s 23B of the EP&A Act comprises eight members with broad ranging expertise, not limited to planning and the environment, but including "land economics", "tourism or government and public administration."

[678] The appellants also sought to obtain assistance from the judgment of this Court in *Warkworth Mining Ltd v Bulga Milbrodale Progress Association Inc*. **However, that case tended to support a broader view of the scope of public interest considerations relevant to the power conferred by s 74J of the EP&A Act.** Warkworth's primary challenge to the decision below had been based on the supposed failure of the trial judge (who stood in the shoes of the Minister for the purpose of the decision) to consider and evaluate its economic evidence as to the value of the proposed mine locally, regionally, and having regard to the national interest. **One element of the evidence was the likely value of royalties to the New South Wales government and the value of company taxes likely to be paid to the Commonwealth, if the project went ahead.** The Court found that a broad range of issues was relevant to the public interest engaged in that case.

"Some of the matters involved a focus on local issues. Noise and dust impacts is an example. Other matters, such as biological impacts and economic issues, involved wider regional, state and national issues."

[679] The Court accepted that no narrow approach should be taken in identifying the scope of the relevant public interest. It held that “the public interest embraced Ecologically Sustainable Development” and “community responses to the project”. **None of that analysis supported the proposition that the Minister was required to disregard conduct engaged in in the creation of the mining tenement or the grant of the exploration licence.**

196. In the present matter, the IPC’s exercise of its power under s 4.38 of the EP&A Act to grant or refuse consent to the Project involves consideration, weighting and balancing of the environmental, social and economic impacts of the Project. The IPC must consider the public interest under s 4.15(1)(e). In this regard, the IPC’s exercise of its decision-making power in respect of the Project is similar to the exercise of the Minister’s power under former s 75J.
197. Moreover, there is no reason why the broad nature of the legal concept of the “public interest”, as confirmed by the Court of Appeal in *Duncan*, should not apply to the “public interest” as mentioned in s 4.15(1)(e) of the EP&A Act, which is an integer of the IPC’s discretion to grant or refuse consent to the Project under s 4.38.
198. This position is fortified by the fact that s 4.42(1)(c) of the EP&A Act states that a mining lease under the Mining Act cannot be refused if it is necessary for carrying out State significant development that is authorised by a development consent and is to be substantially consistent with the consent. There is a Note underneath s 4.42(1)(c) that reminds the reader: “Under section 380A of the *Mining Act 1992*, a mining lease can be refused on the ground that the applicant is not a fit and proper person, despite this section.”
199. The appellants in *Duncan* argued that the effect of former s 75V of the EP&A Act (the equivalent of current s 4.42 of the EP&A Act):

was to remove the discretion conferred on the Minister administering the Mining Act and thus remove from consideration facts which might otherwise have been relevant, including those relating to the applicant under [former] s 63(2) of the Mining Act.

200. This position was rejected by the primary judge at trial (*Duncan* at [129] per Bathurst CJ) (emphasis added):

The primary judge essentially rejected the proposition that the legislation required a public official to shut his eyes even to clear evidence of corruption and make his or her decision solely on the basis of environmental considerations. **He pointed to the fact that the effect of s 75V of the EP&A Act was that, in the circumstances of the present case, approval under s 75J effectively decided any other question that might have arisen under the legislation, including those relevant to the grant of a mining lease.**

201. In light of the above analysis, *Duncan* stands for the proposition that a consent authority, such as the IPC, in determining whether to grant or refuse consent to a State significant development application for which a mining lease is required, is entitled to consider any relevant circumstances leading up to or concerned with a development application, including the matters a decision-maker under the Mining Act would ordinarily be entitled to consider in granting a mining lease. This consideration can be part of the integer of the public interest under s 4.15(e) (per Bathurst CJ, Beazley P concurring) and/or part of the consent authority's discretion to grant or refuse consent (per Basten JA), and is consistent with the objects of the EP&A Act.
202. An example of such circumstances that a consent authority may consider is evidence of corrupt conduct, as found by ICAC in *Duncan*. But relevant circumstances could also include other forms of misconduct.
203. Relevantly, the IPC should be aware that in 2021, the proponent and its related company Narrabri Coal Pty Ltd (NC)²⁴ pled guilty to 19 offences of contravening s 378D of the *Mining Act* in *Stephen James Orr v Narrabri Coal Operations Pty Ltd; Stephen James Orr v Narrabri Coal Pty Ltd* [2021] NSWLEC 85. The offences related to the unlawful construction of access tracks, the unlawful drilling and rehabilitation of boreholes, and the failure to prepare a site rehabilitation plan: *Orr*: [1]. The proponent and NC were fined a total of \$372,500 by the Court for the commission of the offences: *Orr*: Annexure A. The judgment further provides in Annexure A:

Two activity approvals under the EL provided for a number of exploration boreholes to be drilled at numerous locations within the exploration area. NCO contravened a condition of the EL on nine occasions, including drilling two exploration boreholes in the wrong locations, failing to seal one borehole within 28 days after use, and creating access tracks in unapproved locations

²⁴ The proponent and NC are wholly owned subsidiaries of Whitehaven Coal Limited: *Orr* at [25].

within the Pilliga East State Forest. NCO also failed to prepare a Rehabilitation Management Plan within a required time period.

As holder of the EL, NC was liable for those contraventions and was convicted for the nine offences. An exploration borehole within the ML was not sealed once it ceased to be used resulting in the tenth conviction against NC.

The creation of access tracks in unapproved locations within the Pilliga East State Forest led to short term minimal environmental harm through the loss of habitat, breaks in ecological connectivity, and disturbances to the ecosystem in those locations.

The conduct comprising the offences was first discovered by the NSW Resources Regulator (“the Regulator”) during an audit of the mine. Following the audit, the defendants voluntarily suspended exploration activities from 24 July 2019. The Regulator formally suspended exploration activities from 22 August 2019, pending completion of a third party audit and report in relation to the defendants' systems for compliance with conditions of the EL and the completion of all necessary corrective actions to the satisfaction of the Regulator.

The defendants completed all corrective actions and recommendations arising from the third party audit, and on 10 August 2020 the Regulator revoked the suspension.

204. From LTG’s examination of the material relating to *Orr*, it appears that at least part of the unlawful works (including the unlawful drilling of one or more boreholes, e.g. (E307, E318, E319) on EL6243)) occurred on the area now the subject of the development application for the Project and the application for new mining leases for the Project.

205. The proponent’s and NC’s activities have been investigated by the NSW Resources Regulator. On 3 December 2020, the Resources Regulator rejected the enforceable undertaking given jointly and severally by the proponent and NC.²⁵

206. Notably, the 2019 Annual Review for Narrabri Underground said at 4.2.1 on p. 9:

Exploration drilling was undertaken during the reporting period to further assist production planning and assess coal reserves within ML 1609 and EL 6243.

²⁵ <https://www.resourcesregulator.nsw.gov.au/sites/default/files/documents/reasons-for-decision-narrabri-coal.pdf>.

207. That review also noted at 11.3 on p. 59 that the NSW Resources Regulator issued a Suspension Notice on 22 August 2019 for Exploration Licence 6243, regarding clearing of tracks not in accordance with the Activity Approval.
208. In summary, it appears that the proponent and its related company undertook several works, some of an exploratory nature, which related or contributed ultimately to the lodging of its development application for the Project and its application for new mining leases for the Project.
209. It is LTG's submission that, pursuant to the Court of Appeal decision in *Duncan*, the IPC must carefully consider the proponent's (and its related company's conduct) in respect of the activities leading up to the development application for the Project. This must include the offences for which the proponent and related company were convicted, and the relevant companies' interactions with the Resources Regulator, to the extent that those offences and activities relate to the Project land and processes leading up to the Project development application and application for relevant mining leases.
210. LTG submits that the proponent's (and related company's) aforementioned conduct is a factor weighing against grant of the consent to the Project and grant of the mining leases associated with the Project.

5. PUBLIC INTEREST

5.1 Response to the proponent's arguments on the public interest

211. The proponent says that “[t]he Project would comply with all applicable national measures in place to help Australia meet the target in its NDC, such as the National Greenhouse and Energy Reporting Scheme”: EIS [3.10]. There is no identification of the “applicable national measures” referred to, save for the National Greenhouse and Energy Reporting Scheme. The IPC cannot find that there is compliance with “all applicable national measures” when those measures have not been identified. As for the National Greenhouse and Energy Reporting Scheme: there is no identification of how the Project *will* comply with that scheme and, in any event, that scheme is directed to *reporting* on greenhouse gas emissions, and does not address *limiting* emissions so that nationally-determined contributions can be achieved. Importantly, Prof Sackett’s evidence is that the current NDCs for Australia will not achieve a safe climate for Australia or for the people and environment of NSW because they are currently in line with warming of more than 1.5 degrees.

212. The proponent says that “the Project would be consistent with the first priority area of action in the *Net Zero Plan Stage 1: 2020-2030* (DPIE, 2020a) in that it would continue to investigate developments in flaring technology (Section 6.17.4) while continuing to support jobs and communities”: EIS 3-10. The first priority area of action in the *Net Zero Plan Stage 1: 2020-2030* is “[d]rive uptake of proven emissions reduction technologies that grow the economy, create new jobs or reduce the cost of living”. The priority is *proven* emissions reduction technologies. It is difficult to see how it is consistent with an objective of driving uptake of *proven* emissions reduction technologies for a coal mine to “investigate developments in flaring technology”. Once one turns to Section 6.17.4, it becomes even clearer that the proponent has in mind a *hope* that technology will come to its rescue on Scope 1 emissions, even if it is not currently proven. Section 6.17.4 states: “NCOPL would monitor gas volumes and composition and continue to investigate developments in flaring technology to determine whether flaring is a viable option to abate Scope 1 greenhouse gas emissions associated with Project fugitive emissions”. In any event, *Net Zero Plan Stage 1: 2020-2030* identifies in the “Introduction” that “the NSW Government’s objective is to achieve net zero emissions by 2050”. The proponent does not explain how the Project is consistent with that objective.

213. The proponent addresses the precautionary principle at 7-10 of the EIS. The proponent effectively says that the Project is consistent with the precautionary principle because it has conducted an “Environmental Risk Assessment” and a “Preliminary Hazard Analysis” (contained at Appendices O and P of the EIS). Since that is the substance of the proponent’s assessment of the precautionary principle, and since there is no environmental risk more likely to cause irreversible environmental harm than climate change, one might expect to find in those documents a detailed consideration of greenhouse gas emissions and mitigation measures. That is not so. The whole of the consideration of greenhouse gas emissions in those documents is this at page 16 of the Environmental Risk Assessment:

Aspect Type	Risk Description	Ranking Basis / Loss Scenarios	P	C	R
Air Quality	Scope 1, 2 and 3 Greenhouse Gas emissions resulting from construction and operation of the Project	<p><i>Risk ranking basis:</i> Certain to be Scope 1, 2 and 3 greenhouse gas emissions resulting from the Project – very minor proportion of global emissions</p> <p><i>Planned controls:</i> Active and adaptive management of Scope 1 and 2 emissions through selection and use of energy efficient plant</p>	A	1	Moderate

214. It may be noted that the letter “C” refers to “measures of maximum reasonable consequence”, with ratings from “5” or catastrophic through to “1” or insignificant with an economic cost of less than \$100,000: see Table 4.

215. In other words, the proponent’s position is that the maximum reasonable consequences of the greenhouse gas emissions from the Project is “insignificant” with an economic cost of less than \$100,000.

216. That position is divorced from reality. That that is the proponent’s position fundamentally undermines any contention by the proponent that the Project is consistent with the precautionary principle.

217. It may also be noted that the proponent identifies *no steps* at all to control Scope 3 emissions.

218. Turning to inter-generational equity. This is addressed by the proponent at EIS 7-11. There is no mention at all in the proponent's consideration of this topic of the long-term impacts of climate change; nor is there mention of measures to mitigate Scope 3 emissions. It is difficult to see how it could be said that inter-generational equity has been considered, let alone adequately considered, without any consideration of climate change.

219. Conservation of biological diversity and ecological integrity is also addressed by the proponent at EIS 7-11. There is no mention of the impacts of climate change on biological diversity and ecological integrity.

5.2 Findings the IPC should make

220. It is submitted that, in addition to the findings referred to above, the IPC should also make the following findings.

5.2.1 Findings in respect of the objects of the EP&A Act

221. In LTG's submission, the Project, if approved at this time, would not achieve *any* of the objects of the Act.

222. **The Project does *not* promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources.**

223. None of the evidence before the IPC demonstrates that the Project, if approved, would "promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources." The Project proposes to increase usage of coal at a time when it is projected that the world will be in the final stages of phasing out the use of this resource. The world is on the pathway to decarbonisation, and the science is clear – the carbon budget simply cannot make room for the emissions estimated to be generated by the Project in the years that it is intended to cause continued greenhouse gas emissions

(ie from 2031, and beyond 2050). Contributing to the climate crisis by approving further emissions arising from the Project during that timeframe does **not** promote the social and economic welfare of the community, which depends on a safe climate for its very existence. It certainly does **not** promote a **better** environment, to permit further greenhouse gas emissions in 2031, and beyond 2050, that will arise from this Project, when we know that catastrophic climate impacts are already being felt today. The 2019/2020 Australian bushfire crisis, and all of its consequential environmental impacts, is one example of how more emissions do not, and cannot, ever promote a better environment. Finally, there is no reasonable basis on which the IPC could find that approval of the Project constitutes “the proper management, development and conservation of the State’s natural and other resources,” when all the evidence points to the cold hard fact that coal is being phased out of production already, and that in order to limit global temperature rise to 1.5 degrees Celsius, there is no room for extensions of existing mines. The only rational pathway towards a safer climate is the rapid phasing out of coal mines, not further extensions post-2030, as the Project proposes.

224. The IPC must find that the Project does not achieve the object at s1.3(a) of the EP&A Act.

225. **The Project does *not* facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.**

226. None of the evidence before the IPC demonstrates that approval of the Project would “facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.” The principles of ESD, and the failure of the Project to facilitate those principles, are addressed in further detail elsewhere in this submission.

227. The IPC must find that the Project does not achieve the object at s1.3(b) of the EP&A Act.

228. **The Project does *not* promote the orderly and economic use and development of land**

229. None of the evidence before the IPC demonstrates that approval of the Project would “promote the orderly and economic use and development of land”. At a time when the world is transitioning away from fossil fuel use towards renewable energy sources, approval of this Project would allow the mine to delay closure of its site until at least 2044. There is no evidence that there will be a demand

for coal produced by the Project between 2031 and 2044. However, the IPC is well aware of the fact that during that timeframe, coal usage must be rapidly phased out (not increase) in order to meet global climate targets and to limit global temperature rise to 1.5 degrees Celsius. It is up to the IPC to exercise its powers in a way that promotes the orderly and economic use and development of the land at Narrabri. The only rational response to the Project in all the circumstances is to refuse it.

230. The IPC must find that the Project does not achieve the object at s1.3(c) of the EP&A Act.

231. **The Project does *not* promote the delivery and maintenance of affordable housing.**

232. None of the evidence before the IPC supports the proposition that the Project promotes the delivery and maintenance of affordable housing. In fact, the evidence demonstrates that as the climate crisis worsens (as a result of emissions generated by the Project acting cumulatively with all other greenhouse gas emissions), housing will become less affordable and climate risks limit the ability of home owners and landlords to obtain insurance to rebuild following a climate event (such as extreme bushfires, storm surges, coastal erosion, sea level rise, and flooding).

233. The IPC must find that the Project does not achieve the object at s1.3(d) of the EP&A Act.

234. **The Project does *not* protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats.**

235. There is no evidence before the IPC that the Project protects “the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats.” In fact, there is ample evidence that it does the opposite. In this regard we refer the IPC to section 4.7 of these submissions above.

236. The IPC must find that the Project does not achieve the object at s1.3(e) of the EP&A Act.

237. **The Project does *not* promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage)**

238. There is no evidence before the IPC that approval of the Project would “promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage).” In fact, the

evidence indicates that the opposite would occur. In this regard, we refer to paragraphs 153 to 168 of these submissions above.

239. The IPC must find that the Project does not achieve the object at s1.3(f) of the EP&A Act.

240. **The Project does *not* promote good design and amenity of the built environment.**

241. There is no evidence before the IPC that the Project, if approved, would “promote good design and amenity of the built environment.” To the contrary, the evidence indicates that the Project would delay closure and rehabilitation of the site until 2044, thus prohibiting other development that would promote good design and amenity of the built environment, including surrounding residential areas. Coal mines do not generally promote good design and amenity of the built environment. Rather, they are a blight on the landscape, they are noisy, they are dusty and they generate heavy traffic that is not conducive to enjoyment of the rural built environment.

242. The IPC must find that the Project does not achieve the object at s1.3(g) of the EP&A Act.

243. **The Project does *not* promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.**

244. There is no evidence before the IPC that the Project will “promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.” It is well established that emissions that contribute to climate change exacerbate the effects of global heating, including the health and safety impacts of climate change on residents across NSW. For example, it is very well established that climate change is causing an increase in the number of hot days in NSW, and the incidence of heatwaves, which will worsen as more emissions are added to the atmosphere. As a result of rising emissions, buildings will become more difficult to insure, and maintain, and become less suitable for protecting the health and safety of their occupants (for example, because of lack of internal cooling such as air conditioning).

245. The IPC must find that the Project does not achieve the object at s1.3(h) of the EP&A Act.

246. **The Project does *not* promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State.**

247. This object is of minimal relevance to the IPC's determination of the Project application. In any event, there is no evidence before the IPC that approval of the Project promotes the sharing of responsibility of environmental planning and assessment between the different levels of government in NSW. To the contrary, the evidence indicates that the Project, by dint of its contribution to global emissions at a time when nothing less than urgent and deep emissions reductions are required, will make environmental planning more difficult, as all levels of government experience unprecedented and unplanned for climate events, such as catastrophic bushfires, floods and extreme weather events.

248. The IPC must find that the Project does not achieve the object at s1.3(i) of the EP&A Act.

249. **The Project does *not* provide increased opportunity for community participation in environmental planning and assessment.**

250. This object is of minimal relevance to the determination of the Project by the IPC, as the opportunities for community participation are provided by the Act itself, rather than individual projects. In any event, approval of the Project does not achieve the object at s1.3(j) of the EP&A Act.

5.2.2 Findings in respect of climate change and likely impacts on the environment

251. The IPC should make each of the findings set out in paragraphs 95 and 99 above, based on the admissions of the EPA in *Bushfire Survivors* and the findings of the Land and Environment Court in *Gloucester Resources*.

252. The proponent accepts that the Project would contribute to NSW and Australian greenhouse gas emissions: EIS at 7-12. There should be a finding to that effect.

253. The proponent's evidence indicates that emissions from the Project will be at least:

- (a) 1.040MT/yr on average of Scope 1 emissions;
- (b) 0.121MT/yr on average of Scope 2 emissions;
- (c) 19.81MT/yr on average of Scope 3 emissions.

The IPC should make a finding that these figures comprise the minimum likely emissions from the Project.

254. The IPC should find that the Scope 1 and 2 emissions of the Project will likely comprise at least 0.22% of Australia's total emissions during the years of the Project's operation.
255. The proponent accepts that anthropogenic climate change is listed as a key threatening process under the *Biodiversity Conservation Act 2016* (NSW); EIS at 7-12. There should be a finding to that effect.
256. The proponent accepts that loss of climatic habitat caused by anthropogenic emissions of greenhouse gases is listed as a key threatening process under the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth); EIS at 7-12. There should be a finding to that effect.
257. The proponent accepts that "[t]he Project's contribution to global climate change would be proportional to its contribution to global greenhouse gas emissions": EIS at 7-12. There should be a finding to the effect that the Project's contribution to global climate change will be *at least* proportional to its contribution to global greenhouse gas emissions.
258. The IPC should find that the total greenhouse emissions of the Project are significant.
259. The IPC should find that the Project will contribute to total anthropogenic greenhouse gas emissions and will thereby contribute to climate change.
260. The IPC should find that climate change is causing, and will cause, significant, irreversible harm to the environment.
261. The IPC should find that the Project, if approved, will contribute to causing climate change and therefore to causing significant, irreversible harm to the environment.
262. The IPC should find that it is contrary to the public interest for the Project to contribute to causing significant irreversible harm to the environment.
263. The IPC should find that the proponent has not identified any measures to minimise the Scope 3 emissions of the Project.

264. The IPC should find that the proponent has not identified any measures to minimise the greenhouse gas emissions, including the Scope 3 emissions, of the Project to the greatest extent practicable.

265. The IPC should find that the absence of measures to minimise greenhouse emissions means that it is unable to discharge the function given to it by clause 14(1) of the Mining SEPP.

5.2.3 Findings in respect of the coal market and economic impacts

266. The IPC should find that there is a terminal, structural decline for demand for coal as an energy commodity.

267. The IPC should find that the cost-benefit analysis for the Project is deficient in the three ways identified by Professor Perry.

268. The IPC should find that the proponent has failed to establish that the Project is economically efficient.

269. The IPC should find that the Project is economically inefficient under plausible scenarios regarding the future cost of CO₂ emissions.

5.2.4 Findings in respect of social impacts

270. The IPC should find that the effects of anthropogenic climate change are expected to include serious public health impacts (e.g. infections and morbidities), rising death rates, mass population movements, loss of livelihoods, eroding shorelines, extreme weather conditions (including flooding and drought), poverty, social distress and civil violence.

271. The IPC should find that social impacts from climate change are already being felt.

272. The IPC should find that climate change will impact hardest on the most vulnerable in the community, including through impacts to health and wellbeing, and young people today will experience significant social impacts as a consequence of climate change in the future.

273. The IPC should find that the Project will negatively impact on aspects of aboriginal cultural heritage both in terms of impacts on sites of scientific value and through the impacts of climate change on culture and on Country.

274. The IPC should find that there will be no new social benefits arising from the Project and the social costs have been under-estimated.

5.2.5 Findings in respect of subsidence

275. The IPC should make findings in accordance with the evidence of Mr John Matheson.

276. The IPC should find that there is a greater likelihood of cracking extending into the locally important Pilliga Sandstone than has been identified in the assessment.

277. The IPC should find that subsidence and geotechnical impacts have the potential to disrupt water flow (both surface water and groundwater) in the Project and adjacent areas which is inconsistent with the sustainable use of the land.

278. The IPC should find that longwall mining has the potential to lead to surface cracking that could increase the instability of cliff lines and steep rocky slopes, and cause damage to infrastructure (including agricultural infrastructure) in the Project and adjacent areas.

5.2.6 Findings in respect of water resource

279. The IPC should make findings in accordance with the evidence of Dr Steven Pells.

280. The IPC should find that that the actual impacts to the regional groundwater resources from the will be significantly larger than predicted due to inappropriate aspects of the groundwater modelling.

281. The IPC should find that the cumulative impacts to the regional groundwater resources from the Project and the Narrabri Gas Project will be significantly larger than predicted due to inappropriate aspects of the groundwater modelling.

282. The IPC should find that there is no feasible means for cessation of groundwater drawdown impacts during the ongoing undertaking of approved mine works.
283. The IPC should find that there is no feasible means for remediation of such impacts after mining other than a very long passage of time.
284. The IPC should find that the assessment of impacts to stream and creeks above the Project is inadequate.

5.2.7 Findings in respect of biodiversity

285. The IPC should find that the Project will generate the substantial clearance and fragmentation of nationally significant native vegetation communities (including a range of Threatened Ecological Communities).
286. The IPC should find that the Project will alter hydrological and fire regimes, thereby causing long-term shifts in vegetation community and irreversible ecosystem degradation.
287. The IPC should find that the Project will clear and fragment connections between the globally significant Pilliga and the nationally significant Mt Kaputar National Park.
288. The IPC should find that the Project will create major clearance and other industrial disturbances that will provide conditions conducive to invasion by weeds and the occupation by vertebrate pests such as the Red Fox and Feral Cats (both major causal agents of extinction and biodiversity loss).
289. The IPC should find that the Project will contribute to anthropogenic climate change, which is recognised as a key threatening process under NSW legislation.

5.2.8 Findings in respect of proponent's activities leading up to development application

290. The IPC should accept the findings of the Land and Environment Court in *Orr*.
291. The IPC should accept the findings of the NSW Resources Regulator in respect of the conduct of the proponent and its related companies regarding offences and activities that relate to the Project

land and processes leading up to the Project development application and application for relevant mining leases.

292. The IPC should find that the proponent's and its related companies' conduct is a factor weighing against grant of the consent to the Project and grant of the mining leases associated with the Project.

5.2.9 Findings in respect of the public interest

293. Based on the above proposed findings, the IPC should find that, overall, approval of the Project is not in the public interest.

5.2.10 Overall findings

294. Further, based on the above proposed findings, the IPC should conclude that the appropriate decision is that consent be refused.

6. UNREASONABLENESS, IRRATIONALITY AND ILLOGICALITY

6.1 The principles of legal unreasonableness

295. It is convenient to say something as to the principles of legal unreasonableness.
296. This is because it is our submission, not only that consent should be refused on the merits, but that it would be *legally unreasonable* to grant consent.
297. Of course, the IPC does not need to go so far as to conclude that it would be legally unreasonable to grant consent; it would be sufficient for the IPC merely to conclude that consent should be refused.
298. Nevertheless, this is such a clear case, it is submitted, that the IPC could in fact go further and form the view that it is simply not open to grant consent.
299. There can be no dispute that the power to grant consent under s 4.38(1) of the EP&A Act, by reference to the factors in s 4.15 (see 4.40), is subject to principles of legal reasonableness. That is, in deciding whether to grant consent, the IPC must act in a legally reasonable way. Or, put another way, the IPC would commit a jurisdictional error if the IPC decided to grant consent and, in doing so, acted in a legally unreasonable way.
300. There can be no dispute about this because, as a matter of general principle, and subject to contrary intention of which there is none manifest in the EP&A Act, *all* statutory powers must be exercised in a legally reasonable manner: see, eg, *Comcare v Banerji* (2019) 267 CLR 373 at [84]; *Probuild Constructions (Aust) Pty Ltd v Shade Systems Pty Ltd* (2018) 264 CLR 1 at [71]; *Minister for Immigration and Citizenship v Li* (2013) 249 CLR 332 at [24]-[29], [63], [86], [90]-[93]; *Minister for Immigration and Border Protection v SZMTA* (2019) 264 CLR 421 at [11]; *Minister for Immigration and Border Protection v Singh* (2014) 231 FCR 437 at [43]; *Minister for Home Affairs v DUA16* (2020) 95 ALJR 54 at [26].
301. A decision may be legally unreasonable either because of the ultimate outcome *or* because of the process adopted to reach that outcome: *ABT17 v Minister for Immigration and Border Protection*

(2020) 269 CLR 439 at [19]-[21]; *Minister for Immigration and Border Protection v Singh* (2014) 231 FCR 437 at [44].

302. For example, the unreasonableness of a decision may be indicated by the outcome where the decision is “upon the material before the decision-maker, a decision to which no reasonable person could come”: *ABT17 v Minister for Immigration and Border Protection* (2020) 269 CLR 439 at [19].

303. Equally, the unreasonableness of a decision may be indicated by the process adopted if the decision is reached “in a manner so devoid of plausible justification that no reasonable person could have taken that course”: *ABT17 v Minister for Immigration and Border Protection* (2020) 269 CLR 439 at [19].

6.2 Conclusions

304. It is submitted that the position is sufficiently clear that, upon the material before the IPC, the only reasonable conclusion is that each of the findings set out in section 5.2 above should be made.

305. Further, it is submitted that the position is sufficiently clear that, upon the material before the IPC including having regard to those findings, the only reasonable conclusion is that consent should be refused.

7. CONCLUSION

306. In respect of State significant development, section 4.38 of the EP&A Act provides relevantly:

4.38 Consent for State significant development (cf previous s 89E)

(1) The consent authority is to determine a development application in respect of State significant development by:

- (a) granting consent to the application with such modifications of the proposed development or on such conditions as the consent authority may determine, or
- (b) refusing consent to the application.

307. The exercise of the power under section 4.38 of the EP&A Act to grant or refuse consent to the Project involves consideration, weighting and balancing of the environmental, social and economic impacts of the Project. It is LTG's submission that the proper consideration, weighting and balancing of the environmental, social and economic impacts of the Project lead to a conclusion that the Project should be rejected.

308. The exercise of a similar power under the former Part 3A of the EP&A Act was described by Preston CJ in *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347 at [31] as involving a "polycentric" problem:

The range of interests affected, the complexity of the issues and the interdependence of the issues, means that decision-making involves a polycentric problem. A polycentric problem involves a complex network of relationships, with interacting points of influence. Each decision made communicates itself to other centres of decision, changing the conditions, so that a new basis must be found for the next decision: Jowell J, "The Legal Control of Administrative Discretion" [1973] Public Law 178 at p 213.

309. Issues concerning a polycentric problem are interlinked.²⁶

A decision about one issue raised by the carrying out of the project is linked by interacting points of influence to decisions about other issues, necessitating readjustment of the project (Jowell at p 214).

²⁶ *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [33].

310. Further, the criteria to be considered in determining a polycentric problem are numerous, cannot be objectively weighted, and are interdependent:²⁷

The decision-maker must not only determine what are the relevant matters to be considered in deciding whether or not to approve the carrying out of the project, but also subjectively determine the weight to be given to each matter. Eisenberg suggests that where this is the case, an optimal solution can normally be arrived at by vesting a single decision-maker with managerial authority; that is, authority not only to select and apply relevant criteria but also to determine how much weight each criterion is to receive, and to change those weights as new objectives and criteria may require (Eisenberg at p 425).

311. Preston CJ outlines the approach to determining a polycentric problem as follows:²⁸

... first, identification of the relevant matters needing to be considered; secondly, fact finding for each relevant matter; thirdly, determining how much weight each relevant matter is to receive, and fourthly, balancing the weighted matters to arrive at a managerial decision.

312. The fourth process, the balancing of the weighted matters:²⁹

is a qualitative and not quantitative exercise. The ultimate decision involves an intuitive synthesis of the various matters. Forms of economic analysis, such as cost benefit analysis, which endeavour to balance different factors by use of a common, quantitative unit, such as money, assist but are not a substitute for the intuitive synthesis required of the decision-maker.

313. The Court of Appeal dismissed a challenge to this approach (*Warkworth Mining Ltd v Bulga Milbrodale Progress Association Inc* (2014) 200 LGERA 375 at [147]-[174]), observing at [171] that the task for the Court is:

²⁷ *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [35].

²⁸ *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [36].

²⁹ *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [41].

to balance the public interest in approving or disapproving the project, having regard to the competing economic and other benefits and the potential negative impacts the Project would have if approved.

314. Similar to the decision to approve or refuse the development application in *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, the decision to approve or refuse consent to the Project is a polycentric problem.³⁰

315. Importantly, the proponent and DPE have not been able to demonstrate that any need outweighs the significant environmental impacts that are likely to be caused.

316. Moreover, the proper balancing of the environmental, social and economic factors, considering the principles of ESD and in particular the principles of intragenerational and intergenerational equity, the precautionary principle, the principle of conservation of biological diversity and the polluter pays principle, results in:

- a. Adverse climate change impacts;
- b. Net negative economic benefits amidst a coal market in structural decline;
- c. Adverse social impacts;
- d. Adverse subsidence impacts;
- e. Adverse impacts on water resources.

317. In the final analysis, the Project is not in the public interest and contrary to the principles of ESD. Each of the findings set out in section 5.2 above should be made. It would be unreasonable, irrational and illogical to approve the Project.

³⁰ *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [33].

318. Accordingly, the Project must be refused consent.