



## CLARENCE ENVIRONMENT CENTRE

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Dear Ministers

### **Saving the Iconic Pilliga Forests**

#### **Introduction**

The Clarence Environment Centre has maintained a shop-front in Grafton for over 21 years, and has a proud record of advocacy for the environment. High on our list of priorities has been opposition to inappropriate development, and the coal seam gas proposals for the Pilliga is without doubt one of the worst examples of inappropriate development we have encountered in all that time.

Much of the Pilliga is a declared State Conservation Area, which protects its unique flora and fauna from everything but mining. As a result, Eastern Star Gas is proposing to turn this important habitat into an industrial wasteland through the construction of a coal seam gas field. However, we have been informed that the Federal Government is in the process of determining the guidelines that will be issued for the Federal EPBC assessment of the project and its associated infrastructure.

#### **Summary**

The Clarence Environment Centre believes the mining of coal seam gas in the absence of any guarantee that groundwater pollution, aquifer destruction, and accidental release of methane and toxic "produce water" into the environment will not result, makes absolutely no sense. At the same time, the justification for mining coal seam gas by claiming it is a clean fuel, ideally suited to an interim energy source while moving to a renewable energy future, is little short of fraudulent. The industry must be shut down.

In view of this fact, we believe the guidelines, currently under preparation are critical, and should be placed on exhibition for public comment

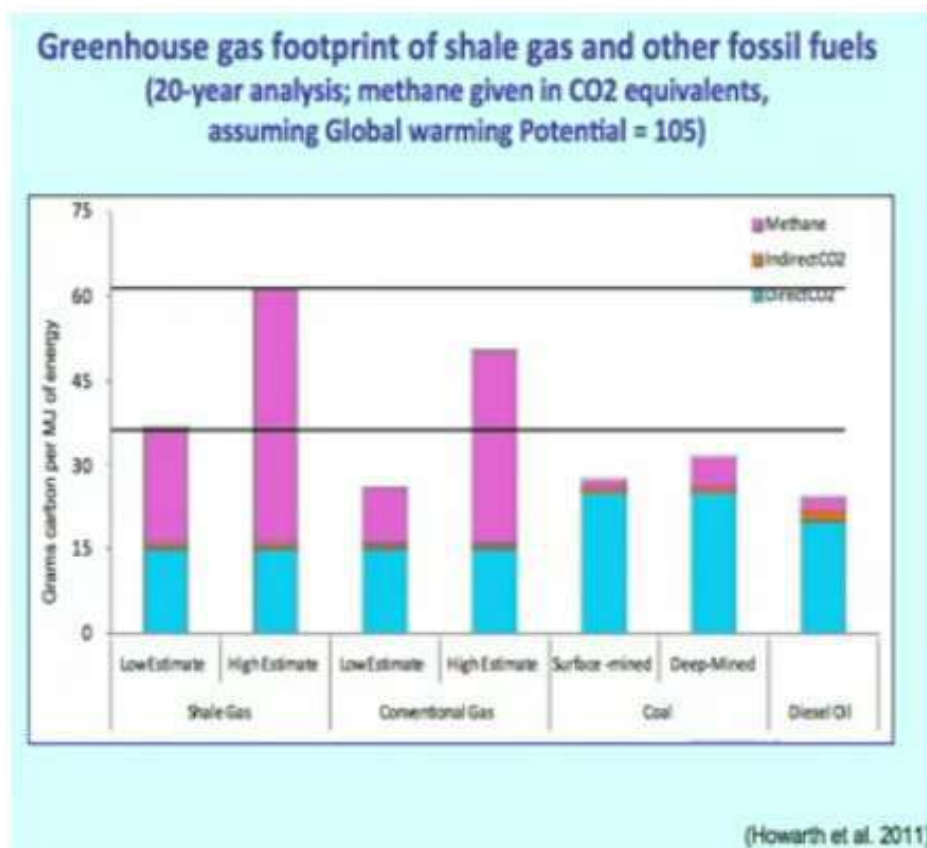
#### **The Big Lie**

The coal seam gas industry is promoting gas as the interim fuel for power generation as Australia moves to a renewable energy future, claiming it is 60% cleaner than current coal-fired electricity, a lie which it has found easy to sell to various Australian governments addicted to lucrative royalties, and the perception that jobs and economic growth are vital to their chances of reelection.

It is widely acknowledged that the burning of gas for electricity production, results in significantly fewer emissions than coal fired electricity production. What gas mining companies are not promoting is the amount of additional polluting emissions that are created through the exploration, mining, transport and refining processes, not to mention methane released directly into the atmosphere from leaking infrastructure.

Until now, this has not been accurately quantified, but in March 2011, scientists from the Cornell University in the USA released the results of a comprehensive assessment of the total emissions of various electricity generating fuels, including, coal; shale gas (the equivalent of our local coal seam gas); traditional gas, and diesel.

These collateral emissions from machinery used in coal seam operations are enormous. It requires trucking in millions of litres of water, tonnes of sand, and a 10,000 horsepower engine to drive the 'fracking' operation (fracturing of underground rock strata) for each well.



We apologise for the print quality of this graph, but it is the Cornell scientists' chart comparin the greenhouse gas output of four power generating fuels, coal seam gas, conventional gas, coal, and diesel. To eliminate claims of bias, the bars show the range from lowest estimates of emissions to highest. The two columns from the left show the lowest and highest estimated levels of greenhouse gas emissions by shale gas, the next two show emissions from conventional gas; then two columns for coal burning, and finally a single column for diesel burning, where the level of emissions has been accurately recorded.

The chart clearly shows that shale gas produces by far the most greenhouse gas, to the point where even the most conservative estimates (lowest emissions) for shale gas is greater than the emissions from coal burning.

The Cornell scientists are at pains to explain that their calculations, based on US Mining Department statistics, are conservative, and show that when the emissions of all aspects of production are considered, **coal seam gas burning causes by far the greatest amount of pollution than all other fuels.**

One interesting statistic was that, over the life of the project, between 3.6% and 7.9% of all gas mined become “fugitive methane”, either 'vented' or 'flared' directly into the atmosphere. Venting is the release of methane that unavoidably leaks or overflows into the atmosphere during the life of the process, much of it during the drilling phase, where it accompanies 'flowback' waste or 'produced water'. Flaring is the deliberate burning of surplus gas, a process that is banned in some countries.

The study's conclusion was, that rather than reducing greenhouse impacts, **“developing gas from shale formations is likely to aggravate global warming”.**

We believe this is one powerful argument to place a permanent hold on all gas mining, particularly coal seam gas, and move directly to renewable energy.

### **Other environmental damage**

Apart from the direct impacts on flora and fauna of the Pilliga from clearing and fragmenting massive areas of bushland to construct scores of wellheads and a network of roads and pipelines, the drilling and fragmenting of underground rock strata is fraught with danger.

**Currently, there are no guarantees in place that coal seam gas mining will not pollute ground water, will not destroy aquifers, will not add to atmospheric pollution through leaking wells and other infrastructure, and that poisonous “produced water” will not be released into the environment as happened recently in the Queensland floods.**

We point out that the Pilliga is the southern recharge area for the Great Artesian Basin, an area already under proven threat from coal seam gas mining activities further north in Queensland, where property owners are finding their bores polluted, and producing as much methane as water. We reiterate the fact that methane is a highly potent greenhouse gas, and none of these fugitive emissions are quantified and included in the coal seam gas carbon footprint.

### **Disasters, Regulation and Compliance**

The fossil fuel industry argues that it is one of the highest regulated industries in the world. This may well be true, in which case compliance monitoring has to be one of the greatest failures of governments throughout history around the world, particularly when it comes to mining.

Disaster after environmental disaster continue to occur, whether it be from deep water drilling for oil which saw the 2010 oil spill in the Gulf of Mexico, or the coal mining accidents that kill thousands of miners annually around the world. From pollution through tanker accidents such as the *Exon Valdes* to the more recent grounding on the Great Barrier Reef. From the sea of mud that continues to inundated whole communities in Indonesia after a mining operation went wrong, to the bursting of a tailings dam from a mine, partly owned by an Australian company in Europe, that allowed millions of litres of highly toxic sludge to wipe out a fishing industry along the length of the Danube River, and the massive loss of life when a leaking gas pipeline exploded in Russia.

In every one of these cases assurances would have been given about the high degree of safety measures that were in place, yet investigations invariably prove that the operators have been cutting corners to increase profits, and that there was little or no effective compliance monitoring in place.

Any suggestion that this could not happen in Australia must be immediately discounted. The massive 2010 leak from an oil well off the northwest coast of Australia, that resulted in major negative consequences for Timor's fishing industry, did not receive the publicity it should, simply because the oil did not drift onto our shores. A typical case of out of sight, out of mind.

We sincerely hope the Federal Government will take all these concerns into consideration.

Yours sincerely  
John Edwards  
Honorary Secretary.