

**Submission
No 579**

INQUIRY INTO COAL SEAM GAS

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SUBMISSION ON CSG by Charlie Cochrane

Summary

CSG is touted as a 'clean' alternative by the mining industries because it creates less CO₂ when it is burned than coal. However CSG production also creates waste methane in exploration and production and leakages of methane. Methane is a greenhouse gas many times more damaging to the environment than CO₂. Our contention is that CSG, far from being a clean alternative to coal produces at least as much global warming effect when leakage and unwanted methane release is included.

Submission

CSG mining companies regularly spruik its clean fuel credentials. The basic comparison between gas and coal is not subject to dispute. As Origin Energy, which is heavily committed to the CSG industry, said on Thursday, there is no doubt that gas-fired power has much smaller greenhouse gas intensity than coal-fired power. Depending on the type of coal (black or brown) and the type of plant, and its use (baseload or peaking in the case of gas), the difference can be as high as a factor of 3.

However, this basic comparison does not tell the whole story. Far from it. Because the proportion of emissions that occur outside the power plant are considerably higher – at between 33-37 per cent of the plant's emissions for CSG, compared to 6-7 per cent for coal. Methane emissions from the natural gas industry are equivalent to 1.4% of gross natural gas production, but for CSG the figures are typically worse. Fracking is a technique used to speed up the flow of methane gas from underground rock formations. It makes the rock that has contained the gas for tens of millions of years permeable. This increases the risk of fugitive emissions. This is also being ignored by the CSG industry. Typically CSG methane leakage can be in the order of 2 – 3%

Methane is a relatively potent greenhouse gas. Compared with carbon dioxide, it has a high global warming potential of 72 (calculated over a period of 20 years) or 25 (for a time period of 100 years).[2] It has a net lifetime of about 10 years,[3] and is primarily removed by reaction with hydroxyl radicals in the atmosphere, producing carbon dioxide and water. (source Wikipedia).

A 3% methane leakage rate cancels any greenhouse gas emissions advantage claimed for CSG over coal. CSG may look cleaner than coal from the perspective of CO₂, but it is not clean, nor green.