

Senate Standing Committee on Economics
ANSWERS TO QUESTIONS ON NOTICE
Innovation, Industry, Science and Research Portfolio
Budget Estimates Hearing 2011-12
30 May 2011

AGENCY/DEPARTMENT: COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION

TOPIC: Coal Seam Gas

REFERENCE: Question on Notice (Hansard, 30 May 2011, E39)

QUESTION No.: BI-22

Senator JOYCE – Can the CSIRO provide an update of the work they are doing on coal seam gas?

ANSWER

CSIRO conducts a range of research related to development of the coal seam gas industry. Key elements of this research are:

- **Surface and groundwater issues:** groundwater depletion, brine treatment and disposal, beneficial use of treated groundwater, impacts on surface flows and ecosystems, impacts on coastal processes.
- **Terrestrial and marine biodiversity:** development impacts, monitoring strategies and protocols and management strategies to meet resource condition and function targets.
- **Land management/agriculture:** including development impacts at local to regional scale, alternative enterprise and landscape configurations, and practices required to enact them.
- **Social impacts:** opportunities and risks of resource development for communities, scenarios of community and regional transition and arrangements to support desirable transitions
- **Resource characterisation and management:** gas resource distribution and its producibility at a region/basin scale in the context of other basin resources and potential for conflicting use of pore space (gas, oil, coal, water, geothermal, carbon storage).
- **Production management and impacts at a reservoir scale:** Coal Seam Gas (CSG) reservoir processes, CSG reservoir engineering tools, stimulation and enhanced gas recovery and characterisation and description of deep groundwater systems.
- **Monitoring strategies** for reservoir performance, risk mitigation and public assurance.
- **Surface facility design:** ramp gas utilisation using small footprint Gas to Liquids (GTL) design, flow assurance research and hydrate mitigation; and Liquid Natural Gas (LNG) plant design efficiencies.

CSIRO's strategy is to provide R&D to support sustainable up-scaling, operation and eventual down-scaling of the East Australian Coal Seam Gas industry.

CSIRO aims to develop integrated, regional systems-based research to provide an evidence-based understanding of regional processes and issues to assist decision making by regulators, industry and the community.

These aims support the resource characterisation and development activity unfolding in the Surat, Bowen and Galilee basins of Queensland. CSIRO is also conducting research into other basin resources such as coal, geothermal, carbon storage and conventional oil and gas.