

Senate Standing Committee on Economics
ANSWERS TO QUESTIONS ON NOTICE
Innovation, Industry, Science and Research Portfolio
Budget Estimates Hearing 2010-11
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AGENCY/DEPARTMENT: COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION

TOPIC: LNG Industry

REFERENCE: Written Question–Senator Eggleston

QUESTION No.: BI-59

What efficiencies have the CSIRO been investigating for the use of the LNG industry? (Weekend Australian 24/4/2010).

ANSWER

In order for natural gas to be transported as a liquid it must be cooled and converted from a gas to a liquid. The work CSIRO is doing to achieve more efficient LNG production is based around the identification and demonstration of better ways to separate impurities from natural gas prior to the refrigeration process. Removal of these impurities is useful for two main reasons:

- 1) The presence of these impurities may adversely affect the liquefaction process as they can solidify at the sort of temperatures at which LNG plants operate. If this happens, these solid or icy materials can build up in the system and cause blockages in processing equipment which ultimately can necessitate a shutdown and heat up cycle to clean out the equipment. The shutdown for cleanout means a loss of production;
- 2) Removal of impurities prior to shipment means the gas product delivered to clients can be made as close to client specification as possible, meaning the cost of re-gasification at the client site is, or may be, reduced.

As well as research to improve the efficiency of LNG production, CSIRO is also undertaking other natural gas based research, such as the conversion of gas to liquids for fuel production and development of new technologies to ensure that production fluids are transported as efficiently as possible from sub-sea reservoir to top-side processing facilities.