

WENTWORTH GROUP

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Committee Secretary
Senate Standing Committee on Environment and Communications
PO Box 6100
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Dear Committee,

Thank you for the opportunity to appear before the Senate Inquiry into the history, appropriateness and effectiveness of the use of environmental offsets in federal environmental approvals in Australia. This letter provides supplementary information on the status and projections of Coal Seam Gas (CSG) exploration wells across NSW and Qld.

- Australia started using 'conventional' gas (a relatively easily accessed form of methane) in the mid-1960s (APH 2008) and CSG in the last decade. When burnt, gas provides twice the energy of coal per unit of weight, with half to a third the greenhouse gas footprint, and it does not produce by-products such as sulfur, mercury, ash and particulates (Cathles et al. 2012).
- The largest reserves of CSG are in Queensland's Surat and Bowen basins while in NSW the CSG reserves are relatively small. The largest reserves of conventional gas in eastern Australia are offshore of Victoria and in the Cooper Basin (northern South Australia) (AGRA 2012). Western Australia's gas demand is supplied from its very large conventional gas reserves offshore. These reserves are also shipped as liquefied natural gas (LNG) to meet export demand.
- By 2012 annual production of CSG was 252 petajoules in Queensland and 6 petajoules in NSW. This accounted for around 35 per cent of Australian east coast gas consumption (SCER 2013).
- New capacity to produce LNG is being developed on the east coast of Australia, which will enable export of CSG. To meet known domestic and overseas commitments, including new LNG projects, the rate of drilling CSG wells in Queensland is forecast to intensify during 2014–15 (ACIL Tasman 2012 p. 38).
- CSG well developments in Queensland totalled 4489 wells in September 2011 (Queensland Government). If the industry reaches its maximum predicted scale, a total of 40,000 wells may be sunk, typically to depths of 300-1000 metres below the surface (CSIRO, April 2012). As of September 2011 in NSW a total of 493 CSG exploration and production wells had been drilled (NSW Trade and Investment).

Thank you for the opportunity to contribute to this senate inquiry.

Yours sincerely,

Peter Cosier

References:

- ¹ APH (2008) Australia's natural gas issues and trends. M. Roarty. Parliamentary Library Research Paper no.25. ISSN 1834 9854.
- ² Cathles, L.M., Brown, M., Taam, M. & Hunter, A. (2012) A Commentary on "The greenhouse gas footprint of natural gas in shale formations" by R.W. Howarth, R. Santoro and Anthony Ingraffea. Climate Change 113, 525-535.
- ³ AGRA (2012) Australian Gas Resource Assessment 2012 (AGRA), Geoscience Australia & Bureau of Resources and Energy Economics, Canberra,
http://www.ga.gov.au/image_cache/GA20708.pdf
- ⁴ SCER (2013) The National Harmonised Regulatory Framework for Natural Gas from Coal Seams 2013, May 2013, Standing Council on Energy and Resources, Canberra,
<http://scer.govspace.gov.au/files/2013/06/National-Harmonised-Regulatory-Framework-for-Natural-Gas-from-Coal-Seams.pdf>
- ⁵ ACIL Tasman (2012) Economic significance of coal seam gas in Queensland. Response to the call for input from APPEA, Australian Council of Learned Academies, Securing Australia's Future: Project Six Engineering Energy: Unconventional Gas Production,
http://www.appea.com.au/wp-content/uploads/2013/05/120606_ACIL-qld-csg-final-report.pdf
- ⁶ Queensland Government 2011 Department of Natural Resources and Mines
<https://webgis.dme.qld.gov.au/webgis/webqmin/viewer.htm>
- ⁷ CSIRO (2012). Coal seam gas developments - predicting impacts. April 2012.
<http://www.csiro.au/Outcomes/Energy/Energy-from-oil-and-gas/What-is-coal-seam-gas.aspx>
Accessed 22 May 2014.
- ⁸ Updated at NSW Government - NSW Trade and Investment 2014 mapping of CSG wells
<http://www.csg.nsw.gov.au/home#.U37h0SjVqU4>