Economics Legislation Committee
ANSWERS TO QUESTIONS ON NOTICE
Industry Portfolio
Supplementary Budget Estimates Hearing 2014-15
23 October 2014

AGENCY/DEPARTMENT: Commonwealth Scientific & Industrial Research Organisation

TOPIC: Biofuel production in the Fitzroy Basin

REFERENCE: Question on Notice (Hansard, 23 October 2014, page 26)

QUESTION No.: SI-9

Senator CANAVAN: Changing topics, I am not sure whether you are aware of the work that CSIRO was doing, I think in partnership with Boeing, on biofuels—the potential use of remnant vegetation in biofuel production in the Fitzroy Basin. Is there an update on where that work is at?

Dr Johnson: My voice is starting to give up on me a bit. Dr Clark might answer part of that question. You are correct. Maybe the question more broadly about the Boeing engagement is around aviation fuels. We have been working in areas around biofuels for some time. Yes, you are right; there has been some work going on in the Fitzroy Basin. As you know, it is a matter of significant interest to the Premier of Queensland and his thinking around the broader future for the city and port of Gladstone. We are working there in a small way. As a general rule, we have decreased our investment around biofuels. Dr Clark might want to talk a bit about that.

Dr Clark: We undertook with the aviation industry—in fact, with a number of players—to look at the potential of a biofuels industry in Australia. That was all the way from what sort of plant product that would come from, right through to the transport logistics and where transport hubs and processing hubs may be to be able to support the airline industry.

It was a major project. No-one had done that level of work to particularly look at the processing and transport hubs. It was provided to multiple players. It was not just Boeing, actually. I do not remember the number but it involved many of the industry players.

The reason there was quite a bit of interest is that there has been some work already done in terms of the application of biofuels. That work demonstrated that they were actually lighter and as efficient, if not more efficient. That led the industry to then look at this seriously. We contributed to a major report on that. I can provide you with the reference to that report off-line.

Senator CANAVAN: I think you have taken that on notice; thank you very much.

Dr Clark: I will.

ANSWER

Boeing recently supported CSIRO to examine the feasibility of a 25 year scale-up strategy to produce 5% of projected annual jet fuel demand in Australia in 2020 (470 ML/yr) from biomass in the Fitzroy region of Queensland, to see if the region warrants more detailed investigations. The study looked at three sources of biomass: a rotational system where new trees are grown, harvested every 10 years then regrown; harvesting native grass; and the management of regrowth for on-going biomass production. Managing regrowth is the cheapest of the three biomass sources and new technology is emerging enabling biofuel to be produced in processing facilities distributed around the region, so the biomass does not need to be transported to central plant. The results of the study can be found at GCB Bioenergy http://onlinelibrary.wiley.com/doi/10.1111/gcbb.12159/full

This work follows on from the major project referred to by Dr Clark *Flight Path to Sustainable Aviation Fuels*. This project included Air New Zealand, Qantas, Virgin Australia, Boeing, Airbus, Defence Science and Technology Organisation, Biofuels Association of Australia, Brisbane Airport, Caltex, GE, Macquarie, Office of Trade, Business & Industry, NSW Government, Pratt & Whitney, Royal Aeronautical Society, Rolls-Royce, The Climate Group and Honeywell UOP. The report from this project is available at http://www.csiro.au/~/media/CSIROau/Flagships/Energy%20Transformed%20Flagship/FlightpathSustainableAviation_ETF_pdf%20Standard.ashx