

FRACKING THE FUTURE

1. Coal Seam Gas (CSG) will actually increase the cost of gas.

- There is plenty of gas in Australia for the domestic market. When companies start mining CSG there will also be enough to export.
- The international price for gas is higher than what we pay in Australia, so when companies can export gas for higher profits, they'll be seeking those higher prices at home, too.
- This is expected to double or triple the wholesale price of gas.

 *Details on page 11 of the report.*

2. The gas industry's job figures are a furphy.

- The gas industry likes to claim that it is a big job creator, and that CSG will lead to many more jobs. The gas industry is too small for the Australian Bureau of Statistics to publish separate figures for, so gas and oil employment numbers are combined.
- In August 2013 the entire gas and oil industry employed 0.2% of workers – less than Bunnings.
- The gas industry commissions its own economic modelling, and includes a high number of indirect jobs. Santos has claimed that a CSG project in NSW that would employ 30 people would create 570 public sector jobs!

 *Details on page 27 of the report.*

3. CSG won't save us from climate change.

- CSG is often heralded as a 'bridging fuel' taking us from fossil fuels like oil and coal to clean, renewable energy.
- CSG is extracted from many small reservoirs (rather than a few large ones), making it likely that methane emissions will be higher than for conventional gas extraction, as there are many more wellheads for methane to leak from, and they are likely to be less closely monitored than a small number of large wellheads.
- Greenhouse gas emissions are higher again when fracking is used to extract CSG. A better way of measuring greenhouse gas emissions from CSG extraction is required so we can know how much methane, a potent greenhouse gas, is being released into the atmosphere.

 *Details on page 20 of the report.*

4. CSG can have a negative impact on the economy.

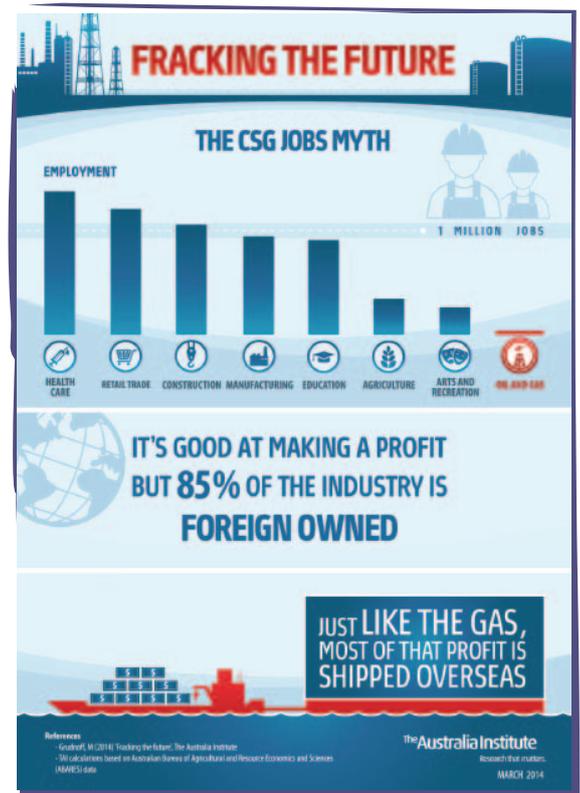
- A sudden spike in jobs for construction and plant operator positions, with a higher income than available elsewhere, will poach jobs from other industries that have already invested in training their workers. This can lead to the shutdown of industries that can't compete.
- The mining and construction boom, driven in part by the gas industry, is driving high exchange rates, putting pressure on other parts of the economy. The mainly foreign owners of the \$205 billion of oil and gas projects will be pouring capital into their construction, which leads to high exchange rates, in turn causing enormous pressure on industries exposed to international competition (like tourism).

 *Details on page 36 of the report.*

FRACKING THE FUTURE

5. Poison in the water.

- More research has been done on the impacts of CSG in the US than Australia. More needs to be done here so we can measure the impacts more fully.
- Fracking is the worst offender here, due to the amount of toxic chemicals used in this process. Each CSG well in Australia uses about 18.5 tonnes of chemicals. The National Toxics Network found that fracking chemicals could cause cancer, skin and eye irritation, respiratory problems, nervous system damage, blood cell damage, endocrine disruption and reproductive problems.
- An aquifer in the Pilliga was found to have 20 times the safe level of uranium in February 2014. Around 20 to 40 per cent of fracking fluids remain underground, and groundwater tends to rise after the well has been abandoned. This leads to the very real possibility of aquifer contamination long after the project has closed.
- The biggest risk to human and animal health is likely to be from the wastewater from fracking. Wastewater is fluid that has returned to the surface as well as produced water, which is water that is extracted from the coal seam.
- In the US, high numbers of calves have died in the two seasons following a wastewater incident. There has also been a case where 17 cows died in one hour after fracking fluids were released into a field. There are many similar, documented cases on the impacts of wastewater on farming land. In NSW Santos is alleged to have breached its production licence by spilling untreated water into the Pilliga state forest.
- There have been many cases of spills and leaks in Australia, with 30 being recorded in the first six months of 2011.



Details on page 43 of the report.

6. Pollution in the air.

- Air quality studies done near and on residential areas close to gas production zones have found high concentrations of carcinogenic and neurotoxin compounds. One study found that the cancer risk was greater for those living within half a mile of unconventional gas wells than those that lived more than half a mile away.
- Ground level ozone can also increase due to methane leaks from wellheads. This can damage trees and crops, and also impact on human respiratory health.

Details on page 48 of the report.

If you would like to arrange a 'Fracking the Future' presentation in your area or order hard copies of Fracking the Future, please contact us. TAI is also able to arrange training workshops in delivering the Fracking the Future presentation, or in understanding economic arguments more broadly.

CONTACT

Mark Ogge
Public Engagement Officer
M. +61 421 272 884
E. mark@tai.org.au

To download the full report, visit www.tai.org.au.

The **Australian Institute**
Research that matters.