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CSIRO report points to environmental benefits of CSG

A new report from Australia's national science agency, the CSIRO, finds greenhouse gas emissions from Australian coal seam gas (CSG) production wells to be very low, especially when compared to the volume of gas produced from the wells.

The report, *Field Measurements of Fugitive Emissions from Equipment and Well Casings in Australian Coal Seam Gas Production Facilities*, prepared for the Department of the Environment, involved CSIRO scientists measuring fugitive methane emissions from a number of production wells in Queensland and NSW.

The report finds the median methane emission rate from all sources for the 43 wells examined was approximately 0.6 grams per minute, while the mean emission rate was about 3.2 grams per minute. This compares to a mean production rate of the wells examined of 29,600 m³ per day and represents about 0.02% of total production. This is much lower than recent estimates of methane emissions from gas production in the United States.

Put another way, the median emission rate is about the same as daily methane emissions from four cows.

Actual measurements obtained by the CSIRO also provide support for the veracity of estimating methodologies used under the National Greenhouse and Energy Reporting Scheme (NGERS). The CSIRO found that actual measurements for identified equipment leaks yield emission factors that are consistent with those used in the NGERS methodology for estimating equipment leaks (NGERS Method 1). Since the inception of the *National Greenhouse and Emissions Reporting Act* in 2007¹, the industry has implemented all requirements of the Act and measured, estimated and reported greenhouse gas emissions in accordance with its provisions.

APPEA Chief Executive, David Byers said: "This is an important and technically rigorous study conducted by the CSIRO. While the study notes there are a number of other areas requiring further investigation, it is significant that these initial findings based on actual measurements show fugitive emissions are a small fraction (less than 0.02%) of CSG production.

"Natural gas is up to 70 per cent cleaner than traditional energy sources and there are substantial environmental benefits associated with expanding natural gas production, including CSG production. Developing Australia's substantial natural gas resources for domestic and export use will have significant environmental and economic benefits, both in Australia and throughout energy-hungry export markets.

"In order to realise these benefits, APPEA will continue working with the Australian Government on further development of its climate change policy response to recognise the low emissions benefits of natural gas and to enhance Australia's international competitiveness as a destination for oil and gas investment."

The CSIRO report can be read [at this link](#).

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¹ The National Greenhouse and Energy Reporting Scheme (NGERS), established under the Act, is a single national framework for corporations to report on greenhouse gas emissions, energy use and energy production. NGERS requires operators of CSG facilities to report fugitive emissions from all stages of exploration, processing and production under the NGER Act and Regulations. Emissions from other stages of the supply and use of CSG must also be reported under NGERS.