

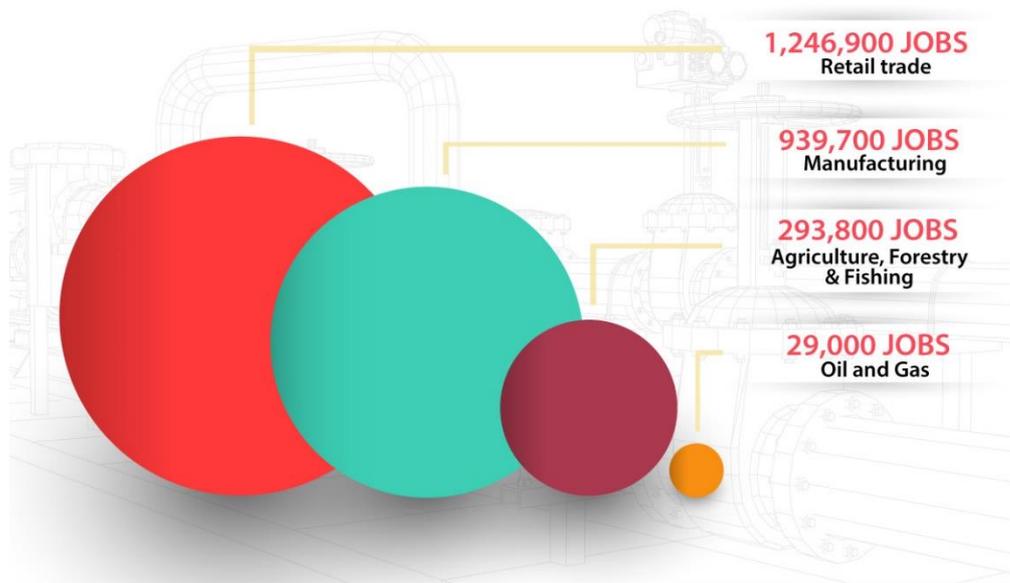
## Unconventional Gas Facts: Jobs and Economy

### Employment Impacts:

#### *Limited Job Creation*

While gas companies and governments spruik the promise of more jobs for local communities, in reality, the gas industry is a highly capital-intensive industry that provides relatively small numbers of long term jobs. The Office of the Chief Economist estimates that **the entire oil and gas industry in Australia employed just 29,000 people in 2015/16<sup>1</sup>, which is less than one quarter of one per cent of the total Australian workforce.** By comparison, in 2016, Australian agricultural industries employed more than 10 times as many people as the oil and gas industry combined.

### The Australian Oil and Gas industry is a small employer



Comparison between oil and gas industry jobs and other sectors

Source: Australian Bureau of Statistics data for November 2016

#### *Boom and Bust Cycle*

The majority of unconventional gas industry jobs are required for the short initial construction phase only, with a large proportion discontinuing once gasfields, pipelines, waste treatment facilities and processing plants are established. According to the Office of the Chief Economist of Australia, **the three major unconventional gas projects in Queensland employed 16,000 people during their brief<sup>2</sup> construction phase, with employment falling by over 80% to 3,000 as the projects entered their operational phase.<sup>3</sup>** This represents less than 0.13% of Queensland's total workforce of over 2.3 million.<sup>4</sup>

Queensland Treasury figures<sup>5</sup> reveal the speed at which the bust happens, with the non-resident worker population in the Surat Basin dropping from a peak of 14,490 in June 2014 down to 5,420 just one year later, and down again to 3,820 in June 2016, as the large fly-in, fly-out (FIFO) or drive-in, drive-out (DIDO)

<sup>1</sup>Office of the Chief Economist, Resources & Energy Quarterly, March 2017 Historic data: <https://industry.gov.au/Office-of-the-Chief-Economist/Publications/Pages/Resources-and-energy-quarterly.aspx>; viewed 20th May 2017.

<sup>2</sup> The length of the construction period varies between the projects. In the case of Gladstone LNG, the construction period was 4 years. URS (2009) GLNG Economic Impact Statement.

<sup>3</sup> Office of the Chief Economist, Resources and Energy Major Projects, [Projects list October 2015](#).

<sup>4</sup> ABS Labour Force Statistics.

<sup>5</sup> Queensland Treasury, Queensland Government Statistician's Office, [Surat Basin non-resident population projections, 2017 to 2023](#)

construction workforces of the major coal seam gas (CSG) projects were replaced by smaller operational workforces.

### ***Few spill over jobs***

The gas industry often makes claims<sup>6</sup> about delivering substantial job ‘spill overs’ (or multipliers) in regional communities i.e. employment opportunities that develop in other sectors. Job multipliers, particularly in the services industry, are frequently used to derive large employment estimates for planned gas projects<sup>7</sup>. However, research into the local economic impacts of unconventional gas development in the Surat Basin, the epicentre of the Queensland CSG boom, provides evidence which disputes those claims.

In one of the largest and most rapid resource expansions ever seen in Australia, researchers found that job spill over into non-mining employment following Queensland CSG development was “negligible”<sup>8</sup>. Whilst they note that the CSG industry generated more construction employment and technical jobs (such as electricians and mechanics), retail trade and manufacturing showed minimal growth whilst other local services jobs declined. The study also found that agricultural jobs had been negatively affected by the CSG boom, with farm workers likely to have migrated into the CSG industry and associated construction and technical jobs. **Overall, 9 jobs were lost in the services sector for every 10 new CSG jobs, whilst 18 agricultural jobs were lost for every 10 people employed in the CSG industry.**<sup>9</sup>

### ***Transient Workforces***

Existing unconventional gas developments in Australia have relied extensively on the use of FIFO and DIDO workforces- made up of predominantly male non-residential workers living in workers camps on the outskirts of rural towns. The wide ranging social impacts of FIFO and DIDO workforces have been detailed in a number of Federal and State Parliamentary Inquiries<sup>10</sup>.

Negative influences of FIFO/DIDO workforces on local communities include: decline in local resident populations with flow on effects on local schools, essential services and volunteer organisations; reduced community cohesion; impacts on housing availability and affordability; increased rents and other living expenses; detrimental impact on local businesses; and social problems such as violence and crime in ‘host’ communities. The documented impacts on the workers themselves include fatigue, mental health problems, elevated drug and alcohol use, and family and relationship issues<sup>11</sup>.

### **Negative Economic Impacts on Local Businesses:**

In a 2013 study<sup>12</sup> of the social and financial impacts of the CSG industry in the Darling Downs region of Queensland, people working in non-gas industry employment in local businesses, agriculture, government and the community sector were interviewed. **These respondents consistently reported a deterioration in financial capital, local skills and knowledge, local infrastructure and social cohesion as a result of CSG**

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<sup>6</sup> E.g. APPEA: [Our Natural Advantage](#).

<sup>7</sup> For more info. refuting these claims see: <http://www.factsfightback.org.au/did-the-gas-industry-create-100000-jobs-last-year-check-the-facts/>

<sup>8</sup> Fleming, D & Measham, T (2015a) [“Local economic impacts of an unconventional energy boom; The coal seam gas industry in Australia”](#). *The Australian Journal of Agricultural and Resource Economics* 59(1) pp 78-94.

<sup>9</sup> Ibid

<sup>10</sup> House of Representatives Standing Committee on Regional Australia. [Cancer of the bush or salvation for our cities? Fly-in, fly-out and drive in, drive-out workforce practices in regional Australia](#). Canberra: Commonwealth of Australia, 2013. Queensland Parliament: Infrastructure, Planning & Natural Resources Committee, *Inquiry into fly-in, fly-out and other long distance commuting work practices in regional Queensland*, October 2015; West Australian Parliament, Education and Health Standing Committee, [The Impact Of FIFO Work Practices on Mental Health](#).

<sup>11</sup> Ibid

<sup>12</sup> Everingham, J., Collins, N., Rodriguez, D. Cavaye, J., Vink, S., Rifkin, W. & Baumgartl, T. (2013) *Energy resources from the food bowl: an uneasy co-existence. Identifying and managing cumulative impacts of mining and agriculture. Project report*. CSRM, The University of Queensland: Brisbane: <https://www.csrn.uq.edu.au/publications/energy-resources-from-the-food-bowl-an-uneasy-co-existence-identifying-and-managing-cumulative-impacts-of-mining-and-agriculture>

**development.** The main reasons cited for these social and financial impacts were the loss of skilled staff to the gas industry and the increased cost of labour, rent, transport, and goods and services for local businesses.

Farming businesses can suffer from a range of significant impacts as a result of unconventional gas development. In 2016, the CSIRO released a report<sup>13</sup> into the total losses to gross revenues incurred by farmers who host unconventional gasfields on their properties. **The report found that the alienation of productive farmland for CSG infrastructure in Queensland results in losses in gross economic returns of up to 10.9%, with landholders losing an average \$2.17 million in revenue as a result**<sup>14</sup>. The methodology used in this study estimated economic losses based solely on reduction in land area and did not attempt to quantify losses resulting from disruption to operations, dust generation, stock losses, spills and leaks of wastewater or the spread of weeds. Therefore, total losses to landholders will undoubtedly be far higher.



### Limited Economic Benefits for Australia:

Gas companies often cite the amount of money they invest or the value of the gas they sell as proof of the economic benefits of their projects. However, these numbers say little about benefits for Australians if the money invested in a project is spent on equipment from overseas, profits flow to foreign investors and the companies pay little tax or royalties.

The oil and gas industry in Australia is over 80% foreign owned<sup>15</sup>, which means that the vast majority of the profits flow to overseas owners and are not spent in the local economy – a fact that much of the industry’s economic modelling typically ignores. To date, the unconventional gas industry in Australia has shown a preference for sourcing materials and equipment from overseas, thereby denying any benefits to Australian manufacturers. For example, the huge LNG export facilities at Gladstone in Queensland were entirely designed and built overseas by global oil and gas engineering company Bechtel<sup>16</sup>.

<sup>13</sup> O. Marinoni, J. Navarro Garcia, 2016, [A novel model to estimate the impact of Coal Seam Gas extraction on agro-economic returns](#), *Land Use Policy*, Volume 59, 31 December 2016, Pages 351–365.

<sup>14</sup> The study authors note that “the estimated gross figures do not account for any compensation payments received by farmers”.

<sup>15</sup> Grudnoff, M., The Australia Institute, [Fracking the Future: Busting Industry Myths About Coal Seam Gas](#).

<sup>16</sup> [Bechtel website](#)

## ***Tax & Royalties Revenue Shortfalls***

The gas industry, in an attempt to gain a social licence, often claims that it pays substantial amounts of tax and royalties, however, the reality is very different. There are two ways in which Australian government's levy the petroleum sector for its inputs so that Australia (theoretically) receives a revenue for the nation's finite reserves of oil and gas – through resource taxation and through royalties. (In addition, oil and gas companies are subject to corporate and other taxes that are paid by all companies in the economy.)

All *onshore* oil and gas projects in Australia are subject to State or Commonwealth royalties of 10%. They are also subject to the Petroleum Resource Rent Tax (PRRT), a profit-based primary resource tax. According to the Tax Justice Network<sup>17</sup>, a decade ago the PRRT system worked reasonably well and collected a significant share of the revenues generated, however, changes to the PRRT system have expanded loopholes and combined with aggressive tax avoidance, the effectiveness of the PRRT system has been gutted. The situation has become so bad, Australia is now practically giving away its natural resources to multinational corporations for free. [The ABC reports](#) that almost 60% of resource and energy companies paid no tax in 2014/15.

As the Tax Justice Network notes, a comparison of Australia's top competitors in the growing LNG export industry shows that Australia is falling far behind in its ability to capture sufficient public benefit from private exploitation of oil and gas resources: "By 2021 Australia will eclipse the Persian Gulf state of Qatar to become the world's biggest exporter of liquefied natural gas. In that year, Qatar's government will receive \$26.6 billion in royalties from the multinational companies exploiting its offshore gasfields. According to Treasury estimates, Australia will receive just \$800 million for the same volume of gas leaving our shores."

Gas industry contributions to the Australian nation via royalty payments are also falling well short of expectations, with Queensland reaping very little of the royalties that it was promised and that QLD Treasury forecast. The QLD Treasury mid-year review in 2013-14 forecasted \$482M for petroleum royalties to flow during 2015-16<sup>18</sup>. However, the Mid-Year Fiscal and Economic Review for QLD reported that actual royalties from onshore oil and gas were just \$36M in total from all CSG and conventional gas in 2015-16<sup>19</sup>. That equates to only 7.5% of projected royalty payments, compared to what was expected just three years earlier. The reality is down by \$446 Million. Those royalty payments were made from 5,127 coal seam gas wells that were producing in that year<sup>20</sup>.

### ***Corporate Tax Avoidance***

Based on figures from the Australian Tax Office (ATO), the Australia Institute reports that the oil and gas industry as a whole paid \$1.3 billion in corporate tax on profits of \$20.2 billion in 2013<sup>21</sup>. This means it paid an effective corporate tax rate of just six per cent, well below the theoretical corporate tax rate of 30 per cent. In late 2016, the ATO revealed that a number of large companies in Australia paid no corporate tax in the 2014/15 financial year, including two of the gas companies with CSG projects in Queensland and exploration tenements across the country. **ATO figures show that Origin Energy Ltd (total taxable income 12,200,600,757) and Santos Ltd (total taxable income \$3,389,399,798) both paid zero corporate tax in 2014/15<sup>22</sup>.**

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<sup>17</sup> Tax Justice Network: *PRRT: The tax that doesn't raise revenue*: <http://www.chevrontax.info/prrt>

<sup>18</sup> Qld treasury 2014, <https://www.treasury.qld.gov.au/resources/>

<sup>19</sup> Queensland Government's [Mid-Year Fiscal and Economic Review](#) 2016-17.

<sup>20</sup> Queensland Govt data, [CSG production, 6 Monthly Statistics](#)

<sup>21</sup> Grudnoff, M., The Australia Institute, *Fracking the Future: Busting Industry Myths About Coal Seam Gas*.

<sup>22</sup> ABC report based on ATO data, December 2016, <http://www.abc.net.au/news/2016-12-09/tax-data-transparency-ato/8106178>