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16th November, 2012

Major Planning Assessments
Department of Planning and Infrastructure
GPO Box 39
Sydney 2001

Objection to Cobbora Coal Project – (state owned coal mine proposal)
Application No: 10_0001

I wish to object to the approval of the proposed Cobbora Coal Mine on the following grounds:

1. **Mining new deposits of coal exacerbates climate disruption.**

It is now exceedingly clear that the world is facing major, if not catastrophic, disruptions of the climate system. The latest evidence of this has been the magnitude of Hurricane Sandy which wrought devatation in Haiti and the USA. Following the storm, Mark Fischetti, senior editor at *Scientific American* wrote that climate change is definitely contributing to big storms such as Sandy [Source: http://blogs.scientificamerican.com/observations/2012/10/30/did-climate-change-cause-hurricane-sandy/]:

> "Climate change amps up other basic factors that contribute to big storms. For example, the oceans have warmed, providing more energy for storms. And the Earth's atmosphere has warmed, so it retains more moisture, which is drawn into storms and is then dumped on us. These changes contribute to all sorts of extreme weather."

Fischetti quotes NASA's James Hansen:

> "Our analysis shows that it is no longer enough to say that global warming will increase the likelihood of extreme weather and to repeat the caveat that no individual weather event can be directly linked to climate change. To the contrary, our analysis shows that, for the extreme hot weather of the recent past, there is virtually no explanation other than climate change."

This view was reiterated by Professor Will Steffen at his speech to the Carbon Expo in Melbourne (November 8, 2012):

> "The massive flooding along the USA East Coast as a result of Hurricane Sandy was a timely reminder of the risks associated with extreme climatic events, and of the potential for climate change to exacerbate these risks. Indeed, there is a strong risk that climate change is already influencing the nature and severity of extreme events such as Hurricane Sandy."

It is clear that anthropogenic sources of carbon are the main contributor to this climatic disruption. The IPCC writes that:

> "The widespread change detected in temperature observations of the surface, free atmosphere and ocean, together with consistent evidence of change in other parts of the climate system , strengthens the conclusion that greenhouse gas forcing is the dominant cause of warming during the past several decades. ... The consistency across different lines of evidence makes a strong case for a significant human influence on observed warming at the surface."

Indeed, the NSW Government itself recognises anthropogenic climate change as a key threatening process with respect to the Threatened Species Conservation Act [http://www.environment.nsw.gov.au/threatenedspecies/HumanClimateChangeKTPListing.htm] .

Modelling of the distribution of species under realistic climate change scenarios suggests that anthropogenically-driven climate change will adversely affect many species in NSW and elsewhere.

The Australian Climate Commission states that:

> "Human activities – primarily the burning of fossil fuels, like coal and oil, and clearing of forests – are triggering the changes we are witnessing in the global climate.
>
> "Burning fossil fuels puts additional carbon from underground into the atmosphere which increases the greenhouse effect, causing the Earth's temperature to rise.
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> "To minimise the risks, we must decarbonise our economy and move to clean energy sources."

2. The indirect public costs of the project, including climate change impacts have not been incorporated into the project cost-benefit analysis

In its discussion of the implications of Hurricane Sandy, Scientific American reports several studies and projections that look at the likely huge economic costs of climate change as rising sea levels and intense weather events impact on cities, coasts and nations [http://blogs.scientificamerican.com/observations/2012/10/31/the-future-according-to-sandy/].

Australia is also vulnerable to the likely impacts of climate change, as outlined by the CSIRO [http://www.csiro.au/Outcomes/Climate/Adapting/Climate-Change-Vulnerable.aspx]. The costs of climate change, including shifts in local weather patterns, increased variability and the incidence of extreme weather events, will include direct environmental and ecosystem costs, economic losses and social costs.

Economic costs will include reduced performance of primary and tourism industries, the costs of adaptation, cost of damage to property and infrastructure caused by extreme weather events, and the cost of infrastructure and works to protect from future extreme events.

Social costs will include costs of population displacement due to changed climatic conditions, increased incidence of tropical diseases, and injury and loss of life associated with extreme weather events.

Garnaut has reported on attempts to model the cost of climate change on the Australian economy [http://www.rossgarnaut.com.au/Documents/GCCR%20final%20report%20pdf/Garnaut_Chapter11.pdf] . It is clear that the costs of unmitigated climate change will be high, if not extreme.

> "The case for strong mitigation is a conservative one. Even at the levels of mitigation that now seem to be the best possible, the challenges could be considerable. In the absence of mitigation, we can be reasonably sure that they would be bad beyond normal experience."

In assessing the Cobbera Project, consideration should be given to some economic modelling of the contribution that this project (or absence of the project) would have on global greenhouse emissions and associated economic, environmental and social costs.

3. Reducing levels of coal production is an imperative goal if we are to ameliorate climate disruption

The Australian Climate Commission [http://climatecommission.gov.au/causes/fossil-fuels/] states that:

> "Reducing vulnerability and taking pro-active measures to protect ourselves is imperative."

Professor Steffen [http://climatecommission.gov.au/basics/speech-the-critical-decade/] says:

> "Most countries around the world have agreed to limit the rise in global average temperature to no more than 2 degrees above pre-industrial levels. In the scientific community we consider 2 degrees as a threshold that should not be crossed because the risks of dangerous changes to the climate are unacceptably high. Some scientists argue that the limit should be 1.5 degrees.
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> "To achieve a 75% chance of staying below 2 degrees, global emissions from 2000 onwards must be no more than 1 trillion tonnes of CO2 and must be very close to zero by 2050. So to avoid dangerous changes to the climate, on which we all depend, we must reduce greenhouse gas emissions to nearly zero in 38 years. "

Prof. Steffan notes that, during the first decade of the 21st Century, we as a planet are significantly exceeding this allowable carbon budget, having already emitted 37% of the allowable 1 trillion tonnes CO2.

> "Clearly the rate must come down quickly if we are to have a chance of staying within the budget."
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> "[T]he recent rush to develop even more fossil fuels here and in other parts of the world – new coal deposits, shale oil and coal-□seam gas – is inconsistent with the need to reduce emissions rapidly and to stay within the carbon budget. In fact, the budget approach puts tights constraints on even the well-known, conventional, economically recoverable reserves of fossil fuels, such as coal deposits.
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> If all of these well-known, conventional sources were burned, total emissions would be about 2.8 trillion tonnes of CO2, and possibly as high as 3.0 trillion tonnes, resulting in a massive blow-out of the carbon budget and almost certainly leading to what can only be described as very dangerous changes to the climate system."
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> Prof. Steffen concludes:
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> **"The simple fact is that we've got to leave a lot of fossil fuels in the ground.**
>
> **"Unless effective action is taken, the global climate may be so irreversibly altered we will struggle to maintain our present way of life. "**

4. **Not proceeding with the Cobbora Mine development provides opportunities to hasten the transition to renewable energy resources.**

If the Cobbora Project were not to proceed, the fuel necessary to operate the Delta Electricity generators at Wallerawang and Mt Piper would have to be sourced from existing mine capacity or their electricity output reduced, to be substituted by alternative energy resources. In either case, this would enhance Australia's transition to a renewable energy base.

In the case of sourcing coal from existing mine capacity, this would increase demand relative to supply, resulting in an increase in the cost of coal across the board. This in turn would make alternative energy sources more cost-competitive.

In the case of direct substitution by renewables, this would increase the scale of deployment of alternative energy systems, thereby serving to reduce the marginal cost of the alternative energy.

Furthermore, the recent trend in electricity demand reduction needs to be considered. It is possible that continuation of this trend may obviate the need for this resource to be developed at all. At the very least, postponing its approval and development may lead to higher electricity prices and an enhancement of this energy conservation trend.

5. **If the Cobbora Mine Project proceeds, it should be conditional on 100% carbon capture and storage (CCS) for all coal mined and fugitive greenhouse gas emissions**

Given the strength of the imperative to reduce fossil carbon emissions, such a condition on the mine project proceeding must be the only environmentally prudent measure, if the project is to be approved.

In order that the full environmental, social and economic cost is not carried by the community at large, it would be most appropriate that the costs of CCS be carried by the proponent. In this way, electricity costs would better reflect the real cost of fossil fuel use, thereby enhancing the competitiveness of alternative energy resources and the more rapid transition to a zero-carbon Australian economy.