

Submission  
No 285

## INQUIRY INTO COAL SEAM GAS

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Econetwork Port Stephens Inc. is a natural heritage and conservation based network of environmentally concerned citizen groups. We are primarily concerned about community and environmental issues in the Port Stephens region, however we try to think globally before acting locally. Therefore, we are addressing this state-wide review of the coal seam gas activities based on our primary concerns about proposed local exploitation of coal seam gas at Fullerton Cove by Dart Energy using in-seam rather than fracking techniques.

Acting locally, we are very concerned about the potential environmental damage of coal seam gas activities at Fullerton Cove and the following points address your first Term of Reference:

- A major concern is potential contamination of the Tomaree Sands groundwater system which forms a significant component of our local water supply. It is only 30 metres beneath the surface and the wells will pass through it on their way to the coal seams over 300 metres below it. Consider that this area is near Newcastle, which has a history of significant earthquakes that could potentially rupture the underground well infrastructure.
- "De-watering" of the in-seam well system will require the removal of large volumes of water (over 1000 litres per well per day) contaminated with KCL, polymers and coal seam contaminants during the drilling operation. This water will be stored in tanks at the well sites then trucked away for disposal at a sewage treatment plant. Leakage from pumps, tanks and trucks will contaminate surrounding farm land and possibly find its way to the nearby RAMSAR listed wetlands less than 2 km from the wells.
- During the production phase of the in-seam well system, relatively large quantities of contaminated water will be pumped out, along with the gas. Over the life span of the wells (at least 5 to 10 years) this contaminated water must be removed from the site. We are concerned that the most economic option for its removal will be to pipe it to the nearby Hunter River, where it will potentially contaminate this productive estuary.
- The Fullerton Cove drilling site is prone to flooding and well known for its acid sulphate soils. Flooding will potentially damage pumping infrastructure and spread contaminated well water. Heavy machinery at the well sites and installation of the gas pipe infrastructure will activate the acid sulphate soils, potentially spreading toxic waters to the nearby RAMSAR wetlands and Hunter Estuary.

Thinking globally, we are opposed to the notion that coal seam gas should be an interim fuel between coal/oil and renewable energy sources within the Commonwealth government's Clean Energy Future program and the following points address your third Term of Reference:

- Natural gas is another form of fossil fuel that produces CO<sub>2</sub> as a byproduct of energy production. Creation of extensive infrastructure for coal seam gas harvesting, storage and electricity generation will only delay and detract from the inevitable switch to 100% renewable energy.
- Given the consensus among of the vast majority of climate change scientists about the extent to which burning fossil fuels contributes to global warming it is imperative that we adopt the fundamental ESD precautionary principle and a responsible approach in terms of risk management. The consensus is that the concentration of CO<sub>2</sub> in the atmosphere should be stabilised at 350 ppm (and a 1.5 degree C rise) to prevent overshooting a tipping point that will result in catastrophic results for the global environment, the deaths and displacement of millions of people worldwide and the disappearance of island nations. The current concentration already exceeds 350 ppm and global business as usual is trending at a worst-case scenario of 6 degree C increase by 2100.
- The use of natural gas as an "interim fuel" in Australia will contribute to the above scenario, which in Port Stephens will include sea level rise, increasing storm surge, deaths from heat stroke and the destruction of ecosystems. As a conservation and natural heritage community network in Port Stephens it is incumbent on us to oppose any investment in fossil fuel use.
- An alternative approach to using fossil fuels is available now and has been fully costed. I refer to the Zero Carbon Australia 2020 Stationary Energy Plan [ZCA2020 Plan] – a collaboration between Melbourne University's Energy Research Institute, the environment group Beyond Zero Emissions and engineers Sinclair Knight Merz. This uses current technologies for Australia to transition to 100% renewable energy within ten years. It shows that all of Australia's energy needs can be supplied by renewable concentrating solar thermal power and wind, by developing what is relatively simple infrastructure, thus contributing to the

global solution as opposed to contributing to the global problem. The decisions that are made now and in the current decadal window of opportunity are critical to our future.

For the above reasons, EcoNetwork Port Stephens Inc opposes any further exploitation of coal seam gas in New South Wales.