

# Why Doctors are concerned about a “gas-led recovery” from pandemic

## Introduction

For the last 4 decades, the use of fossil-fuels (methane gas, oil and coal) have been known to be major contributors to greenhouse gases causing global warming and climate change. Alternative sources of energy are now available which do not emit greenhouse gases. In transition to these renewable energies, methane is being proclaimed by the fossil-fuel adherents as a useful fuel because it burns more efficiently than coal and is said to be cleaner. However, methane poses many problems for the environment which are outlined in the following Q and A's.

## 6 Frequently Asked Questions

### Q1 Isn't gas a lower carbon transition fuel?

“Natural” gas is a fossil fuel. Burning the gas for power produces 30%-50% less CO<sub>2</sub> than coal. However, during extraction, transport and use, leakages known as “fugitive emissions” release methane into the atmosphere. Fugitives of 2% or more of methane, a greenhouse gas 86 times more powerful than carbon dioxide over 20 years negate any climate benefit of methane over coal. Research reveals these fugitives are an important source of steeply rising global methane and have been underestimated by 25%-40% in the past<sup>1,2</sup>. The Intergovernmental Panel on Climate Change interim report stated that methane emissions will need to reduce by 35% by 2050 compared with 2010 levels<sup>3</sup>. Australia is the second largest exporter of LNG.

### Q2 We are told our exports of LNG will displace coal and help lower emissions in countries we export to. Is that correct?

Firstly, our export of coal is not diminishing. Secondly, the production, transport and liquefaction of gas to LNG takes a lot of energy, adding to emissions. Deliberate flaring and venting and the problem with fugitive emissions (see Q 1) are even worse for LNG than for domestic gas. With global CO<sub>2</sub> and methane both steeply rising the country of origin for emissions is irrelevant<sup>4,5</sup>.

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<sup>1</sup><https://www.nature.com/articles/s41586-020-1991-8> HYPERLINK "https://public.wmo.int/en/media/press-release/greenhouse-gas-concentrations-atmosphere-reach-yet-another-high"

<sup>2</sup>[https://gisera.csiro.au/wp-content/uploads/2019/07/GISERA\\_G2\\_Final\\_Report-whole-of-life-GHG-assessment.pdf#page=38](https://gisera.csiro.au/wp-content/uploads/2019/07/GISERA_G2_Final_Report-whole-of-life-GHG-assessment.pdf#page=38)

<sup>3</sup><https://ccacoalition.org/en/news/ipcc-15c-report-reducing-short-lived-climate-pollutants-necessary-achieve-15c-climate-goal>

<sup>4</sup><https://www.methanelevels.org/>

<sup>5</sup> <https://www.scientificamerican.com/article/carbon-levels-surge-again-as-countries-emerge-from-lockdown/>

### Q3 Don't we need gas for strong industries to create employment?

Employment is very important for health, and there is an important role for government spending to create jobs. The criteria for such programs include that they be jobs intensive rather than capital intensive, that they are in the regions or industries worst affected by Covid19 disruption, and that they grow the Australian economy in a direction of a strong future. Gas meets none of these criteria.

Heavy industries such as aluminium and steel smelters are important industries for Australia, require very large amounts of energy and produce a lot of emissions. There is great benefit in transitioning these industries to use renewable energy, demand management, and green hydrogen, as described by economist Ross Garnaut<sup>6</sup>.

The LNP plants were established in Qld both for employment and profits from exporting gas but have resulted in huge losses, domestic gas price increases and reduction in our own gas reserves. And now the federal government wants to support more risky and unprofitable industries that will continue to harm the environment. Australia risks ending up with stranded assets when the rest of the world moves to low carbon energy. Why not invest in the industries of the future?

### Q4 Isn't gas cheap and clean for domestic use?

Unflued gas appliances in homes, such as cook tops and heaters, release nitrogen dioxide, an indoor air pollutant.

Research in the Medical Journal of Australia estimates that 12% of childhood asthma is attributable to gas cook tops<sup>7</sup>. Induction cook tops are now just as quick and flexible as gas. Gas was cheaper than electricity until the heat pump was developed. Heat pumps for both space heating and hot water have higher purchase costs but lower running costs so that over ten years they are cheaper than gas.

The benefit varies with geographic location but excellent analysis at the ["Renew"](#) website gives the results for many Australian locations and household sizes. The best savings are when a household goes all electric and no longer pays a monthly gas connection fee. The ACT government has recognised this and designated a new suburb as being gas free, saving the costs of installing a reticulated gas pipe network and taking thousands of dollars off the cost of a residential block.

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<sup>6</sup> <https://www.theguardian.com/australia-news/2019/nov/06/ross-garnaut-three-policies-will-set-australia-on-a-path-to-100-renewable-energy>

<sup>7</sup> [https://www.researchgate.net/publication/324544284\\_Damp\\_housing\\_gas\\_stoves\\_and\\_the\\_burden\\_of\\_childhood\\_asthma\\_in\\_Australia](https://www.researchgate.net/publication/324544284_Damp_housing_gas_stoves_and_the_burden_of_childhood_asthma_in_Australia)

## Q5 Will carbon capture and storage (CCS) work in reducing emissions?

Carbon capture and storage has not worked economically anywhere in the world with one or two exceptions. It requires a lot of extra energy, and suitable geological formations. There are a number of examples where it has failed badly such as Sask Power's Boundary Dam project where CCS captured only half the CO<sub>2</sub> and doubled the price of electricity<sup>8,9</sup>. An Australian example is the Gorgon CCS project which released all its CO<sub>2</sub> to the atmosphere for 3.5 years while it solved technical problems and finally started sequestering CO<sub>2</sub> in late 2019. The WA Environmental Protection Association recommended to state government that the company now pay to offset emissions for those years<sup>10</sup>

No company will be interested in CCS without large government subsidies or a substantial carbon price. Government subsidies to CCS projects risk wasting taxpayers' money as "stranded assets".

## Q6 What about local communities? Won't gas exploration, mining and extraction increase local employment?

Gas exploration does need manpower, but many workers are brought from outside the region which can disrupt community harmony. Fracking, or fracture stimulation, uses hazardous chemicals, many of which are undisclosed, causing immediate and long-term health concerns<sup>11,12,13</sup>. Congenital conditions of the heart and nervous system have been reported at higher rates in these communities. Many locals and farmers are concerned by excess water use and contamination of precious aquifers leading to further community friction. Renewable energy projects are much cheaper and can revitalise manufacture in local communities without conflict over land use.

Gas has been a very divisive issue in Narrabri and elsewhere on the Darling Downs and in the Northern Territory. 64% of submissions to the NSW Department of Planning and Environment were opposed to the proposed Santos Narrabri gas project<sup>14</sup>. Farming communities are particularly concerned about water use and contamination of aquifers. Drought conditions have increased these anxieties.

### See also:

[Onshore Oil and Gas Policy Background Paper 2019](#)

[Onshore oil and gas mining and human health position statement](#)

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<sup>8</sup> [https://en.wikipedia.org/wiki/Boundary\\_Dam\\_Power\\_Station](https://en.wikipedia.org/wiki/Boundary_Dam_Power_Station)

<sup>9</sup> <https://reneweconomy.com.au/the-fallout-from-saskpowers-boundary-dam-ccs-debacle-54803/>

<sup>10</sup> <https://reneweconomy.com.au/chevron-faces-100m-bill-for-excess-emissions-after-wa-government-refuses-ccs-waiver-42253/>

<sup>11</sup> <https://jhu.pure.elsevier.com/en/publications/association-between-unconventional-natural-gas-development-in-the>

<sup>12</sup> <https://ehjournal.biomedcentral.com/articles/10.1186/s12940-018-0368-z>

<sup>13</sup> <https://apo.org.au/node/74194>

<sup>14</sup> <https://narrabricourier.com.au/2020/05/18/overwhelming-opposition-to-narrabri-gas-project-people-for-the-plains/>