

Senate Standing Committee on Economics

ANSWERS TO QUESTIONS ON NOTICE

Resources, Energy and Tourism Portfolio

Budget Senate Estimates

2 June 2009

Question: **BR-23**

Topic: Linc Energy's plant near Chinchilla in Queensland

Proof Hansard Page: **Written**

Senator Scott Ludlam asked:

Regarding the Linc Energy's coal-to-liquids demonstration plant near Chinchilla in Queensland

- a. Did the Federal Government subsidise the demonstration plant?
- b. Can this demonstration plant be scaled up?
- c. Which capacities are planned in which projects, where and by which companies?
- d. Who will finance such projects?
- e. What is the rate of decline in Australian oil fields per annum?
- f. How many CTL plants have to be built in which timeframe in order to support the Minister's statement?
- g. In which year will such self-sufficiency be achieved?
- h. In the event that there were diesel shortages in 2-3 years, would there be a CTL plant ready to fill the gap?
- i. How many CTL plants, and at what capacity, would have to be built to replace current oil imports?

Answer:

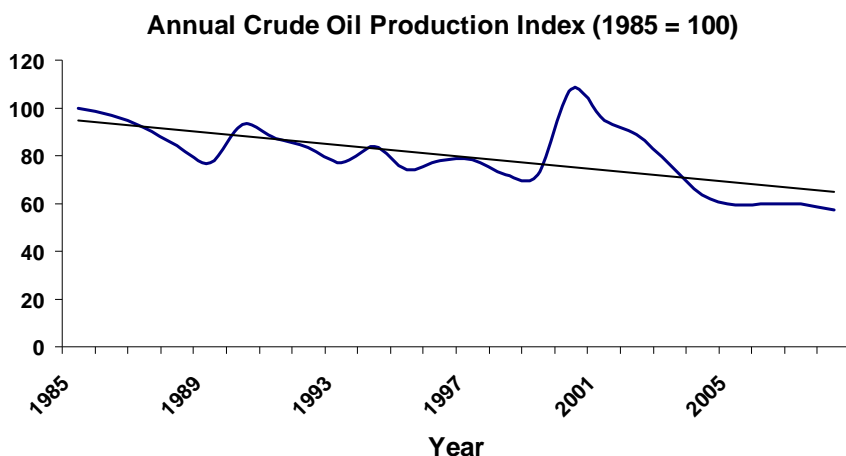
- a. Linc Energy received funding in the order of \$920,400 under an AusIndustry R&D Start program for the development of Underground Coal Gasification (UCG) technology during 1999 through to 2000.

- b. Linc Energy is undertaking work to identify suitable sites in the Arckaringa and Walloway Basins of South Australia for the commercial development of this technology, whilst continuing to undertake research and development at its demonstration facility in Chinchilla, Queensland.
- c. The Department is aware of a number of projects including those outlined below.

| <i>Company Name</i> | <i>Project Location</i> | <i>Proposed Plant Capacity (barrels per day)</i> |
|-----------------------------------|--------------------------------|--|
| Linc Energy | Chinchilla, QLD | 20,000 |
| Linc Energy | Arckaringa/Walloway Basins, SA | 20,000 |
| Monash Energy | La Trobe Valley, VIC | 62,000 |
| New Hope Corp | New Acland, QLD | 1,300 |
| Altona Energy | Permian Arckaringa Basin, SA | 30,000 |
| Spitfire Oil | Esperance, WA | 20,000 |
| Blackham Resources | Scaddan, WA | 30,000 |
| Energy Infrastructure & Resources | Darling Downs, QLD | 17,000 |

We are also aware of four projects undertaking feasibility studies, all of which are yet to determine a proposed plant capacity. These include Syngas Limited (Northern St Vincent Basin, SA), Hybrid Energy (Otway Basin, SA), Carbon Energy (Surat Basin, QLD), Northern Energy Corporation (Surat Basin, QLD) and Eastern Mining Corp (Darling Downs, QLD).

- d. Financing is a matter for the project proponents.
- e. Crude oil production grew rapidly from 3 million barrels per annum during 1965, up to 200 million barrels per annum during the mid 1980s. The diagram below shows a clear downward trend in crude oil production since 1985, varying considerably year on year due to new crude oil fields coming into production and partially offsetting the rate of decline. Crude oil production declined by 4.6 per cent during 2008, with production at 117 million barrels, down from 122 million barrels during 2007.



- f. The Minister's statement of 22 April 2009 indicated the potential for CTL technology to produce liquid fuels that could replace Australia's declining crude oil production. While there are a number of pilot projects under development using various technologies, it is not possible to determine the number or scale of projects required to achieve domestic liquid fuel self-sufficiency, as current technologies are yet to be proven on a commercial scale in Australia. It should also be noted that technologies such as gas to liquids (GTL) and bio-fuels could also play a role in improving our self-sufficiency in liquid fuels.
- g. It is not possible to ascertain the number or scale of projects required, or the duration required for self-sufficiency to be achieved in the absence of a commercially proven CTL or GTL operation being undertaken in Australia.
- h. The risk of liquid fuel shortages is addressed by the *Liquid Fuels Emergency Act 1984* which provides the Minister for Resources and Energy broad powers, potentially including the power to direct refining of Australian crude oil in Australian refineries for domestic consumption during a declared national liquid fuel emergency. Should a CTL plant be in operation it would be taken into consideration as part of this process.
- i. Australia imports crude oil for the production of a number of refined products, including diesel and petroleum, refined diesel fuel is also imported to meet domestic demand. CTL plants are capable of producing a range of refined fuel products including diesel, kerosene, naphtha and heating oil, in addition to a number of other petroleum products including solvents, lubricants, waxes, resins and polymers for commercial and industrial purposes. As such the ability of CTL to replace current oil imports will depend upon the mix of product required within the Australian market.