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Mr Ian Blayney MLA Chairman Economics and Industry Standing Committee Parliament House PERTH WA 6000

Dear Mr Blayney,

Chevron Australia Pty Ltd (Chevron Australia) is pleased to provide the Economic and Industry Standing Committee with the following overview, as part of the inquiry into Technological and Service Innovation in Western Australia.

Chevron has been present in Australia for more than 60 years as operator of the Barrow Island oilfield and is a foundation partner in the North-West Shelf Joint Venture. Chevron Australia leads the development of the Gorgon and Wheatstone natural gas projects which represent over \$80 billion in investment, delivering energy, jobs and economic benefits to Australia for many years to come.

Chevron Australia's contribution to Government revenue is expected to be in excess of \$100 billion over the life of the project. To date, Gorgon and Wheatstone have created 17,000 jobs across Australia and spent over \$40 billion with more than 600 local companies.

Research and Development

Chevron Australia has invested more than \$1 billion in research and development (R&D) in Australia. This covers R&D across the LNG value chain and includes technological deployment for Chevron Australia's operations. This will help provide much needed new and cleaner burning energy to Australia and the Asia-Pacific Region. This includes an investment of \$2 billion in the design and construction of the Gorgon Carbon Dioxide Injection Project.

Carbon Dioxide Injection Project

The Carbon Dioxide Injection Project will inject reservoir carbon dioxide into a deep reservoir unit, known as the Dupuy Formation, more than 2km beneath Barrow Island. The Project plans to inject between 3.4 - 4 million tonnes of reservoir carbon dioxide each year. This will reduce greenhouse gas emissions from the Gorgon Project by approximately 40 percent.

The Gorgon Carbon Dioxide Injection Project is the single largest greenhouse gas reduction project undertaken by the private sector. Approximately 100 Million tonnes of CO2 will be mitigated over the life of the project. It is estimated that \$2 billion will be invested in the design and construction of the Gorgon Carbon Dioxide Injection Project. The Gorgon Project will position Australia as a world leader in the application of this technology with injection rates between three and four times greater than applied by the existing commercial scale projects.

Global Technology Centre (GTC)

Established in 2007, the Perth GTC is one of only two such facilities throughout the Chevron group of companies, the other being located in Aberdeen, Scotland. Perth was selected due to its source of talented regional technology experts, proximity to our interests in the region and growth opportunities to pursue research and development alliances with universities and industry partners.

The GTC in Perth utilises in-house expertise, proprietary solutions and strategic partnerships to facilitate innovation and new technology deployments to deliver low-cost development solutions. Chevron Australia partners with suppliers, universities, industry bodies and research institutions to grow research capabilities to deliver technological advancements needed to help secure Australia's energy future.

The majority of Chevron Australia's research projects are undertaken through the Western Australian Energy Research Alliance (WA:ERA), which includes CSIRO, Curtin University and the University of Western Australia (UWA). Since Chevron Australia began participating in the alliance in 2005, it has invested nearly \$50 million in about 140 research projects as well as academic chairs and professorships. Chevron Australia currently funds several academic chairs including:

- Chevron Chair in Gas Process Engineering at UWA, Professor Eric May
- Winthrop Chair in Geophysics at UWA, Professor David Lumley
- Chevron Chair in Petroleum Geology at Curtin University, Professor Chris Elders

Chevron Australia would like to thank the Committee for this opportunity to outline its work and collaboration in the area of technology.

Yours sincerely.

Graeme Harman

PGPA Operations Manager