Submission No 701

INQUIRY INTO COAL SEAM GAS

Name: Name suppressed

Date received: 12/09/2011

Dear Sirs

We are making this submission to the General Purpose Standing Committee No. 5 Inquiry into Coal Seam Gas Mining (CSG) in NSW to register my concern over CSG mining in NSW and especially the permission granted to APEX Energy (APEX) for PELS 442 & 444 in the Northern Illawarra. My submission addresses the terms of reference for this enquiry. There is a substantial and growing body of evidence that coal seam gas mining poses substantial risks. These risks, which are not fully understood or researched in NSW, include:

1. CSG mining contaminates water

• CSG mining always involves contaminated water and so poses unacceptable risks to water supply, the environment and human health.
• Water must be drawn out of the coal seam to access the methane gas. This 'produced water' is highly saline and can contain toxic and radioactive compounds, as well as heavy metals.
• CSG mining will be a major user of water. The CSG industry states that a single well takes approximately 13 million litres of water to fracture.
• Drilling and fracking involves a large number of toxic chemicals (over 750 identified) much of which is released into the environment
• Contaminated water is generally stored in ponds near wellheads.

2. Hydraulic Fracturing (fracking) is a dangerous and unsuitable technology to employ

• Hydraulic fracturing or 'fracking' is used to release CSG. It involves injecting large volumes of water, sand and toxic chemicals into the ground to fracture coal and release the methane gas
• Fracking brings contaminated water and geological disruption close to water catchments and aquifers, as well as above ground, posing unacceptable risks.
• CSG mining uses fracking to be viable and will be used in at least 80% of Australian CSG wells

3. CSG releases more methane gas in the environment

• Much of the previously trapped methane is not captured by CSG mining. Estimates of over 35% have been made by leading US universities.
• Therefore substantial fugitive methane escapes into the atmosphere from:
o Produced water drawn from the coal seam, and
o Leaking well heads and processing plants, and
o un-captured gas that migrates through underground fissures.
• Both fugitive methane and methane storage pose explosion and fire risks, especially in bush land areas already prone to bush fires.
• Research from US universities shows the greenhouse house effect of methane to be 100+ times that of CO2 over 20 years, as bad as, or far worse than, coal over its lifecycle.

4. CSG infrastructure has a large and damaging foot-print

• Production fields typically require drilling well pads every 400-900 metres,
• CSG well heads are connected by networks of pipelines and roads to get plant and equipment in and wastewater and gas out
• CSG exploration and mining requires extensive land clearing for well heads (100 sq m+), storage tanks, containment ponds, roads, pipelines and fire lines.

5. CSG and the Illawarra upper escarpment of the Northern Illawarra

• Fifteen exploration wells have been approved in PELs 442 & 444, with 140+ production wells likely
• 7 of the 15 are in Sydney Catchment Authority 'Special Areas', which have restrictions on land use and access to protect our water supply, the rest abut those Special Areas
• The approved wells are adjacent to upland swamps that feed and clean the adjacent water catchments, including the Georges and Hacking river systems

The 15 exploration wells in relation to SCA water catchment 'Special Areas'

• Some of the 15 sites were 'high conservation' zones until 2009, protected from CSG mining

o In 2009 the Wollongong City Council downgraded zoning against the advice the Department of Environment and Climate Change (DECC) and Sydney Catchment Authority (SCA)
o This occurred after The Department of Primary Industries (DPI)pressured the state government appointed WCC Administrators to do so, in order to assist CSG mining
o Shortly after the zoning changes were made, exploration approvals were granted to APEX
• This occurred under (the now discredited) Part 3A of the Environmental Planning and Assessment Act, under which the Minister for Planning was empowered to act, bypassing environmental and local planning controls – including community consultation – which is fundamentally wrong

• Consequently these approvals were granted before residents knew about the plans for CSG mining
• In allowing this to occur the state has breached its obligations to protect drinking water supplies
• The Northern Illawarra has already been extensively mined for coal and CSG mining which adds to the risk of methane emissions, distribution of contaminated water, and increased seismic activity.
• The coal seams of the upper escarpment are much shallower than those in Queensland's Surat Basin, which increases the risks outlined above
• The Northern is an area of recognised outstanding beauty and water supply consisting of many Special and protected areas, such as catchments and state parklands and protection areas
• Accidents happen and 2011 has seen a number if reported CSG well blow outs and contamination incidents in NSW and Queensland, which would be disastrous for the protected environments of the Northern Illawarra , threatening the integrity of water supply from the SCA Special Areas.

6. Government action to protect communities from CSG in NSW

NSW is not as advanced as Queensland in the production extraction of CSG and so the state has an opportunity to avoid the mistakes made in Queensland and the USA that are leading to substantial damage to environments and public health. I therefore call on the Inquiry to exercise a precautionary approach to CSG by advising the Premier to instigate:

• a Royal Commission into all aspects of coal seam gas mining
• a moratorium on coal seam gas mining pending the outcome of the Royal Commission
• a ban on fracking and similar coal bed 'stimulation' technologies and techniques

Sincerely